Energy Consumers Coalition of South Australia

Australian Energy Regulator

SA Electricity Transmission Revenue Reset

AER Draft Decision on ElectraNet SA Application

A response

by

The Energy Consumers Coalition of SA

February 2008

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

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Executive Summary

The AER has basically accepted ElectraNet's ambit claims in its proposal in its entirety. The AER has stated that it has reduced the amounts claimed but in reality the reductions in opex are primarily a transfer to capex, and the reduction in capex is primarily a transfer of a project to contingent projects.

Over the current period there have been:

- lower than expected increases in demand and consumption,
- transfers of capex justified for reasons of growth to refurbishment,
- unearned revenue of $17.4m to ElectraNet due to underspending opex
- a "glide path" bonus of $8m for the underspend of opex
- a transfer of "paid for" opex from the current period to the next period
- unearned revenue of $38m to ElectraNet due to delaying the capex program

Overall, ElectraNet has been granted, or permitted to retain, some $63m (or $12.5m per year) in revenue that it secured by adjusting its opex and capex program. This is equivalent to about half of the annual revenue the ACCC awarded ElectraNet in its 2002 decision, and is equivalent to adding $1/MWh to the tariff for the whole of the current period.

Despite this the AER considers that it must allow ElectraNet what it has requested as (page 155):

> "…the AER must provide an efficient allowance for ElectraNet **given its current circumstances, irrespective of past practice**." (emphasis added)

ECCSA remains concerned that:

- the incentives to replace used and useful assets before their economic lives are complete, are still high
- particularly with opex claims, the AER has not been rigorous in its review and has demonstrated regulatory bias (details are provided in the body of the submission)
- the inclusion of easement compensation cost of $29 million is unreasonable, especially as the AER concedes that there is no evidence that such costs were either incurred or not expensed at the time.

Despite the detailed analysis and substantiation for each of the capex elements being identified as necessary, overall, the large amount of capex approved for

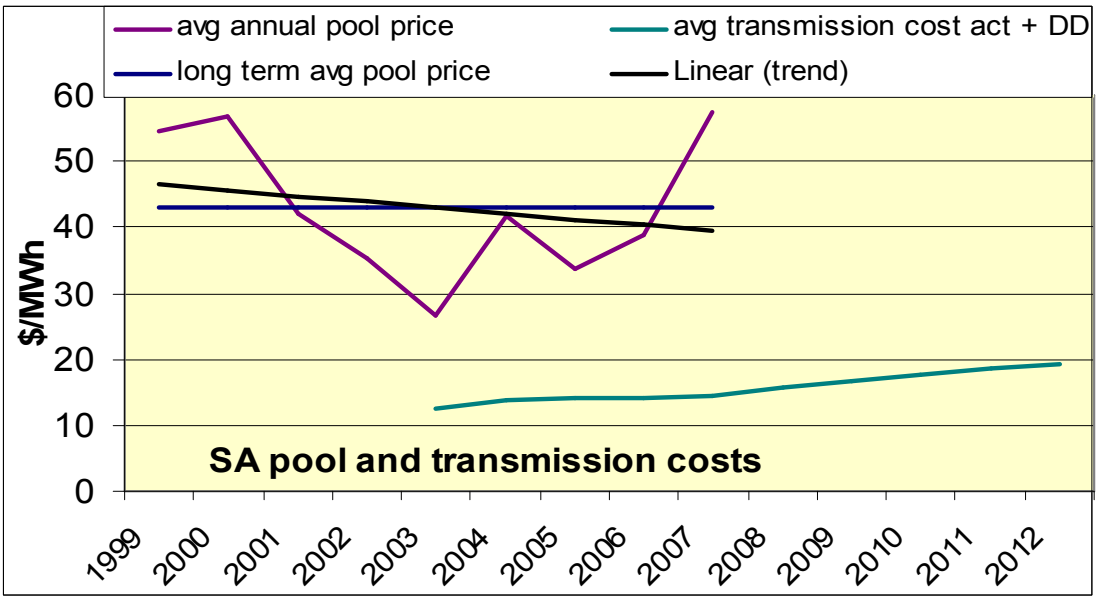
prescribed services doubles the amount ElectraNet had trouble spending in this period and with less time available to it, and if all contingent projects proceed, this would quadruple the amount spent in the current period and in a shorter time.

There is no evidence that the AER has applied the commercial pressures on ElectraNet that a competitive market would apply in the face of such large increases in capex, and other costs.

The ECCSA, and its MEU affiliate, have participated in most major pricing/revenue reviews over the past decade, and it needs to be said that the regulatory bias demonstrated by the AER in this draft decision is quite unprecedented. ECCSA considers that this draft decision is the product of poor regulation.

Average transmission tariffs will now rise by 32% in real terms from 2002 under the AER's / ACCC's watch.

By 2013, transmission tariffs will nearly equal half the cost of electricity generation. To put this into context we provide a tracking of pool and transmission prices in South Australia over time.



Source: NEM Review, ESIPC annual reports, ACCC and AER decisions

This shows that tariffs used to be about half those intended for 2013, and the tariff in 2013 will nearly equal half the cost of generation.

Tariffs could increase even further, as the AER has approved contingent projects that could raise transmission charges by another $3/MWh.

The ACCC used an EBSS (glide path) to encourage ElectraNet to develop its efficient opex. What has happened is that ElectraNet has the benefit of an under-run in opex, a glide path bonus and an increase in opex for the next period. This implies that an EBSS does not achieve its goals unless the regulator is rigorous in imposing the outcomes.

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 efficiently deliver the electricity so essential to their operations. Many of the members, are 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.

1.2 The scope of this review

ECCSA recognises that the AER is required to operate on a propose/respond approach to its regulatory function. In this regard, the ECCSA notes that ElectraNet has provided a revised application, addressing a number of the issues which the AER identified in its draft decision released late in 2007. The ECCSA comments respond to the AER draft decision, rather than commenting on the revised application.

The ECCSA through its affiliate MEU has also provided under separate cover a response to the ElectraNet proposed pricing methodology. In the separate letter, a number of concerns were raised in relation to the proposed pricing methodology, particularly:-

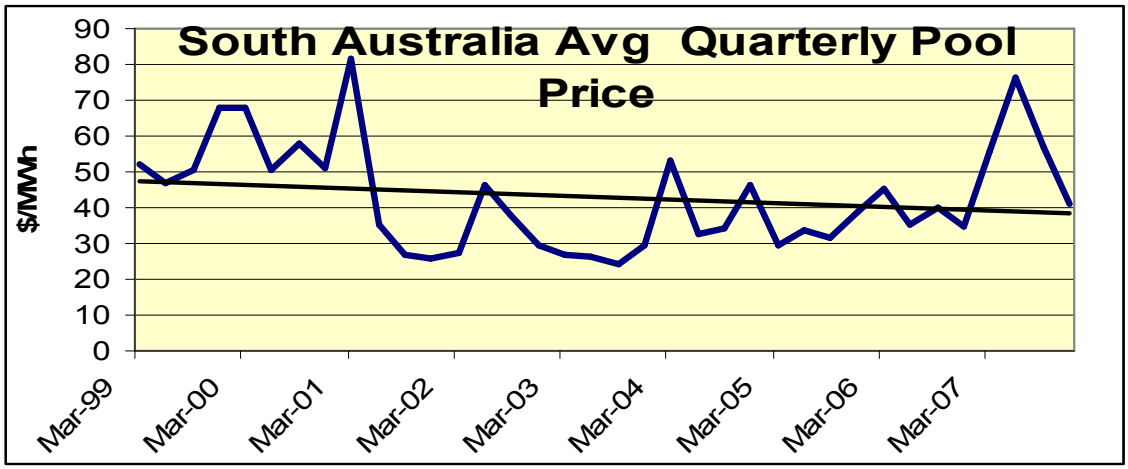
1. That the approach of pricing postage stamp services on the lower of a consumption or demand allocator does not comply with the concept enshrined in the NER that costs, and their recovery, should reflect long run marginal cost.
2. The methodology does not provide allocation of costs for assets used for more than one service (especially entry and exit services), needs to be location specific and not recovered from all users.

3. The side constraints on movement of locational TUoS should only apply within a regulatory period and not at a reset.
4. There is no definition of the connection point where the postage stamp costs are to be calculated. The AEMC in its final Pricing Rules determination in 2007 determined that the TNSP is required to discuss and agree with users as to where this point should be.
5. ElectraNet has decided to use data from the last completed financial year for its inputs. This data is significantly out of date, and data from the last competed 12 month period would provide a better reflection of the system demands.
6. ElectraNet proposes to use data from every half hour period rather than data on the 10 system peak days. As the AEMC final Pricing Rules determination determined that pricing is more an issue for users than for the TNSP, the unilateral way in which ElectraNet has decided on this matter is inconsistent with the AEMC's determination. The TNSP should discuss with users of the services provided as to the method that provides the best outcome for the market.

The ECCSA considers that these issues are significant and the AER must require ElectraNet to address them in consultation with users.

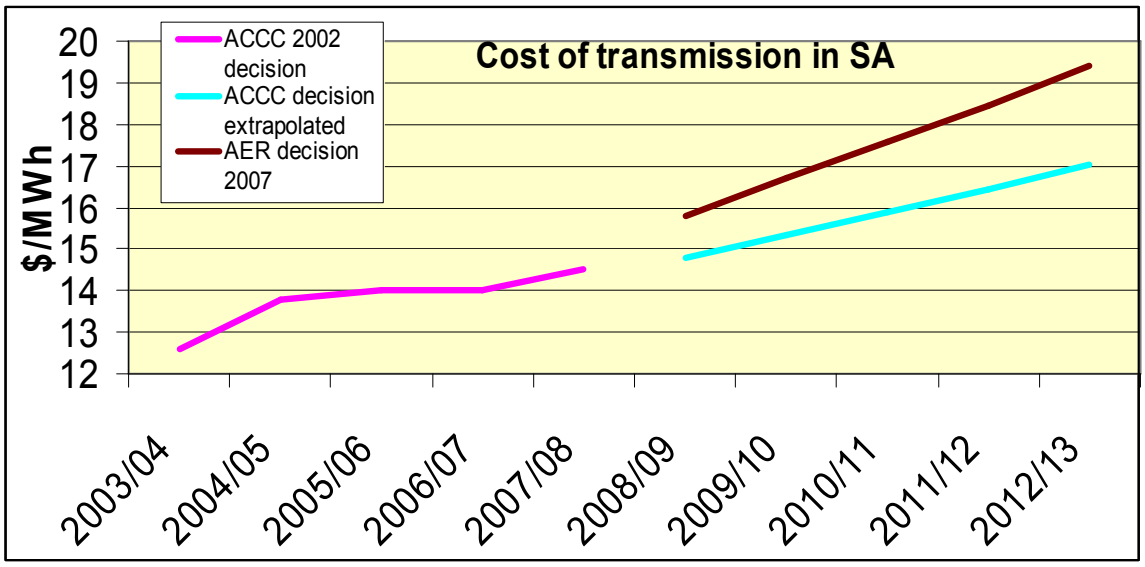
1.3 A summary view of the Draft Decision

The key outcome of the AER's draft decision is the requirement for consumers to pay significantly more for the transmission services than in previous years. It should be noted that effectively since the commencement of the NEM, in proportion, the cost of network services have increased faster than the cost of generation, as the cost for network services has increased significantly faster than CPI, yet over the same period the cost of generation has actually declined in nominal terms as shown in the following graph.



Source: NEM Review

In contrast the AER's draft decision and the ACCC's earlier decision for ElectraNet shows that the nominal cost for transmission services has increased much faster than CPI.



Source ACCC, AER decisions

In proportional terms, the cost of generation in 2003 was about 4:1 when related to transmission costs. In 2007 (allowing for the AER draft increase in cost for 2008) this has reduced to 2.5:1. This is an exceptional outcome!.

The AER makes no attempt to assess whether the outcome of their decision is appropriate, or what the impact of the draft decision might be on the consumers who will have to pay for the increased costs.

1.4 The helicopter view

The increases in costs relative to consumption indicate clearly that there is now a strong disconnect between consumption and demand. Demand is increasing at a greater rate than consumption. SA's ESIPC APR for 2007 forecasts that demand is growing at the average rate of 2.3% pa whilst consumption is to grow at an average of 1.3% pa. While it is accepted that all forecasts can vary dependent on the assumptions made, the relativity between these two forecasts is constant.

A significant contributor to the high price increases (as a result of the AER's draft decision) relative to consumption is that the costs incurred by a transmission business are essentially related to demand – in other words if demand increases faster than consumption, then the costs relative to consumption will increase.

Yet despite this, the AER has not sought to ensure that the prices ElectraNet charges for the provision of the service, are directly attributed to the main cause of the price increases. By continuing to allow TNSPs increased costs due to higher demands, but then allowing the TNSPs to charge in terms of consumption, the AER is effectively preventing prices to reflect the costs that have caused the increases in prices in the first place.

A number of the comments made by MEU regarding the pricing methodology proposed by ElectraNet, are directly related to this concern.

The AEMC in its changes to Chapter 6 (ie in Chapter 6A) of the Pricing Rules saw the need for "causer" to pay for the service it receives. Yet the AER in its draft decision and in its guidelines are now proposing to allow TNSPs increased costs to manage a burgeoning demand but at the same time not require the TNSP to allocate its costs (and therefore set its prices) to reflect the drivers that have caused this increase in costs.

By failing to do this, the AER is not following sound economic principles, which require the user to be aware of the costs of what it seeks through the prices it is required to pay, and further, its approach is inconsistent with the AEMC's final decision on Pricing Rules.

1.5 The Regulatory Bargain

A key element of a regulatory reset is the regulatory bargain – what do consumers get for the revenue they provide to the regulated business. From a provision of connection this regulatory bargain is readily identified, as a customer is either connected or not. But the quality of the service needs to be assessed against the amount to be paid.

Analysis of the quality of the service the AER will allow to be provided shows that for an increase in cost, the consumer actually will be receiving a lesser quality of service. This appears to be quite astounding in that consumers have already underwritten a capex amount since the last review of some $363m. For this expenditure, consumers will get a lower quality of supply than before!

1.6 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 represent the least. Other than losses and NEMMCo costs, this statement has validity. Further, TNSPs also 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 (especially for large energy users), 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 carefully assessed in a comprehensive manner.

The cost for transmission varies between regions, dependent on the geographic density of the usage. The AER draft decision would have consumers paying an average of $17/MWh, which when adjusted for domestic load factor, would be about $22/MWh of the current standing charge of ~$120/MWh. This would mean that transmission costs for domestic users would be some 20% of the total bill.

For large consumers it is a different story. A long term average price for contract supply in SA would be ~$40/MWh, excluding the current high prices of >$70/MWh for contracts resulting from the supply shortages caused by the 2007 drought. This assumption has validity as forward wholesale prices indicate the spot market will trend towards the long term averages by 2010.

Most large consumers are either directly connected to the transmission network or use a very small part of the distribution network. Typically, the distribution component of the total network cost is ~ 1/3 – 1/2 of the transmission cost for large users.

Based on these assumptions transmission as a percentage of the total cost of power for large consumers ranges from 20-25% of the total cost of power. Thus changes in prices for transmission do have a significant impact on large users.

This assessment shows up a distortion as well. MEU members use power ranging from 30 MW upwards, and are relatively flat users. Thus a $1/MWh increase in transmission cost for a 30MW user adds $250k pa to their costs – this is equivalent to employing 3-4 people full time. The increased costs included in the draft decision average about $3/MWh, increasing costs to a 30-40 MW power user approaching $1m pa.

This is why the AER must carefully ensure that costs are allocated appropriately to different customer classes and are based on demand rather than consumption.

1.7 The use of consultants

To assist it in assessing the ElectraNet proposal, the AER sought assistance from a number of consultants to assist in various elements of its review as shown below:

Econtech	**Labour cost growth**
CHC Associates	**Re-admitted assets**
SKM	**Past capex** **New capex** **Capital cost escalation** **Opex** **Service standards**

The ECCSA had commented at the forum in early December that it has some concern about the perception of whether some of the consultants used by the AER could provide full impartiality when considering earlier activities of the consultants. The AER has since advised that they did take steps to ensure that their consultants did in fact act with full impartiality. The ECCSA has no reason not to accept the assurances made by the AER in this regard.

ECCSA does note in its review of the SKM report that there might in fact be a bias in the SKM approach to extrapolating its views from particular projects to all projects.

SKM also effectively comments that its estimates for work carried out by ElectraNet were lower than the actuals incurred by ElectraNet, yet still considers that the ElectraNet actuals are acceptable, adding to ECCSA concerns.

The ECCSA has appended its views on the various consultant reports in an appendix to this submission.

2. The ESIPC Annual Planning Report, ElectraNet costs and the AER Draft Decision

2.1 An overview

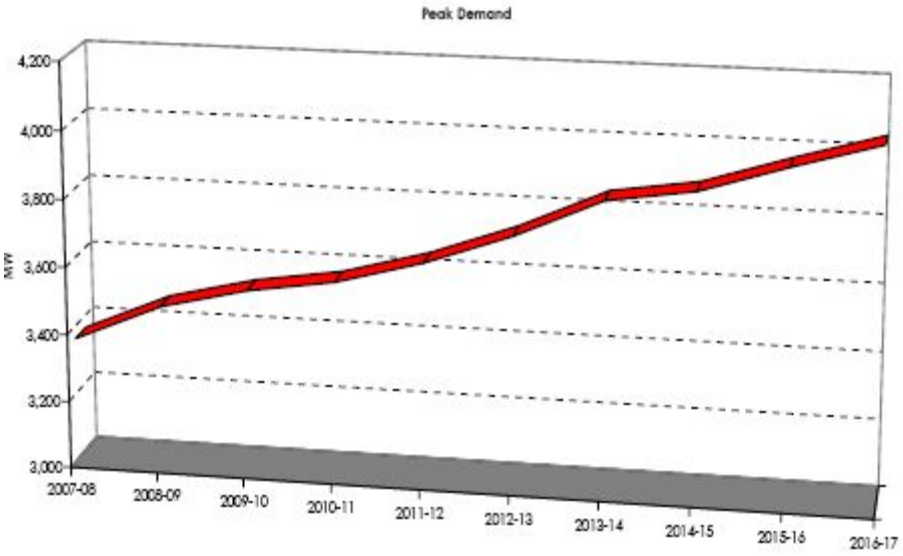
The Electricity Supply Industry Planning Council (ESIPC) is a government established independent body, which assesses the needs of the state with regard to electricity supplies, and in particular the needs for augmentation of the SA transmission network.

In its 2007 Annual Planning Report, ESIPC observes that it expects peak summer demand to increase by 2.3% annually:

DEMAND FORECASTS

Peak Demand

The new methodology for peak demand forecasting has resulted in the forecast 1-in-10 year peak for the 2007–08 summer being revised down by over 200 MW.



The summer peak Native Demand level is expected to grow by an average of 2.3% annually.

Source: ESIPC 2007 APR

The ESIPC forecasts are inconsistent with the AER observation that demand in SA is expected to increase by 1.9% pa. This highlights that there are differences in forecasting and in analysis of these forecasts.

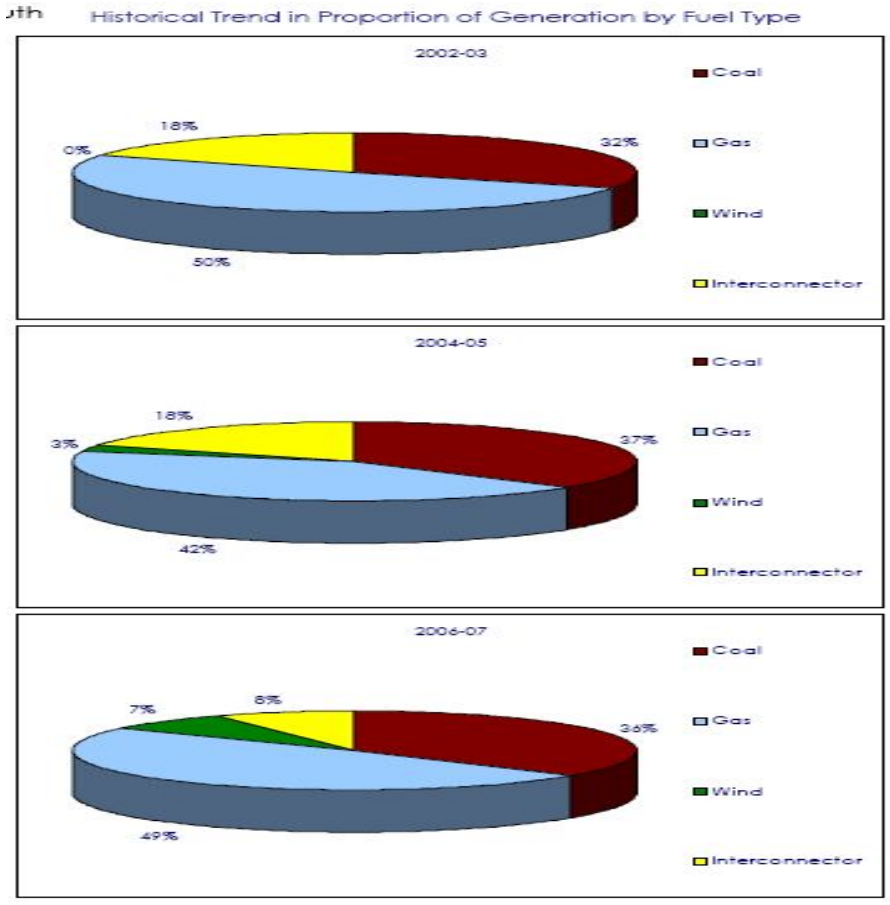
The MEU agrees that demand in SA currently is, and is likely to continue to, outstrip consumption. This is a result of the increasing use of air conditioning for residential, commercial and office use. Despite this the AER has made little attempt to require ElectraNet to provide clear and unequivocal pricing measures to better manage demand, in the SA electricity system which clearly shows a declining load factor.

2.2 Changing uses

The ESIPC notes that there is an increasing supply of electricity from wind farms which have caused two main outcomes for the use of the ElectraNet network, neither of which the AER has considered in its assessment. These are:-

2.2.1 Reduction in use of interconnection

Historically SA was a large net importer of power from Victoria, via the Heywood interconnector. The changing face of the source of generation is as shown by ESIPC on page viii of its report



These pie charts indicate that interconnector flows are reducing at the same time as wind generation is increasing. Despite the reduction of flows on the Heywood interconnector (Murraylink provides little net supply to SA) consumers are still required to pay full value for the assets needed for a reduced flow. One of the prime reasons for the reduced flow is that the presence of large wind farms near the SE border with Victoria has constrained the importation of power over the interconnector.

Thus decisions made by these wind farm generators on their location, has directly resulted in consumers paying for assets which have less and less value to them.

2.2.2 Other network constraints

ESIPC notes on page xii of its report about the need to augment the network because of decisions made by generators not receiving strong signals for their optimum location in the network:

"**The northern corridor**: In the unlikely event that all northern power stations, including the wind farms on the peninsulas, were running at full output at times of peak demand, the northern distributor would be fully utilised and some generation would need to be constrained off. However, the potential capability of this corridor is for considerably higher transfers. With some investment, this corridor could economically service additional generation located north of Adelaide."

This shows that uncontrolled location of generation results either in constraints in the network (which is to the detriment of consumers) or the need to augment the network to eliminate these constraints (a cost to consumers not of their making).

"The southern corridor: While the transfer figures show as negative, the southern transmission corridor has sufficient capacity to support customer demand in the South–East for the foreseeable future. It is in its other role, of transporting generation from the South–East and imports from the rest of the market to Adelaide, that its capacity can be limited under certain circumstances. These limitations are managed through constraints applied in the national market and can affect the level of imports accessible to South Australia or the dispatch of generating plant in the South–East. These constraints are expected to increase over the next few years, particularly with the full commissioning of stage 2 of the Lake Bonney Wind Farm. Any upgrades to this corridor would need to be justified on the basis that the market benefits of doing so exceed the costs. The

> potential to justify an upgrade on these grounds is reviewed annually through NEMMCO's *Annual National Transmission Statement*."
>
> Again consumers are exposed to decisions of generators but incur the costs and outcomes. Increased generation in the SE will further limit the ability to access low cost electricity from Victoria. The non-dispatchable generation from the SE effectively increases the market power (especially of the largest power station in SA – TIPS) of the dispatchable generation in the region by reducing the impact of dispatchable supplies from Victoria. The spot price in the region is set by dispatchable generation and not by the wind farms in the south east. It is the interests of wind farms to increase the spot price in the region, and this is assisted by constraining the interconnector. The direct outcome of increasing wind farm generation in the south east is to increase the price of electricity which is a detriment to consumers.

To overcome this constraint, augmentation of the SE to Adelaide connection is required, and becomes a cost to consumers through higher network charges. As before this is also a detriment to consumers, but not one of their making.

The ESIPC report provides some valuable insights into the fundamental challenges facing ElectraNet in providing a secure and cost efficient network. Yet, at the same time, the AER is not addressing the causes of the need for investments that they so readily have accepted on behalf of consumers!

It is clear that some of this need for investment claimed by ElectraNet and accepted by the AER, is a direct result of the poor development by the AEMC of Chapter 6A of the Rules, which permit the effectively unconstrained location of new generation in the most cost effective site for the generation developer, without regard for the investments already made, the impact on the spot market or the fact that consumers are required to carry the costs for these less than optimal decisions when viewed from the NEM as a whole.

The AER not only has a responsibility to advise the AEMC that the Rules developed for transmission are having sub-optimal outcomes and have the direct outcome of uneconomically increasing the costs of transmission, but it should also ensure that its decision do not exacerbate the outcomes of this sub-optimal Rule making.

2.3 The CBD augmentation

The ECCSA notes that some $138m is proposed as part of the Adelaide CBD reinforcement. In its draft decision the AER points out that it has reduced the claimed capex by 24% or $186m. However, this is misleading in the extreme, as of this $186m, an amount of $138m actually relates to capex identified by ElectraNet as required to augment the CBD and other capex transferred to contingent projects.

ESIPC reports on page 5 of its 2007 APR that:

> "On 8 September 2006, the Essential Services Commission of South Australia (ESCOSA) finalised its review of the *South Australian Electricity Transmission Code* and published a new version of the Code that will apply to the South Australian transmission network from 1 July 2008.
>
> The final decision has identified opportunities for cost effective enhancements in reliability at several connection points. As part of the review, ESCOSA clarified network reliability standards for the Adelaide CBD resulting in a requirement that ElectraNet install a new transmission connection point to the western side of the CBD by the end of 2011."

This augmentation is effectively a reinforcement for the CBD that provides the CBD with greater reliability than other consumers get. The AER has decided that this reinforcement is not sufficiently certain for its need that it has allowed ElectraNet to move this project to be a "contingent project" which can be reintroduced into the allowed capex at a later time.

Thus much of the so-called capex reduction that the AER has introduced is merely window dressing.

Should this project get later approval from the AER, the ECCSA reiterates its earlier observation that if this additional security is warranted for the CBD, those who benefit from it should be required to pay for it. As the Chapter 6A Rules clearly indicate, the "causer" must pay. As CBD users have caused the need for greater security, so they should pay for this work and it should not be a levy on all other users of the transmission network. Further as the AER will be carrying out the next distribution review for ETSA Utilities, the AER should apply this same criterion to the costs that ETSA incurs for providing the increased security for a small number of SA's electricity users.

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
- Readmission of assets
- Including an allowance for easements
- Inflation adjustment (based on actual amounts)

The AER sought assistance from SKM to assess the reasonableness of the capex to be included in the RAB.

3.1 Starting RAB

This was 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 observes that the expected spend in the current year (the last of the period) and therefore not yet demonstrated accounts for some 37.5% of the total allowed for the period.

As noted in the earlier work by ECCSA, ElectraNet has accrued some $38m additional revenue as a result of its revised and deferred capex program, but the AER has determined that despite the stated ACCC concerns that ElectraNet might not use all capex (and therefore instituted a "claw back" mechanism) , the AER has permitted ElectraNet to retain the full value of its delaying of capex to the very end of the period.

ElectraNet advised that as the planned capex program was changed due to lower than expected demand growth, capex was redirected from augmentation works to replacement works. However, SKM did not assess the new projects for

compliance with the regulatory test. This aspect is concerning as projects are only considered to be viable if they pass a regulatory test assessment. If costs exceed the estimate used to prove the viability under the regulatory test, then this casts doubt as to whether the project should have proceeded, and therefore be allowed to be included in the RAB. SKM fails to make any mention of this aspect. This then throws doubt as to whether the project should have been implemented.

It is concerning that SKM did not assesses the revised capex program for acceptance under the regulatory test. That the AER has not even examined this aspect is just as concerning.

There is a residual overarching concern – that ElectraNet set its capex budget in 2002 based on a large growth assumption. At the time the ACCC was concerned that the capex budget was too aggressive but conceded that the growth assessment probably warranted the capex forecast. However the ACCC concerns were such that it inserted a "claw back" provision. In building up its capex budget ElectraNet assessed the needs for growth and replacement. Because the expected growth did not occur, ElectraNet redirected capex intended for the growth projects to replacement, including a large amount for an IT rebuild which incurred some criticism from SKM.

The ECCSA is concerned that ElectraNet redirected capex to replacement projects which in 2002 it did not consider necessary. The AER makes little attempt to assess whether such projects were implemented purely to maintain the quantum of capex so as to avoid any claw back that was foreshadowed. The AER considers that a focusing on asset management was the reason for the redirection but ECCSA remains concerned that all of a sudden large amounts of capex were needed for replacement projects that were not seen as needed in 2002 **(just a few years earlier),** and which just matched the amount for projects that could no longer be justified based on the less than forecast demand growth. This is quite exceptional.

Just as concerning, is that neither SKM nor AER consider that this sudden need for increased spending on replacement projects warrants deeper investigation, being satisfied with a bald statement from ElectraNet that a focusing on asset management resulted in the change.

The ECCSA sees that the explanations provided by SKM and AER do support the budget reduction by 40% of the growth program, but they do nothing to explain the five times growth in the land/IT/spares capex budget or the 78% increase in the refurbishment budget. This is a major failing of the SKM and AER reviews which seem to have an expectation that consumers will just accept the bald statements that the capex was spent

wisely. Consumers demand rigour and objectivity from both the AER and its consultants.

The AER has also allowed for the inclusion of IDC on actual projects and on projects under construction. The ECCSA sees that such a move is logical.

The ECCSA notes that ElectraNet claimed some $52m of its redirected capex went on land acquisition, IT and spares, yet based on the ElectraNet request, the ACCC had allowed in the capex program some $11m. This quintuple increase for these items received virtually no comment in the draft decision. $52m is nearly 15% of the total capex allowed yet neither SKM nor AER seem to think that such a massive increase warrants any detailed mention at all, let alone closer scrutiny!

3.3 Easement cost inclusion

The AER has advised that it considers ElectraNet is entitled to the addition of $29m for the compensation costs allegedly incurred for easement acquisition. The AER concedes that there is no evidence that such costs were incurred.

The AER argument for granting these additional costs is as follows:-

- We assume they might have been incurred
- There is no evidence that the costs were incurred, as if they were, they might have been expensed at the time
- If they were incurred and they were not expensed at the time, there is no record of what they were.
- We do have records in Victoria, so despite ElectraNet advising in 2002 (and many times since) that the ElectraNet network is totally different to that in Victoria, we will use the Victorian records to estimate what the costs might have been.

This whole process and justification by the AER is unreasonable from a consumer viewpoint. The AER approach defies logic let alone objectivity.

What the AER makes no allowance for is that these costs (what ever value they have) probably were expensed at the time as there is no record of the costs being incurred and capitalised. This being the case, the dividend that ElectraNet (in its corporate guise at the time) would have returned to its (then) government owner would be a lesser amount than if the amount had been capitalised. Because the people of SA (in the form of the government) received a lower dividend from its electricity transmission business then the SA tax payer has in effect paid for these compensation costs at an earlier time – effectively a capital

contribution from the tax payer. To include them in the RAB now effectively requires these costs to be paid for again.

The AER provides a cogent argument as to why it does not propose to include transaction costs for easement acquisition, using the same argument that the ACCC used to deny SPI PowerNet (now SP Ausnet) from being granted the same benefit.

3.4 Inclusion of previously optimized assets

The AER commissioned CHC Associates to assess whether certain assets should be readmitted (de-optimised) into the RAB. CHC provides some very cogent reasons supporting their re-admission.

In principle, ECCSA accepts the conclusions reached by CHC, with some qualifications. These are:-

1. CHC assumes that ElectraNet will be carrying out certain other capital works that will result in the de-optimised assets providing full value. The AER should ensure that this occurs. If this capex is not directed as CHC has assumed, then the AER should not allow the inclusion of these assets
2. There were a number of assumptions made by CHC with regard to the future options in the South East. As noted in the commentary on the CHC report, these assumptions are not necessarily correct, in that:
    - Both Ladbroke Grove and Snuggery gas turbines have a limited expected life in the South East
    - The burgeoning wind generation in the SE is constraining flows into SA from Heywood and this is expected to get worse as more wind generation becomes available
    - The outcomes expected by CHC are in part dependent on SP AusNet augmenting Heywood, and this is beyond the control of ElectraNet

The AER should address these concerns by requesting CHC to advise that should any of their assumptions underlying their assessment (such as those identified above) not be fulfilled, then what is the likely impact on their recommendations.

4. ElectraNet WACC

4.1 The AEMC revision to Chapter 6A

The changes to the Rules (Chapter 6A) heavily proscribe any discretion that the AER might see as appropriate in relation to WACC inputs.

The only areas where AER has some discretion relate to inflation forecasts and premiums for equity and debt sourcing, which are often included as an opex allowance.

The AER is required to use a post tax revenue model for developing the expected returns. The AER has advised that its revenue model uses a nominal approach. This therefore eliminates the need to develop a methodology to identify the amount of inflation built into the risk free rate.

This is a different approach to that used by some jurisdictional regulators which requires them, in light of the concerns about whether indexed bonds are over-valued due to their scarcity, to use the value of nominal bonds and then estimate the amount of inflation within them to develop a "real" risk free rate.

With the AER confirming that they will use a nominal PTRM, the main concern ECCSA held has now been removed.

ECCSA has noted that the AER considers (along with the RBA and Commonwealth Treasury) that the concerns raised by NERA about nominal CGSs being over valued have little or no justification.

The ECCSA agrees with the AER that nominal bonds should be used to set the nominal risk free rate.

4.2 Inflation

In the absence of "true" valued indexed bonds, identifying the inflation for the period to set the nominal revenue stream becomes problematical. As the revenue stream during a period is adjusted to reflect actual inflationary changes, the impact of inflation has only a modest impact providing a nominal PTRM is used.

In its draft decision (clause 5.5.4) the AER provides a methodology which it avers will provide regulatory certainty for the establishment of inflationary amounts. In its final decision on SP AusNet it takes another approach using actual inflation expectations of the RBA in the near term and then tracking towards the middle of the 2-3% inflation band width that the RBA targets.

The ECCSA considers that the method used in the SP AusNet decision has greater merit than the proposal in the ElectraNet draft decision, as it uses more accurate data where this is available.

The alternative to using accurate data is to use an assessment of future inflation based on what the RBA would like to see occur. This is less appropriate for the purposes intended.

5. ElectraNet Depreciation

5.1 Early retirement of assets

In is application, ElectraNet proposed that its asset lives for different categories should be reduced from the current asset lives used.

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

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

ECCSA has also pointed out that replacement of assets purely based on their age has the potential to cause assets which are still used and useful and, performing as intended, to be replaced regardless.

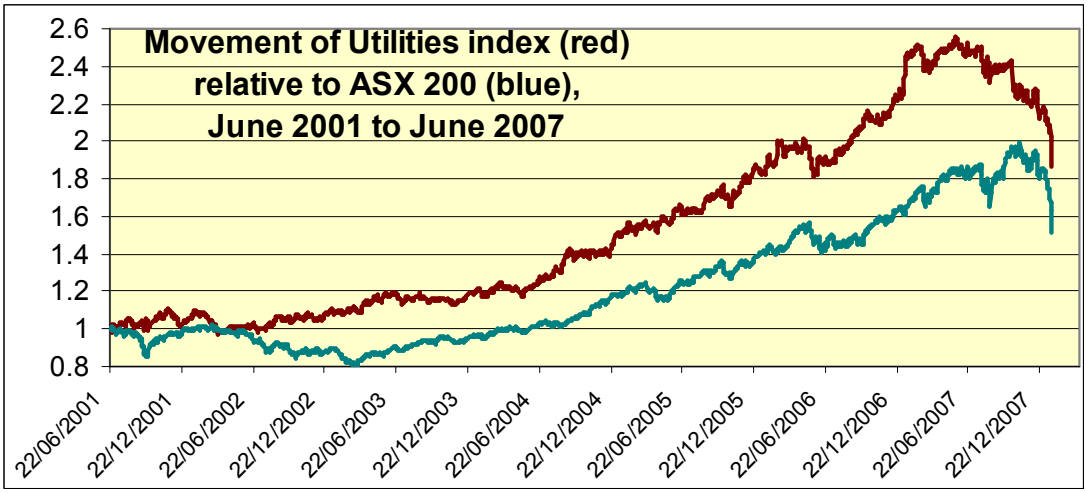
5.2 The incentive to replace assets regardless

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

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

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

The performance of the Utilities index over the market average shows that investment in Utilities will provide a better return compared to investing in the market average. This is shown in the following chart and table.



Source CommSec

	Sector Beta					Sector div yield					sector gearing D/E %		
	27/2/06	23/8/06	30/1/07	18/6/07	17/1/08	27/2/06	23/8/06	30/1/07	18/6/07	16/1/08	30/1/07	18/6/07	16/1/08
All ords	**1.08**	**1.04**	**1.02**	**1.05**	**1.08**	**4.3**	**4.3**	**3**	**3.4**	**4.2**	**36**	**37**	**36**
Utilities	**0.31**	**0.23**	**0.37**	**0.37**	**0.37**	**5.2**	**5**	**4.1**	**5.8**	**8.3**	**102**	**104**	**110**

Source CommSec

These clearly show that Utilities are significantly outperforming the market average, and this is a direct result of regulators providing utilities (which are most commonly regulated) with a return that provides an incentive to invest, resulting in an incentive for network owners to replace assets regardless of their condition if the regulator can be convinced there is a reason to do so.

The AER has decided that ElectraNet should be able to depreciate some of its assets faster than previously allowed. The AER made two adjustments only in that IT assets and rectified an error relating to buildings.

The ECCSA remains concerned that the approach taken by ElectraNet and tacitly agreed by the AER is that assets will be replaced before the end of their economic life. ECCSA members advise that in a competitive

environment assets are kept operating well beyond the depreciated life if at all possible, as by doing so the businesses can reduce the effective LRMC for their assets. As a standard rule in a competitive environment assets are only replaced when the IRR assessed for replacing them exceeds ~25%.

The ECCSA and its affiliates have consistently raised the issue of unnecessary replacement of assets. The AER makes reference to the asset monitoring programs that network owners have (will) introduced but the details of these and the outcomes are not reported.

Network owners highlight that ever increasing opex is required to maintain "ageing" assets and massive amounts of capex have been approved (and spent) supposedly in reducing the average age of assets. So far consumers have seen that network owners claim, and regulators grant, increased expenditure based on the recurring theme that more is needed. At the same time the market value of the businesses owning the networks increase for providing the same service, and merchant banks make large fees (establishment and trailing) as these assets are traded. Under some circumstances the financial fees incurred in these transactions is capitalised, effectively increasing the asset base, and in some cases the RAB.

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

This matter was specifically raised by ECCSA in its earlier submission and at the AER public forum yet the AER has not provided any assurance that this very basic approach to asset management will be required to be implemented by network owners, and that this requirement of the AER will be enforced.

5.3 Asset lives

The ECCSA notes that AER has conceded that ElectraNet can reduce the economic life of some of its assets, although it did not agree in all cases. In particular it did not concur with ElectraNet's request to depreciate communication and control equipment over 3 years, requiring that the current level of 10 years to be reduced to the same rate of 5 years that the AER allowed for Powerlink and SP Ausnet.

The AER has also allowed that the capital works transferred from opex to capex be depreciated over 12.5 years regardless of the asset type.

Overall, the AER has allowed the TNSPs to depreciate assets faster than in earlier decisions of the ACCC. This decision will result in consumers incurring higher costs for the services provided due to the allowances to accommodate:

- shorter asset lives
- a tendency to replace assets before their economic lives are complete
- replacement regardless once the economic life is reached, even if the asset has technical life remaining.

6. ElectraNet Opex

6.1 Setting the base level of opex

The principle behind using an efficiency benefit sharing scheme (EBSS) is to provide a financial incentive for a TNSP to reach its efficient level of opex. At each reset the demonstrable efficient opex should be adjusted for changes that occurred in the previous period and which were **not included** in the level of opex used as the base.

ElectraNet advises that it used this approach and added to the base level of controllable opex of $47m pa to which it added allowances for:

- Skills development
- Land tax
- Generator testing

Unfortunately ElectraNet advised that the base level of opex did not reflect actial costs and it needed adjustment by a bottom up assessment for:

- Routine maintenance
- Maintenance projects
- Insurance
- Land tax
- network support
- debt and equity raising

But even then more adjustments were needed for:

- asset base growth
- wages growth
- increases in land values
- growth in non-labour costs (eg materials)

When looked at in this way it seems that the base level opex was not a good starting point at all.

In fact SKM has used a mix of base case and zero base assessments to arrive at its recommendations. This approach is from the view point of ElectraNet the best of both worlds, but it allows ElectraNet to argue for increases in opex where it considers the base case is too low, and to retain the base case where the opex is as needed or where there is some "fat".

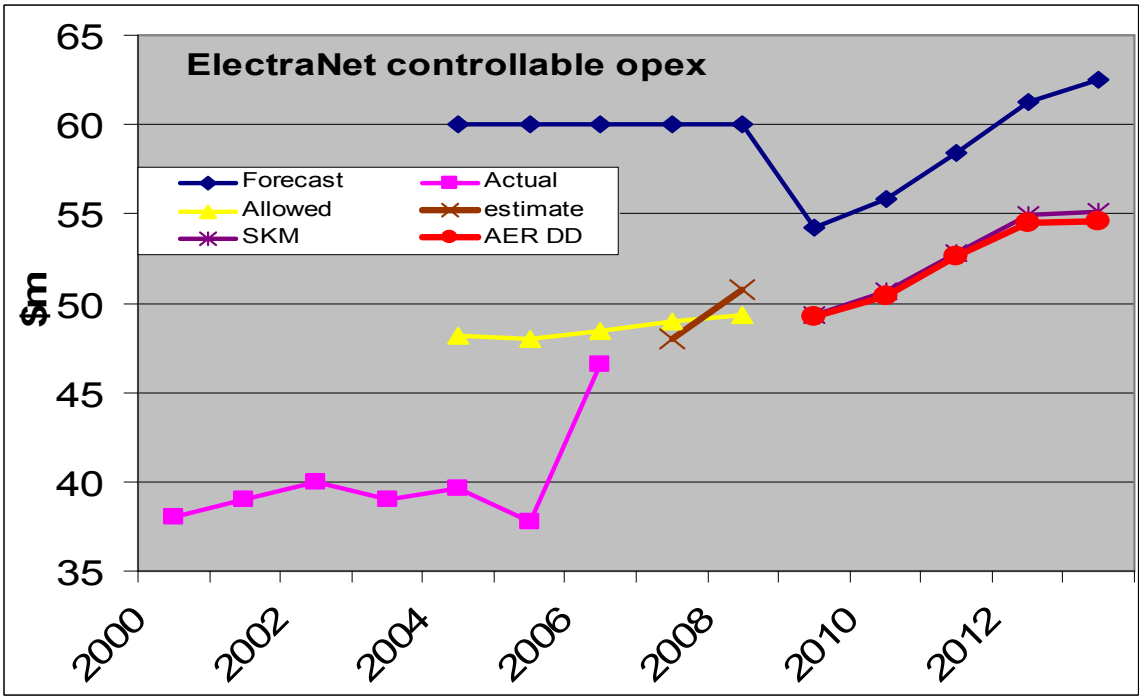
This approach to using base case resets is incorrect as it can be manipulated (as shown) to achieve a specific goal that benefits the TNSP. The use of base case must be entirely consistent for all ElectraNet's application – the base is set and only identified step changes which are not included in the base case should be implemented. The ECCSA considers that both SKM and the AER are incorrect in allowing a hybrid approach to be used.

This point was made by ECCSA in its initial submission and the AER considers it has effectively addressed this concern by observing that as the base year opex (except for those parts where it is not appropriate) is close to the ACCC allowance from 2002, then therefore the truncated opex is an efficient level. This is bizarre! Either the base case in its entirety is correct or it isn't. To say that it is correct but for the parts of it which ElectraNet states are incorrect (and therefore need to be assessed from a zero base) is inconsistent. Any "fat" that resides in the base case opex is still there, even if it matches the equivalent allowance included in the 2002 allowance.

The ACCC and subsequently the AER have observed that they do not intend to micro-manage regulated businesses. Therefore the regulator must assume that the total opex is correct, with the sub-elements expected to have "unders and overs". To allow the regulated business to identify specific sub-elements and to correct them in isolation contravenes the concept of the regulator not micro-managing the business.

6.2 Overall assessment

The following graph plots the various applications, decision and draft decisions relating to ElectraNet's controllable opex over time.



Source: ElectraNet application, ACCC 2002 decision, AER draft decision

In its application in 2002, ElectraNet sought an increase in its opex and included in its application two telling statements (page 8 – 1) that:

> "The current EPO allowance for operating and maintenance expenditure is at an unsustainably low level and if left uncorrected ElectraNet SA could not continue to comply with Code reliability standards."

> "An increase is required in the level of operating and maintenance expenditure, particularly in the area of asset refurbishment over the regulatory period to ensure ongoing supply reliability consistent with good electricity industry practice and expenditure levels of other Australian TNSPs."

As can be seen, the ACCC did grant a significant increase in opex at the behest of ElectraNet (although not to the level sought) and despite this ElectraNet effectively held the opex at the levels it had emphatically considered to be too low, thereby gaining a significant cash benefit.

ElectraNet stated that it would be spending significantly more on refurbishment and yet it still has not reached the levels that the ACCC allowed in its decision. As ElectraNet commented in its 2002 application (page 8-13):

> "Due to the clear signals that reinvestment in asset refurbishment is now essential to correct a deterioration in reliability, ElectraNet SA is proposing to increase expenditure in this area during the regulatory period. The forecast has been

> smoothed to take into account a peak in assets created in the 1960's that will reach the end of their economic life during the regulatory period. The forecast also incorporates an element of "catch up" refurbishment covering the current "backlog" of aged assets, which it is proposed to eliminate over a 10-year period. Clearly, this approach increases the risk exposure for ElectraNet SA, but is considered to be prudent and responsible."

SKM has observed that ElectraNet still needs to "catch up" with an historic under-spend on opex refurbishment and this is part of its justification for agreeing that the ElectraNet claims should be granted.

Both SKM and AER have agreed that ElectraNet should be allowed an even higher amount for opex than did the ACCC, on the premise that ElectraNet has only just found out that its assets are in a worse state than they expected in 2002.

What has obviously occurred is that ElectraNet was permitted funds for significant refurbishment works in 2002, underspent its opex allowance by some $17m, did not use its allowance to refurbish assets as intended, has transferred this work to the new period and will retain the benefits of the opex under-spend. This is clearly unacceptable.

A direct observation as to the fundamental flaw in the AER's acceptance of the hybrid base case approach is it that there is no attempt to assess whether the transfer of capex allowed for growth projects to refurbishment projects[1] has resulted in an opex reduction as would be expected. This large injection of capital into refurbishment must have had an impact on opex yet this has been effectively lost due to the use of the hybrid approach.

6.3 step changes

The AER has allowed for four step changes to be implemented to the truncated base case:

- **Generator testing:** The AER has reduced this allowance and made it clear that this is a cost for generators to bear.

- **Skills development:** The AER has decided that this is a legitimate cost but that it should be reduced. The ECCSA queries whether this is a step change as ElectraNet (along with all other employers) has always had the need to develop its staff. The implication is that ElectraNet has determined that it alone does not have the need to develop staff and should be able to

[1] (ElectraNet spent an increase amount of 80% more on refurbishment than was included in the 2002 decision)

source them from the market after being trained and developed by someone else. The ECCSA considers that this is not a step change and the AER should deny the cost sought.

- **Revenue reset costs:** The AER has accepted that the base year costs should exclude revenue reset costs. The need to do this is an outworking of the decision to assume that using a base cost can be adjusted to exclude specific items.

- **Land tax:** Because land tax was introduced during the period and has an increasing sliding scale, this is a legitimate step change and should be included in the reset. The ECCSA considers that SKM and AER have made as good an estimate as is feasible for this allowance.

6.4 Field maintenance

This sub-element of the ElectraNet opex has increased by 54% between the base case allowance and the zero case allowance claimed.

The basic reason provided for the increase in costs was the transfer to the Powerlink asset management program and as a result its "sudden" recognition that its assets were in worse condition than they thought. As noted in section 6.2 above, ElectraNet raised this issue at the 2002 reset and was granted funds to address the concern. That ElectraNet had a major under-run in opex must be considered in the context of the massive increase in opex now claimed.

The AER notes this and observes that (page 155):

> "…the AER must provide an efficient allowance for ElectraNet **given its current circumstances, irrespective of past practice**." (emphasis added)

Thus in one statement the AER provides a reason for all TNSPs to under-spend the granted allowance (which was based on certain facts and assumptions), retain the benefit of the under-spend, and get paid again for the work it should have done earlier. This is poor regulation. It provides a highly distortive and unwarranted incentive mechanism for TNSPs.

The AER goes on to note that

> "…inadequacies in ElectraNet's past maintenance program that are in part driving the need for increased routine maintenance and maintenance project work do not sit well with ElectraNet's request for efficiency sharing of its opex underspend in the current regulatory period. However, the treatment of the opex underspend in the current regulatory period is governed by the NER, and the arrangements put in

> place during the current regulatory period. This issue is discussed in chapter 8. Again in reviewing ElectraNet's routine maintenance forecast the AER must now provide an efficient allowance for ElectraNet **given its current circumstances, irrespective of past practice**. (emphasis added)

The AER observes that SKM had identified some mathematical errors in the ElectraNet application and this resulted in an increase in the amount ElectraNet needs. As a result, the AER after agreeing to using a zero base approach, accepts all the ElectraNet arguments for increasing the routine maintenance in its entirety and as a result awards a 10% increase to the amount sought by ElectraNet.

In appendix 3 to this submission, ECCSA makes a number of observations about the SKM assessments of various opex elements. In particular, ECCSA points out that:

- SKM seems to agree with ElectraNet's conclusion that the ElectraNet arrangement with ETSA (where ETSA carries out all the field work for ElectraNet) delivers "market based pricing for maintenance services" but SKM delivers no proof or even much analysis to demonstrate that this assumption has a factual basis.
- SKM makes the assertion that using the Powerlink asset management approach will be beneficial (and this is not denied by ECCSA) but implicitly draws the conclusion that therefore the costs developed by ElectraNet for following the program are efficient.

The AER also accepts these assessments as providing efficient outcomes, but carries out no analysis to even substantiate the claims let alone respond to ECCSA's concerns. The ECCSA submits that this, again, demonstrates poor regulation by the AER..

6.5 Opex projects

ElectraNet is noted to have stated that opex projects relate to needs within each period, and therefore will increase and decrease significantly between periods. ECCSA agrees with this observation, as they have similar characteristics of main capital projects included in the capex program.

As a result of this effective recognition of these projects replicating capital works, SKM has considered that many of the projects should be capitalised and not expensed as opex is. This should result in ElectraNet carrying out a Regulatory Test assessment rather than being able to avoid this critical step in demonstrating the need for the works.

The AER also pointed out that as there is some uncertainty of all projects proceeding in the current period, and in the estimates for the work, this should be reflected in the allowances. The ECCSA supports this approach, and notes that there is potential for "double dipping" from having these projects run as part of the overall asset management program.

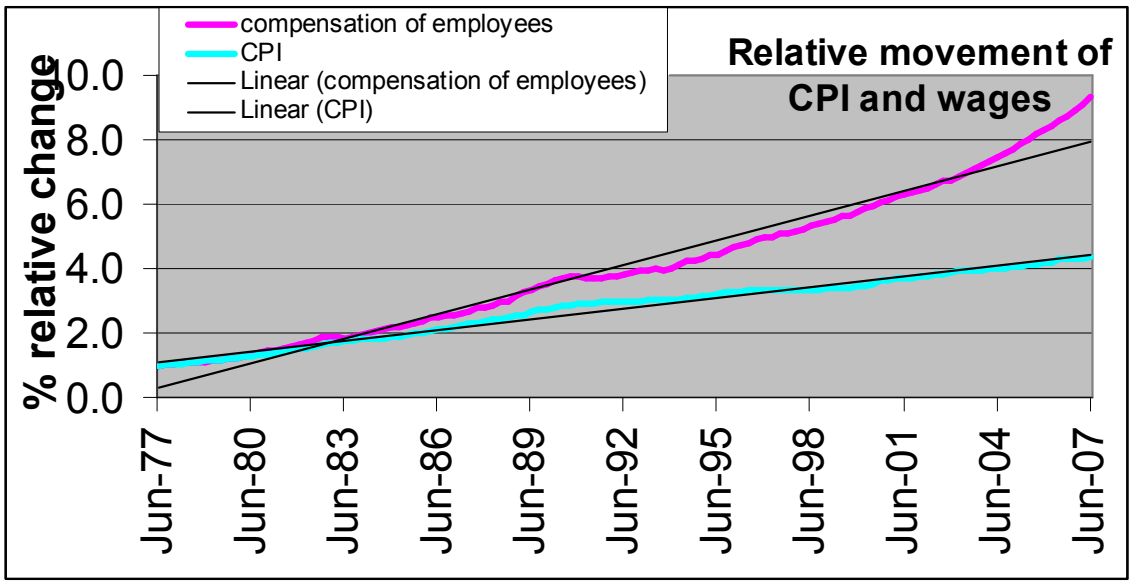
The ECCSA does realise that as a result of the condition maintenance program routine maintenance should reduce as the project work done now should cause a lesser amount of routine maintenance immediately the project is completed. Thus, there should be (but is not) a compensating reduction in routine maintenance to reflect that this asset management program has already commenced.

6.6 Labour escalators

In appendix 2, ECCSA addresses the Econtech report on labour cost escalators.

In its submission, the ECCSA pointed out that the labour market has consistently permitted a premium in wages over CPI, and because of this the AER should not permit an additional amount in capex and opex to reflect this.

The following graph shows the relative movement in wages (via compensation of employees) and CPI over the past decade.



Source RBA

This shows that growth in employee compensation has consistently outperformed CPI over the past 30 years. In fact, the trend lines imply that CPI

has grown at an average of about 5% per annum over this time, and wages have grown by an average 7.2% (or higher) over the same time.

It also shows that wages have always outperformed CPI by at least 2.2% (and probably higher) and the view that this is an anomaly applying only to the near future is purely fallacious. This information was provided to the AER in the ECCSA submission, yet the AER makes no reference to, or comment on, this underlying trend at all.

The AER comments in its section on opex, that it considers that the 20 year Econtech analysis of labour costs provides a forecast of the labour costs for the next six years (especially the latter years of the next period), and appreciates the work of Econtech in that it identifies costs in the utilities sector. As noted by ECCSA, Econtech has taken the data for the utilities sector without consideration of its make up or derivation.

In its draft decision, the AER provides table 6.16 summarizing the work on wages growth by BIS and Econtech. This table indicates the expectations of both consultants, but neither makes reference to the underlying consistent growth in labour which has been maintained at about 5% over the past two decades, and which consistently is higher than inflation as measured by CPI. Thus there is implicitly an allowance in the base case of wages growth following a long term average of ~5%. When this is related to the expected wages growth estimated by Econtech and BIS Shrapnel then there is little difference between the underlying growth and the long term trend growth in wages.

The ECCSA considers that as there is an underlying trend for wages to consistently demonstrate a premium over CPI, then it must, as a matter of equity to consumers, allow only an adjustment for the premium between the underlying trend and the expectation for the next period. For the AER to allow the full differential between wages and CPI as a basis for a step change, will create a regulatory precedent and enshrine this erroneous approach into the future.

The differential between long term growth in wages and the CPI is effectively the improvement in productivity of labour over time. The AER has not proposed to build into the allowance for opex and capex labour, a fixed reduction for productivity improvement over time. This is on the basis that up to now, regulators have assumed this increase in productivity has been implicitly incorporated into the revenue through allowing only CPI adjustments on the revenue stream. To exclude the underlying premium and grant the full differential as is proposed, is illogical and a clear bias against consumers' interests.

The ECCSA considers the AER should not accept that there is a wages change that warrants adjustment for this current period, as wages have consistently outperformed CPI over the long term, and the current premium is not significantly different from the past. At most, the AER should only allow for the premium in wages over the underlying wages premium over CPI, and use the inflation estimate it sets for the WACC as the forecast of inflation when developing the wages premium over CPI.

Asymmetry risks

Throughout all regulatory reviews, the regulated businesses have frequently referred to the asymmetry implicit in a number of the risks they face. This asymmetry has been accepted by regulators and accommodations made.

It is in the aspect of forecasting capex and opex that this asymmetry has been overlooked. Where costs have risen less that CPI, it has been ignored that the regulated business would have accrued an unearned benefit where costs increased at a rate less than CPI. In fact, where this has resulted in an apparent "efficiency gain" the regulators have permitted the business to retain the benefit and have additionally carried forward an efficiency bonus into the next period.

In principle, consumers have seen that this efficiency mechanism should lead to an overall benefit to consumers, and any unearned benefits (such as from costs being less) will not be deducted by the regulator. However, where the businesses see that this general approach might not be to their benefit, they request some additional recognition of the potential downside to them.

The fact is that the AER has accepted in principle that ElectraNet is entitled to an increased allowance because the market seems to be going against the business. Yet, the AER has not required the business to return any unearned benefits due to market conditions favourable to the businesses. This is inconsistent, unbalanced and needs to be rectified.

The ECCSA is of the view that either the AER should not permit an increased opex (and capex) allowance due to expected unfavourable market conditions, or it should include adjustments for all market condition movements at very reset, which in that past it has not done. The ECCSA considers that allowing adjustment for market conditions (which are faced by all businesses) is a movement towards cost plus regulation, rather than incentive regulation.

There is already an Australian regulatory precedent for the AER not to make adjustments for expected unfavourable market conditions. This relates to the use of a market risk premium of 6%. In previous decisions regulators (including the ACCC) have observed that the current market risk premium is less than the 6% used. They have stated that the regulatory approach is based on consistency and long term assessments and that the longer term view should prevail.

The ECCSA does not consider that the AER should increase the labour cost element of the opex program for what is a short term aberration when it is not prepared to do likewise for other short term aberrations. The ACCC and AER have previously advised that they need to assess issues over the longer term, yet in this instance have decided to provide the benefit of the doubt to ElectraNet.

The ECCSA points out that the CPI will adjust, in the long term, for short term movements of individual costs. The AER should retain the view that over the long term, CPI will accommodate all of the individual short term price movements expected in the market, and therefore should not allow for short term adjustments that are biased in one direction.

6.7 Asset growth relationships

As part of its substantiation of the increase in opex, ElectraNet provided a statement of the proposed asset growth scale factors to provide a cross reference between opex and asset. These scaling factors were use to increase opex over the period. This is a concern to consumers as using the incorrect scaling factors can provide ElectraNet with a wind fall profit.

Based on the allocation in table 6.17, and the costs approved for each category, the AER has implicitly agreed with ElectraNet that opex increases at the rate of 40% of the rate of increase of asset value. Using such an approach creates the appearance of equity but in effect it does not.

For example, if a new transformer is added to the fleet, then the opex for transformers would increase in proportion to the number of transformers. Thus the percentage change in opex reflects 100% of the increase in numbers. If a transformer is replaced with a transformer of increased capacity, the amount of opex required for the larger transformer would be a marginal increase at most, perhaps 10-20%, although its replacement value would be considerably higher.

However, ElectraNet proposes that the increase in opex for all increases in transformers is 95%, about the same as for a new addition. Extrapolating this

means that either very few transformers will be replaced for size, or that all increases in capacity relate to additional assets being used. This is not so, even if the replaced transformer is used at another site, because the transformer at the new site will be moved on and so forth, until ultimately a transformer is made redundant. In fact the opex does not increase under this scenario.

Another example is that the replacement cost for a higher capacity power line will be greater than that of a smaller capacity line, yet increasing the size of the conductor does not impact the routine maintenance at all.

ECCSA doubts that increasing the size of a transformer has any impact on the costs for managing a project (field support) on network operations costs (there will be no increase in staff at the control room) or lead to an increasing in staffing at head office or in the management support group.

The ECCSA is very concerned that opex is allowed to increase at the rate of 40% relative to the replacement costs, as this approach has little validity in practical terms when considering the various scenarios that can occur.

Neither AER nor SKM addressed the scaling factors proposed by ElectraNet, referencing only that these had been used for Powerlink. Equally it is interesting to note that other TNSPs (eg SP AusNet) do not use this approach to adjusting opex with replacement costs in addition to a bottom up assessment.

The ECCSA is extremely concerned that the AER has allowed this mechanical approach to ramping up opex each year of the period.

6.8 Conclusions

In principle, ECCSA agrees that the AER should have adjusted the ElectraNet application for mathematical errors, but overall considers that the AER has not carried out a consistent review.

For example, there has been an 80% increase from the 2002 allowance in capex for refurbishment yet there is no adjustment in the opex to reflect this.

In the next period, capex will more than double from current levels, but there is no compensating reduction in opex to reflect this.

The AER has accepted that opex levels will increase in real terms each year by ~3%, but does not explain why, other than to implicitly accept the ElectraNet assertion that opex increases with RAB. The ECCSA points out

that opex should only increase with the age of assets (and there is no age increase overall) or with assets to provide for new areas not previously installed. Opex related to assets which are replacements of existing assets (even if they have a higher capacity) do not cause an increase in opex.

Overall, ECCSA considers that the AER has badly erred in its review of ElectraNet's Opex claims. The unprecedented bias demonstrated in the draft decision is proof of poor regulatory practice.

7. ElectraNet Capex

7.1 A summary of the AER draft decision

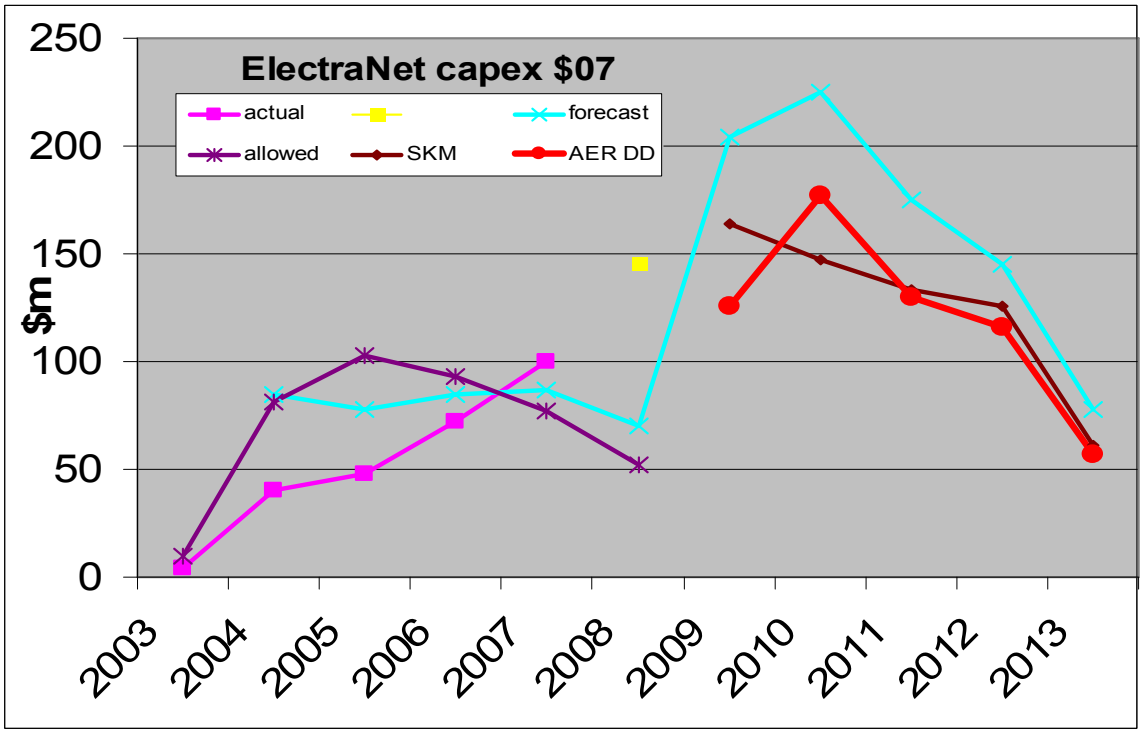
Overall, the AER has approved capex at a rate higher than anything ElectraNet has achieved to date for 4 of the last 5 years, and even exceeding the very high forecast for this current uncompleted year of 2007/08.

Additionally, it has approved $805m for contingent projects (33% more than allowed capex.). If implemented this would increase the average tariff by another $3/MWh from the new already very high average of $17.5/MWh resulting from the draft decision.

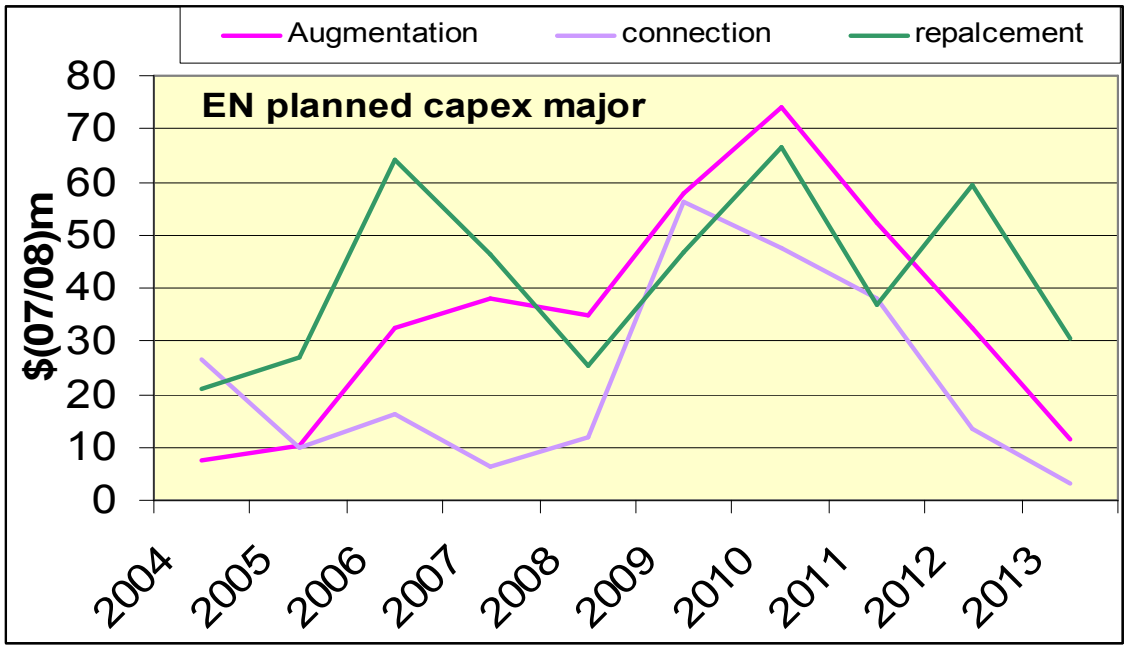
The amount of capex directly approved is more than double the amount of capex ElectraNet had trouble spending in the current period, even though the current period is 10% longer than the new period.

Despite the injection of the capex, the AER has effectively reduced expected service levels of the critical circuits.

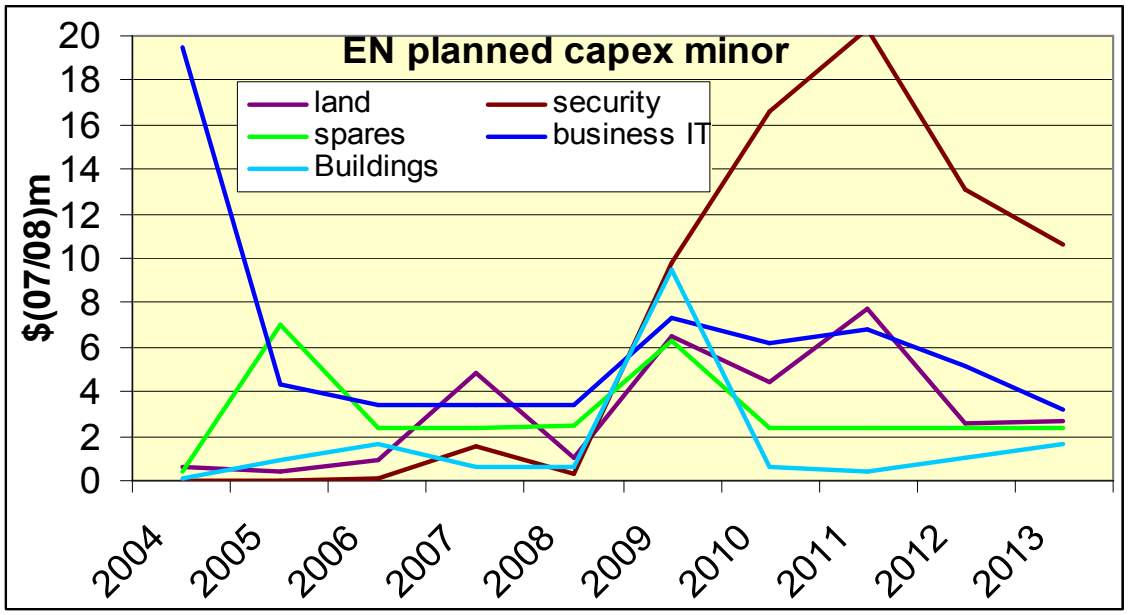
The history of ElectraNet capex is as follows:



The breakdown of each of the main capex categories provides a little more clarity. These are sourced from SKM report page.



The import of this chart shows that ElectraNet is ramping up significantly its connections and expects that augmentation (the work transferred from the current period) will also be needed. A significant element of the capex program is to comply with the new ETS standards implemented as of 1 July 2008.



The “minor” capital works show that the business IT installed during the current period is for an amount considered excessively high compared to the allowances the ACCC provided and, continues to cost significantly throughout the period, and it is now seen that security has become a major capital item.

It is recognised that this capex program is about twice the size of the capex program of the current period, and that there is behind this firm capex program, an equal amount of capex for contingent projects.

The AER identified that there were a number of aspects that needed to be addressed:-

- the size and projected increase of ElectraNet’s demand
- the proposed step increases in IT and security budgets
- the uncertainty associated with forecasting capex escalation factors and the increased levels of those escalators
- the value in undertaking further long-term strategic network planning the need to ensure the proposed contingent projects satisfy the NER requirements and the costs that can be attributed to a specific project are funded by the proponent of that project rather than spread across all consumers
- its ability to deliver the proposed capex program

In addition to its primary concern about whether there is a capacity to pay for the increased capex, ECCSA considers that these issues do cover its main concerns.

SKM was tasked with assessing the program in light of the AER concerns. Despite a few minor misgivings, the AER accepted the SKM view that ElectraNet project governance is acceptable

In its assessments in addition to SKM, the AER sought advice from a number of other sources either directly or indirectly – ESIPC, ETSA (the main customer of ElectraNet), ROAM consulting, and ESCoSA. This does provide some confidence that the AER has attempted to address the concerns raised about the large capital works program proposed.

ECCSA notes that the capex sought can be allocated to a number of causes derived from figure 4.3:

- 30% of the capex is for replacement identified after implementing the new condition assessment process
- 25% of the capex is a result of the changed ETC and the increasing of reliability standards

- 17% is attributable to demand growth
- 9% is attributed to security concerns
- The remaining 20% is for buildings, IT, spares, land acquisition, and new connections.

Overall the AER has conceded that the ElectraNet claim is legitimate despite the clear concerns of consumers that this view is not shared by them.

The changes made by the AER to the capex program are in the main cosmetic – the bulk of the AER changes relate purely to transferring two projects out of the application for prescribed service projects to contingent projects.

7.2 Inflation expectation

The AER has built into the capex program a significant increase in unit costs due to inflationary pressures and therefore expected to impact the cost of the capex program.

The concerns of ECCSA relative to labour costs are included in the commentary on this matter in section 6.6 above and in appendix 2. The ECCSA does not consider that the AER should increase the labour cost element of the capex program for what might be a short term aberration when it is not prepared to do likewise for other short term aberrations. The ACCC and AER have previously advised that they need to assess issues over the longer term, yet in this instance have decided to provide the benefit of the doubt to ElectraNet.

The AER has considered that SKM has provided a fair analysis (including detriments) of the ElectraNet proposed materials price changes over time, and as a result the AER has accepted the SKM approach.

The ECCSA does not consider that the SKM observation that capital expenditure should not be assessed in terms of CPI, because materials used in the electricity industry do not move in concert to CPI. Notwithstanding this, consumers are charged for transmission services adjusted for CPI, and therefore it is illogical to adjust inputs on a different basis of inflation.

The ECCSA considers that where the costs for services reflect CPI, this index will over the long term provide a true indication of the movement of costs in the economy. Bearing this in mind the ECCSA considers that the AER should take a long term view of cost movements and not be influenced by short term aberrations.

It is accepted that the capital allowance is adjusted on an actual basis when rolled into the RAB and therefore errors in allowances are effectively eliminated over time. The ECCSA has two observations to make in terms of this qualification

- By providing a higher than needed allowance for the capex program it increases the odds that consumers will pay for something they never get as the high power incentive benefit from any under-run remains with the business
- By setting the allowance too high, there is the low power incentive to allow the business to be less rigorous in managing the capital needs

7.3 The relationship between capex and opex

In its assessments of opex and capex, the AER makes only passing reference to the inter-relation between opex and capex.

There is no doubt that as capital is expended on assets, a reduction in opex will result. ECCSA members have direct experience in this phenomenon, often using the cumulative savings in opex to justify capex. The historic approach by the AER makes little of this inter-relationship and persists in increasing opex regardless of the level of capex that has been added. The ECCSA asks when the AER intends to make a determined effort to implement this relationship (which is a normal business dictum) as a clear part of the process in its regulatory reviews.

7.4 Concluding observations of capex

Whilst accepting that there may be a rational reason for each and every element of the proposed capex being accepted, the ECCSA has a continuing concern about the quantum of the capex in relation to consumer ability to pay, and this observation is partly quantified in section 1.6 above.

The AER and SKM have to a degree identified that some of the capex has been the result of a step change due to the introduction of the ETC. The ECCSA is not convinced that the AER has been sufficiently rigorous in its assessment of labour and material costs changes to be able to prove that this constitutes a step change.

It is of concern that although AER is convinced that much of the capex requested for augmentations and connections has validity, this is not supported by any significant increases in consumption or demand. The outcome of this is that the unit cost for providing the service has now increased markedly.

The AER has accepted that ElectraNet has to increase its capex program for replacements yet at the same time opex has increased dramatically, and the new opex allowance does not show any benefits to consumers as a result of the large capex injection in the current period, nor in the expected opex for the new period.

8. ElectraNet Efficiency gain

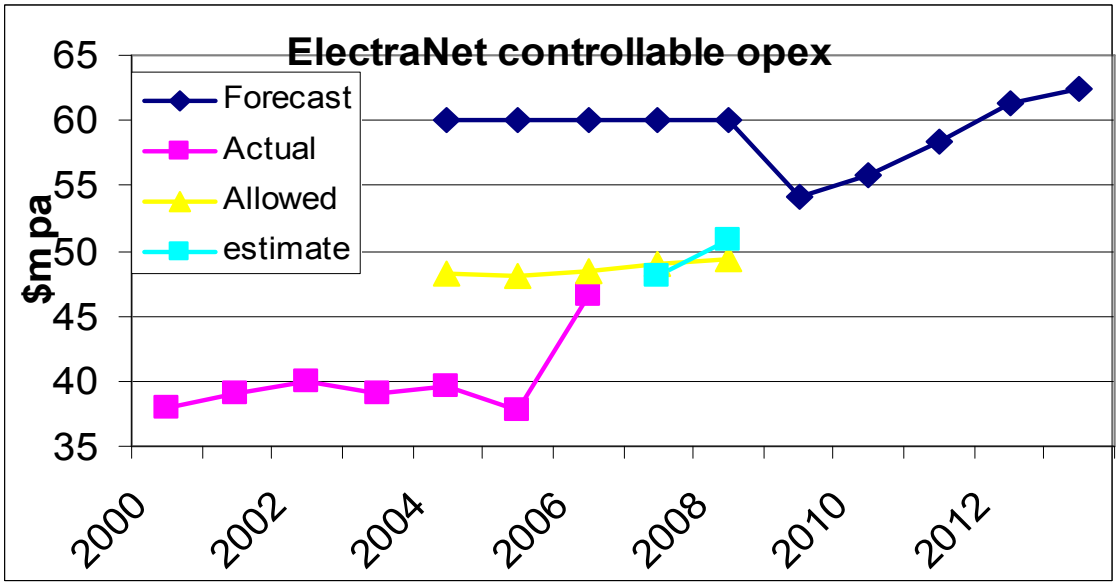
An opex incentive scheme (such as the EBSS) is designed fundamentally to provide a driver for a regulated business to achieve the level of efficient opex. In the varying environment that a regulated business operates in it is a fundamental matter that this opex be referred to a benchmark(s) which can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

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 not 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 latest 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

ElectraNet has under-run its opex allowance and in theory is entitled to share in the benefit of this under-run as implied by the efficiency glide path allowance.

Consumers saw that ElectraNet has under-run on opex for the start of the period, identified that these costs were unsustainable and ramped up its opex to near the allowances. This then provided ElectraNet with the perfect position to secure maximum profits. By ramping up costs in the latter years, it has successfully provided a strong springboard for getting even higher opex in the next period, in that the AER has tacitly agreed that the early year savings were unsustainable.

Overall, the AER is allowing ElectraNet to retain the underspend of $17.4m and then require consumers to pay a glide path bonus of another $8m. Consumers have received no benefit at all from this early period under-run and in fact suffered a reduction in service standards. Even worse, consumers are now required to provide a glide path efficiency bonus to ElectraNet for no continuing benefit at all. ECCSA accepts that "regulatory certainty" requires the AER to provide the glide path efficiency bonus but consumers consider this to be a very perverse outcome.

The ECCSA points out that the value of an EBSS is to drive a regulated business to its efficient opex. What ECCSA sees in this review is that the ElectraNet approach has allowed it significant benefits and to ramp up further its opex for the next period. The AER has not used the outworkings of the EBSS to set new capex, relying more on zero base assessments.

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 into the next regulatory period.

The ECCSA has examined the proposed EBSS and sees that there is some potential benefit to consumers in that consistent opex reductions will be incentivised. However, it does not prevent a TNSP from gaming the system doing what ElectraNet has done in this period – ie by underspending in the early years and ramping up opex in the latter years to justify increasing opex in the next period.

9. Service standards

A table of the proposed service standards with the SKM recommendation and draft decision is as follows

	Actual			EN proposed			Weight	AER -SKM		
	96-06	98-06	02-06	collar	target	cap		collar	target	cap
Availability										
Total	99.32	99.34	99.47	98.56	99.47	99.75	0.30	99.10	99.47	99.63
Critical peak			99.75	99.53	99.75	99.80	0.20	98.52	99.24	99.51
critical nonpeak			99.94	99.90	99.94	99.97	0.00	98.88	99.62	99.95
Loss of supply freq										
>0.05 min							0.10	10.00	8.00	6.00
>0.2 min	4.55	4.67	4.40	6.00	5.00	3.00	0.1/0.2	5.00	4.00	2.00
>1 min	1.27	1.00	0.40	2.00	1.00	0.00	0.20			
Av outage dur, min	102.55	83.52	72.63	147.00	84.00	39.00	0.20	119.00	78.00	38.00

ECCSA considers that the SKM approach (and taken up by AER) is sound, and agrees that using statistical bases to setting symmetrical bandwidth targets are preferred to an arithmetical basis – this removes the potential for requiring performance to be better than 100%.

ECCSA also notes that the AER has agreed to lower performance targets for critical circuits. Despite that there has been an increase in the numbers of the circuits being measured the ECCSA does not consider that this supports a lower target.

ECCSA agrees with AER to reduce the measure for loss of supply frequency as consumers have increasingly become susceptible to short term outages as process equipment becomes more dependent on continuity of supply. A number of MEU members have all observed that transient losses of supply have triggered plant outages, and so a reduction in the number of transient supply losses is considered advantageous.

ECCSA has two criticisms of AER in regard to its assessment.

- ECCSA agrees with increasing the number of circuits classified as critical, but is concerned that AER has reduced the target performance by the addition of these. When comparing the actual performance of the system (100% of circuits) to critical circuits (14% by length) this implies that the performance of the other 86% of the circuits (by length) have an availability at peak times of 99.43% (NB availability at non peak times for the critical circuits is even higher).

  Thus as a minimum the peak time availability of the increased number of circuits should be 99.43% and probably higher, as the amount of the circuits by length has increased to 37%. By applying ratios based on length implies the actual performance would be 99.53%. By not adjusting the target and retaining the AER proposed cap, would automatically deliver to ElectraNet maximum bonus for this category.

  The ECCSA recommends that the target for critical peak circuits should be increased to 99.53%, with a corresponding adjustment to the critical nonpeak target and to the bandwidths

- The AER has agreed to reduce the number of peak times from the historic 80 hours per week to 60 hours. ECCSA would point out that a review of the peak demands in the SA system do not occur just between the hours 8am-8pm weekdays, but system peaks also occur on weekends. This is due to the changing nature of what causes SA demand being heavily influenced by ambient temperatures resulting in demand from high penetration of air conditioning and extended shopping hours, and the trend for businesses not to have traditional shut down periods.

  As a result, the SA system peaks do not follow traditional load shapes where weekend and public holidays exhibit significant lower demands than weekdays, a direct outcome of SA demand being very ambient temperature related.

  ECCSA recommends that the peak periods for measurement of the measure for peak period availability should therefore be assessed on 8am-8pm every day.

10. Pricing Methodology

ECCSA via its affiliate MEU has written separately to the AER regarding the proposed pricing methodology from ElectraNet. Whilst ElectraNet has complied with most of the intentions of the Rules and the AER guidelines there are some remaining significant issues.

ECCSA concurs with MEU that the ElectraNet proposed methodology has not complied totally with the Rules or their intentions, and the ECCSA concerns have been addressed in the letter.

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. By and large, the AER has accepted the ElectraNet application, and the impact of this will be felt severely by consumers for many years.

ECCSA remains concerned that despite SKM and AER assurances that ElectraNet is endeavoring to retain used and useful assets after their economic lives are complete, and the incentives to replace early such assets is still high.

The ECCSA is concerned that the AER has created an asymmetric principle if it allows the current higher than average wage costs to be added to the labour cost allowances, as there is an expectation that when wages growth is less than the long term average, the AER will be required to make an opex reduction to compensate for granting adjustment now.

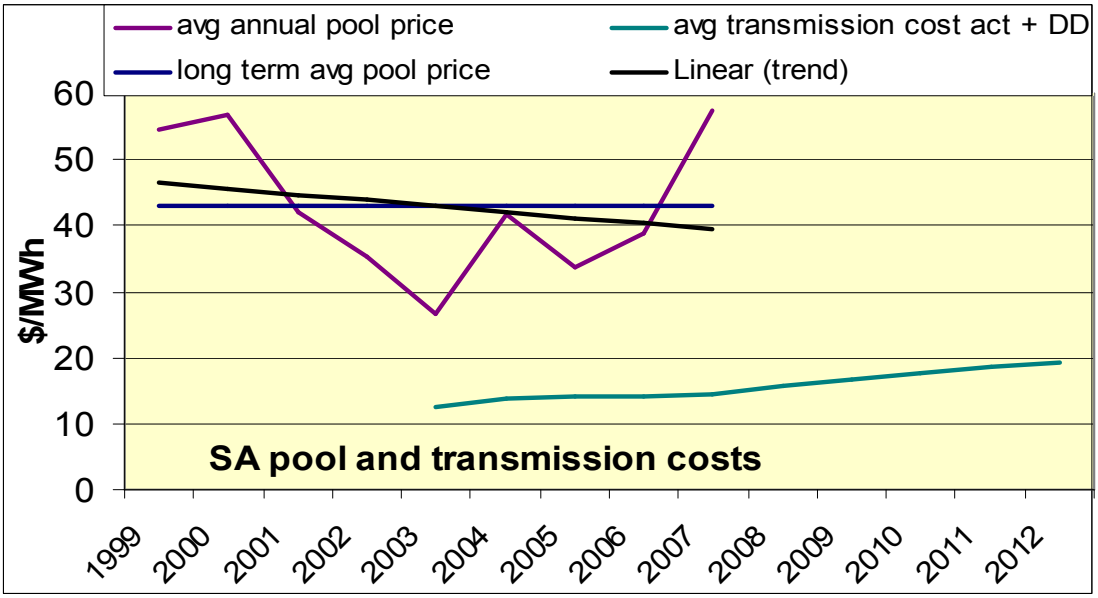
Unfortunately, the AER and its consultants have taken a view that despite any misgivings they might have, they have taken what they consider to be a pragmatic view and decided that:-

> "…the AER must provide an efficient allowance for ElectraNet **given its current circumstances, irrespective of past practice**." (emphasis added)

ECCSA considers that the AER has not served consumer interest well and in taking this pragmatic position has not acted in the "… long term interests of consumers".

Although each step has been justified by the AER to its own satisfaction it has not addressed in a holistic way the outcomes of its conclusion. As a result of the draft decision, average tariffs will rise by 32% in real terms from 2002 under the guidance of the ACCC/AER and to put this into context,

By 2013, transmission tariffs will nearly equal half the cost of electricity generation. To put this into context we provide a tracking of pool and transmission prices in South Australia over time.



Source: NEM Review, ESIPC annual reports, ACCC and AER decisions

This shows that tariffs used to be about half those expected for 2013, and the tariff in 2013 will nearly equal half the cost of generation (as experienced to date).

Tariffs could increase even further, as the AER has approved contingent projects that could raise transmission charges by another $3/MWh.

The large amount of capex approved for prescribed services doubles the amount ElectraNet had trouble spending in this period and in less time, and if all contingent projects proceed, this would quadruple the amount spent in the current period and in a shorter time.

There is no evidence that the AER has applied the commercial pressures on ElectraNet that a competitive market would apply in the face of such large increases in cost.

Despite the increases in costs, AER has effectively allowed a reduction in the standard of service that will be provided.

Appendix 1

Observations regarding the CHC report to the AER

CHC provides a well reasoned technically based assessment of the assets that were previously optimised.

ECCSA accepts that the CHC approach is sound and that is recommendations have validity. The only areas of concern relate to the following:-

- CHC makes some statements that the reversion to the as-built design being included in the RAB relate to planned capex programs being completed that will allow the full capacity of the as-built design to be utilised. For CHC recommendations to be accepted these other capex programs must be implemented. If ElectraNet fails to implement these capital works, then the CHC recommendation has no validity. Accordingly ECCSA support for the re-admission of these previously optimised assets is dependent on the capital works program proceeding as planned

- In relation to the Tailem Bend to Keith re-optimisation, it is noted that a number of conditions precedent are fundamental to the CHC recommendation, and some of these are outside of ElectraNet control (such as augmentation of Heywood). Further much of the re-optimisation relates to allowing new generation to be built I the South East and to be dispatched. ECCSA has already noted that the value of the Heywood interconnector has reduced over time as more generation is built in the SE of SA. This then raises three questions:-

    1. Should this augmentation be included in the RAB provided it is allocated as an entry cost perhaps with deep connection costs associated, and therefore the costs be allocated to the new generation as required under the Rules
    2. If the augmentation is included but does not result in a greater carrying capacity of power from Heywood due to the increase in generation (particularly at Snuggery) there is some doubt as the whether the augmentation would allow the expected augmentation of the 275 kV connection to Heywood.
    3. CHC refers to the fact that some 142MW of gas turbines are connected in the SE – at Snuggery and at Ladbroke Grove. IP has already indicated that due to congestion at Snuggery it will relocate their turbines, and Origin (owner of Ladbroke Grove) has indicated that gas supplies are limited for the continue operation at Ladbroke Grove.

These additional concerns need to be addressed by CHC.

Appendix 2

Observations regarding the Econtech report to the AER

This assessment is made partly based on the specific report provided to AER on SA aspects and partly on the more comprehensive Econtech report provided to the AER in relation to the SP Ausnet review. ECCSA notes that SKM makes reference to the Econtech report on the SP Ausnet review.

ElectraNet had advised the AER that the reasons for its increases in opex and capex were attributed to labour costs increasing at a rate exceeding the CPI. The ECCSA had provided the AER with information regarding labour costs in that there had been no change in the rate of labour cost increases before the current period and during this period, and therefore the ElectraNet claim for increased costs due to labour cost increases was unsustainable.

Econtech P/L was requested by the AER to examine the ElectraNet forecasts of labour cost increases.

Econtech is of the view that the costs for labour needed by ElectraNet over the next 5 years will outstrip the state average of wages growth, effectively supporting the view put by ElectraNet and its consultants. This is depicted in table 2 of its report for SA. The detailed development of its reasons based on various forecasts appears consistent with the methodology used by other forecasters.

Table 2
Labour Cost Growth Rates in South Australia, 1995/96 to 2015/16 (%)

	Mining	Electricity, Gas & Water	Construction	Overall South Australia
1995-1996	8.6%	1.6%	16.3%	1.8%
1996-1997	3.9%	12.3%	-3.9%	2.3%
1997-1998	3.8%	8.5%	4.1%	2.0%
1998-1999	2.2%	1.9%	26.1%	5.8%
1999-2000	7.2%	4.8%	3.5%	1.7%
2000-2001	8.0%	8.2%	5.3%	6.4%
2001-2002	-2.8%	2.7%	0.8%	3.6%
2002-2003	6.4%	8.4%	-16.4%	3.8%
2003-2004	15.6%	4.6%	13.5%	0.6%
2004-2005	10.2%	0.1%	20.2%	4.8%
2005-2006	-1.2%	3.3%	-3.1%	4.4%
2006-2007	4.4%	7.3%	12.1%	8.2%
2007-2008	2.9%	4.5%	3.2%	4.0%
2008-2009	3.3%	5.4%	3.7%	4.5%
2009-2010	3.6%	7.4%	4.6%	5.2%
2010-2011	3.4%	6.9%	4.8%	5.1%
2011-2012	3.6%	6.1%	4.7%	5.0%
2012-2013	3.9%	5.8%	4.7%	4.9%
2013-2014	3.7%	5.5%	4.3%	4.5%
2014-2015	3.1%	4.9%	3.3%	3.5%
2015-2016	2.6%	4.7%	3.3%	3.5%

Source: Econtech's LCM model

Econtech provides support for its forecast by reference to the growth in Utility sector wages during the late 1990s and early 2000s. ECCSA is of the view that there are some inconsistencies in this approach by Econtech.

1. There is an assumption that there was wages growth during the deregulation process. In fact, there was no significant growth in wages per se during this period, but a culling of large numbers of lower paid worker positions. The Utility sector was renowned for this practice as it transited from being directly government controlled to being corporatized. The direct result of this culling process was a statistical increase in wages paid (including for redundancies and such like) rather than a process of massive wages growth.

2. The technical skills needed by the Utilities sector fall into two distinct categories – operations and maintenance labour and construction labour. There is a distinction drawn between by Econtech between Utilities and construction sectors, yet this does not exist in reality as the bulk of new investment by the Utilities sector is carried out as construction activity. Many of the skills needed for operation and maintenance in the utilities sector are similar to those needed for construction and mining[2], yet Econtech develops its theme based on the concept that they are quite different. Thus for Econtech to develop a model which delivers different outcomes for different industries seeking the same skills set seems to be counterintuitive.

3. Econtech draws comparisons between mining, construction and Utilities in Sa, and opines a view that all will be subject to the pressures for mining and infrastructure in other states. However, Econtech then determines that there will be differing outcomes for each of the SA sectors examined. This again appears to be counterintuitive.

4. There is no analysis of the statistical errors that can occur in what are relatively small samples of employment. Mining and Utilities sectors in SA employ a relatively small proportion of the total SA labour force, and as a result apparently large proportional changes can be the result of a relatively small number of very large wage movements.

5. Some better analysis is required to assess whether the wages growth forecasts reflect the actuality of the labour forces used in each of the sectors. Econtech makes the rather surprising statement that as the

[2] This is evidenced by many of the businesses offering maintenance services are or have been construction companies

> "…electricity, gas and water industry employs a large proportion of electricians, electrical engineers and engineers…"
>
> This reflects the wages pressures resulting from the skills shortages endemic in the country. In fact, the numbers of employees with these skills needs is not as high as needed for the Utilities sector, for example, when compared to the construction industry. What Econtech should do is to analyse changes in the median wages rather than the averages of total wages, as the median wage is more reflective of the wages cost for the bulk of the work force.

These important inconsistencies in the Econtech work can have a significant impact on the forecasting process.

Econtech attempts to provide some qualitative reasoning behind its forecasts. For instance, on page 41 of the SP Ausnet report Econtech opines that:-

> "The historically higher wage growth in the utilities sector has largely resulted from the recent restructuring in the electricity, gas and water industry. The drive for increased productivity in the industry is expected to have led to a fall in lower-skilled workers, as the industry continued to become more capital intensive. As the lower-skilled workers were displaced, strong growth was achieved in the average wages in the industry.
>
> Higher wage growth in the utilities sector, at the national and state levels, is expected to continue due to a number of different factors. In particular, as mentioned in the earlier section, the utilities sector is experiencing the scarcity of skilled labour that is currently affecting most of Australia.
>
> The electricity, gas and water industry employs a large proportion of electricians, electrical engineers and engineers. As such, it faces competition from industries such as the construction industry and the mining industry for the same type of skilled workers. With the mining and construction boom expected to last for another couple of years, this will continue to boost wages in these industries. In turn, wages for the utility sector will need to also increase so the industry can continue to attract skilled workers."

As noted above the inconsistencies are perpetuated. Apparent wages growth in 1990s was more a result of culling lower paid jobs, resulting in a statistical increase in average Utilities wages.

The need for skilled employees in the mining and construction sectors is just as high a priority as in the Utilities sector, yet the wages growth is forecast to be

higher for Utilities. If all sectors are competing for a small number of staff, the expectation is that all sectors would pay the same wages, yet Econtech deduces differently but without explaining why.

Nearly all of the capital expenditure of ElectraNet (and indeed most of the businesses in the Utilities sector) is contracted out to construction businesses. Even much of the maintenance activities are contracted out to other businesses. If such a large element of the work assumed to be included in the Utilities sector is contracted out and therefore not included in the Utilities direct workforce, then to what degree is the development of a Utilities wages index representative of the actuality of the assumption that the Utilities sector wages growth is directly related to the costs incurred?

The ECCSA is of the view that as there is such a disconnect between the outcomes for the three sectors quantified by Econtech, and as it is assumed that all three are subject to essentially the same pressures from competition for skilled labour, there has to be a reason for the disconnect. This could very well be that the Utilities have reduced their direct work forces significantly during deregulation, mainly by culling lower paid workers. This has been exacerbated by many of the Utilities electing to contract out construction and maintenance functions, resulting in the Utilities retaining a small core of highly paid employees to supervise contracted out work. ElectraNet advises that it uses ETSA Utilities to carry out much of their routine maintenance. The ECCSA supports this approach to contracting out (in fact many members of ECCSA also contract out elements of what were previously considered core activities) as it can result in significant efficiencies.

The ECCSA is of the view that

- The expected higher wages growth forecast for the Utilities sector over the next few years using the Econtech methodology has to be treated with extreme caution, as the Utilities wages are not necessarily representative of the employment profile of ElectraNet opex and capex programs.
- There is not a sufficiently close a relationship between wages growth and actual opex to be able to confidently extrapolate an increased allowance for opex based on expected wages growth.
- Capex is more related to wages growth in the construction sector than to the Utilities sector, and therefore the construction sector wages growth is more likely to be representative of capex growth for the Utilities sector.

Appendix 3

Observations regarding the SKM report to the AER

A3.1 Past Capex

SKM did not review all of the capital projects ElectraNet undertook during the current period. It assessed 10 projects totaling ~30% of the total spend. SKM noted that the capex did not follow the planned expenditure profile allowed by the ACCC in its 2002 decision.

SKM observes that in the early years of the current period it considers that ElectraNet

> "…ElectraNet's governance and project management processes were relatively unsophisticated, and adequate for the modest capital program at this time."

SKM goes on to state that project management improved over time and is

> "…suitable for the larger capital program in recent years and going forward. The new regime is more consistent with a quality system and contains appropriate controls, checks, accountability, reviews and approval gateways."

ECCSA has little direct information as to whether this is a fair statement and therefore must take this observation at face value. ECCSA can advise that it has received reports that ElectraNet has undertaken work which is of a high quality and executed well although it was also queried as to whether ElectraNet needed to provide works which were of too high a quality (and therefore too expensive) for the needs.

SKM notes that ElectraNet did display a tendency to underestimate the costs of projects which result in cost over runs against budget but also constraints in the smooth execution of projects. These under-estimates were as high as 22%. SKM notes that subsequently ElectraNet has attempted to improve this aspect.

This aspect is concerning as projects are only considered to be viable if they pass a regulatory test assessment. If costs exceed the estimate used to prove the viability under the regulatory test, then this casts doubt as to whether the project should have proceeded, and therefore be allowed to be included in the RAB. SKM fails to make any mention of this aspect. This then throws doubt as to whether the project should have been implemented.

SKM also noted that projects invariably absorbed all of the contingency allowances included in the projects. This again casts doubt on the ability of

ElectraNet to compete projects within budget. SKM goes even further when it explains that the SKM estimates for the works being carried out exceeded a value SKM considered reasonable. SKM rationalizes this away with obfuscating about green field versus brown field projects and then adds a statement which implies that the ElectraNet procurement approach would adequately demonstrate that SKM estimates must be low.

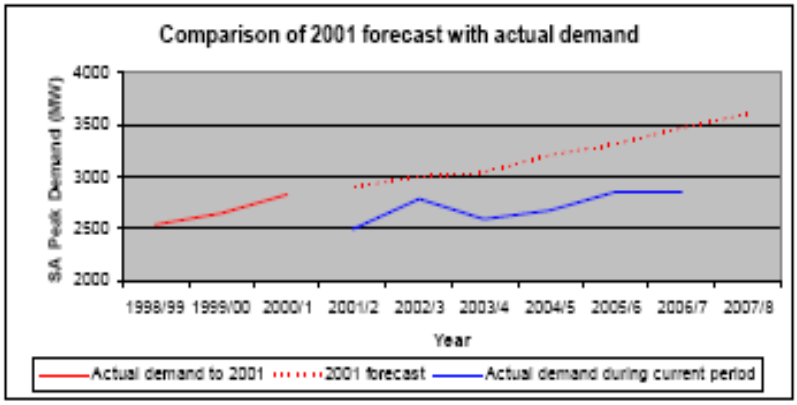
SKM observes that there was one project which was executed and incurred costs in excess of what SKM considered reasonable, and SH|KM recommended a small adjustment be made. Even though this demonstrated a potential for other non-investigated projects to have similar cost over-runs, SKM makes no attempt to extrapolate this instance into other projects, yet is quite content to assume that all other projects had no such problems.

This approach by SKM to extrapolate from the particular to the general for an assumption that all projects are acceptable, yet not to extrapolated from the particular to the general where there is a demonstrable issue is extremely concerning, and shows a clear bias in favour of ElectraNet when it is expected to be impartial and fair.

SKM observes that it did not identify a cost over-run which was attributable to "ineffective or inappropriate practices within ElectraNet". This is heartening but it does not address the concerns that ElectraNet may have exceeded a cost for a project which if known would have rendered the project inappropriate under the regulatory test controls. This lack of investigation by SKM is of concern.

This issue takes greater importance when SKM observes that the expected growth in demand used to support the 2002 decision on capex, is demonstrably overstated. SKM provides the following chart on page 31.

[4] The following chart shows a comparison of the 2001 demand forecast (based on the NEMMCO SOO forecast) with actual demand during the current regulatory period.



This shows that the expected demand did not eventuate by a wide margin, yet the entire capex program was still implemented. SKM should have examined the capex program (as should ElectraNet) to assess whether the assumptions behind the capex program developed in 2002 still held validity when assessed against the regulatory test. ElectraNet advises that the capex was redirected from augmentation to replacement. That SKM did not verify that the replacement projects still complied with regulatory test requirements is a concern.

SKM notes (on page 31)that in addition to the lower growth than forecast, a number of other aspects contributed to the redirection of allowed capex

> "ElectraNet lists a number of reasons for this changing capex profile:
> - Lower than forecast demand
> - Conversion of Murraylink to regulated status
> - A number of market benefits projects that have not proceeded
> - Condition assessments conducted by ElectraNet that led to a decision to bring forward a number of replacements
> - Unexpected increases in project costs
> - Substantial expenditure on business and IT systems including SAP which should deliver ongoing operational improvements and efficiencies"

SKM comments that this listing is reasonable and then explains why one refurbishment project is replaced with another. This is the sum total of the reported investigation. The ECCSA sees that this explanation does support the reduction by 40% of the growth program, but it does little to explain the five times growth in land/IT/spares capex budget or the 78% increase in the refurbishment budget.

SKM has agreed that ElectraNet should receive an amount for IDC for the commissioned projects and adds in that ElectraNet should receive an additional amount not claimed by ElectraNet for IDC for work-in-progress which will be □apitalized as the next regulatory period will allow for actual expenditure as incurred to be integrated into the RAB, rather than as commissioned. Whilst the logic cannot be denied, SKM has assisted ElectraNet in gaining an increase in its RAB by doing this.

SKM has considered that the actual capex is legitimate and complies with the Rules.

A3.2 Opex

A3.2.1 Overview

SKM commenced its assessment with an observation that ElectraNet had made a number of mathematical errors in its development of opex, and these have been corrected.

SKM also noted that the pattern of opex reflected an apparent gaming of the regulatory process, but due to changes in category allocations it was difficult to "map" the changes. SKM does observe that ElectraNet reported that much of the opex under-run was due to staff reductions which have subsequently been replaced in the latter years. The implication of this observation is that the earlier year savings were "unsustainable".

In its response to the ElectraNet application the ECCSA made a number of detailed observations regarding the increased requirement for opex that ElectraNet sought. It is pleasing to note that SKM identified that these observations have validity and that they had been considered.

SKM carried out a number of benchmarking assessments comparing ElectraNet performance to all other TNSPs in Australia. It compared comparative opex performance in relation to line length, transformer capacity, numbers of transformers and replacement cost.

As might be expected, ElectraNet compares well. The reason for this is two fold.

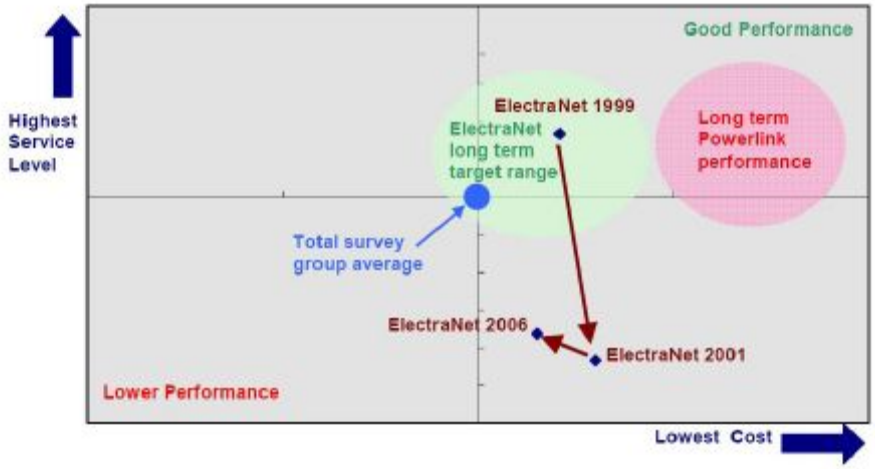
- Since ElectraNet performance was set every other TNSP has had its reset and has been granted higher opex than previously set. On this basis it is a mathematical certainty that ElectraNet would be in the "more competitive range"
- All TNSPs have been benchmarked against their Australian peers by the same regulator (ACCC/AER), and as the regulator has consistently awarded higher opex to each TNSP, benchmarking using Australian TNSPs will inevitably result in ever increasing opex allowances.

Because of the limited range of local benchmark performance available for TNSPs in Australia, and that there is a common regulator, this form of competitive tension has completely lost its value in assessing performance.

SKM refers to the ITOMS comparison which does include international benchmarking and whose contributors are not regulated by the Australian regulator. SKM makes the implication that as this analysis is confidential and therefore not subject to close scrutiny, care should be taken with its outcomes. Notwithstanding this, SKM points out that ElectraNet performance is currently in the low cost/low performance quadrant and therefore action is needed to bring the performance up to acceptable levels. The graph provided shows that ElectraNet's Queensland based major shareholder Powerlink is in the low

cost/high performance quadrant. It was on this basis that SKM supports ElectraNet in its decision to use the Powerlink asset management practices.

- Figure 16 ITOMS – ElectraNet Performance



*Long term Powerlink performance sourced from 2001, 2006 revenue proposals

What SKM failed to do was point out that since the date of this benchmark, the AER has approved a 12.5% real increase in Powerlink controllable opex and reduced the target points for performance which might see Powerlink move out of the target quadrant.

Even more importantly SKM failed to highlight that in 1999, ElectraNet ITOMS position was in the best performance quadrant when its opex was well below that being sought now. In fact the ACCC decision in 2002, and ElectraNet's approach of using less than the approved opex, still resulted in an improvement in performance from 2001 despite the under-utilisation of the opex approved.

The ECCSA has lost faith in the use of external benchmarking as the basis to assess prudent opex due to the small number of comparators, and that the regulator consistently increases opex at each reset, creating the "spiral stair" effect.

SKM has carried out analysis of the opex requirements for ElectraNet, examining trends in ElectraNet's own performance, noting that filed maintenance costs were to rise over 50%, field support by 45%, and asset manager support to increase by a more modest 18%. They note that corporate and non-direct opex fall as a proportion of the overall cost and observes that "this is considered to be a positive trend". This is a facile statement as the reason for the fall in percentage terms is directly the result of massive increases in other categories.

A3.2.2 Labour escalator and efficiency

SKM agrees with ElectraNet that the cost of labour is increasing, and that this is effectively a step change.

SKM reviews reports by Access Economics, Econtech and BIS Shrapnel and from these draws the conclusion that the forecast wages growth used by ElectraNet was reasonable and should be used by the AER.

What SKM failed to do was to analyse what the real growth in wages was likely to be compared to the fact that wages have consistently risen higher than CPI over many decades. In fact the difference between wages growth and CPI provides a very strong indication of the increases in productivity of the nation.

If SKM had carries out such an analysis they might then have recommended that the step change due to wages growth should be a much lower figure than ElectraNet had claimed.

By using the escalator proposed by ElectraNet it allows the inclusion of the national productivity to be excluded form the opex allowances

A3.2.3 Base case with step change methodology

SKM supports ElectraNet in excluding certain elements form the “Base Case” and using a “zero base” start point.

This approach is basically an incorrect application of the base case concept. At its most fundamental it allows all of the costs where these were over-runs in the base case to be separately assessed, and holding all the under-runs within the base case – allowing the proponent to have all of the benefits retained in the base case and all of the detriments be separately added. As SKM notes

> “… that there is always a tendency to over-estimate costs when using a zero base approach. This is especially the case where the quantum of work activities and the scope of each task is uncertain, and average historical costs have been used. This concern is particularly applicable to the opex projects.”

The whole concept of using a “base case with step change” approach is to eliminate any potential for gaming, and to permit the regulator to use an less intrusive assessment. What SKM has allowed ElectraNet to do is to “cherry pick” and so potentially develop a “rational” basis for increasing opex.

SKM falls into the trap and devotes extensive effort into then discussing opex claims developed on the zero base approach.

A3.2.4 Field maintenance

SKM considers that as ElectraNet outsources all of its field maintenance then this presupposes that it is therefore efficient. That ElectraNet uses ETSA Utilities just as Powerlink uses Ergon does not necessarily mean that this is the most efficient approach. Whilst ECCSA does agree that combining the activities of ElectraNet/ETSA (or Powerlink/Ergon) will produce a better outcome due to the same geographic coverage and work type does provide synergies, it does not automatically follow that this will result in the lowest and most efficient costs. In fact the ElectraNet/ETSA teaming produces an effective monopoly as there can be no equivalent competition. SKM could have remarked that the ElectraNet/ETSA teaming creates an economic monopoly if not an actual one.

Unfortunately SKM seems to agree with ElectraNet's conclusion that the arrangement with ETSA delivers "market based pricing for maintenance services". SKM delivers no proof or even much analysis that this is a factual outcome.

SKM goes on to comment that in light of the recent changes made to follow the Powerlink asset management program it must support the zero base approach for field maintenance, as the historic approach did not address the increasing risks faced, and therefore the

> "…maintenance expenditures in 2003/04 and 2004/05 should not be considered as sustainable."

What SKM does not do is to relate the maintenance expenditures to when ElectraNet performance was in the ITOMS target quadrant, where these were of the same magnitude as these derided expenditure levels. Equally the benchmarking by SKM of ElectraNet compared to Powerlink (which SKM considers is a similar comparator to ElectraNet) shows that ElectraNet performance at the opex levels considered too low by SKM show that these very levels (figures 10 and 13) compare quite well to Powerlink performance. This is even more stark when the proposed base year opex is compared to Powerlink showing that ElectraNet opex is higher (figure 11) than Powerlink, implying that the previous years were correct. It is only the fourth comparator (figure 12) that supports the SKM contention.

SKM makes the assertion that using the Powerlink asset management approach will be beneficial (and this is not denied by ECCSA) but implicitly draws the conclusion that therefore the costs developed by ElectraNet for following the

program are efficient and then discusses in detail the zero base proposal made by ElectraNet, making very modest changes to the amounts proposed.

SKM concludes, after making very small changes to the field maintenance estimate (other than transferring a large part to capex)

> "SKM accepts that the historic expenditure on field maintenance appears to have been low and that an increase in maintenance is justified. However, there are incentives for NSPs to over-state operating expenditure requirements. As noted earlier, much of the maintenance expenditure is discretionary. Although there are limits, often, where costs exceed forecasts, projects can be deferred or re-scoped. Where costs are lower than forecast, the revenue allowances are retained.
> For these reasons, SKM believes that ElectraNet needs to be encouraged in their decision to adopt more sustainable maintenance strategies and practices but the increased expenditure requirements need to be tempered to be consistent with the level of uncertainty inherent particularly in the opex projects."

This has the appearance of a consultant in two minds – after agreeing that effectively the claimed opex for field maintenance should be granted, it then cautions that they might be recommending an allowance which is too high.

A3.2.5 Projects

The single largest growth area in the opex estimate is in projects. This resulted form a condition based assessment of all substations. This review identified a number of significant defects and that work was essential and SKM identifies that most of the increase in opex projects would be related to substations and lines (see figure 21) and that would result is an opex expenditure of some $10m pa. SKM identifies this as "catch up" work

Whilst SKM does identify that ElectraNet has under-run its opex allowance in the current period by some $17.4m (page 91), it makes no reference to the fact that ElectraNet intended to use the increased opex it was granted by the ACCC for refurbishment of aged assets. In its application in 2002 ElectraNet stated (page 8-13) that

> "Due to the clear signals that reinvestment in asset refurbishment is now essential to correct a deterioration in reliability, ElectraNet SA is proposing to increase expenditure in this area during the regulatory period. The forecast has been smoothed to take into account a peak in assets created in the 1960's that will reach the end of their economic life during the regulatory period. The forecast also incorporates an element of "catch up" refurbishment covering the current "backlog" of aged assets, which it is proposed to eliminate over a 10-year period.

> Clearly, this approach increases the risk exposure for ElectraNet SA, but is considered to be prudent and responsible."

ECCSA in 2002 supported that this work (or at least some of it) was probably needed. The fact that ElectraNet did not do so and earned a significant windfall benefit by effectively transferring the allowed expenditure from the current period in to the new period and retaining the benefit has not been identified by SKM – in fact SKM has agreed that the new allowance be increased to allow for the need for this work.

A3.2.6 Conclusion

Overall, SKM carried out a detailed analysis of the ElectraNet assessment for opex and reduced the total amount considered needed should be reduced from $294m (after corrections) to $263m, a reduction of 12% or over $31m for the five years. However some $16m of this reduction is a transfer from opex to capex, effectively demonstrating a real reduction in the opex claim of ~6%.

SKM provides a caution that using zero base estimates for opex will tend to over-estimate the needed allowance, and then proceeds to accept the outcomes of this approach making only quite minor adjustments.

SKM has failed to identify that works allowed for in the 2002 reset and not spent, has been transferred into the new period.

A3.3 Service standards

The following table shows the ElectraNet proposed service standards and the SKM recommendation.

The critical difference between the proposal and the recommendation relates to the loss of supply. In this ElectraNet proposes to use its traditional measures of frequency of loss of supply of >12 seconds (0.2 minutes) and >1.0 minutes, whereas SKM proposes that these be changed to > 3 seconds (0.05 minutes) and >1.0 minute.

SKM concurs with the weightings proposed by ElectraNet

	Actual			EN proposed			Weight	SKM		
	96-06	98-06	02-06	collar	target	cap		collar	target	cap
Availability										
Total	99.32	99.34	99.47	98.56	99.47	99.75	0.30	99.10	99.47	99.63
Critical peak			99.75	99.53	99.75	99.80	0.20	98.52	99.24	99.51
critical nonpeak			99.94	99.90	99.94	99.97	0.00	98.88	99.62	99.97
Loss of supply freq										
>0.05 min							0.10	10.00	8.00	6.00
>0.2 min	4.55	4.67	4.40	6.00	5.00	3.00	0.1/0.2	5.00	4.00	2.00
>1 min	1.27	1.00	0.40	2.00	1.00	0.00	0.20			
Av outage dur, min	102.55	83.52	72.63	147.00	84.00	39.00	0.20	119.00	78.00	38.00

SKM points out that under the current arrangements ElectraNet has secured a bonus payment in every year of the current period for providing service above the standards set in 2002. On average ElectraNet earned an extra payment of >$1m each year. ElectraNet incurred a penalty in only one category of five in two of the four years. The clear implication is that the targets set for this period were too low. SKM has recommended that new targets be set which are more demanding than the current levels.

A cursory review of the new targets implies that some of these are less arduous than ElectraNet proposed and SKM points out that:-

- It considers that using 5/95% probability distributions rather than25/75% used by ElectraNet provides a better fit for setting the operating ranges
- Due to the changes in usage of the network (less reliance on interconnection and greater congestion due to the increasing number of small power stations) there should be an increase from 6 to 14 in the number of circuits considered “critical circuits”
- It agrees with ElectraNet that peak times for this purpose should be reduced from 7am-11pm weekdays to 8am-8pm weekdays
- There is a need to set a higher target for frequency of loss of supply, and therefore the measures should be changed to allow fewer short term losses of supply

- It disagrees with the ElectraNet proposal to use data over 11 years rather than over the most recent 5 years, as the longer period does not incorporate the benefits of recent capex and opex increases which should improve quality of supply
- It agrees with ElectraNet that due to the trend to use off peak times for capital works, this measure should carry no weighting

ECCSA agrees with increasing the number of circuits classified as critical, but is concerned that SKM has reduced the target performance by the addition. When comparing the actual performance of the system (100% of circuits) to critical circuits (14% by length) this implies that the performance of the other 86% of the circuits (by length) has an availability at peak times of 99.43% (NB availability at non peak times for the critical circuits is even higher at nonpeak times). Thus as a minimum the peak time availability of the increased number of circuits should be 99.43% and probably higher, as the amount of the circuits by length has increased to 37%. By applying ratios based on length implies the actual performance will be 99.53%. By not adjusting the target this would automatically deliver to ElectraNet maximum bonus for this category. The ECCSA recommends that the target for critical peak circuits should be increased to 99.53%

In relation to changing the measure for frequency of loss of supply, SKM makes the point that (page 162)

> "…a TNSP should not be punished for improving their performance,"

but considers that as ElectraNet has

> "…demonstrated solid improvement in reducing the number of major system minute events to 0, and that the parameter in its current form is no longer valid in terms of the PI Scheme."

The ECCSA agrees with this view, as consumers have paid ElectraNet a bonus to achieve this good performance, so it should not be considered that ElectraNet has not been rewarded. By not changing the parameter, consumers would have to continue to pay bonuses ad infinitum, whilst underwriting the capex and paying the opex for achieving the performance.

ECCSA agrees with SKM to reduce the measure as consumers have increasingly become susceptible to short term outages as process equipment becomes more dependent on continuity of supply. A number of MUE members have all observed that transient losses of supply have triggered plant outages, and so a reduction in the number of transient supply losses is considered advantageous.

ECCSA has only one criticism of SKM in regard to its assessment, in that SKM has agreed to reduce the number of peak times from the historic 80 hours per week to 60 hours. ECCSA would point out that a review of the peak demands in the SA system do not occur just between the hours 8-8 weekdays, but system peaks also occur on weekends due to the changing nature of air conditioning penetration and shopping hours, and the trend for businesses not to have traditional shut down periods.

As a result the SA system peaks do not follow traditional load shapes in that weekend and public holidays exhibit significant lower demands than weekdays, being more ambient temperature related. ECCSA recommends that the peak periods for measurement should therefore be assessed on 8-8 every day

A3.4 Capex program

A3.4.1 Overview

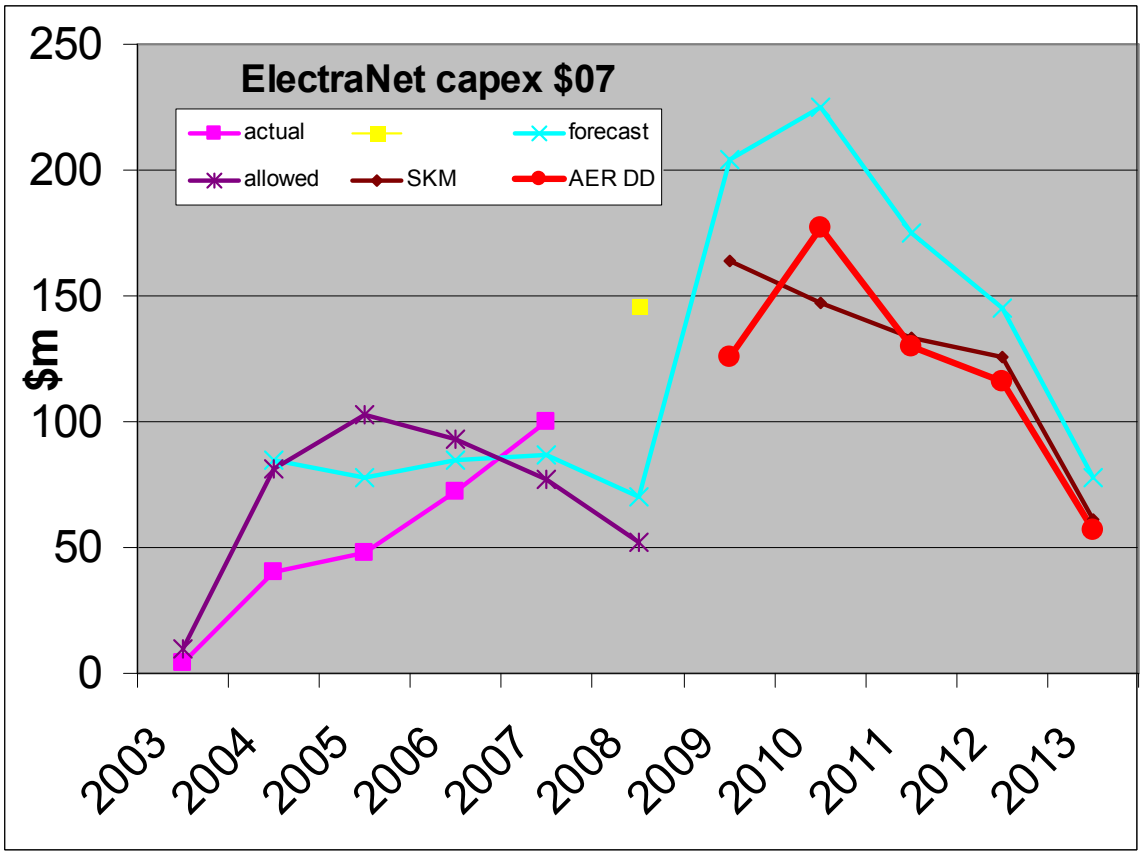
SKM has reviewed the capex program proposed by ElectraNet and basically has concurred that the program is acceptable.

SKM makes some recommendations that vary the amount to be included in the approved regulatory costs

- The CBD program be transferred to contingent capex, deducting $104m
- Transformer ballistics proofing be transferred to contingent projects deducting $17.7m
- There be a transfer from opex to capex, adding $15.18m
- There be minor adjustments to the costs allowed for projects to be included, deducting $8.92m

It then adjusts the allowed program of works for changes it recommends for the applicable escalation assessment, effectively reducing the allowed program by $33m

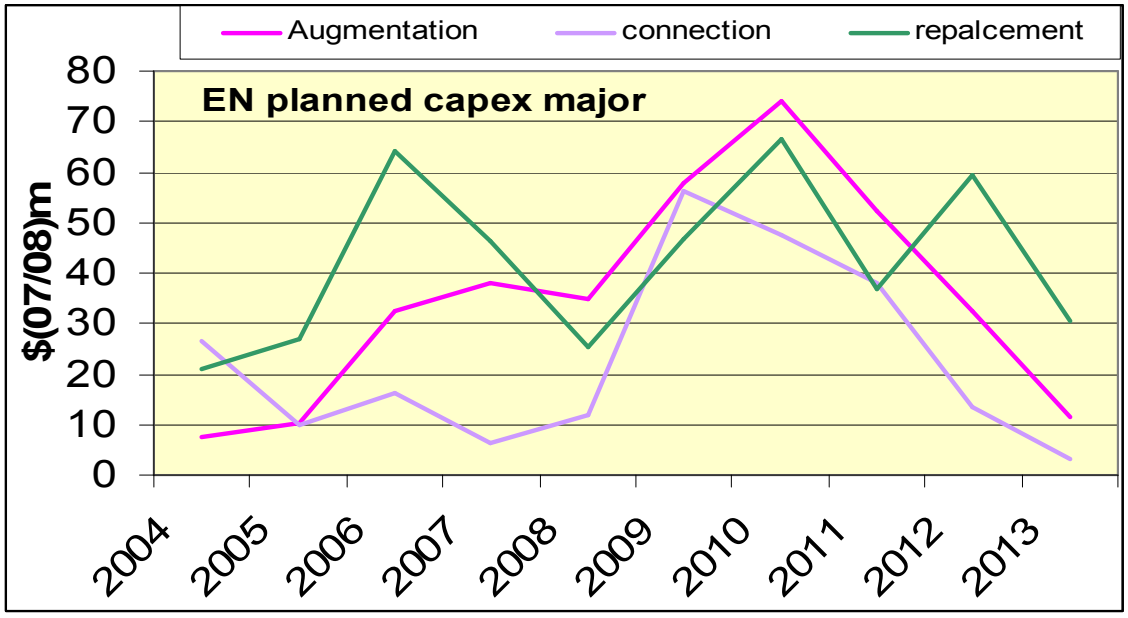
The outcome of the changes made is shown as follows



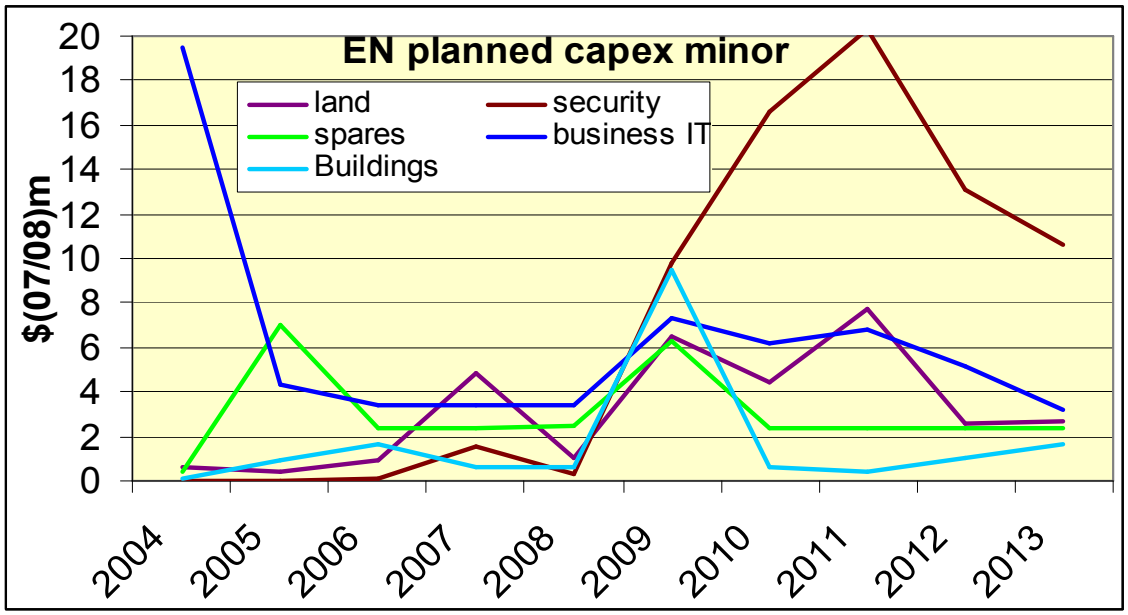
SKM provides a breakdown of the capex program proposed by ElectraNet, relating it to capex in the current period.

Category	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13
Augmentation	7.5	10.2	32.5	38.0	35.0	57.9	73.9	52.4	32.4	11.4
Connection	26.7	10.0	16.4	6.2	12.0	56.1	47.4	37.9	13.3	3.1
Replacement	20.9	27.1	64.3	46.3	25.5	46.9	66.7	36.8	59.6	30.4
Strategic land/ easements	0.6	0.4	0.9	4.8	1.0	6.5	4.4	7.7	2.6	2.7
Security/ compliance	0.0	0.0	0.1	1.5	0.3	9.8	16.6	20.3	13.1	10.6
Inventory/ spares	0.4	7.0	3.3	2.4	2.5	6.3	2.4	2.4	2.4	2.4
Total Network	**56.1**	**54.7**	**117.4**	**99.3**	**76.3**	**183.3**	**212.2**	**157.7**	**123.5**	**60.7**
Business IT	19.5	4.3	4.5	3.4	3.4	7.3	6.2	6.8	5.2	3.2
Buildings/ facilities	0.1	0.9	1.6	0.6	0.6	9.5	0.6	0.4	1.0	1.7
Total Non-Network	19.6	5.2	6.1	4.0	4.0	**16.9**	6.8	**7.2**	**6.2**	**4.9**
Total Capex	**75.6**	**59.9**	**123.6**	**103.3**	**80.3**	**200.2**	**218.2**	**164.6**	**129.5**	**65.6**

This table can be redrawn to show trends as follows



The import of this chart shows that ElectraNet is ramping up significantly its connections and expects that augmentation (the work transferred from the current period) will also be needed.



The “minor” capital works show that the business IT installed during the current period at an amount excessively high compared to alloweds, continues to cost significantly throughout the period, and security becomes a major capital item

. SKM has addressed both of these issues specifically and considers that they are reasonable in the circumstances.

Overall SKM has considered the capex program in the context of:

- The legitimacy of those projects considered firm and required, and in addition to the drivers (such as increased demand and replacement) that cause the need, it also points to the new standards under the ETC that ElectraNet is required to meet which has resulted in significant increases in capex
- Assessed those projects that should be included in the "contingent" listing of potential projects for the coming period
- Identifying no systemic errors which might have caused the high capex program
- Reviewing the current project governance and justification programs and finding no reason not to consider these acceptable
- Assessing the reasonableness of the costing of projects for new works and refurbishment works
- Assessing the reasonableness of the program to identify when assets should be replaced based on condition, and that the approach to ranking of replacement is reasonable
- Whether the capex program includes allowances for provision of assets that are not for prescribed services, and finds that there is no evidence of this occurring
- ElectraNet having the ability to carryout the enhanced capex program, and SKM considers that as ElectraNet has increased it management tools and staffing, and introduced a program for using two contractors to carryout capex programs, this concern has been addressed.

Despite identifying that the capex program is a large expansion on the current level of capex, SKM considers that subject to some minor adjustments, the capex program proposed is well based, needed and capable of being delivered.