Australian Energy Regulator

Queensland Electricity Transmission Revenue Reset

Powerlink Application

A response

by

An Energy Consumers Group operating in Queensland (the GROUP)

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

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Executive Summary

The Energy Consumers Group (the GROUP) welcomes the opportunity to present its views on Powerlink's application for a reset of its electricity transmission revenue in Queensland.

This submission raises many important issues regarding the Powerlink application that are of major concern to consumers. In raising these issues, it also raises many questions. The GROUP is keen to discuss these issues with the AER so that it can explain more fully its concerns and how these might be addressed.

The Powerlink application, if accepted, will mean that the costs for providing the electricity transmission system in Queensland will rise significantly. In nominal terms, average tariffs will rise from $14/MWh in 2010/11 to $21.50/MWh in 2016/17, a rise of 50%, or over 30% in real terms. This is an extraordinary increase, as it will mean an annual average real rise in transmission charges of over 8%.

Powerlink seems to be setting a new standard in expenditure increases for the new transmission regulatory cycle.

Significant cost increases are being sought across the board. Astoundingly, by the end of the new regulatory period, Powerlink will have increased its asset base by nearly 165%, to $9,982 million, from a closing asset value of $3,753 million at 30 June 2007. This is nearly a tripling in value over a 10 year period.

On top of large scale capex claims, Powerlink is seeking real increases in its opex claims of an additional $50m pa,, effectively an additional $1/MWh alone in the average tariff.

Although Powerlink is projecting consumption to grow more slowly in the new regulatory period, it is nonetheless, seeking approval of a massive capex program – ostensibly due to the need for replacement and additional assets to service customer demand. In other words, on top of an implicit increase in per unit costs, overall costs are to be inflated considerably by the costs for the provision of these additional assets.

Powerlink implies in its proposal that the weighted average cost of capital (WACC) should be increased compared to the WACC developed for the last reset. Whilst most of the inputs of the new WACC proposal were determined as part of the AER's WACC review completed in 2009, Powerlink has sought a market risk premium of 650 bp even though the AER has reduced this to 600 bp in recent regulatory reset decisions.

Powerlink has also used a flawed methodology for setting the debt risk premium (DRP). The AER approach delivers a DRP well in excess of the costs for debt Powerlink incurs from its borrowings from Queensland Treasury Corporation. Because of this, Powerlink would receive unearned and unnecessary additional revenue which is effectively an indirect tax impost on all electricity consumers. The AER must address this aspect of the Powerlink application. The Queensland Government should also be very concerned with this form of price gouging on Queensland electricity consumers by a Government-owned utility. It is also contrary to the Queensland Government's recent decision not to recover the additional revenue available through the successful appeal to the Australian Competition Tribunal by its distribution businesses' (Energex and Ergon) in regard to the value for a lower tax recovery mechanism (gamma) on the basis that it would unnecessarily increase prices to consumers.

Overall, the GROUP has the following issues with the Powerlink application:-

- A record capex proposal that is highly questionable, with an over claim estimated to be some $220 million pa.

- An excessive level of opex claims that is not only poorly justified, but also lacking in reality. Both the opex step changes and the new opex allowances are clearly ambit.

- Many examples of questionable cost claims, including reducing asset lives, and little or no evidence provided of capex prioritization or examination of options and alternatives to capital (network) construction, and questionable assumptions with respect to potential increases in wages inflation and material costs

- Use of inappropriate levels of MRP and DRP which do not reflect current reality and effectively increase the WACC by over 200 bp above what their costs really are, and what it currently operates at.

- No evidence provided of any efficiency savings, even though comparative benchmarking data suggests that Powerlink considers its performance at the more effective end of the spectrum

- A decrease in service performance for an increased cost of providing the service.

The most alarming aspect of Powerlink's application is to attempt to require existing customers to cross subsidize the costs for network connections and augmentations to meet demand from new customers.

1. Introduction

1.1 The GROUP

The GROUP is an alliance of a number of large electricity using companies operating in Queensland and in other regions of the NEM. The GROUP includes the following companies: Visy, BOC, Orica and Incitec Pivot.

Analysis of the electricity usage by the members of the GROUP shows that in aggregate they consume a significant amount of electricity within Queensland. Accordingly, they are highly dependent on the transmission network to deliver efficiently the electricity so essential to their operations. The members of the GROUP are not only concerned with the cost of power they source but also of the cost to their suppliers and employees. With this in mind, the GROUP requires their views to not only represent the views of large energy users but also those of smaller power using facilities, and even of the residences used by their workforces.

The companies represented by the GROUP have identified that they have an interest in the **cost** of the energy network services as this comprise a large cost element in their electricity and gas bills.

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

With the introduction of highly sensitive equipment required to maintain operations at the highest level of productivity, the **quality** of energy supplies has become increasingly important with the focus on the performance of the supply network businesses because they control the quality of electricity (and gas) delivered. Variation of electricity voltage (especially voltage sags, momentary interruptions, and transients) and gas pressure, by even small amounts, now has the ability to shut down critical elements of many production processes. Thus the GROUP has become increasingly more dependent on the quality of electricity and gas services supplied.

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

Accordingly, the GROUP is keen to address the issues that impact on the **cost, reliability, quality** and the long term **sustainability** of their gas and electricity supplies.

1.2 The scope of this review

The GROUP recognizes that under Chapter 6A of the Electricity Rules (which is overtly stated as being pro investment by the AEMC, but assessed to be biased and unbalanced by consumers), the AER is quite heavily constrained in its ability to exercise an holistic view of the final revenue that is determined as the outcome of this review.

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

By excluding these elements from detailed independent analysis this revenue reset is mainly limited to a review of the allowances for capex and opex, the standards of service expected from the review, and the degree to which TNSPs are to have incentives to perform more efficiently.

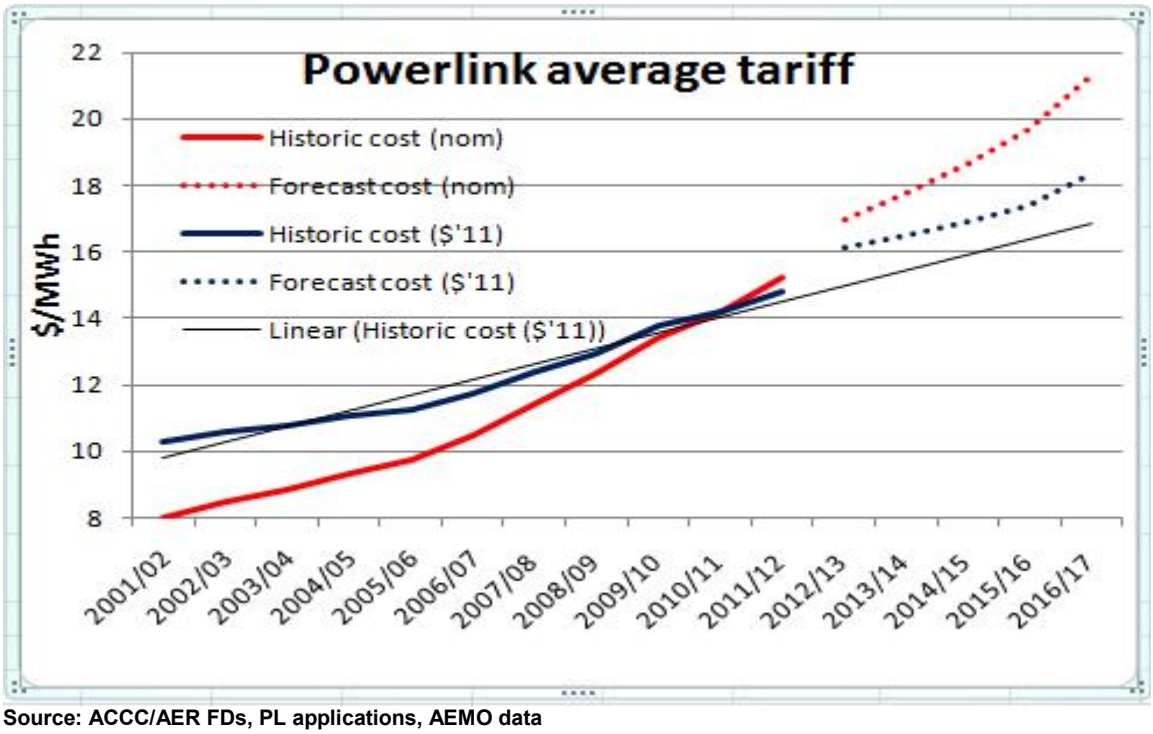
In principle, the changes result in a reduced scope for the exercise of independent regulatory judgment by the AER and the determination of outcomes from the review based more on a mechanical process.

There is, however, an element of Chapter 6A which requires the AER to be more heavily involved in – this is the development of the ultimate tariffs and the pricing structures which will result in the AER having more involvement than in previous transmission reset reviews. Members of the GROUP have had significant involvement in this aspect of the determination of pricing methodologies and views on this element will be presented later in this submission.

1.3 A summary view of the Powerlink application

Putting aside for the moment the detail of the elements which comprise the application from Powerlink, the outcome of the application is that over the period of the reset, average transmission tariffs[1] will rise significantly, from some $15/MWh in 2011/12 to over $21/MWh in 2016/17 in nominal terms, a real annual increase of 5%, after allowing for inflation.

[1] Average tariffs are the allowed revenue divided by actual or forecast consumption



Source: ACCC/AER FDs, PL applications, AEMO data

The figure above puts into perspective the increases in Powerlink average tariffs over the past decade as well as into the future. Over the past decade nominal tariffs have increased from about $8/MWh to a current level of $15/MWh. In real terms, Powerlink tariffs have increased by nearly 50% over the past decade. This is quite large and has imposed a significant impost on Queensland electricity consumers.

The forecast tariffs over the next regulatory period show massive increases, given that the amount of projected electricity actually consumed is to increase as well. Even after adjusting for expected inflation, the increases in costs are still excessive and even above the long term historic trend, even though the long term trend reflects very large increases as well.

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

- Increased capital expenditure to manage increases in demand
- Increased capital expenditure to replace many aging assets
- Increased costs due to the shortage of skilled labour
- Increased costs due to increased material costs
- Increased maintenance costs due to the age of existing assets
- Increased maintenance costs due to labour costs.

A major reason for the large step increase between 2011/12 and the new period can be directly related to the increase in market risk premium – MRP – (from 600 to 650 bp) and the debt risk premium – DRP – (from 114 to 434 bp) which between them increase the WACC by some 220 bp.

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

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

1.4 The helicopter view

The GROUP is unable to accept that the proposed increases in costs can be justified when enterprises such as their own are continually driven to reduce costs, often in nominal terms (ie without increases from inflation). Equally, we accept that the applicant has provided arguments in support of each element of their claimed cost increases. In a competitive world, senior management of a business must, and do, take a view that any claimed increase in cost must be controlled in light of the potential implications for the businesses' competitive position. In the regulated energy sector, however, legislation has provided the AER with the responsibility of providing this discipline, and so it must ensure that the resultant outcomes are in keeping with what can be expected from the discipline of competitive drivers.

At its most fundamental level, an increase in price of nearly 25% real over a 5 year period cannot be sustained by any competitive business.

Performance by Powerlink over the regulated periods since has been acceptable, yet the funds granted at the last review seem now to be insufficient, supposedly warranting a significant increase. Powerlink has continued to be financially viable, yet increasing amounts of revenue are being sought resulting in real increases in costs to consumers.

Against this backdrop of increasing prices, Powerlink is proposing some reductions in service performance, so consumers are expected to pay more in real terms for a lesser service.

1.5 The materiality of transmission costs

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

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

2. The demand forecasts versus costs

2.1 An overview

Powerlink points out that it has consulted widely regarding the need to grow its assets to meet increasing expectations. It comments that a group representing consumers indicated in 2009 that transmission costs are a small (and reducing) element of the total cost of delivered electricity. The GROUP disagrees with this general view – transmission costs were a small element of the supply chain costs but recent reset decisions (with many appealed so as to increase the revenues allowed) have shown that network costs are the fastest growing element of the electricity supply chain, with transmission costs being a significant part of the overall increase.

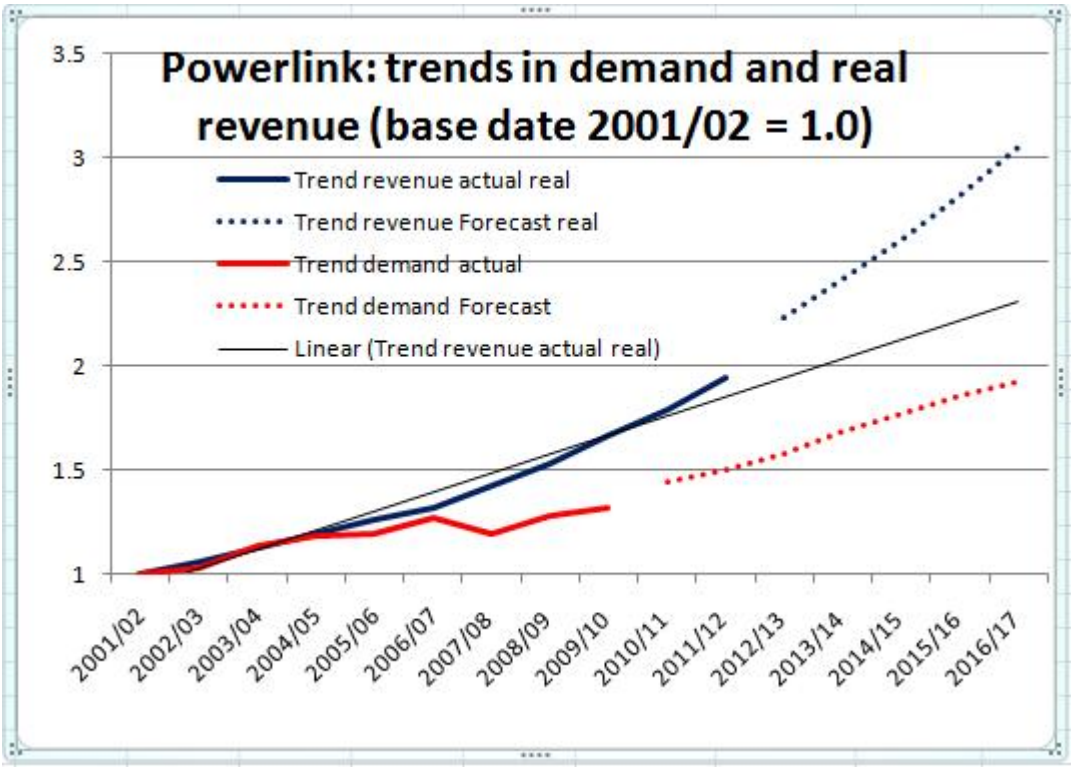
Recent reports by Garnaut, Parry/Duffy and the NSW IPART support this view of the GROUP regarding network costs, and the decision by Powerlink to inflate, for instance, the WACC by overstating the cost of debt and the market risk premium provide direct evidence that Powerlink is attempting to get a much higher return for its assets than is reasonable.

In its application, Powerlink advises that it sees there is growing demand in a number of regions such as the use of coal seam gas for power generation, large demands for LNG export facilities and new mining projects. The GROUP recognizes that these new works will require extensions to the shared transmission network and probably require augmentations to the existing assets. Equally, the companies comprising the GROUP do not see that they should be required to pay increased transmission charges as a result of these new projects. To ensure that this does not occur, it will require the AER to be careful in what it allows Powerlink to include, and what should be seen as connection costs being added to the value of the shared assets and included in the RAB.

In a more general vein, Powerlink makes reference to increased reliability being driven by Government edict and the outworkings of the Somerville report. It is noted that these only address the physical needs and not the costs of meeting the needs. Bearing this in mind, despite their assertions, there is an underlying need to balance the desires for providing augmentations to the network **with the capability of consumers to pay** for all of the augmentations Powerlink states that it is required to provide. In this regard, the GROUP would observe that Powerlink is currently providing a service which is relatively good, and the continued provision of ever increasing amounts of capex should result in even better service performance. But ironically, Powerlink advises that it will reduce the service performance levels for its incentive scheme.

Powerlink makes the quite legitimate comment that its capex is driven by the demand for power placed on its network and that demand defines the need for

new investment. The GROUP agrees with this view but would point to the need to examine the trends in growth of revenue against the growth in demand. In regard to this, the following figure provides a pictorial view of this very important aspect.



Sources: Powerlink application, PL APR 2010, ACCC/AER FDs

For the purposes of this figure, allowed revenue for Powerlink has been converted to real values ($2011) and the medium demand growth based on 50% PoE[2] has been plotted.

The figure shows the first disconnect between revenue growth and demand growth occurred with the AER Final Decision in 2007 at the last reset, implying that the allowed revenue in 2007 was too high in comparison to the expected growth in demand.

The second disconnect is shown where the forecast revenue growth shows a large step increase and then a faster rate of increase than the long term trend line for revenue from the past two resets. The rate of increase in the forecast demand matches quite closely the rate of change of the historic revenue.

At a high level, this analysis implies that the step change for the Powerlink claim is simply too high, as is the rate of increase of the forecast revenue.

[2] Probability of Exceedence

Powerlink observes that there is an issue of increased reliability which arises from the Somerville report and government. The GROUP agrees that these requirements will have impacted on Powerlink investment. Equally, the GROUP observes that the Somerville report was delivered in 2004, well before the last AER revenue reset review. The report increased reliability criteria imposed by government and might have been a cause for some of the first disconnect noted above, but it should not have resulted in the large step increase and higher rate of increase implied by the new Powerlink application.

The GROUP also notes that both the Somerville report and government requirement for increases in reliability were determined in the absence of any consideration of the costs to implement their requirements. The GROUP considers that in light of the recent reports on network regulation (Garnaut, Parry/Duffy and IPART) pointing out that ability to pay for the network augmentations must be considered in the context of reliability driven capex proposals, the AER should recognize that it has a responsibility to assess the increased costs claimed by Powerlink with the ability to pay as a key aspect of the review.

2.2 New augmentations

As AEMO is a statutory body operating as an advisory body, it has no incentive to 'over' or 'under' estimate future demand or consumption, or to assess the costs of augmentations. However, much of the information acquired by AEMO in its forecasts of future demand and consumption data, in relation to Queensland, is provided to it by Powerlink.

Powerlink has an incentive to maximize its augmentation program as this is the source of its increased profitability. Given a "wish list", Powerlink is incentivised to incorporate the majority of the proposals for network augmentation, regardless of the cost impact on consumers. It would appear that, in the absence of the AER reset review, there is no party which has a driving interest in assessing the overall cost impact of Powerlink proposals, or on the ability of consumers to pay let alone on the basis of other considerations and options.

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

One tool which is not available to the AER at this time due to the decision of the AEMC to set the input elements of the CAPM formula is to assess whether the WACC is set at a level that would create a degree of constraint on what appears to be virtually unrestrained augmentation. A WACC which is set at such a high

figure that encourages investment in the regulated business rather than in other investment opportunities, provides no financial constraint on a regulated business, as its ability to source investment (be it debt, retained earnings or equity) to match the investment program is virtually unconstrained.

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

Consumer advocates have consistently been critical of regulators for providing WACCs at such a high return that there is no constraint on accessing investment funds and, if anything, they over incentivise investments. This is a poor regulatory model, as regulators must be able to set the WACCs so that there is some competition for sourcing funds for capital works.

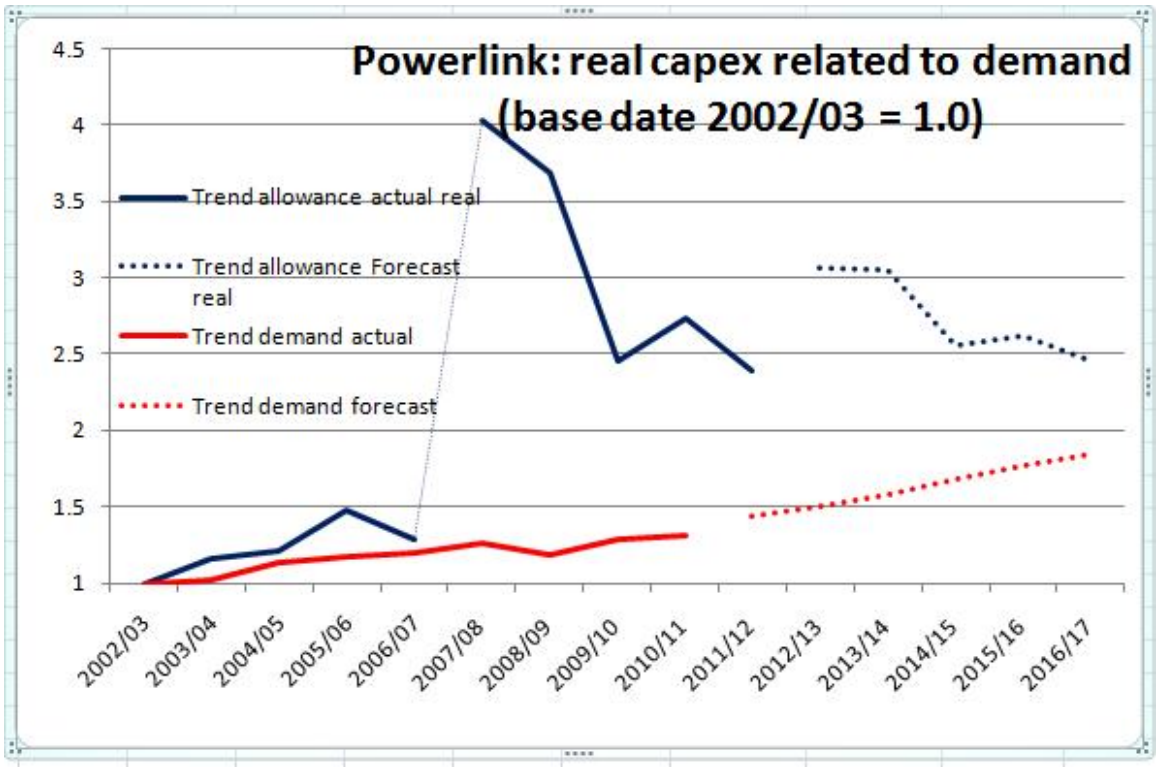
In a recent presentation, Mr Milo Foster (Vice President, Family Care South Asia, for Kimberly Clark Australia) made the following points to differentiate competitive industry from regulated industry in the treatment of capital expenditure and assets:

- Developing the amount of capex that business can invest each year needs to reflect that in a competitive environment there are limits in its actual raising and what capex a business can afford and remain competitive. This compares to the regulated businesses (especially government owned) being able to essentially develop their capex wish list without this constraint
- Deciding on what projects the capex will be devoted to and why (eg maintaining market share, new products, reducing costs, deferring projects without impacting the business). This compares to the regulated businesses approach of limited oversight of what is really needed and still remain commercially viable in a market sense
- Developing a business case to underpin the amount of capex every project is limited to. The RIT-T and RIT-D are intended for this purpose, but they are limited in their application to large augmentation projects – reliability of supply and small projects do not have this oversight
- Ensuring the capex used for a project remains within budget and if not why not. The issue of what should be done to manage/accommodate any over-run (eg deferring other projects to maintain the overall capex limit) is a constraint that has to be managed. This compares to the regulated business which is not assessed after the event, with the actual capex being rolled into the asset base, even if there is a major overspend, which if the actual cost had been known earlier, the project would not have passed a prudency test

- Ensuring the capex is spent wisely such as by maximising competitive tendering and changing the capex parameters so that the budget is maintained. This compares to the regulated business being allowed to use related parties to run capex programs without competitive tendering and not being forced to limit the overall capex to the amount which has been determined as the upper limit
- Adjusting the asset base so that the correct value for each asset is included (ie that each asset is optimised, redundant assets are cleared, and retaining depreciated assets that are still used and useful). This compares to the regulated business which is not required to assess whether an asset is operating at the level assumed in the capex development or at the level expected by the value of the asset
- Closures of unproductive elements of the asset base and writing off the undepreciated value against profits is essential, This compares with the regulated business, which is not liable for assets that are unproductive and so retain these in the asset base in order to receive continuing revenue.

The GROUP is aware that the AER is somewhat constrained by the requirements of the NER. It is hoped that the AER proposals for changes to the rules in relation to opex and capex bring these competitive industry disciplines into the regulation of capex for monopoly network businesses.

The GROUP considers that a number of these features should be imposed on the Powerlink applications because when the Powerlink capex proposal is compared to historic actualities and referenced back to the increases in demand, a clear pattern is clearly discerned.



Sources: Powerlink application, PL APR 2010, ACCC/AER FDs

While it is noted that the figure reflects total capex, the comparisons are equitable as the relative allowances for augmentation and refurbishment in each reset are similar.

As with the earlier figure, there are two clear disconnects that this figure shows.

In the first reset review, the change in demand tracked closely the capex allowed and the first reset allowed an annual average capex of $330m pa ($2011). In the second period, post the Somerville report and increased reliability requirements from government, the amount of capex allowed showed a massive step increase followed by a declining annual capex allowance, averaging some $570m pa ($2011). This reflected the needs for immediate action followed by lesser annual needs.

The second disconnect reflects the new Powerlink application where it seeks even more capex than was allowed in the second reset period. Powerlink seeks an average $700m pa in this third period yet it does not have the same drivers as those when the AER allowed the second period capex allowance (such as the Somerville report). The comparison is made even starker when it is considered that Powerlink did not use all of the capex it was allowed for the second period[3].

[3] See section 7 which highlights that Powerlink is forecasting to spend all of the under-run in the previous four years in the estimation for the fifth year capex, doubling the fourth year capex.

For Powerlink to allege that the largest component of capex is driven by demand growth is surprising as the facts do not support the assertion.

Overall, the GROUP has a deep concern that a significant proportion of the capex proposed is not focused on delivering a benefit to existing consumers and that a significant amount of the proposed augmentation will be connection assets (shallow and deep) which benefit generators and new ventures (exporting minerals and LNG) that add no value to existing consumers, but where existing customers are expected to share in the increased costs that Powerlink will add.

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

3. Powerlink regulated asset base

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

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

Generally, the roll forward of the RAB has become notionally mechanistic with the AER reviewing the details of each of the aspects to ensure they are compliant.

However, in the review, Powerlink has proposed that previously excluded assets (the connection assets for Kogan Greek Power station) should be rolled into the RAB. The reason for this is that there are now some consumers using these assets. It would appear that Powerlink has done this because using the existing assets is a lower cost option to retaining the connection assets as excluded from the shared assets and building new assets to connect the new consumers.

This raises an interesting issue. Should the connection assets be rolled in entirely, in part, or should the new customers reimburse Kogan Creek a share of the cost of the assets they use.

Under the proposed AER guidelines for reimbursement to an initiating customer connecting the shared network, after seven years, the initiating customer is not entitled to any benefit from new customers using the assets paid for by the initiating customer. The contribution from subsequent customers is to reflect the amount the new customers' use of the connection assets and the depreciation of the assets after the connection assets were first built. The AER considers that the depreciation rate should be over 20 years.

It appears that Powerlink is proposing that all of the connection assets used by the new customers should be rolled into the RAB.

It is accepted that overall it is more efficient to use existing assets rather than duplicating them. What is not clear is whether the new users of the assets are consumers or another generator. If the new user is a generator then the assets should not be rolled into the RAB and the AER connection guidelines should be followed in full with the new generator reimbursing Kogan Creek a share of the connection cost.

If the new users are consumers then there is an argument to support rolling part of the value of the Kogan Creek assets into the shared assets. Under the AER proposed connection guidelines, a new customer using connection assets would have to reimburse Kogan Creek a proportion of the value of the connection assets, and that value would be calculated following the procedures in the new connection guidelines.

The GROUP considers that only this value should be included into the RAB.

4. Powerlink WACC

4.1 The WACC parameters

The AER WACC review completed in 2009 sets the parameters for all transmission service providers. In that decision the AER determined that the:

- Risk free rate will be the annualized yield on 10 year Commonwealth government bonds
- Equity beta will be 0.8
- Market risk premium will be 650 bp
- Gearing will be 60% debt
- Debt risk premium will be derived from an entity with a BBB+ credit rating
- Gamma will be 0.65

Since this decision was promulgated, where the AER has flexibility in changing the parameters, it has awarded to other network service providers a market risk premium of 600 bp. Additionally, the Australian Competition Tribunal (ACT) has awarded a gamma of 0.25 to others.

The wording of the Rules does not permit changes to the WACC parameters for TNSPs.

Although the Electricity Rules states that the debt risk premium is to be:

> "… the margin between the annualised nominal risk free rate and the observed annualised Australian benchmark corporate bond rate for corporate bonds which have a BBB+ credit rating from Standard and Poors and a maturity equal to that used to derive the nominal risk free rate …"

the AER has had to interpolate and extrapolate proprietary data from CBA Spectrum and Bloomberg to develop a notional debt risk premium. In recent times, CBA Spectrum has ceased to provide data, and the AER has relied on manipulating only Bloomberg data to develop the debt risk premium even though it is recognized there is no clear understanding as to how the Bloomberg data is derived.

The AER has more recently attempted to modify Bloomberg data by combining it with data identified directly from debt risk premia identified for specific company corporate bonds only to have this appealed to the Australian Competition Tribunal.

The reality of the way the Rules are interpreted and the AER attempts to set an appropriate debt risk premium, is that the outworkings of the AER calculations

have resulted in a debt risk premium being awarded to network service providers which is well in excess of the actual costs energy network providers have demonstrably incurred, forcing consumers to pay an unnecessary premium in the allowed rate of return on assets.

4.2 The DRP and Powerlink

Powerlink has attempted to calculate the debt risk premium (DRP) using the approach used by the AER to set the DRP in recent regulatory decisions, but because the necessary data is no longer provided by Bloomberg it has developed its own approach based on even more extensive extrapolations and interpolations, increasing markedly the likelihood of error above what was already an error prone approach. Powerlink does not accept the AER approach of introducing observable market data from actual bond issues (such as APA Group) which replicates the DRP levels actually sought by the Rules. Instead Powerlink commissioned PriceWaterhouseCoopers (PwC) to develop a new approach but still based on using data provided by Bloomberg which develops its values in a non-transparent way.

In developing their view of the DRP, Powerlink sought assistance from PwC to develop a DRP for use in this regulatory decision because CBASpectrum has ceased publishing fair value yields and Bloomberg only publishes a 7 year BBB fair value curve. Because of this the approach used historically by the AER is severely limited and needs even more manipulation (as PwC proposes) than in the past.

It is quite clear that there is now even more significant estimation and error introduced in using the PwC proposed approach. PwC comments (PL application appendix c page 3):

> "Limited trade in Australian corporate bonds, the small number of number of bonds on issue and the limited quantity of new bond issues (especially around the 10 year mark) continue to create a challenge for estimating the debt risk premium."

In developing their approach, PwC proposes that reference be made to the actual wording of the NER and the ACT decision to allow a wider range of bonds to be used. The fact that there is a need to move away from the approach developed by the AER (and detailed in their Statement of Regulatory Principles) suggests that the actual wording in the National Electricity Law (NEL) and the related second reading speeches should be consulted to identify if the revamp of the NER proposed by the PwC and ACT interpretations have validity.

Principle 4 in clause 7A for network regulation in the NEL states:

> "A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates."

The second reading speech amplifies this principle by adding that:

> "It is also important that risks are appropriately compensated for when determining efficient revenues and prices. The fourth principle ensures this by requiring that prices and charges for the provision of regulated network services, allow for a return commensurate with the regulatory and commercial risks involved in providing the service to which that price or charge relates."[4]

The NEL also references the National Electricity Law which focuses on the need for regulated prices to be efficient. By "efficient" the NEL sees that the cost for the services will be the minimum required to provide for the needs of consumers over the long term.

Taken together, it is probable that the NER in relation to DRP does not match the requirements of the NEL, especially now that the assumptions implicit in the NER can no longer be complied with. It could also be that an efficient DRP is the lower of what an efficient network service provider actually incurs and what the market indicates is an efficient level of debt.

Bearing this in mind, it is important to recognize that the cost of debt actually incurred by Powerlink is the cost set by the Queensland Treasury Corporation (QTC) after it has acquired funds by the issuing of QTC bonds. QTC is the only lender of significance to Powerlink and lends these funds on a long term basis and at fixed rates of interest. The duration and cost of these funds incurred by Powerlink are shown in their annual reports in the notes to the Financial Statements.

The rate of interest paid by Powerlink in 2008/2009 and 2009/2010 is calculated at 5.9%. At that time the risk free rate was 5.02% (08/09) and 5.49% (09/10) implying Powerlink was paying a DRP of 40-90 bp. At the same time, the AER had allowed Powerlink a DRP of 114 bp in its final decision in 2007. In its annual reports Powerlink states that (note 2iii):

> "However, under lending arrangements offered by Queensland Treasury Corporation (QTC), the Company's borrowings within its client specific pool approximate a fixed rate loan and consequently are insensitive to movements in interest rates. Other long-term borrowings are fixed rate loans for a specific period and are also insensitive to movements in interest rates.

[4] Hansard, SA HOUSE OF ASSEMBLY Thursday 27 September 2007 page 965

> The Consolidated Entity and the parent entity borrow exclusively from QTC, a Queensland Government owned corporation. QTC manages the borrowings on behalf of the Consolidated Entity and the parent entity within agreed pre-determined benchmarks. The composition of the QTC debt instruments are managed to align, as closely as possible, with the Company's revenue outcomes from the Australian Energy Regulator (AER), which is issued by the AER every 5 years."

The fact that Powerlink has secured this debt at such a good DRP implies that this DRP is at an efficient level which is where the NEL intends the costs to be.

Powerlink has requested a DRP of 434 bp which is well in excess of what is a demonstrably efficient DRP based on what Powerlink has been paying for its long term debt.

The AER should not use what is now a demonstrably flawed approach to setting DRP but should determine what is an efficient DRP based on what Powerlink actually pays or to assess a lower DRP if the market for 10 year debt shows that the current Powerlink DRP is too high.

4.3 The MRP and Powerlink

Powerlink has used as the market risk premium (MRP) the value that the AER set at its WACC review in 2009. The AER highlighted that, because of the global financial crisis (GFC) that was still a major issue at the time of its decision, it had increased the MRP to 650 bp although based on historical data, the MRP should be 600 bp.

Under the NER, TNSPs such as Powerlink are required to use the WACC parameters determined at the latest AER WACC parameter review. That the basis for the argument has not been valid for nearly 12 months (ie only 12 months after the AER made its determination) raises the question as to whether the AER should reduce the MRP to its long term value. To use a higher value which is no longer valid imposes a cost on consumers that is unreasonable.

Although regulatory certainty prevents the AER from imposing an MRP of 600 bp, if Powerlink requested the lower MRP, then the AER should accept this.

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4.4 Conclusions

Powerlink has assessed its proposed WACC based on the AER parameters but proposes a new way to use flawed non-transparent data to calculate a DRP which is over four times the DRP it actually incurs.

Powerlink also uses an MRP level which is higher than the MRP levels used by the AER for the past 12 months.

The outcome of the Powerlink proposal is to increase the WACC by some 200 bp above a level which it actually and currently operates. Powerlink is provided with debt from QTC which raises funds from the market using the Queensland Government's credit rating and it then lends out to Government owned corporations.

If the AER persists in using the Powerlink approach to setting the DRP, then it will be abetting in providing the Queensland Government with additional revenue that is not needed by Powerlink and thereby the AER will be allowing Powerlink to collect indirect taxes from electricity consumers on behalf of the Government. This would be in total conflict with the recent decision of the Queensland Government not to allow their distribution businesses (Energex and Ergon) to increase their revenue (and therefore tariffs) as a result of their successful appeal to the Australian Competition Tribunal to reduce the value of "gamma" that the AER had set in the recent revenue reset.

5. Powerlink Depreciation

5.1 Early retirement of assets

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

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

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

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

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

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

The AER should require Powerlink to incorporate a financial tool into its asset management program to identify when it is commercially sensible to replace an asset, rather than use physical asset management alone. Such an approach would ensure that assets still used and useful but fully depreciated are not automatically replaced and the RAB unnecessarily increased because new assets have replaced the fully depreciated but still useful assets.

5.2 Refit asset class

The GROUP notes that Powerlink has developed a modification to its deprecation schedule to introduce “refit” transmission lines. Powerlink describes the refitted transmission lines where there has been an upgrade of the transmission line. Historically, the existing assets would have been depreciated over their normal life but the new assets would be depreciated over their expected life. Powerlink observes in practice that the entire asset would have a shorter life than implied by this approach. Powerlink proposes that refitted lines would have an asset life of 15 years.

The GROUP is not convinced that such an approach is equitable. The Powerlink principle can be likened to the refurbishment of “my grandfather’s axe”.

When the handle is replaced, this does not affect the life expectancy of the axe head. But should the new handle last longer than the axe head, then only the axe head is replaced. Over the life of the axe, there may have been five new handles and two new axe heads. The current approach to depreciation reflects the reality of this replacement approach.

In contrast, Powerlink’s approach would have the new handle replaced and the entire axe replaced 15 years after the handle was replaced, regardless of the fact that the new handle could be fitted with a new axe head.

In the absence of an explanation to support the Powerlink contention that their approach provides a more realistic approach to actual asset depreciation, the GROUP considers the Powerlink proposal should be rejected.

6. Powerlink Opex

On page 99 of its proposal, Powerlink provides a statement of the drivers of its opex program in support of its increased opex costs. It comments:

> "… Powerlink's operating expenditure costs are either zero based or base-year escalated estimates. While some of these costs are set for defined periods, none of these costs span the entire regulatory period, but rather are impacted by network growth, labour cost movements, international markets and evolving weather patterns. Consequently, Powerlink considers all operating expenditure costs to be variable."

Powerlink then goes onto summarize its various opex for each year for each category of cost, viz:

- Field Maintenance
- Operational Refurbishment
- Maintenance Support
- Network Operations
- Asset Management Support
- Corporate Support
- Insurances
- Network Support
- Debt Raising

This submission will review each cost element and opex in total.

In summary, the GROUP sees that there is little in the reasons provided to justify a step change in opex of the size requested by Powerlink.

The opex incentive scheme (EBSS) is designed fundamentally to provide a driver for a regulated business to achieve the level of efficient opex. In the varying environment that a regulated business operates in it is a fundamental matter that this opex be referred to a benchmark(s) which can demonstrate that efficient opex has been achieved. Powerlink has determined that it achieved optimum opex efficiency in year 2009/10, and uses this as the basis for developing its forecast needs of opex.

The GROUP totally rejects the concept that a single year opex can be assumed to represent the "efficient" basis for opex, and while there are external benchmarking approaches which can indicate efficiency in general terms, they cannot define that Powerlink has achieved maximum efficiency.

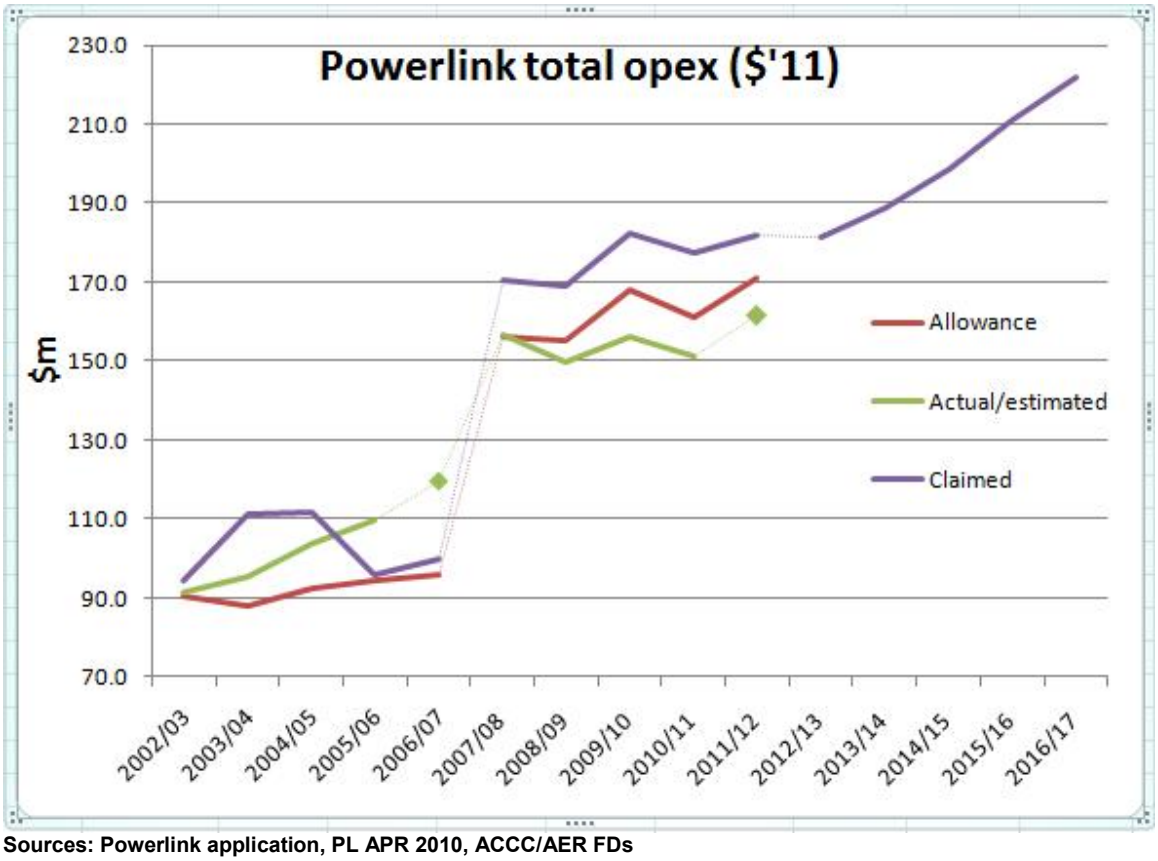
6.1 Opex historic, allowed and claimed

The following figure has been developed from data in Powerlink's applications in 2001 and 2006, the ACCC final decision on Powerlink 2002, the AER final decision on Powerlink in 2007 and the Powerlink proposal of 2011. Forecast total opex claims from Powerlink average $200m pa for the next period, whereas current total opex averages (assuming the two last years' estimates are valid) perhaps $200m pa (all in $2011). This represents a real increase in opex of 25%.

Powerlink claims an average opex increase of $50m (real) pa for the next five years over the current level of opex, which would appear to be unsustainable in the absence of proven step changes in costs. This opex increase adds some $1.00/MWh alone to the average tariffs between the two periods.

Powerlink observes that controllable opex excludes network equity and debt raising costs and insurances.

Overall, opex changes over the past decade are shown in the following figure along with the forecast opex for the next period.



Sources: Powerlink application, PL APR 2010, ACCC/AER FDs

What is noticable about the data in the figure is that Powerlink has claimed much more opex than it actually required, and in 8 out of 10 years of the past decade actually used less opex than was allowed, thereby earning a benefit from under-running the opex allowance. It is interesting to note that in the Powerlink claim under the EBSS for the last five year period, Powerlink advises that it over-ran its controllable opex and so was not required to pass onto consumers any benefit, although it acquired considerable benefit in relation to its uncontrolled opex.

This raises the question as to whether Powerlink has used the EBSS in a way that prevents it having to share the benefits of under-runs. Under the building block approach opex is provided at cost, so implicitly the only way a TNSP can make a profit on its opex is:-

1. To game the regulator and so have an allowance for uncontrolled opex greater than that actually needed,
2. For the TNSP to actively seek savings in controlled opex, hold the benefits during the period and share the underrun in the next period,
3. Seek to increase capex to replace assets requiring extensive maintenance costs[5], and so reduce opex and/or
4. Manipulate the EBSS to prevent the need to share under-runs.

Of these options, 1, 3 and 4 would prevent the TNSP from having to share future under runs and the AER needs to examine this issue very closely.

6.2 Benchmark performance and step changes

Powerlink has followed the benchmarking process of using its own actual opex expenditure as the demonstrating “benchmark” performance. It considers that its 09/10 opex performance is optimal. A glance at the historic opex provides prima facie evience that this is incorrect. Historic opex (excluding the estimated 11/12 opex) shows that opex has averaged some $153m pa over the first four years of the current period years. Assessing the controlled opex in the same way show that the first four years of controlled opex was $3m less than the 09/10 contolled opex.

Powerlink does not consider that in the 09/10 year there were significant “one off” costs that should be excluded from their proposed base year, but they do provide a list of step changes they consider should be added to the base year costs. These are:

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

Item	Description	The GROUP comments
Tower refurbishment	To ensure towers in harsh environments can reach their currently projected economic life	This is not a step change. The need to protect its assets has always been a requirement on Powerlink to ensure that its assets reach at least their design life, if not longer. To claim the protection of assets is a step change is totally at odds with the overall approach required of Powerlink. This work
Land Tax	To meet additional State legislative requirements on freehold land under the Land Tax Act 2010 (Qld).	As the land tax change was introduced after the benchmark year, this is probably a reasonable step change. Powerlink does not provcvide details of the cost of this step change so the GROUP is not able to comment on the quantum
Office accommodation	To cater to staff growth resulting from Powerlink's expanding network	The need to increase office space is a continuing issue as the network grows and so is not a step change as such. It is expected that this element would be seen within the overall opex increase relating to growth. As such it should not be seen as a step change.
Superannuation Guarantee Scheme	To address the proposed progressive increase in the Federal scheme as recommended in the Henry Tax Review	There has been no legislative change regarding the SGL so this is not a step change
Climate Change Investigations	To identify and understand the impacts of climate change on the development, operation and maintenance of the network, and develop an adaptation plan, including obtaining independent advice, to efficiently improve the resilience of the network	Climate change has been happening for ever and is not a recent phenomonom. Powerlink should have been assessing the impacts of the climate changing as changes occur on a continuous basis. It is recognised that climate change has been raised as a world wide issue in the last decade but the year to year changes in climate have been quite variable and have changed little from

	to changing climatic conditions	the impacts of climate that applied in 2009/10. This is not a step change to incorproate in the opex allowance.
South West Queensland Expansion	The extension well beyond the geographical reach of the existing network will impose additional costs above the inherent network growth factors, in order for Powerlink to effectively maintain this network	The addition of the assets acquired from the distribution businmess is a step change. It is essential that there is no double counting by adding this as a step change and as part of the growth of powerlink. The GROUP considers that it would be more approaiate to include the opex effects of this element as grwoth rather than a step change to maintain consistency with other augmentations of the Powerlink network

Powerlink is forecasting a step increase on opex of 16% between its base year total opex and the first year total opex for the new period. Such a step increase is not justified on the basis of the step changes identified.

Powerlink has elected to use its own performance as the base line benchmark although it has provided some external benechmarking to demonstrate that it is operating efficiently. These external benchnmarks (ITOMS for 2009 for composite perfomance, line maintenance and substation maintenance) indicate that based on 2009 data, Powerlink was performing creditably. These benchmarks only support the view that in 2009 Powerlink cost performance was creditable but not that its forecast costs (including the large step increase in costs) will be.

On the basis of the data provided by Powerlink, the GROUP has serious concerns that the large rise in opex is legitimate, and therefore it considers that Powerlink should be allowed only $150m pa as the starting opex for the next period.

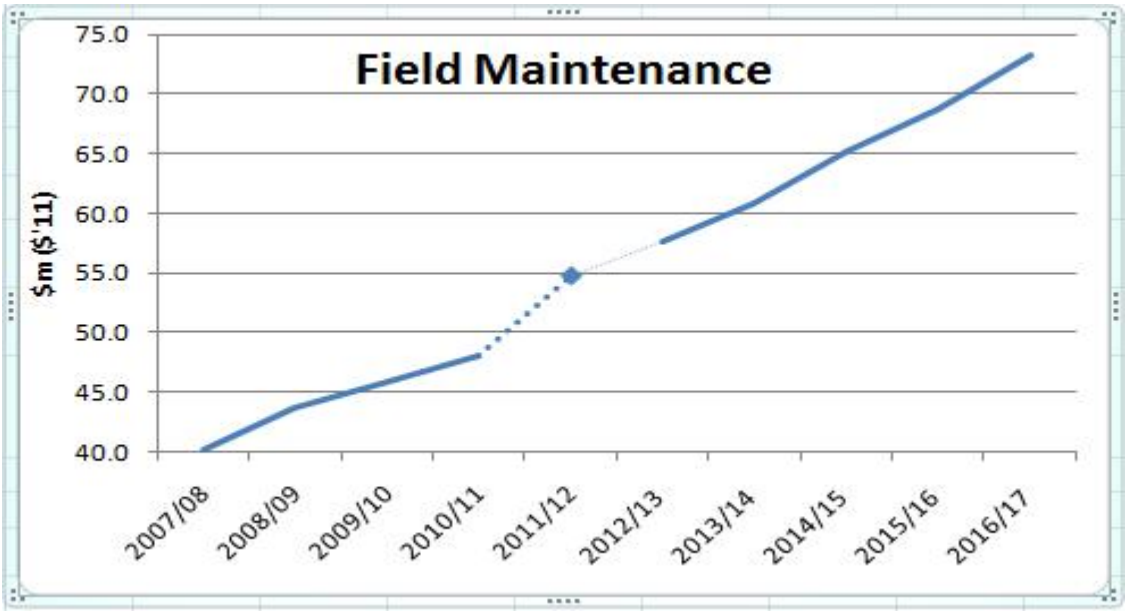
6.3 Analysis of each element of opex

In this section there are a number of figures which show the cost trend (in $million) of each major element of the opex. The data is derived from the Powerlink application and all of the costs normalized to $2011.

There is an expectation that historic trends which have been incentivised by an EBSS will provide a reasonable indication of trends in change of the costs involved. The following analyses are based on this.

6.3.1 Field maintenance

The following figure plots (in real terms) the change in field maintenance costs in the current period and in the forecast period.

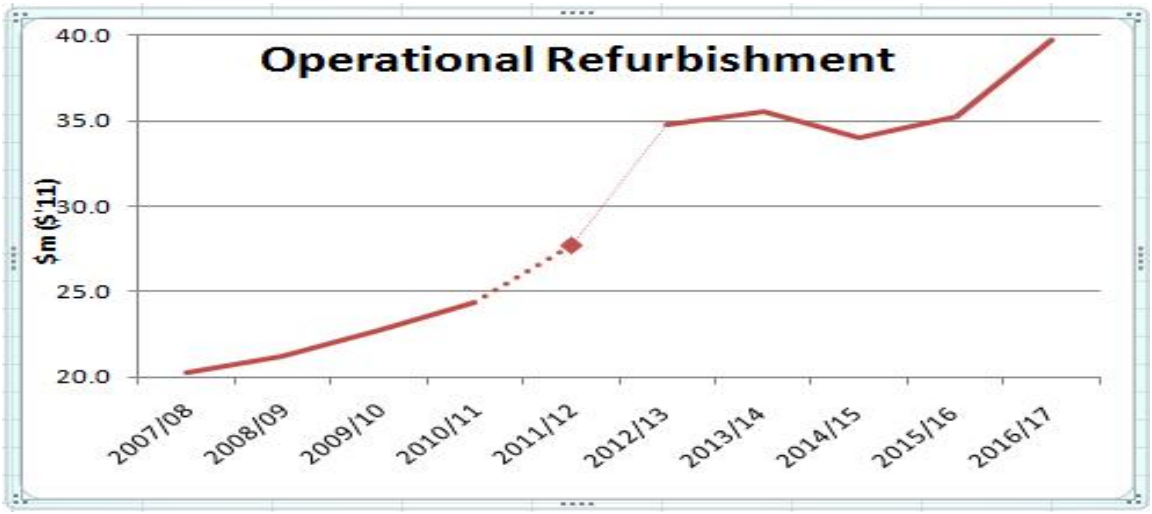


Whilst there is a general trend in the costs over time, there is an indication that in the last actual measure that the trend is showing a “tailing off” implying that the element of cost is approaching the efficient level. Because of that the estimated cost and the forecast cost do not reflect the longer term trend and show both a significant step increase and a higher rate of increase.

Based on the current trends, the forecast starting field maintenance cost should be some $8m less than sought by Powerlink as well as there being higher costs later in the forecast period than necessary.

6.3.2 Operational refurbishment

The following figure plots (in real terms) the change in operational refurbishment costs in the current period and in the forecast period.

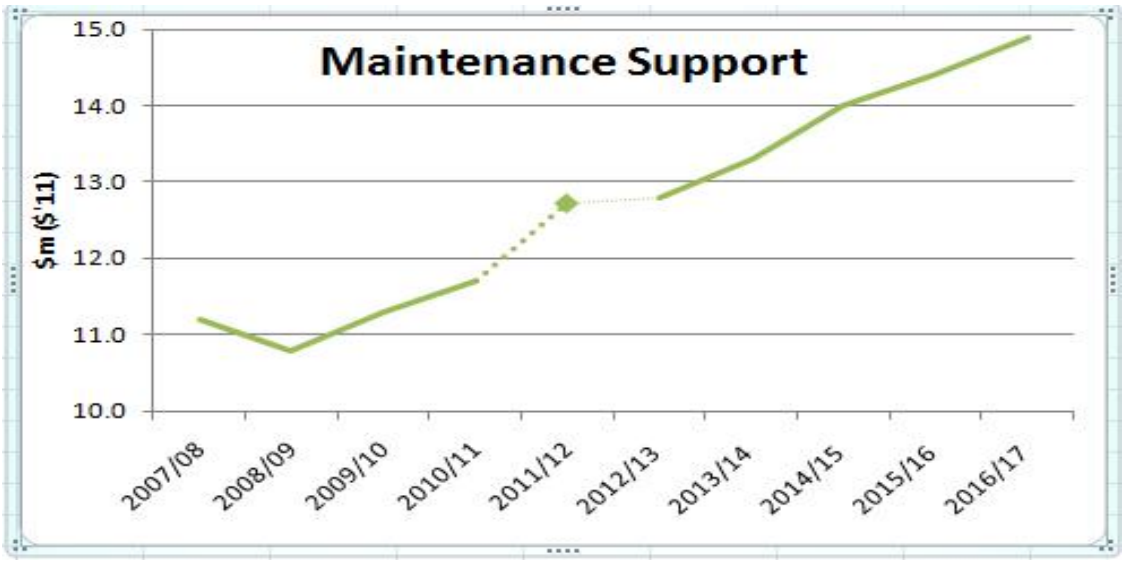


This chart shows a distinct step change from the current trend to the forecast costs. Whilst there is a general trend in the current costs over time, this indicates that the starting point for the next period should be considerably lower. The rate of change in the forecast period shows no relation to the rate of change in the current period

Based on the current trends, the forecast starting operational refurbishment cost should be some $7m less than sought by Powerlink with costs in the later times of the forecast period being higher than would be indicated by the current trends.

6.3.3 Maintenance support

The following figure plots (in real terms) the change in maintenance support costs in the current period and in the forecast period.

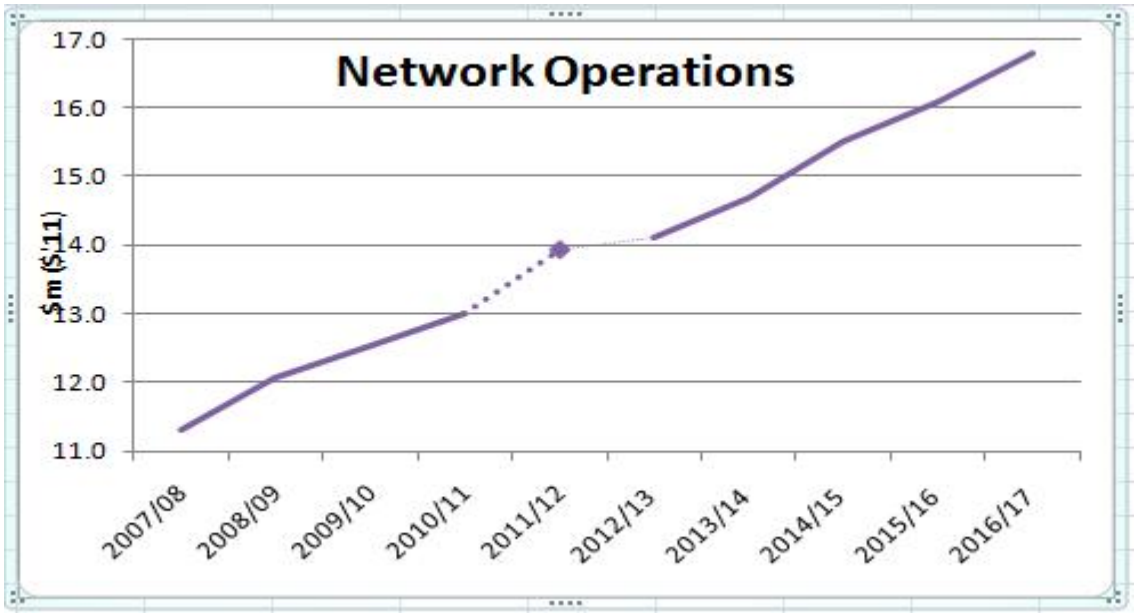


Whilst there is a general trend in the costs over time, there is an indication that in the last actual measure that the trend is showing a "tailing off" implying that the element cost is approaching the efficient level. Because of this the starting point for the forecast period appears to reflect the current trend although the forecast costs later in the period appear to be increasing faster than in the current period.

Based on the current trends, the forecast starting maintenance support cost appears to be correct although forecast costs later in the period might be higher than necessary.

6.3.4 Network operations

The following figure plots (in real terms) the change in network operations costs in the current period and in the forecast period.

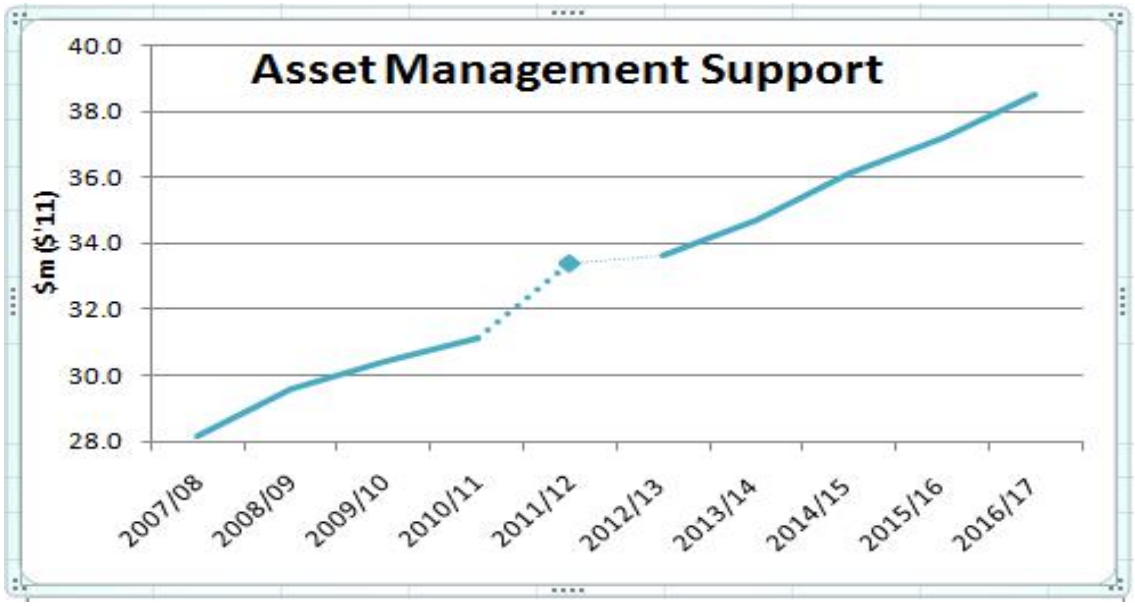


Whilst there is a general trend in the costs over time, it would appear that the current trend is replicated in the forecast starting point. However the trend in the later years of the forecast period indicates that there is an increasing rate of increase in costs compared to the current rate of increase.

Based on the current trends, the forecast starting network operations cost should be as forecast by Powerlink with perhaps the costs in the later years being overstated.

6.3.5 Asset management support

The following figure plots (in real terms) the change in asset management support costs in the current period and in the forecast period.



Whilst there is a general trend in the costs over time, there is an indication that in the last actual measure that the trend is showing a “tailing off” implying that the element cost is approaching the efficient level. Because of this, the estimated cost and the forecast cost do not reflect the longer term trend and show both a significant step increase and a higher rate of increase.

Based on the current trends, the forecast starting asset management cost should be some $2m less than sought by Powerlink as well as there being higher costs than necessary later in the forecast period.

6.3.6 Corporate support

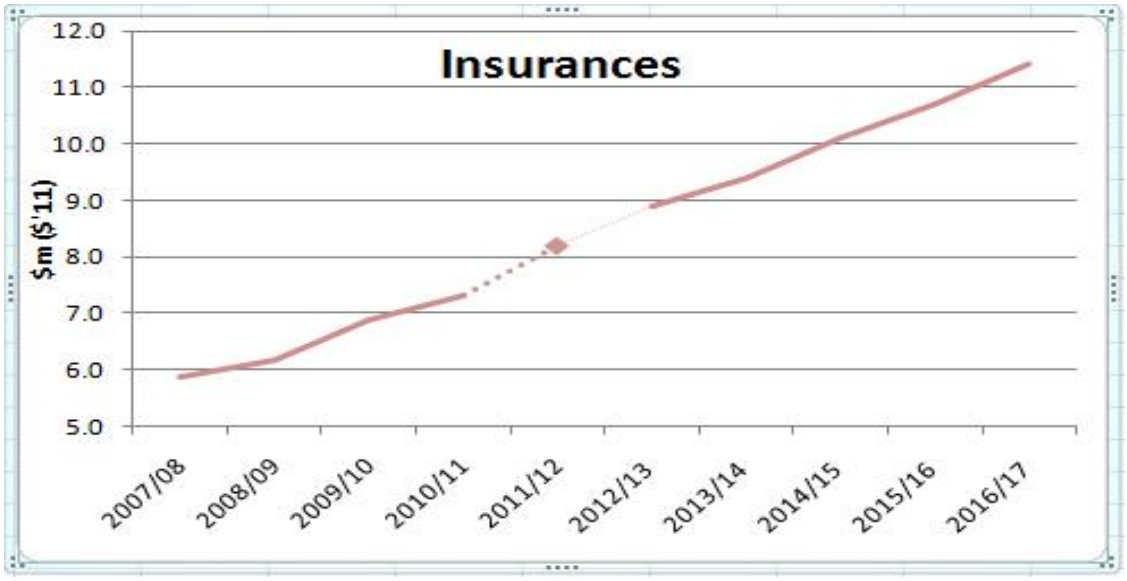
The following figure plots (in real terms) the change in corporate support costs in the current period and in the forecast period.

Whilst there is no general trend in the costs over time (other than a consistent increase), it would appear that the forecast corporate costs reflect previous trends as shown by the trend line.

Based on the current trends, the forecast starting corporate support is perhaps lower than might be expected from the trends but this is offset by later higher costs than might be implied by the long term trends.

6.3.7 Insurance

The following figure plots (in real terms) the change in insurance costs in the current period and in the forecast period.



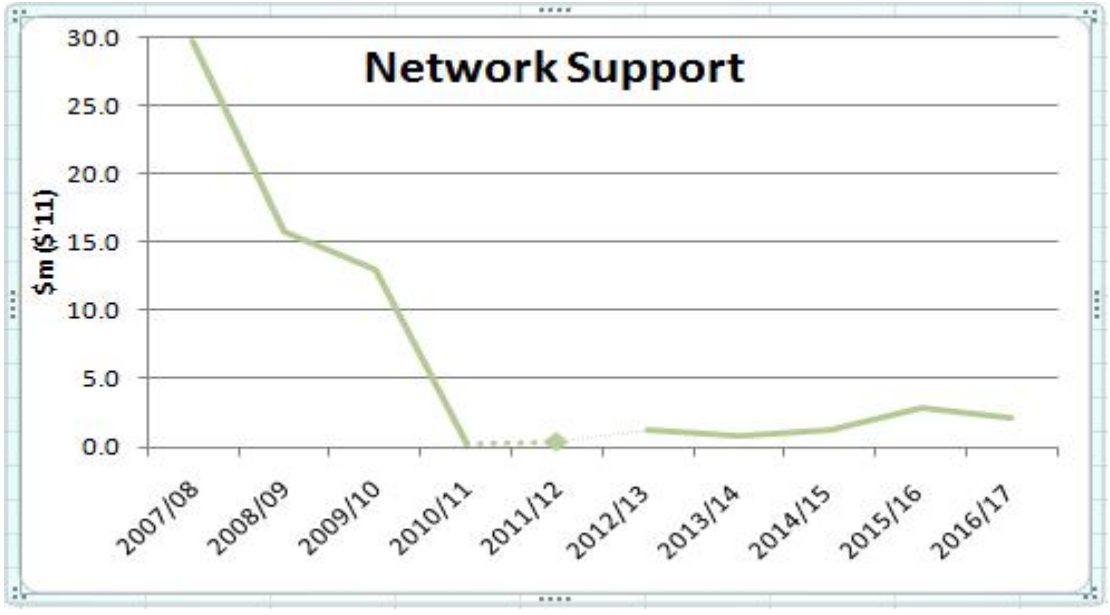
Powerlink advises that it has developed an approach to insurance that provides allowances in the opex for recovery of below deductible costs and insurance premiums. Powerlink also reserves the right to increase this element if insurance premiums rise as a result of recent national and international events. Powerlink also wishes to implement a pass through of cost incurred where specific event cost more than the insurance cap. Powerlink advises that this is the basis on which the current actual insurance costs are calculated. The GROUP considers that this is probably a sensible approach to protect both Powerlink and prevent consumers from having to pay large increased costs in accommodating potentially large costs but with a low likelihood of occurring (ie high impact low probability events).

Whilst there is a general trend in the costs over time, there is an indication that in the last actual measure that the trend is showing a “tailing off” implying that the element cost is approaching the efficient level. Because of this, the estimated cost and the forecast cost do not reflect the longer term trend and show both a significant step increase and a higher rate of increase.

Based on the current trends, the forecast starting asset management cost should be some $1m less than sought by Powerlink as well as there being higher costs than necessary later in the forecast period.

6.3.8 Network support

The following figure plots (in real terms) the change in network support costs in the current period and in the forecast period.

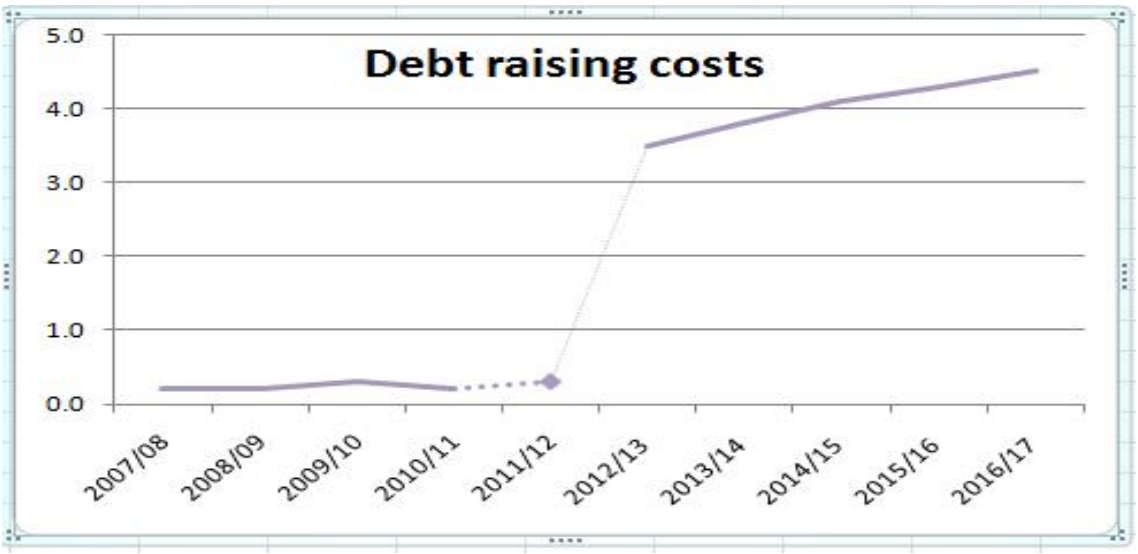


The trend shows there was less network support in recent years than in the past, and the costs for network support in the forecast period are relatively modest. As new network support costs are treated as a cost pass through, it is expected that the forecast network support costs are based on actual contracts entered into by Powerlink. However if the network support costs are an estimate of future costs, then the need for allowing pass through costs is no longer necessary.

The AER should verify on what basis Powerlink has made provision for network support costs to ensure there is no potential for double counting before agreeing to incorporate these costs in to the allowed opex.

6.3.8 Debt raising

The following figure plots (in real terms) the change in debt raising costs in the current period and in the forecast period.



This figure raises an interesting issue. Under the arrangements with Queensland Treasury Corporation (QTC), Powerlink is provided with all of its debt needs directly from QTC. In the current period, the debt raising from QTC shows these costs are minimal yet Powerlink raised significant debt in the period.

The trends show that debt raising by Powerlink is a much lower cost than Powerlink is requesting in its application. The Powerlink costs actually incurred show how well Powerlink has achieved the maximum efficiency in securing its borrowing needs. To pay more to Powerlink is not efficient.

Based on the current trends, the forecast starting debt raising cost should be some $3m less than sought by Powerlink as well as there being up to $4m pa higher cost than necessary later in the forecast period.

6.3.10 Overall assessment from this analysis

By addressing the forecast costs on a segmented basis, it is relatively straight forward to identify those costs that are overstated by Powerlink and why the step change for the current period is so large.

This approach highlights that by aggregating each unnecessary step increase for each segment, Powerlink is seeking more than $20m than is needed for the starting point for the next period. When this is compared to the amount apparently overstated in section 6.1, this analysis identifies the specific elements that need to be closely addressed in Powerlink's opex claim.

Further this analysis also highlights where the forecast opex for subsequent years appears to be overstated.

6.4 Growth factors affecting opex

Powerlink has identified that its opex needs to be adjusted for various growth factors such as real growth in wages and materials and network growth.

6.4.1 Opex wages growth

Powerlink has based its opex claim on using BIS Shrapnel Queensland EGW AWOTE estimates for skilled labour and Queensland Business Services AWOTE estimates for general labour cost movements.

The GROUP does not agree that use of these will provide an accurate indication of real movements in the future costs for these activities.

The first reason is that they do not incorporate any allowance for increased productivity. It is widely recognised that labour costs increase fatser than general inflation and the difference between the two is a measure of productivity improvement. Therefore the labour cost adjustments should incorporate allowance for productivity.

The second reason is that AWOTE exhibits excessive volatility when assessing state sectoral labour costs. It is on this basis that the AER has consistently preferred to use the real labour price index calculated by Access Economics as a more stable indicator of future labour cost movements.

The GROUP considers that if there is to be an allowance for labour cost changes in the future opex (which the GROUP does not consider is necessary as cost movements can be accommodated by adjusting just for inflation) then the future labour cost changes should reflect a real productivity adjusted stable labour cost

indicator such as that produced by Access Economics as their real productivity adjusted labopur price index.

6.4.2 Opex materials growth

The GROUP agrees that opex should only be adjusted by CPI in relaltion to future changes in materials costs.

6.4.3 Network growth

Powerlink proposes that the network growth factor should be based on the change in the value of the total asset value, presumably the RAB. The growth factor is then moderated by applying scaling factors to various elements of the cost build up.

The GROUP does not consider either the RAB or even the undepreciated value of the assets is an appropriate adjustment to replicate network growth. Both of these measures give a greater weight to the cost of recent additions to the network than is appropriate.

In practice, augmentation of the network (ie repalcing a smaller asset with a larger one) does not result in significant increases in opex and in fact repalcing an old asset with a newer asset should result in a decrease in opex. So this resultant increase in asset base does not reflect an equivalent increase in opex.

Expansions to the network (eg an additional transformer at a substation or a new transmission line) do increase opex. Expansions to the network are a result of increased demand for electricity, so the change in demand is a better indicator of network growth than asset value. Even then, increased growth in demand might occur without any need for expansions so using increase demand as the indicator of growth will overstate the growth factor.

Increased length of the transmission network certainly provides a clear increase in opex, but this would not necessarily cover all increased opex.

Overall, the GROUP considers that there is a need for a composite measure which includes asset value, demand, consumption and line length needs to be devleoped in order to provide an appropriate measure for network growth. The GROUP understands that there have been such composite measures developed in order to provide bases of comparisons for benchmarking and the GROUP recommends that such a composite be identified by the AER for this and future revenue resets.

6.4.4 Economy scale factors

Powerlink has provided its view on the development of a factor to reflect economies of scale. The GROUP supports such an approach but considers that the scale factors provided by Powerlink are overstated when compared to the similar scale factors applying to their own businesses.

For example, the GROUP considers that maintenace support should be no more than 15%, the impact on network operations is more likley to be 20% or less, planning and asset management support should be no more than 10% and corporate support is more likely to be 5%.

Whilst the GROUP recognises that different business structures and manufacturing processes will have differing scaling factors because of the different natures of the businesses, such scaling factors can lead to overstatements of the impacts of growth. The GROUP notes that Powerlink has not provided any substantiation for its proposed scaling factors, the AER should require Powerlink to demonstrate its claims are based on facts, and explain why it considers its scaling factors are approriate for its business.

6.5 Concluding observations on opex

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

The GROUP can understand the process that Powerlink has used, but the outcomes from the Powerlink process have to be assessed in keeping with the ability of the market (in this case consumers) to pay for the increases in tariffs.

It is the role of the AER to provide a reality check on the claims by Powerlink, and to assess whether the increases are reasonable. However, the GROUP does not accept that Powerlink’s claims are supportable or robust and has provided reasons for this assessment.

The GROUP is of the view that historic opex spanning some 10 years up to year 09/10 shows considerable stability recognizing that the earlier years of opex would appear to be less than was needed. Further, there is no basis to support a claim of a step change of an increase over 25% from year 09/10 to year 12/13.

The GROUP considers that a benchmark opex based on the five years of actual opex to 09/10 is a reasonable starting point although it may be slightly overstated when compared to the average opex over the four years of the current period.

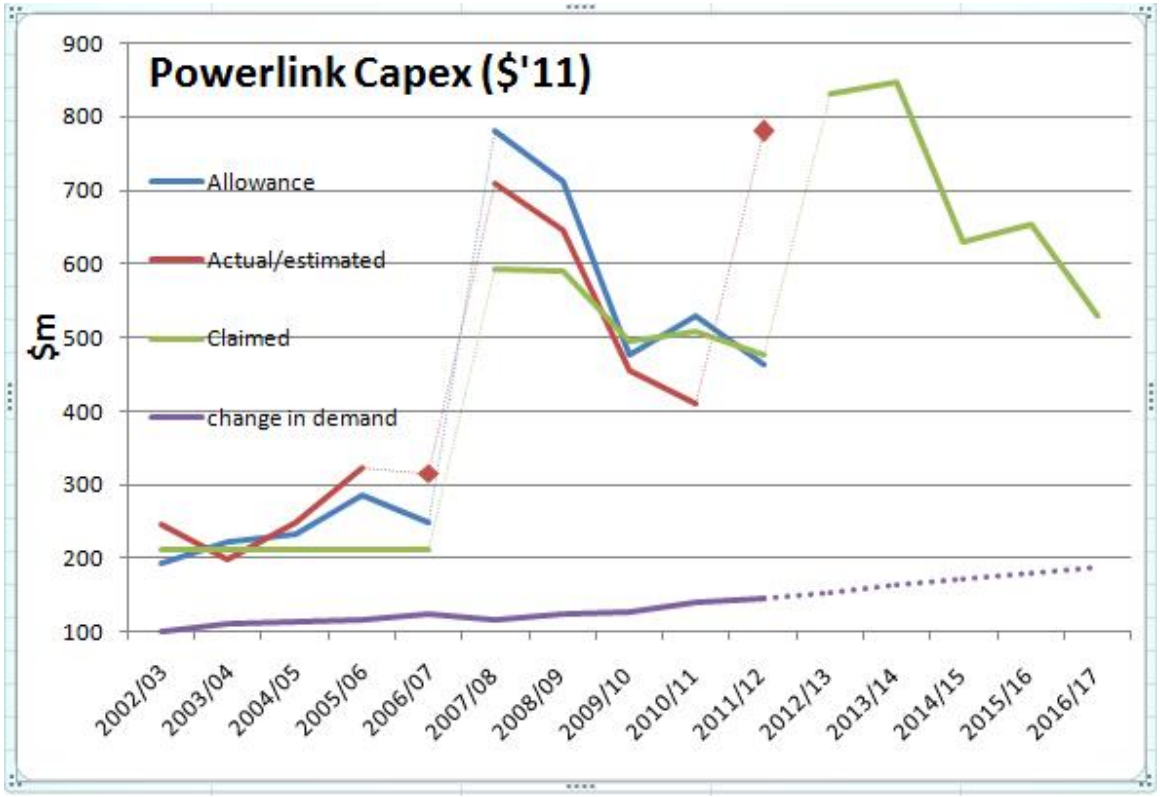
To provide opex for the next period should be based on this starting point and allowances added for identifiable step changes that have actually occurred since 2010 when the last full opex calculation was made. This approach has regulatory precedent and is in keeping with the purpose of the EBSS, which is to drive opex to the efficient level.

7. Powerlink Capex

Powerlink has sought capex of $3.5 Bn over the next five years. In addition it has flagged another $1.7 Bn for contingent projects. This comes on top of a forecast closing RAB of $5.8 Bn as at June 2011. Powerlink forecasts that, in 2011/12 alone, it will spend as much capex as it did in the two years 2009/10 and 2010/11.

In overall terms, Powerlink is seeking to spend as much in capex and contingent projects over the next six years as the total RAB in June 2010, nearly doubling its size in just six years!

The following figure provides the Powerlink claims for total capex, the regulatory allowances and the actual total capex over the past decade and the next five years. Also shown is the change in demand (actual and forecast) over the same period. The information has been developed from data in Powerlink's applications in 2001 and 2006, the ACCC final decision on Powerlink 2002, the AER final decision on Powerlink in 2007 and the Powerlink proposal of 2011 and adjusted to current values using RBA data.



Sources: Powerlink application, PL APR 2010, ACCC/AER FDs

Forecast total capex claims from Powerlink averaged $700m pa for the next period, whereas current total opex averages (assuming the two last years'

estimates are valid) some $600m pa (all in $2011). This represents a real increase in opex of nearly 20%. This comparison assumes that Powerlink will expend a massive $800m in year 2011/12.

To achieve this level of expenditure for the current period, Powerlink would have to expend more on capital than it has ever done in one year and the GROUP considers this to be unlikely if the expenditure is to be used efficiently. The Group considers that realistically, the average capex for the current period is more likely to be $530m pa implying that the step increase in capex for the next period is more likely to be over 30% compared to the actual outcome.

From this figure, a number of observations can be drawn:

- Allowed capex in the first period was insufficient but reasonably tracked the increase in demand at the time
- The claims for capex for each period show a distinct lack of correlation between claims made at the reset to what is actually used, indicating some concern over their ability to forecast accurately, although it is noted that in the first four years of the current period the aggregates of claimed and actual capex were reasonably close.
- Capex in the current and next periods show little correlation to increases in demand, which is acknowledged as the main driver of capex
- Powerlink wants even more capex in the next period, even though it failed to use the allowance it was granted in the current period
- Powerlink was granted a significant increase in capex in the current period but failed to use it, expecting to “make up the difference” with a large capex program in the final year of the current period.
- By back ending the capex program as it proposes, Powerlink will earn additional unearned revenue calculated to be over $66m

On a high level assessment, it would appear that the Powerlink claim is excessive when compared to the actual capex needs displayed in the two past periods and the changes forecast in demand.

When assessed on a comparative basis, the declared needs of Powerlink bear little relation to the main driver of capex which is increasing demand. As demand is expected to increase in the next period at much the same rate as the current period, on a high level basis it would be expected that the capex needs of the next period should not be greater than in the current period.

The main capex drivers are:

- Growth in demand and the connections needed to accommodate these
- Replacement of aged assets
- Physical security needs

- New IT
- Support the business
- Increasing real costs for materials and wages

One of the main concerns that the GROUP has in the development of capex is that the capex proposal from Powerlink has been developed from a "bottom up" approach. As such, it is difficult to argue that any specific project should not proceed. As noted in section 2.2 above, in competitive business the same "bottom up" approach is used but the total amount of capex requested is moderated by the business' ability to accommodate the capex request. It is a frequent outcome that capex requests developed on a "bottom up" approach (mostly seen as sensible) aggregate to an amount more than the business can manage. This requires the business' senior management to set a cap on all capex and then for the projects identified to be prioritized so that only the most necessary for the business survival will be accommodated.

This role of setting the capex cap has to be provided by the regulator which must assess the same business drivers that are referred to in section 2.2 on behalf of consumers who have to fund the capex actually allowed. One of the key assessments made by senior business managers is the assessment as to the ability of the markets for their products to actually pay for the increases in costs associated with the capex needs. If the market cannot or will not pay the premium associated with the capex involved, then the capex is not allowed.

In a regulated environment, the market approach is slightly different in order to reflect the fact that the provider is a monopoly. Under the building block approach where the profit a business gets is embedded in the value of the assets provided, there is an inbuilt incentive to increase the value of the assets used so as to increase the amount of profit earned. Because of this the regulator must assess the ability of the consumers to pay for the increases in the value of the assets used to provide the service, and thus recognize the ability of consumers to support the amount of capex claimed.

This issue has been borne out in recent reports by Garnaut, IPART and Parry/Duffy, which have all highlighted the fact that excessive amounts of capex have been granted to regulated energy transport businesses that were unnecessary and caused harm to energy consumers. It has been seen that there is considerable disquiet amongst consumers with respect to the massive increases in energy transport costs that have occurred in recent years.

The GROUP considers that the AER must develop an approach which provides the sort of high level limits on capex that a competitive business must apply and thereby ensure that there is a better control on overall capex which reflects the ability of consumers to pay for the capex. As a starting approach, the GROUP

considers that the business' own performance provides the first step in developing a tool for "top down" management of the claimed capex needs.

In the application, Powerlink provides a number of projects that it intends to carry out with the proposed capex allowance. With the limited data provided, the GROUP has no ability to:

- Assess what the real need is, or its timing
- Assess the value of each project,
- Identify whether this is the most appropriate method of addressing the need
- Assess where each project sits in the priority of needs
- Conclude whether the timing of the project is optimum.

This is the main drawback of assessing aggregate capex. From a consumer viewpoint, the approach that must be taken is to assess the historic trends against the drivers for each cost element of the capex proposed and from this draw some conclusions. This is the way that senior management of a competitive business looks to address a capex claim which exceeds the ability of the business to set its capex for the next period.

7.1 A review of each element of proposed capex

Powerlink provides some details, on pages 54 and 55, of its application, the main elements of its capex plans. It identifies the following elements for its capex plans:

- Augmentations
- Connections
- Easements
- Replacements
- Security and compliance
- Other
- Business IT
- Support the business

One of the tools available to the AER is the way the regulated businesses have managed their affairs in the periods between resets. Analysis of such trends provides the AER with the ability to use the business' own performance as the basis for assessing the reasonableness of the claims being made.

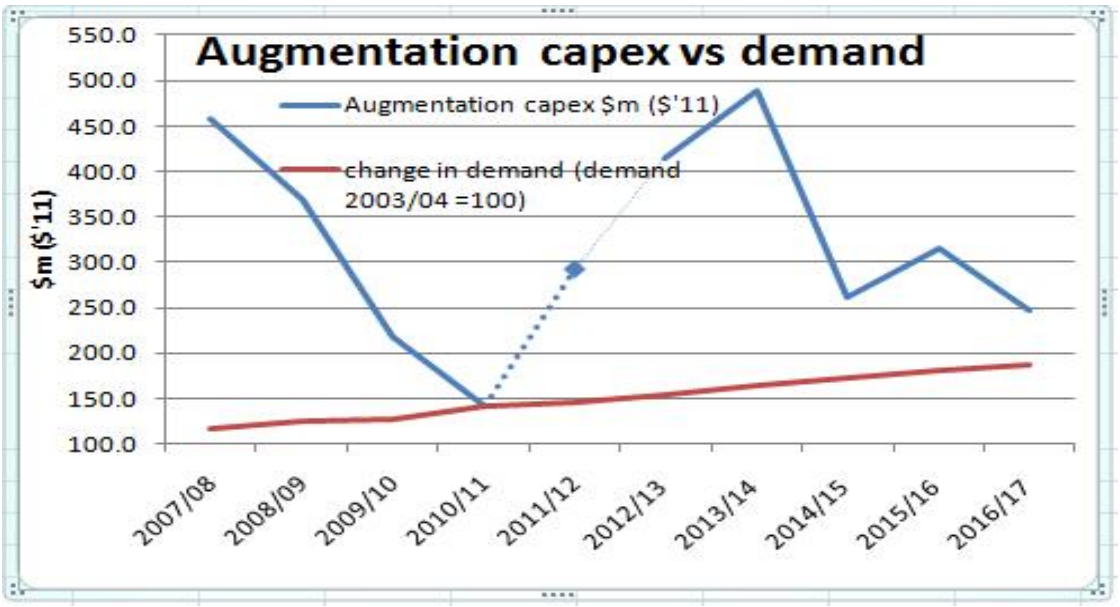
The recent trends in each of these elements are analyzed.

In this section there are a number of figures which show the cost trend (in $million) of each major element of the capex identified by Powerlink. The data is derived from the Powerlink application and all of the costs normalized to $2011.

Under the current allowance, there is no incentivisation program for capex like there is for opex. The NEL requires there to be a capex incentivisation program (see section 8) so its absence is a shortcoming of the previous reset review. Notwithstanding this shortcoming, there is an expectation that historic trends will provide a reasonable indication of trends in change of the costs involved. The following analyses are based on this.

7.1.1 Augmentations

The following figure plots (in real terms) the change in augmentation costs in the current period and in the forecast period. It also includes the medium 50% PoE summer growth forecast increases over time.



It is clear that augmentation is the single largest element of the forecast and past capex.

This figure shows that in the current period, there was a massive investment in network augmentation which bore little resemblance to the movement in demand. The large “final year” capex for the current period proposed by Powerlink shows that half of the large final year capex is related to augmentations.

A review of the 2002-2007 augmentation capex shows that the high level of augmentation capex at the start of the current period reflected a doubling of the augmentation capex at the end of the earlier period. In the 2006 reset the AER

was convinced by Powerlink that there was a real need for immediate injection of augmentation capex to address an imminent inability to provide service due to large increases in demand growth.

That capex for augmentation fell so dramatically during the current period, supports the view that the earlier period capex for augmentation (which tended to follow growth in demand) provides a longer term trend of $200-250m pa which more loosely matches the growth in demand.

In contrast, Powerlink is seeking an average of $350m pa for augmentations in the next period, an amount well in excess of its previous long term average capex for augmentations. Powerlink includes in its assessments for augmentations the impacts not only of the forecast growth but the likelihood of the LNG export expansion projects and the impact of carbon constraints. The GROUP is concerned at these two new elements being added into the assessment of augmentation needs over the next five years.

Firstly, in relation to the LNG export needs, the GROUP considers that the increases in the shared networks to accommodate the LNG export projects should be borne in full by the new exporting businesses. It is totally inappropriate that existing Queensland consumers should carry costs that rightfully should be attributed to the businesses exporting LNG. Export products (especially those where there is little or no value adding to benefit Queensland electricity consumers) should not be subsidized by existing consumers. The NER is absolutely explicit that new connections need to carry the costs of all shallow and deep connections. Therefore the costs that are incurred by Powerlink in relation to the LNG export projects should be paid for by way of a negotiated connection agreement and not included in the costs of the shared network.

Secondly, the cost impacts arising from the price on carbon will be gradual over time and will be minimal on the Powerlink costs and needs in the early years. To assume that the carbon price will result in immediate changes to the Powerlink network costs is just not correct.

Powerlink advises that the forecast is derived from a probabilistic approach covering a range of possible scenarios. Such an approach is dependent on the inputs to the scenarios (estimated costs, how projects are rated for likelihood, where new growth will occur and many other variables). Because of this approach there is great difficulty in developing whether the approach has inbuilt biases in developing the “bottom up” approach assessment. This means that it is essential for the development of a “top down” review which sets a cap on all augmentation projects. Historic analysis provides such a control.

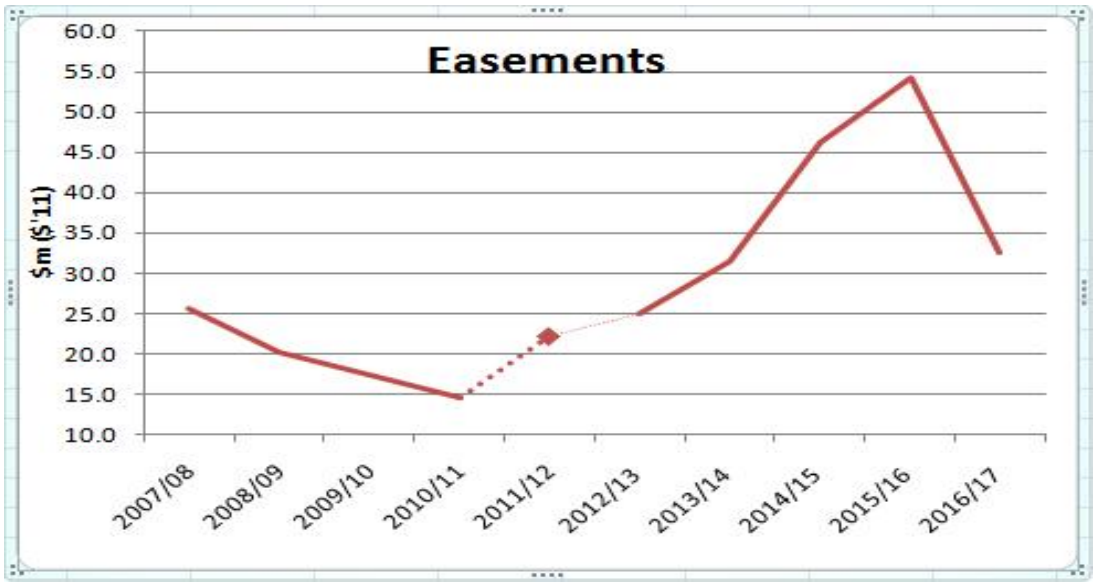
Intriguingly, the forecast demand growth provided for the last reset is much the same as the forecast load growth provided by Powerlink in this new application.

On this basis alone, it would seem that the historic augmentation capex should provide a strong guide to the augmentation capex needed now. It is also pertinent to note that the spread of expected growth between high, medium and low economic outlooks coupled with 10%, 50% and 90% PoE forecasts for the new period, bear a close relation to those used at the last review. Reinforcing this view is that Powerlink has been able to further improve on their performance service levels during the current period.

Based on the historic trends, the forecast average amount for augmentation capex should be some $100-150m pa less than sought by Powerlink in order to reflect a long term average need of $200-300m pa.

7.1.2 Easements

The following figure plots (in real terms) the change in capex for easements in the current period and in the forecast period.



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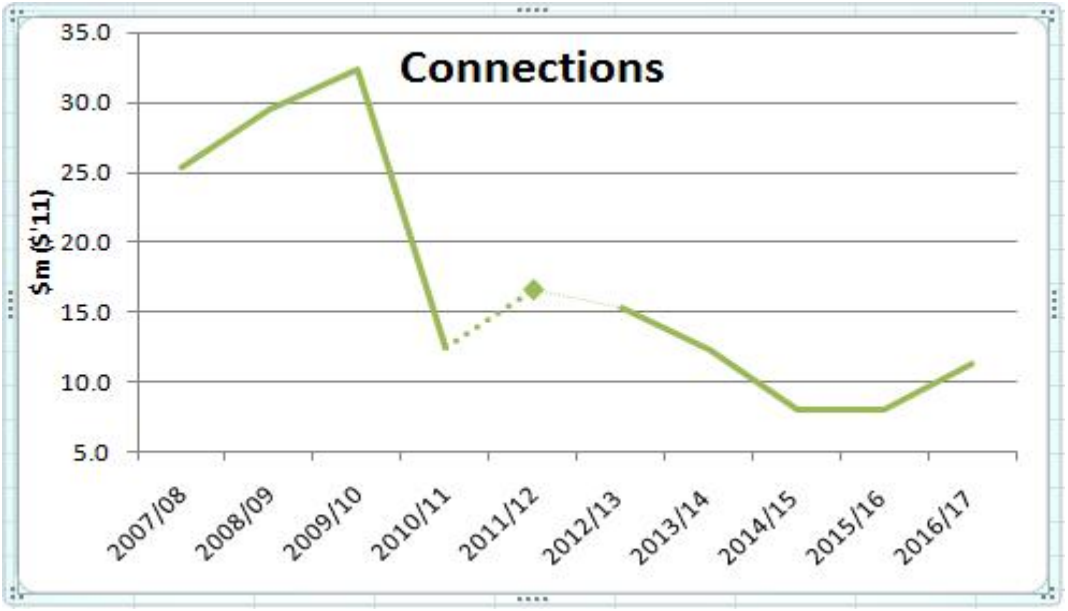
Whilst there is a general trend in the costs over time averaging about $20m pa the new forecast doubles this long term trend. Whilst it is expected that the cost of land increases in real terms over time, a doubling of the capex seems to be quite excessive, although the location of where the easements has a big impact in the cost of acquiring the easement.

With the land market showing signs of decline in the current climate after quite large rises in the past few years, to seek to double the capex allowance for easement acquisition would seem excessive.

Based on historic trends and falling land prices, the forecast average cost for easement acquisition should be much the same as the current average cost of about $20m pa, some $20m pa less than sought by Powerlink.

7.1.3 Connection costs

The following figure plots (in real terms) the change in capex for new connections in the current period and in the forecast period.



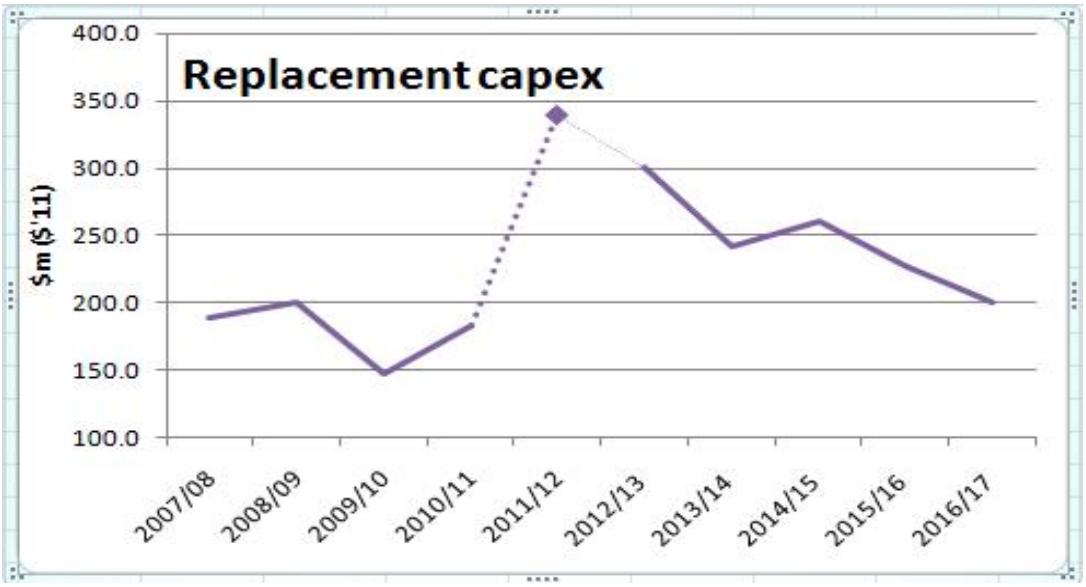
The current period indicates that the cost of new connections averages about $20m pa but the forecast seeks about half this.

Whilst there is a general trend in the costs over time, there is an indication in the last actual measure that the trend is showing a “tailing off” implying that the element’s cost is approaching an appropriate level which reasonably matches the forecasts.

Based on the current trends, the forecast average capex is in keeping with the historic trend of a reducing need

7.1.4 Replacement capex

The following figure plots (in real terms) the change in replacement capex in the current period and in the forecast period.



Replacement capex is the second biggest capex element (after augmentations) both in the forecast and the current capex. It is interesting to observe that commentators on the NEM (including government ministers) all attribute the increased costs for providing energy networks on the need to replace ageing assets. In practice, replacing assets is a relatively modest element of the total capex budgets for every energy network service provider.

When the estimated but very high estimated cost for replacements in the last year of the current period is excluded, but with the replacement capex of the last year of the first period is included, the historic trend provides an expectation that replacement capex average is about $175m pa. The expectation in the final year of this period is that the replacement capex will be twice this longer term trend.

In its explanation for the replacement capex it sought for the current period, Powerlink advises that it uses a range of tools to assess whether an asset needs to be replaced. After stressing that age alone is not a determining factor Powerlink advises that it uses a risk assessment framework (including condition assessments) to identify needs. It specifically highlighted that there was extensive replacement needed in North Queensland due to the impact of cyclone Larry as well as replacements due to age. This raises a very pertinent question as to whether Powerlink, being paid by its insurance company for repair works after the damage was incurred, then increases the RAB reflecting the value of the new assets. Additionally replacing old with new would impact the depreciation schedule and result in lower opex. The AER should verify there is no double counting.

In the current application, Powerlink points out that it continues to use such assessments but does not highlight specific causes where replacement will be

needed, even though there is an expectation that similar effects will apply from the recent cyclone and flood damage.

What is important is that in the current period replacement costs need to address specific damage impacts and the age of certain network elements. These drivers are the same as will apply in the new period, providing a strong guide that historic replacement capex sets a trend for the future replacement capex.

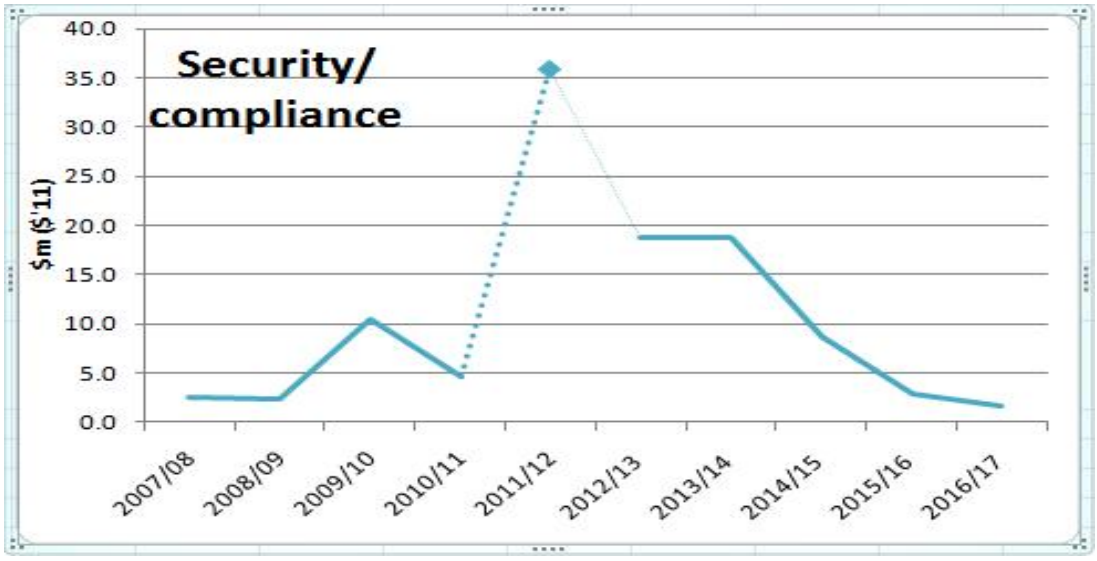
This figure shows that in the current period, there was significant investment in network replacement. A review of the 2002-2007 augmentation capex shows that the level of replacement capex at the start of the current period reflected perhaps a 50% increase of the replacement capex at the end of the earlier period. The AER accepted the Powerlink advice that under its new approach to assessing replacement needs and the impact of the cyclone, additional replacement capex was probably needed.

That being the case the current trend already reflects these same drivers Powerlink advises drives a further increase in replacement capex. It is therefore difficult to see why the actual current capex of $175m pa should not apply for the new period when the drivers are identical. This brings into doubt the $250m pa of replacement capex Powerlink is now seeking.

Based on the current trends, the forecast replacement capex should be some $75m pa less than that sought by Powerlink.

7.1.5 Security and compliance capex

The following figure plots (in real terms) the change in security and compliance capex in the current period and in the forecast period.



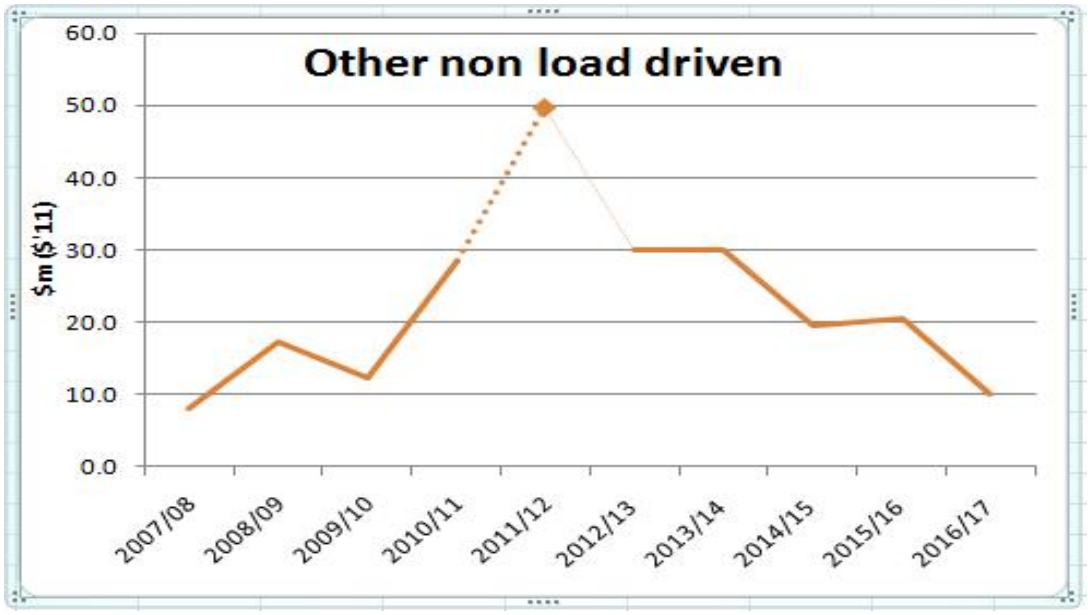
Whilst there is a general trend in the capex over time, there is clear indication that in the three years 2011/12 to 2013/14, Powerlink sees there is an immediate need for a doubling of capex for this element before returning to long term trend for this element.

Whilst in overall relative terms this increase is only a small amount and applies for a relatively short period, Powerlink provides no supporting information which justifies this increase. Whilst the GROUP agrees that physical security of the transmission assets is an issue that has increased in importance in recent years, the lack of explanation makes acceptance of the increases quite difficult.

Based on the current trends, the forecast security and compliance capex appears higher than it should be for the three years 2011/12 to 2013/14.

7.1.6 Other non load driven capex

The following figure plots (in real terms) the change in other non-load driven capex in the current period and in the forecast period.



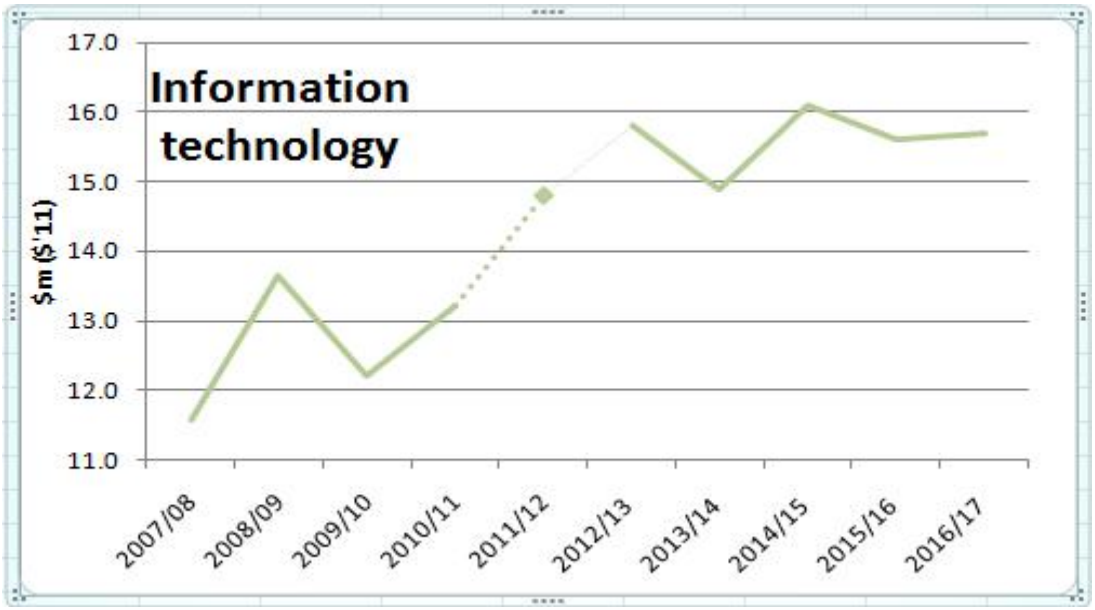
As with security and compliance capex, there appears to be a large increase in the four years 2010/11 to 2013/14. Powerlink does not provide any explanation as to why there is the large increase above the long term average trends.

Overall, there appears to be some $60m in capex over these four years that is outside the long term trends (with the bulk of this to be incurred in the last year of the current period).

Whilst the forecast capex appears to reflect reasonable trends based on the current non load driven capex, the AER should look into why there has been a large spike in this in the current period.

7.1.7 Information technology

The following figure plots (in real terms) the change in IT capex in the current period and in the forecast period.

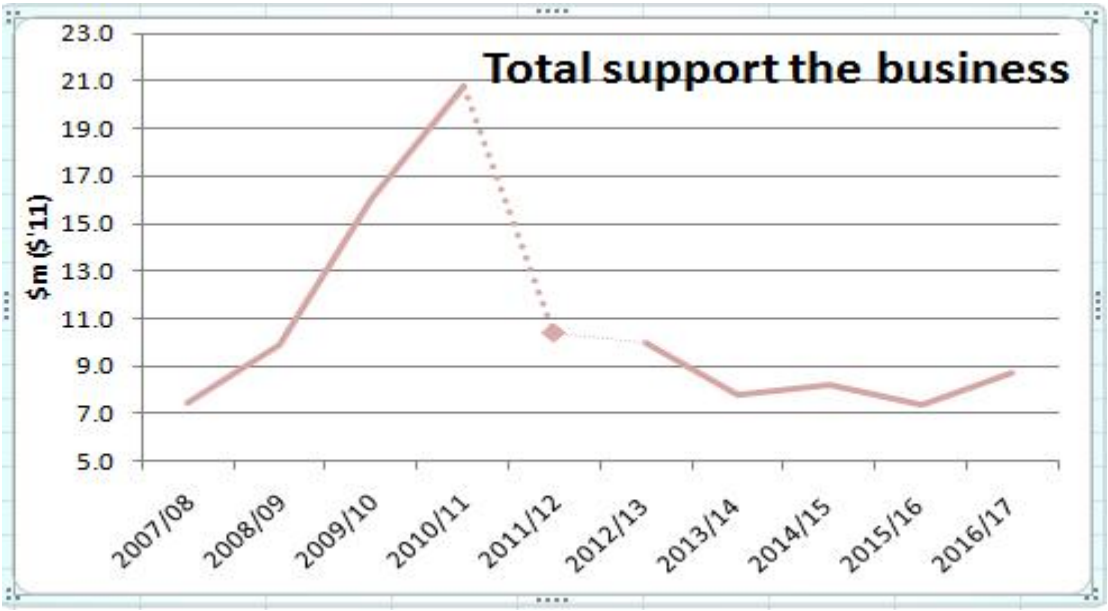


Other than the amount of capex estimated for the last year of the current period, the forecast capex for IT shows a step increase in IT capex. In overall terms, this step increase is very small but in relative terms to the long term trend, the increase is significant. Powerlink provides no reasons why this is the case

Based on the current trends, the forecast IT capex should be some $2-3m pa less than sought by Powerlink.

7.1.8 Support the business capex

The following figure plots (in real terms) the change in field maintenance costs in the current period and in the forecast period.



While not obvious there is a long term trend in support of the business capex. The spike in the capex during the current period is all attributed to the inclusion of commercial buildings as a once off activity. When these are excluded the support in the business trends are quite strong and support the forecast capex.

7.2 Inflation expectation

7.2.1 Labour

The GROUP'S view on labour escalators is detailed in section 6.4.1 above.

To this the GROUP would add that care needs to be taken in ensuring that the costs for capex are appropriately allocated. By and large the bulk of capex is not necessarily related to EGW labour but is affected by movements in construction labour and general labour.

The GROUP is concerned that the relative quantities of each labour sector should be properly assessed to ensure that the correct labour escalation is applied to each capex element.

7.2.2 Materials

Powerlink provides a view that it needs to accommodate increases in materials for the purposes of forecasting costs based on SKM analysis. SKM notes in its report that it carries out other work for Powerlink. Whilst not impugning SKM, the close relationship between Powerlink and SKM over many years does assist in supporting SKM's ability in providing independent advice.

The GROUP considers that the AER should seek corroborative evidence from a party that is truly independent of Powerlink in establishing material escalators.

Additionally, Powerlink has only secured material escalators for steel, aluminium and copper and proposes to the use of just these. The GROUP is concerned that these three are not representative of all materials used by Powerlink. For example, concrete, fencing, paint and sand are also used in the construction of Powerlink assets and should be represented.

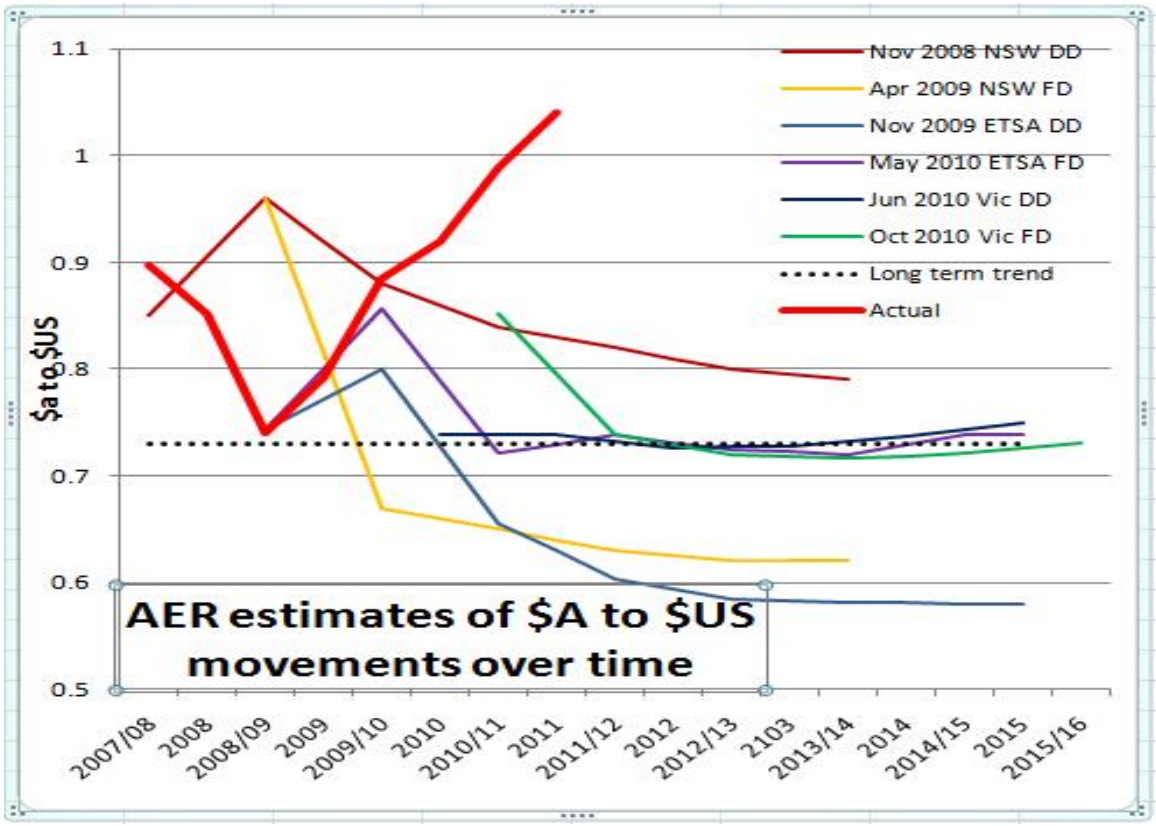
As with labour, to develop a realistic forecast of material escalators, a clear allocation of each sector needs to be defined both between the sectors and as part of the whole. In this regard, the GROUP notes that escalation formulae usually provide a breakdown where the proportions of labour and materials is less than 100% - commonly 10-20% is viewed as being fixed and not subject to movement.

7.2.3 Exchange rate

The GROUP has no independent data regarding exchange rates and considers the AER should get its own input for the expected movements in the $A.

However, the GROUP is concerned that the performance of the AER and its consultants with regard to future movements in the $A has been sorely lacking.
The performance of the AER, network businesses and their various consultants in guessing the $A/$US exchange rate over a number of years is shown in the following figure.

This clearly shows that the values of the $A has been regularly under estimated in network revenue resets and, as a result, has led to consumers paying a significant premium in escalation costs for capex.



The GROUP is not convinced that it could assess future exchange rates with any more accuracy, but this figure highlights the massive errors that can and do occur and the AER is urged to apply the lessons learned from recent empirical observations.

7.2.4 Land

Powerlink escalates the costs of acquiring easements on the basis of estimates of changing land values. The GROUP points out that not all of the easement acquisition costs are related to the price of land. In fact, all of the surveying and transaction costs are totally unrelated to the cost of land and only the landholder compensation costs might bear any relation to easement acquisition.

In the application by ElectraNet (in 2007) for inclusion of easement costs it was implied that landholder compensation costs are perhaps 40% of the total acquisition costs.

The GROUP recommends that the AER only allows the increase in land costs to be used on 40% of the easement acquisition cost inflation.

7.2.5 Summary

The GROUP notes that suggestions have been previously made (and rejected by the AER) that to avoid such errors being introduced at the expense of consumers, the AER could develop an energy transport escalation factor which is calculated each year and applied to each regulated business in lieu of applying the CPI adjustment.

The GROUP sees that such an approach would reduce risk for consumers and the network businesses alike and reduce errors that must occur at each reset.

7.3 The relationship between capex and opex

There is a relationship between capex and opex. With the increase in capex for refurbishment, there must be a proportionate reduction in opex, as this is what justifies the replacement of old assets with new assets. Notwithstanding this inverse relationship, Powerlink proposes to increase its opex from current levels.

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

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

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

As noted above, there is an economic driver for TNSPs to replace assets rather than continue with incurring opex. It is the building block approach which provides this driver, as opex is recovered at cost whereas assets achieve a return which provides the profits for the regulated business.

All members of the GROUP operate in a competitive environment and know firsthand that for capex to be used to replace opex, the return on the capex is usually measured in opex savings over 2-4 years and no longer.

The Powerlink application makes no reference to the expected savings in opex as a result of the capex program. Considering the size of the proposed capex program and the fact that the opex is also increased markedly, the AER should require Powerlink to provide an opex reduction as a result of the past and future capex programs.

7.4 Views on the specific capex projects and contingent projects

The GROUP notes that Powerlink has identified a number of specific projects that it considers need to be implemented. These are shown in tables 8.8 (committed projects), 8.9 (new projects) and 8.10 (contingent projects).

The GROUP is not provided with sufficient information to assess if these projects are:

- Necessary at this time
- Costed appropriately
- Programmed to commence at the optimum time
- Well structured for the best construction period
- Set with the appropriate triggers (contingency projects)

The GROUP expects that the AER will carry out appropriate tests to ensure that the projects are well defined, and scheduled for the optimum inclusion in the capex program

7.5 Concluding observations of capex

Powerlink has demonstrated that its costs for future capex have not been developed based on past performance and do not result from any step changes other than growth in demand and replacement of ageing assets.

Despite this, Powerlink has sought a massive increase in its capex above the already high capex program instituted in the current period. The GROUP has assessed that there is likely an over claim of some $220m pa included in the capex claim from Powerlink

The amount of capex stated as required for augmentations and connections is not supported by the forecast amount of increase in consumption or demand, and the amount of capex identified for replacement is not supported by the long term trends in actual capex for this activity. Despite the increased capex for replacement, Powerlink has not recognized there should be a reduction in opex to reflect the large amounts of past and future capex.

8. Powerlink Efficiency gain

In the NEL there are six principles for network regulation (NEL section 7A—Revenue and pricing principles). Subsection 3 states:

> "A regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes—
>
> (a) efficient investment in a distribution system or transmission system with which the operator provides direct control network services; and
>
> (b) the efficient provision of electricity network services; and
>
> (c) the efficient use of the distribution system or transmission system with which the operator provides direct control network services."

Point (a) refers to capex, point (b) refers to opex and point (c) refers to setting appropriate pricing to maximise load factor.

The AER has an opex incentive scheme (EBSS) designed fundamentally to provide a driver for a regulated business to achieve the level for 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.

Powerlink has determined that it achieved optimum opex efficiency in year 2009/10, and uses this as the basis for developing its forecast needs of opex. The GROUP totally rejects the concept that a single year opex can be used as the "efficient" basis for opex, and believes that a much more rigorous approach to setting benchmark opex has to be found. See comments in section 6 above.

The GROUP is supportive of an opex incentive scheme to encourage regulated businesses to reduce their costs, yet has real concerns that the EBSS developed by the AER will achieve this outcome. The benefit of an EBSS is that Powerlink can reduce the costs of providing the service, and by sharing the Savings with Powerlink, 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 Powerlink and not just because it was able to convince the regulator at the last reset to give a comfortable allowance, and

2. The savings achieved will continue to be shared for a period into the future.

The starting point of the EBSS is that it tracks controllable opex over the entire regulatory period and assesses the cost comparison each year. However the benchmark starting assessment for the next period is set on the performance of one year (usually year 4 of the five year regulatory period) and year 5 performance in regard to setting future opex is ignored (although it is assessed as part of the EBSS).

This means that there is an inbuilt incentive to maximise opex in year 4 (used to set the future opex) and to minimize opex in other years. Incurring an EBSS penalty in year 4 is offset by larger bonuses in other years, especially years 3 and 5 which makes a high year 4 opex possible.

The GROUP considers that the "efficient year" opex should be the average of the opex for the entire period as this replicates the period over which the EBSS is calculated. This then would bring the EBSS and the "efficient" opex onto a common assessment basis.

In principle, the GROUP agrees that only opex where Powerlink has some control should be included in the EBSS calculation. Powerlink proposes that debt and equity raising costs, network support costs and insurance costs (Premium and self insurance) should be excluded. There is some merit in this but their exclusion does not impose any pressure on Powerlink to minimize these costs for the benefit of consumers, although it is noted that Powerlink has the benefit of any under-run. This is especially important as Powerlink expects to under-run its total opex by some $36m in the current period although Powerlink points out that it expects to over-run its controllable opex.

The purpose of an EBSS is to provide an incentive so that consumers can share in the ability of Powerlink of reducing costs, wherever they are incurred. On balance, the GROUP considers that there should be minimal exclusions from the EBSS so that consumers can benefit over the long term, and that just not Powerlink is the beneficiary of being efficient. This approach reflects the intent of the NEL which does not limit the areas where acceptance of efficient costs in a network's revenue is permitted.

The NEL specifically also requires there to be an incentive scheme to ensure only efficient capex is used by a network, yet neither Powerlink nor the AER have proposed such a scheme. Bearing in mind that the capex claims from regulated networks are continually increasing (such as Powerlink proposes) not to have an incentive scheme to manage capex is a glaring omission. The GROUP considers that the AER must implement an incentive for capex as required by the NEL.

9. Service standards

Under the Service Target Performance Incentive Scheme applying to the current period, Powerlink performed adequately, generally exceeding the service performance targets set and thereby earning a bonus. The purpose of such a scheme is to set the service performance for the next period based on the service performance actually achieved under the incentive.

Powerlink proposes the following service performance standards as the basis for its incentive program. The GROUP has added to the figure prepared by Powerlink, the 4 years historic average performance for each element of the proposal. The service performance should only be for the four years as these were the years under which the incentive applied. This point is addressed in more detail below.

The GROUP considers the 4 year performance averages should be used as the basis for the service performance targets, with the collar and cap being 2 standard deviations either side of the target as proposed by Powerlink.

Parameter	Unit	Collar	Target	Cap	Weighting (% of MAR)	4 year historic performance
Transmission Lines Availability	%	97.51	98.67	99.83	0.175	**98.9**
Transformer Availability	%	98.11	98.59	99.08	0.115	**98.8**
Reactive Plant Availability	%	94.45	97.15	99.84	0.090	**97.5**
Peak Availability	%	98.31	98.76	99.20	0.070	**98.78**
Loss of Supply > 0.75 system minutes	Events	3	1	0	0.300	**0.5**
Loss of Supply > 0.10 system minutes	Events	10	4	3	0.150	**3**
Average Outage Duration	Minutes	1,306	859	412	0.100	**800**
Market Impact of Transmission Congestion	Dispatch Intervals	-	1,953	0	2.000	**1475**

Source: PL application, GROUP calculation

In its application, Powerlink advises that it has used as the basis for setting the targets for the service standard performance, the actual performance off the last five full years of service performance, with some elements discounted for expected outages resulting from the planned capex program over the next five years.

The GROUP has concerns with the Powerlink proposal on three main counts.

Firstly, Powerlink has proposed discounts to the targets because it sees that its capex program might require outages and this would make achievement of the targets more difficult. The GROUP agrees that scheduled outages for capital works could impact on the performance, but consumers are indifferent to the causes of outages, as any loss of supply impacts their usage of power. The service performance is about what consumers see in relation to their supplies of power and it is within the power of Powerlink to minimize disruption by careful scheduling of any outages (both in regard to timing and duration). If the service targets are discounted for scheduled outages for capital works, there is no incentive on Powerlink to complete their tasks at times when there will be the least disruption to consumers or to ensure the duration is minimized. The GROUP therefore does not consider that the target should be discounted for scheduled capital works.

Secondly, in the current period, Powerlink expects to expend an average of $530m ($2011) each year and in the next period, Powerlink has requested capex of an annual average of $700m pa ($2011). Whilst there is a significant increase in capex between the periods, the difference is not sufficient to warrant a discounting from the service performance actually achieved under similar circumstances. Powerlink comments (page 2 of appendix O)

> "Powerlink is proposing to undertake a program of capital and operational refurbishment tower painting works in the 2012/13 to 2016/17 regulatory period. These works have not previously been undertaken by Powerlink and will require substantial outages to Powerlink's transmission line infrastructure. As such, these outages have not been captured in Powerlink's performance history."

However, combined with this short assessment, Powerlink provides a small amount of detail in relation to painting of power line towers to substantiate its claim for a discount and comments that they have never painted towers before, so this purports to substantiate the discount. While tower painting might be a task never undertaken before, there will have been other tasks that were undertaken in the past that would have caused plant to be taken out of service but which are not being undertaken in the next period. It is therefore probable that overall there is no increase in outages required as one task is offset by another. Additionally, the calculations used to support the discounts make no attempt to identify what steps have been taken to minimize the need for the outages.

The GROUP therefore does not agree that Powerlink has justified that a discounting of past performance should be accepted

Thirdly, the past performance advised by Powerlink to set the future performance has been over the past five years of actual data. This does not recognize that the first year of data used by Powerlink (and which generally show a worse

performance) was not subject to a service performance incentive. The GROUP considers that only performance data achieved under an incentive program (such as the STPIS implemented at the last reset review) should be used for the basis of setting new targets. To use outcomes when there was no incentive is likely to distort the new targets, and this is obvious from the 4 year data that the GROUP considers should be used as the basis for the next period STPIS.

In its proposal, there are two targets that record single integer outcomes (Loss of Supply > 0.75 system minutes and Loss of Supply > 0.10 system minutes). Powerlink suggests that because of this the targets should be set at whole integers. The GROUP does not agree. These performance targets can be set at values which are not integers as the STPIS is assessed over a five year period, even though performance is calculated annually. To round up or down to develop integer settings, distorts the concept of service performance over a period. The GROUP considers that these targets can be set at values that are not integers to reflect performance over time.

The Powerlink proposal also identifies that its service performance in relation to Market Impact of Transmission Congestion (MITC) averaged 860 over the past four years. In its performance target, Powerlink has added the past performance of the new transmission assets it is to acquire from a distributor in SW Queensland where the MITC was much worse than for the existing Powerlink assets. Adding these assets increases the MITC for the past four years to 1475, nearly doubling the outcome for a relative few additional assets. Whilst this appears to be a reasonable approach (and the higher figure is included in the table above) the AER should verify that the poor performance of these assets under the previous owner is not an area where Powerlink can quickly improve performance and thereby increase its profitability, especially as Powerlink has exposed 2% of its MAR to service performance in this single measure.

10. Pricing Methodology

Chapter 6A of the NER makes it clear that transmission pricing is more a matter for users of the transmission network than for the TNSPs which recover their revenue regardless of the pricing mechanism used.

Pricing was not previously the province of regulators of TNSPs, but the changes to the NER (chapter 6A) now requires the AER to ensure that the prices developed by TNSPs are based on sound economic principles.

10.1 A shared network: the underlying principles

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

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

Inappropriate pricing of services leads to inefficient outcomes. A user that is convinced that it is paying too much for the service will take a number of actions to reduce its costs, perhaps leading to nationally inefficient outcomes. The user that is not paying its fair share for the service undervalues it and makes inappropriate use of the facility. Over allocation of transmission costs can lead to companies deciding to relocate overseas or close down, causing remaining users to provide that contribution from the business ceasing its operations. Equally, under allocation of costs results in the proliferation of occasional users who do not recognise that impact of the decisions they are making.

Consumers have observed that transmission companies have little incentive to make appropriate allocational decisions about their revenue. Their objective is maximization of revenue. This does not mean that they have not attempted to allocate costs equitably, but that they have an incentive not to devote extensive time and effort into setting prices which are based on sound economic principles.

10.2 The Powerlink Approach

In its application, Powerlink has provided a proposed pricing methodology. Essentially this is a restatement of current practices, and does not necessarily reflect the Chapter 6A requirements.

One of the main criticisms the GROUP has of the proposed approach is that for the development of the prices for non-locational TUoS and Common Service, is that the prices are based on the lower of the cost calculated from consumption or demand.

The cost of a network is predominantly related to demand so to allow a customer to pay for elements of the transmission charges on the lower of a usage charge and a demand charge, acts to reduce cost reflectivity.

High load factor customers pay for transmission on the basis of the demand they impose on the system. This is cost reflective as demand and the cost of the assets are closely aligned. Powerlink makes this point when it highlights that its capex program is driven by demand rather than consumption.

A low load factor customer which uses the network occasionally but with a high demand would pay for transmission based on consumption. This means that the low load factor customer does not pay on a cost reflective basis.

If one customer is paying on a cost reflective basis and another is not, this means there is a cross subsidy.

Whilst it is acknowledged that the AER guidelines do allow non-locational TUoS and common services to be recovered in a way that the TNSP prefers, this does not mean that the approach complies with the NER.

The AER should require Powerlink to develop an approach to pricing which is more cost reflective.