
# Submission to the Australian Energy Regulator on Powerlink's Regulatory Proposal 2012-2017

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## Executive Summary

In this submission, we set out the Energy Users Association of Australia's (EUAA) views on Powerlink's regulatory proposal for the 2012/13 to 2016/17 regulatory period.[1] The EUAA has over 100 members, many of whom are large electricity users, including in Queensland. Electricity transmission costs generally comprise around 10 per cent of our members' cost of electricity but for very large users connected to the transmission grid they can be much higher. It is also acknowledged that transmission services provide value beyond the immediate prices charged given their role in transporting energy from generation to the market and potential to influence the market's supply-demand balance and the price at which electricity is traded. EUAA members therefore have a strong interest in this review and in the outcomes determined by the AER.

Transmission prices are estimated to increase by approximately 11% in real terms in 2012/13 and to increase by 37% in nominal terms by 2016/17. This is on top of a 45% increase during the current regulatory period (2007/8-2011/12). It also follows a period of significant electricity price increases relative to the CPI in Queensland since around 2007 that show no sign of abating (see Figure 2 below). These have impacted on all electricity consumers, affecting both their cost of doing business and cost of living adversely. The main reason for these increases have been network prices.

Powerlink has proposed a total capital expenditure of $3.94 billion dollars over the next regulatory period. It also proposed a total (controllable) opex program of $992 million for the next regulatory period. This is an increase of approximately 21% (nominal) between 2012 and 2017.

Powerlink's proposed average annual revenue per year ($1.2b) for the next regulatory period is 3 times the average revenue in the previous regulatory period ($396m). Further, Powerlink is proposing an approximate doubling of its revenue from $734m in 2010/11 to $1,446 million in 2016/17. These represent significant cost increases.

For large energy users in Queensland, they translate into significant electricity price and cost increases. It is noted that electricity prices in Queensland are already escalating rapidly due to a range of factors including: large distribution price rises following the AER's 2009 determination; the effect of the Renewable Energy Target/solar subsidies; and by next year, the likely carbon tax. Powerlink's proposal will add to these price rises.

Powerlink argues that the increase in prices is necessary to meet peak demand, replace aging assets, meet higher reliability standards and to extend the transmission network to service new areas. We question this because we think that Powerlink has overstated their costs. We explain our reasoning in sec3, 4 and 5.

The EUAA considers that the National Electricity Rules (hereafter the Rules) are defective in many respects. By way of an example, given the asymmetry of information, the Rules give too much incentive for regulated entities to overspend on capex and opex. This is compounded by the fact that the onus of proof is on the regulator to show that a particular expenditure item is unreasonable rather than on the businesses to show why it is not.

[1] Powerlink Queensland (2011), *Powerlink Queensland Revenue Proposal, 2013-2017*.

As an example, Powerlink forecasts a capex of $3.947 billion over the next regulatory period, this would result in Powerlink spending approximately 4.6 times the average capex of the previous regulatory period.

The EUAA also have issues with Clause 6.5.4. (e) 2, 4,1 of the Rules, which relate to the estimation of the debt risk margin (hereafter DRM). We submit that the Rules are flawed which leads to higher estimated cost of debt. Our reasoning is set out in section 5.

In assessing Powerlink's regulatory proposal, the EUAA urges the AER to fully take into account the shortcomings of the Rules, in particular, the perverse incentives to artificially inflate capital and non-capital costs. Knowing these shortcomings, the AER is also asked to consider every possible way that it could ensure a regulatory determination that delivers outcomes which lower Powerlinks' proposal to as far below the top or over the range of what could be considered reasonable as is possible. In doing this, the AER will be supporting steps to lower the burden of unfair and excessive electricity price rises in Queensland sooner rather than later.

As a minimum, in making their assessment of Powerlink's proposal, the AER is urged not only to explain their decisions in light of the constraint imposed by the current Rules but also outline the alternative that would result without the flaws in the current Rules.

This is necessary for two reasons. First, that the AER itself has admitted publicly that the current regulatory framework is defective and leads to outcomes that are at the high end or above the range of what could be considered reasonable. Secondly, energy users need to know the measurable consequences of operating under the current flawed regulatory regime on the one hand and how much this is costing them in terms of higher electricity prices.

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# 1. Introduction

Powerlink has submitted its Revenue Proposal for the AER to consider. To fund forecast expenditures for the next regulatory period, Powerlink argues for a revenue requirement of around $5.9 billion. These revenue requirements lead to significant price rises.

The Energy Users Association of Australia (EUAA) welcomes the opportunity to provide a submission to the Australian Energy Regulator (AER) on Powerlink's Energy's regulatory proposal for the period 2012/13 to 2016/17.

The EUAA is a non-profit organization that represents the interests of its members on a range of energy policy and regulatory matters, including AER reviews. We have over 100 members, including many of the largest electricity users in Australia. We have a significant membership base in Queensland with most of the State's largest energy users being members. Taken together, our members account for a significant share of the electricity consumed in the National Electricity Market (NEM). Electricity transmission costs would generally comprise around 10 per cent of our members' delivered cost of electricity. However, for energy users connected directly to Powerlink's network, transmission costs would be far higher, contributing between 20 and 30 per cent of the delivered cost. Although these users are few in number, they are generally very large electricity consumers. Our members also depend on the transmission service provider to deliver a reliable supply of electricity with high power quality levels. Transmission services are also important in the context of enabling power generators to transport their electricity into the market and across the various regions of the National Electricity Market (NEM). They can and do have a significant impact on the price of electricity generated, constraints in power flows, the volatility of power prices and also on ancillary services. It is therefore acknowledged that transmission has an importance to energy users that goes beyond the price of transmission services. Nevertheless, the payment of transmission charges are an important issue for EUAA members. On all these grounds, EUAA members therefore have a strong interest in this review and in the outcomes determined by the AER.

The EUAA has been involved with most of the network (Distributors and Transmission) pricing reviews since the inception of the NEM, including all previous AER resets and Powerlink's two previous resets.

The Australian Energy Regulator (AER) and the regulated network providers have stated that higher expenditure is needed to cope with rising demand, higher standards, ageing assets and historic underinvestment.

The EUAA is of the view that a portion of the total forecast expenditures for the next regulatory period suggested by Powerlink is overstated. A major reason for this view is that the regulatory framework is flawed. As currently designed, it gives perverse incentives to regulated entities to overspend rather than to minimize cost. The consequences are clear – energy users have to pay higher electricity prices than necessary – and significantly so.

The fact that the regulatory framework is defective is now well known and acknowledged by the AER.

After completing reviews of the transmission and distribution networks the AER through its Chair Mr Andrew Reeves, has acknowledged that there are a number of shortcomings in the regulatory framework. These include:

- The regime incentivises the businesses to submit revenue proposals that are at the top, or over, what can be considered a reasonable reflection of required expenditure.
- The rules require all actual capex to be rolled into the asset base at the start of the next regulatory period without review of its efficiency even when the business has overspent its allowed expenditures. This results in step-changes in price increases at the start of the next regulatory period.
- The AER is restricted in the application of the cost of capital due to the rules which require the AER to assess the cost of debt against corporate bonds issued in Australia, which are not reflective of the actual debt raising activities of the DSNPs.
- There have been further increases in revenues granted to the networks from appeals to the Australian Competition Tribunal (ACT). The cost of appeal is weighed against the results from a successful outcome and incentivises appealing an AER determination. The cost of an appeal can be recovered from the network's customers.

Mr Reeves argued for the need for wide ranging reform of network regulation to deal with the widespread and large electricity price increases being felt by electricity users in the National Electricity Market (NEM). He also supported the need for rule changes.

> *"The AER considers that changes to these rules are necessary for regulatory outcomes to better meet the objective of the law [that is, what is in the long term interests of consumers of electricity]."*[2]

In sum then, the current regulatory framework and the way it is being applied is leading to excessive expenditures and rates of return, which is flowing through into excessive prices. By analogy, there seems every reason to be concerned that this will also be reflected in the AER's Powerlink determination.

Moreover, the EUAA believes, on the basis of its own research, that these outcomes are significantly worse in the case of Government owned network service providers such as Powerlink.

The EUAA has come to the same conclusion as Mr Reeves. For example, a report commissioned by the EUAA found that rising electricity prices are also due to inefficient operation and overinvestment. It also found that privately owned networks had provided higher quality of service than the Government owned networks with significantly less expenditure. The report shows that rising prices are attributable to inefficient operation and over-investment. And the report found that there were "serious deficiencies" in the economic regulation framework.

It is in this context that Powerlink has submitted its regulatory proposal for its 2012 to 2016/7 regulatory period.

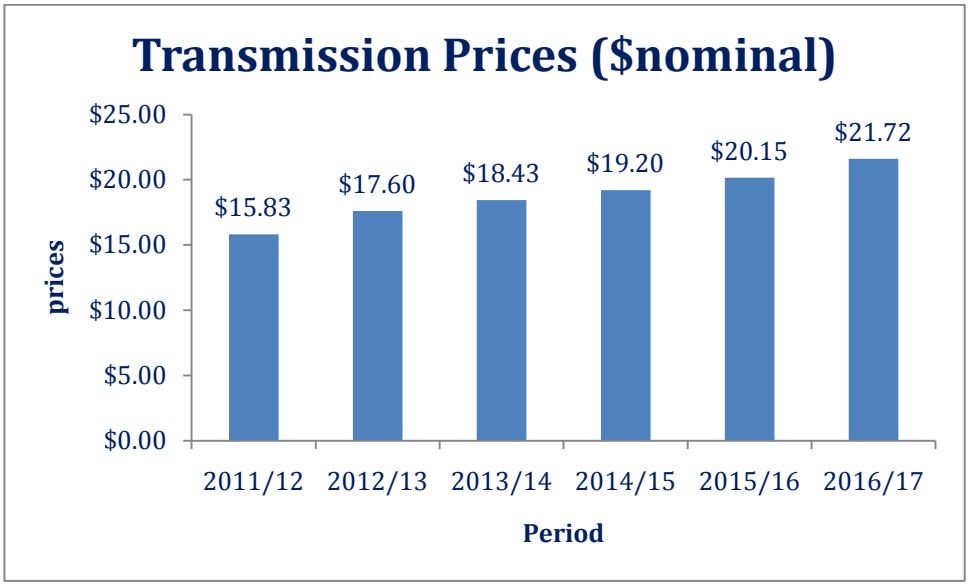
[2] Andrew Reeves, Chairman *'Finding the balance—the rules, prices and network investment'*, Energy Users Association of Australia, Energy Price and Market Update seminar, Melbourne, 20 June 2011.

## 1.1. Prices

According to its proposal, Powerlink's prices are expected to increase significantly over the next regulatory period. The first year of the regulatory period will see a nominal price increase of 11%, whilst over the five years of the regulatory period the nominal increase is forecast to be 37%. The nominal prices are shown in the chart below.

These price increases would add to the recent trend of significant electricity price increases in Queensland and are of concern to the EUAA and its Queensland membership base.

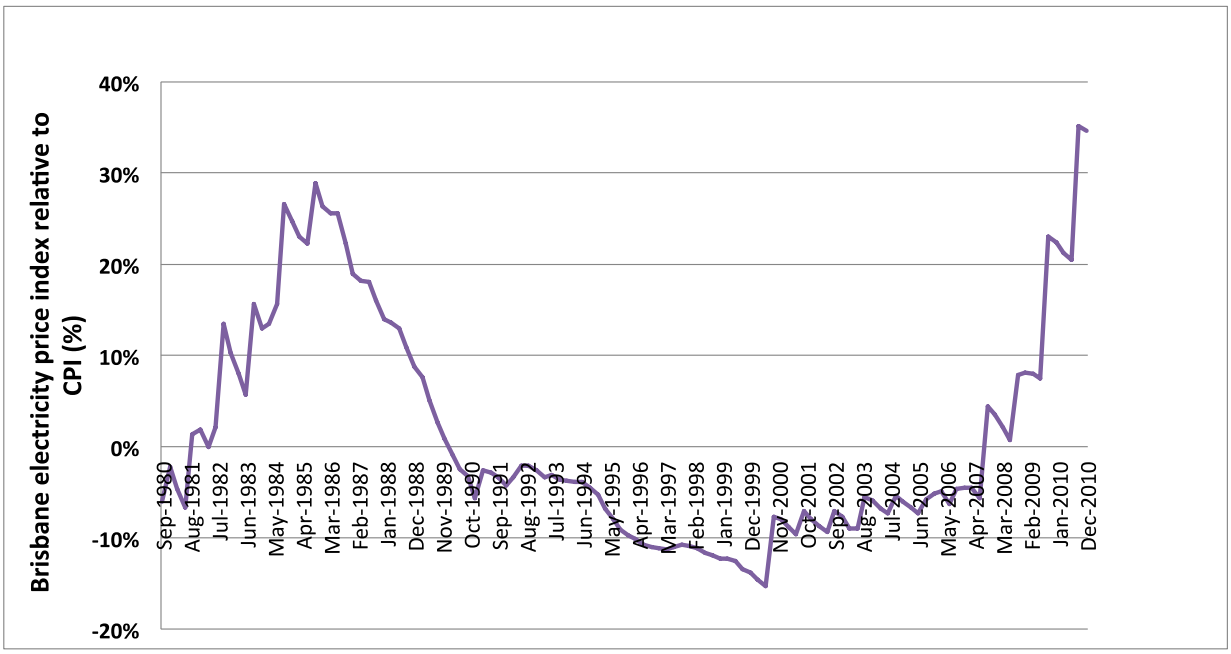
**Figure 1: Powerlink's proposed transmission price increases**




*Source : Regulatory Proposal 2012-2017 ( p.15)*

The chart below shows how electricity prices in Brisbane have changed since 1980. The points we would most like to emphasise is that electricity prices relative to the CPI fell for a sustained period from 1990 until 2007. Since then they have escalated rapidly in an almost unprecedented fashion with the primary driver being increases in network prices. Price increases of this magnitude impact both the cost of doing business and the cost of living of all electricity consumers.

**Figure 2: Brisbane electricity prices relative to the CPI**




*Source: EUAA based on ABS data*

## 1.2. Comments on Powerlink, the Organisation

The EUAA has had a constructive relationship with Powerlink for many years, including at the top echelons of the organization. In our experience, we have found Powerlink to be a well-run and technically competent organization. Powerlink has also been a leader in terms of engagement with the EUAA and its members. There was worthwhile and constructive interaction at the time of the previous AER regulatory review and this has also been the case with this review. At an early stage we meet with senior Powerlink people and a process for engagement during the review was agreed upon. We would like to commend Powerlink for these initiatives.

# 2. Growth and Energy forecasts

Under its medium growth scenario, Powerlink forecasts a growth rate of peak demand of around 5.1 % per annum and energy transmitted of approximately 5.4% per annum.

The EUAA questions this optimistic forecast of transmitted energy. For example, according to the AEMO's Electricity Statement of Opportunities (SOO) 2010 (table 4.7 p40), Queensland energy is forecasted to grow by only 3.7% per annum between 2012-2017.

Powerlink forecasts a growth rate of peak demand of around 5.1% per annum (Regulatory Proposal, fig 1.1 p.7) but according to AEMO's SOO (table 4.8 p.41), maximum demand is projected to grow in Queensland by only 3.9% per annum between 2012-2017. Furthermore, between 2004-2010, maximum demand grew by an average of 2.1% per annum. Energy sent out grew by an average of around 1.4% per annum.

Further, according to data and analysis in the AEMO SOO (Fig A 1-4 and Fig A 1-5 p.187 ), growth in Queensland and Western Australia are trending down from a peak at 2011, reflecting the future downward movement in the commodity cycle. The decline in growth rates becomes more apparent after 2014.

According to Powerlink's 2011 Annual Planning Report, over the 5 year period from 2005/6 to 2010/11 the energy delivered by Powerlink's network will have increased by approximately 1.3%, i.e. an average growth rate of around 0.2% per annum. Despite this, Powerlink's Annual Planning report then projects that energy consumption over the next 5 years will jump by 35% (approx 6% p.a.). In other words, Powerlink is assuming an annual growth rate of over 30 times the average growth rate of the previous 5 years. These figures should be carefully scrutinsed by the AER given their importance to the determination in terms of allowed revenue and Powerlink's transmission charges and given the well known tendency for network businesses to inflate growth and energy forecasts as this gains them more revenue.

As indicated by Garnaut in his recent update report for the electricity sector, over the past 3 years there has been a considerable deceleration in the growth in Australia's electricity consumption. This is evident from trends in Powerlink's own Annual Planning Report which showed that its energy delivered declined absolutely dropped in 2010/2011.

This is partly due to consumers moderating their electricity usage in response to higher prices, and also due to improved insulation and other energy efficiency measures, plus some contribution from the increased penetration of household solar PV systems.

Given all the above, the EUAA considers that the projections for energy consumption and energy delivered by Powerlink could well be overstated and unreliable.

Most significantly, if the forecast for energy consumption and energy transmitted is only half or a third of what Powerlink predicted, than this suggests strongly that Powerlink is overspending on capex and opex by a significant amount. By implication, large energy users will be paying double (TUOS - $15.88/MWh to $31.28/MWh over the next 6 years (2011/12 to 2016/17) for inefficient expenditures by Powerlink. This may well represent the highest proposed growth in transmission network charges in the NEM during this period.

# 3. Capital expenditure

Powerlink has proposed a total capital expenditure of $3.94 billion dollars over the next regulatory period. This would result in Powerlink spending approximately 1.5 times the average capex spend of the current regulatory period (2007/8? to 2011/12) and approximately 4.6 times the average capex spend of the previous regulatory period (2002/3? to 2006/7).

The EUAA notes that the Rules require all actual capex to be rolled into the asset base at the start of the next regulatory period without review of its efficiency in spite of the business spending more than its allowed expenditures. This results in step-change increases in prices at the start of the following regulatory period. By way of an example, the EUAA understands that Powerlink is currently struggling to spend the major increase in capex allowance it secured for the current regulatory period. We also note that to date Powerlink is $270 underspent. However Powerlink is proposing to undergo a massive "catch up" suggesting that it will spend almost $800m in capital expenditure in 2011/2012. This is around twice as much as it spent in the previous two years and almost twice as much as its regulatory allowance for the year. Powerlink's proposed replacement capex expenditure represents a replacement of over 20% of its regulated asset base over the next 5 years. The EUAA strongly suggest that the AER to scrutinize these expenditures closely.

The EUAA notes that alternatives to network augmentation such as demand management and embedded generation have not been considered seriously by Powerlink despite their obligations to do so. We believe that this needs to be done in a meaningful way especially given the large increases that Powerlink is proposing and their impact on transmission charges.

EUAA considers benchmarking of capex (and opex) essential and notes the requirement to benchmark under the Rules and use of benchmarking by Powerlink to support its case. EUAA strongly believes that a robust benchmarking of expenditure is critical but best done by an independent entity such as the AER. As we pointed out at the AER's public forum in Brisbane on July 26, this is needed for transparency and credibility and to give end users a better assurance that what they are being asked to fund is reflective of efficient expenditures by Powerlink in the next regulatory period. We remain very concerned that the AER has not undertaken forward looking regulatory benchmarking along these lines in any of its reviews to date

It is even more critical given the significant increase in capex proposed by Powerlink and given the shortcomings in the Rules acknowledged by the AER as leading to 'high end' capex. Hence, EUAA strongly urges AER to implement its own benchmarking of Powerlink's expenditures as mandated by the Rules. Whilst we note that the AER has expressed the view that it lacks the data to undertake such benchmarking, we also note (with some concern) that the AER (and its predecessor the ACCC) have been regulating transmission in the NEM since the late 1990s yet has not established a set of data with which to effectively benchmark transmission entities. And the AER is able to issue Regulatory Information Notices in order to collect the data it needs to implement the Rules. We therefore query why the AER is not able to benchmark capex for transmission entities in the NEM such as Powerlink?

Furthermore, we strongly urge the AER to undertake a thorough review of the need for all significant capital projects, to discern: (i) which should or should not be approved; (ii) which can be deferred to the next regulatory period, and (iii) which should more appropriately be classified as contingent projects given uncertainty in costs and the need for investment during the next regulatory period. The EUAA urges the AER to examine closely the investment processes carried

out by Powerlink and to rigorously analyse the economic and engineering feasibility of these projects.

Generally, he EUAA supports investment in the transmission network that is shown to be efficient and necessary. However, we do not support gold plating or other forms of over-investment that forces users to bear undue costs incurred by monopoly network businesses.

We note that Powerlink has proposed some large capital expenditure that is project related, eg work to augment the transmission network to meet expected growth in demand due to coal-seam gas and coal projects. Powerlink believe that the projects on which this expenditure is based are very likely to go ahead. We are not in a position to comment on the specifics of these projects or to assess the likelihood of them proceeding and we would certainly not wish to see outcomes that interfere with such projects which are important to the Queensland economy. However, we would make the following points in relation to this:

- We are under the impression that coal-seam gas projects can self-generate electricity from the gas which they produce and that it is generally accepted that this is more economic that connection to the grid. If this is so, it is difficult to understand why the proponents are seeking grid connection? We would urge the AER to thorough investigate this to ensure that the associated capex is necessary and likely to go ahead. It would also be worth examining the connection arrangements, capital contribution arrangements and shared network arrangements.

- Powerlink have said that the grid backbone extensions associated with some of these projects will not result in higher TUoS charges and even result in lower charges compared to the alternative. We would urge the AER to carefully consider this so as to ensure it veracity and that efficient and cost reflective transmission charges result.

# 4. Operational Expenditures

Powerlink has proposed a total (controllable) opex program of $992 million for the next regulatory period. This is an increase of approximately 21% (nominal) between 2012 and 2017,and an increase of approximately 40 % over their actual/projected opex during the current regulatory period. In other words, Powerlink is proposing an average annual opex approximately 1.5 times the average opex for the current regulatory period (2007/8 to 2011/12) and almost 3 times the average annual opex of the previous regulatory period . The proposed annual opex for the final year ($ 254m) equates to around 4 times its annual opex at the start of the previous regulatory period ($65m).

On the positive note, we note that Powerlink's operating costs have tracked more-or-less in line with that allowed for the current regulatory period.

The biggest contributors to the opex program are field maintenance making up approximately 32%;,operational refurbishment making up 18% and asset management support making up 18%.

Given the above, the EUAA suggests that the proposed opex by Powerlink is overstated.

The EUAA considers the benchmarking done by Powerlink to be partial and inadequate. For example, the ITOMS results (RP-p102ff) presented in the submission are not an indicator of operational efficiency as they only benchmark the direct labour costs of selected maintenance activities, which accounts for less than 10% of Powerlink's controllable opex. The EUAA notes that the opex/rab ratio used by Powerlink to show that its operating expenditures are efficient is uninformative. The EUAA prefers a more objective ratio such as opex/mwh delivered. Based on Powerlink's proposal, its opex/mwh will more than triple from the start of the previous regulatory period (2001/2) to the end of the next regulatory period (2016/17).

The EUAA submits that some of the items listed on p90 of the Regulatory Proposal are not 'one-off' but are more likely to be recurring expenditure items. We urge the AER to examine this further.

The EUAA asks whether the South-West Queensland extension (listed on p90 of RP) should be regarded as part of the Regulatory Proposal at all because these are non-regulated and paid for by the generators.

We urge the AER to undertake a thorough review of Powerlink's field maintenance, operational refurbishment and asset management support to verify and justify such a significant increase in its proposed expenditures. The EUAA suggests that the significant increase in opex is driven, *inter alia*, by unrealistic energy consumption growth projection by Powerlink.

The previous section discussed the need for the AER to benchmark network businesses against one another in terms of their proposed capex and opex. It also noted that the AER had not done so to date notwithstanding its long time operation as transmission regulator in the NEM and its information gathering powers. The absence of benchmarking is of even more concern given the large increases in expenditures being proposed by all network service providers to the AER and the consequences of this for sharp price increases. This is also an important issue in this review of Powerlink.

EUAA therefore urges the AER to benchmark Power link's opex with other transmission companies. This is necessary because, as was pointed out previously, the Rules mandate that the AER undertake such benchmarking and it is therefore even more disappointing that it has not done so to date. Moreover, research commissioned by the EUAA comparing distribution networks in four NEM jurisdictions shows that private network service providers are more cost efficient than government owned ones, and significantly so. This suggests that regulatory benchmarking can be a powerful tool in encouraging network service providers to become more efficient and lower their costs, with consequent benefits to end users in terms of prices. Whilst this study was based on a comparison of distribution companies, we hold the view that similar issues and incentives also apply to transmission.

# 5. Cost of Debt

Powerlink has asked for a WACC of 10.3% and a debt risk premium (hereafter DRP) of 4.3% for the next regulatory period.

The EUAA notes that Powerlink receives all of its funding from Queensland Treasury. Further, Queensland Treasury is borrowing at a rate of interest of approximately 5%, yet Power link proposes a WACC of 10.3%. This alone would increase transmission prices by XX% over the next regulatory period for no good reason. Queensland consumers will be paying even higher electricity prices as a result.

Therefore, the EUAA considers the DRP that Powerlink is asking for to be excessive and to have unacceptable price impacts. The EUAA agrees with the AER that the the Rules relating to the estimation of DRP have flaws that produce biased estimates favouring the regulated entities and therefore adding to electricity price pressures. This is even more so for Government owned networks.

The EUAA has argued for the cost of debt to be largely estimated from the actual cost of debt incurred by the regulated entities. This seems to be the most transparent, objective and realistic way of calculating the cost of debt.

Not dissimilar to the view held by the AER, the EUAA considers that the Rules relating to the estimation of the debt risk premium are unworkable, unrealistic and provide too much room for subjective judgements.

More specifically, the EUAA considers the methodology used by Powerlink (PWC) to derive the debt risk margin needs to be carefully scrutinised. For example, PWC used a Bloomberg curve (see Regulatory Proposal Fig 3.1, p30 (App C)) which 'jumped' from year 4 to year 5 by 90 bps. Given that the average between year 1 and year 4 is only 18bps per annum, the EUAA considers the inclusion of year 5 unacceptable as it is an outlier. Other criticisms of the Bloomberg curve are well known such as unrepresentative data, small sample, unknown methodology, and estimates that cannot be replicated.

The EUAA also expects the AER to be aware that the limitations of the Rules leave them open to 'gaming', and that the PWC's methodology for deriving the debt risk margin may be an example of this.

Given the above and the acknowledged problems with the DRP, EUAA considers it urgent for the AER to review the methodology it currently uses for calculating the relevant debt risk premium. As we pointed out in a paper on the DRP submitted as part of the AER's review of the Victorian distribution businesses in 2010, we firmly believe that there are steps that the AER can and should take even within the existing rules that will result in a fairer DRP being set. This would also offer some faster relief for users from the burden of rapidly rising network charges that are acknowledged by the AER to give regulatory results that are "at the top or over of what can be consider reasonable".

# 6. Conclusion

Large energy users are again being asked to digest higher prices (37% in the next regulatory period) to fund higher capex and opex by Powerlink. EUAA believes the forecasts for growth, energy transmitted, capex, opex and cost of debt to be inflated, and that this is largely a reflection of the perverse incentives inherent in the Rules. The inevitable consequence of the AER accepting, in whole or in large part, Powerlink's proposal will be to force electricity prices in Queensland even higher for no good reason. By doing so, the AER would be condoning an outcome that it acknowledges would be at the high end or above what could be considered reasonable and a result of fundamental shortcomings in the Rules. Being asked to pay even higher electricity prices as a result of flaws in the Rules is not a situation that Queensland electricity consumers or the AER should accept.

Higher electricity costs inevitably lead to higher costs of doing businesses, to lower output and lower competitiveness for business users. For household consumers, they lead to higher costs for most goods and services, a cost of living, and higher inflation. To be clear, users support efficient expenditures on the transmission network. Unfortunately, the EUAA considers it the case that the design and administration of Australia's regulatory framework as it currently stands leads to expenditures and prices that is inefficient and not consistent with the electricity market objective.