Submission in Relation to the Australian Energy Regulator's Draft Determination on Powerlink's Regulatory Proposal 2012-2017 and Powerlink's Revised Proposal

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Suite 1, Level 2
19-23 Prospect Street
Box Hill VICTORIA 3125
Tel: +61 3 9898 3900

Email: euaa@euaa.com.au
Website: www.euaa.com.au

Executive Summary

In this submission, we set out the Energy Users Association of Australia's (EUAA) views on the AER Draft Determination (DD) and on Powerlink's revised regulatory proposal for the 2012/13 to 2016/17 regulatory period.

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 Draft Decision and Powerlink's Revised Proposal.

The price impact of the DD is a critical issue for energy users. In Powerlink's original revenue proposal (2011), transmission prices were estimated to increase by 37 per cent in nominal terms by 2016/17. This is on top of a 45 per cent increase during the current regulatory period (2007/8-2011/12).

In the DD, the AER is claiming (pages x, 5 and 277) that the price impact will be an average annual increase of 0.8 per cent (or a $1.40 per annum increase in the average household electricity bill). Moreover, Powerlink is claiming (pages 7, 12, 13, 168 and 169) that the price impact of its revised revenue proposal will be average price increases of 1.6 per cent per annum (or $2.77 per annum in the average household electricity bill). The EUAA disputes these claims.

Calculations by the EUAA suggest that under the AER DD, the annual percentage price increases could be up to 7 per cent pa, or a $12 per annum increase in household electricity bills (see Table ES1 below). Moreover, under Powerlink's revised proposal the annual percentage price increases will be in the order of 11 per cent pa, or an additional $19 per annum for household electricity bills. Price rises of this magnitude are unacceptable to electricity consumers at a time of already rapidly rising electricity prices. Of course the impacts on the costs of business users in Queensland will be even greater given that they pay more for their electricity.

Table ES1: Price Impacts Differ Based Assumptions in Energy Delivered

	Assumed Annual Growth in Energy Delivered				
	-2%	-1%	0%	1%	2%
Price increase pa - AER Draft Decision	7%	6%	5%	4%	3%
Price increase pa - Powerlink Revised Proposal	11%	10%	8%	7%	6%

The reasons for the EUAA's counter view (set out in more detail in section 1.1 of our submission) go to what we believe are unrealistic assumptions used by both organisations regarding energy delivered, which is critical to the price outcomes. Both the AER and Powerlink assume strong growth in energy delivered to obtain their price outcomes. As there is an inverse relationship between growth in energy delivered, an optimistic assumption (ie higher growth) will result in lower price increases. However, the consensus on the likely growth in energy delivered over the

next regulatory period is for much lower (or even negative) growth than either the AER or Powerlink assume.

The AER's draft decision gave Powerlink $4,563 million ($ nominal) for the next regulatory control period, or 23 % below Powerlink's proposal but still a 36.5% higher than current allowance for 2007-2012.

The main drivers of the difference between the AER's draft decision and Powerlink's proposal are:

- The regulated rate of return, or weighted average cost of capital (WACC);
- Capital expenditure (capex); and
- Operating expenditure (opex).

In summary, Powerlink's originally proposed WACC of 10.30 per cent and the AER have determined an indicative WACC of 8.31 per cent. In its revised proposal Powerlink sought a WACC of 8.68 per cent and we welcome their recognition of the need for a reduction.

The AER has not accepted Powerlink capex proposal ($3,488 million). The AER has instead approved a capex allowance of $2,356 million. This amount represents a reduction of 32 per cent on Powerlink 's proposal. Powerlink's revised proposal sought capex of $3,319 million, a reduction of $ 169 million on its original proposal. We again welcome this reduction but note that it is still $963 million above the AER's Draft Determination. For reasons explained in the submission we dispute elements of both the AER Draft Determination and Powerlink's revised proposal. If the AER were to action these, we estimate that it would reduce capex over the next regulatory period to around 30 percent below the AER's Draft Determination. There would be a significant downward impact on prices.

The AER rejected Powerlink's proposed opex ($1,001m) and instead gave Powerlink an allowance of $920m. This equates to a reduction of approximately 8.2 per cent. Powerlink's revised proposal sought opex of $1,010 million, an increase $9 million on its original proposal. We note that this is still $90 million, above the AER's Draft Determination. For reasons explained in the submission, we dispute elements of both the AER Draft Determination and Powerlink's revised proposal. If the AER were to act on these, we estimate that it would reduce opex over the next regulatory period to 30 percent below the AER's Draft Determination. Again, there would be a significant downward impact on prices.

By far the biggest item in terms of revenue consequences is the rate of return (Weighted Average Cost of Capital, or WACC) provided to Powerlink. This is responsible for around 70 per cent of its revenue for the next regulatory period. Of particular interest is the cost of debt and, in particular, the debt risk premium (DRP). Powerlink originally argued for a DRP of 4.3 per cent. The AER has instead determined a DRP of 3.19 per cent.

We note that the AER has altered its method for calculating the DRP such that it is relying more on actual observed data rather than the contrived Bloomberg Fair Value Curve. This provides a major explanation for its lower DRP. We welcome this step by the AER and note its important impact on transmission prices.

In its revised proposal Powerlink proposed a DRP of 3.91 per cent. We also welcome the movements by Powerlink to propose a DRP more closely aligned with that of the AER. However, the EUAA does not agree with the argument by Powerlink about the appropriateness of combining

the two methods to jointly determine the DRP. Instead, the EUAA supports the AER methodology for determining the DRP. The reasons for this are explained in section 5 of the submission.

Powerlink argues that the increase in expenditures and prices are necessary to meet peak demand, replace aging assets, and meet higher reliability standards and to extend the transmission network to service new areas. We question this because we believe that Powerlink has not justified this overspend. We explain our reasoning in sections 3, 4 and 5.

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1. Introduction

The AER released its Draft Determination (DD) in October 2011 on Powerlink's revenue proposal The DD gave Powerlink revenue totaling $4,577million ($nominal) for the next regulatory control period, or 23 % below Powerlink's proposal ($5.9 billion). Powerlink revised proposal asks for $5 billion. This means that Powerlink is seeking a total increase of $427 million above the AER DD. We believe that the consequences of both the DD and Powerlink's revised proposal for prices are wrongly estimated. This is explained further in section 1.1

The Energy Users Association of Australia (EUAA) welcomes the opportunity to provide a submission to the Australian Energy Regulator (AER) Draft Determination 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 and important to the State's economy. 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 on ancillary services. It is therefore acknowledged that transmission has an importance to energy users that goes beyond the price of transmission services themselves. Nevertheless, the payment of transmission charges is an important issue for EUAA members. On all these grounds, EUAA members therefore have a strong interest in this DD and in the outcomes finally 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.

Powerlink has stated that higher expenditure is needed to cope with rising demand, higher technical standards, ageing assets and historic underinvestment, and the growth rate anticipated for the Queensland economy in the next decade.

The EUAA appreciates the efforts that Powerlink has put into its initial and revised proposals to the AER and has carefully considered these. Having done so we have formed the view that a portion of the forecast expenditures for the next regulatory period suggested by Powerlink in its revised proposal is overstated. The EUAA is also of the view that the supporting arguments and methodologies used by Powerlink do not provide sufficient justification for its higher expenditure.

1.1.Price impact

We believe that both the AER and Powerlink have understated the price impacts of the DD and the revised proposal respectively. The AER is claiming (pages x, 5 and 277) that the price impact of its Draft Determination will be an average annual increase of 0.8% (which equates to a $1.40 per annum increase in the average household electricity bill).

Powerlink says (pages 7, 12, 13, 168 and 169) that the price impact of its revised revenue proposal will be average price increases of 1.6%/annum (which equates to a $2.77 per annum increase in the average household electricity bill).

We have carefully examined these calculations and believe that they are incorrect because they are based on unrealistic assumptions regarding the future energy delivered by Powerlink's network. In a revenue cap regime, there is an inverse relationship between the energy delivered and prices. For example, if the energy delivered turns out to be lower than forecast, then prices need to rise to ensure a given revenue stream. (Energy delivered projections are discussed in some detail in section 2.)

In its Draft Determination, the AER has clearly identified that the energy delivered by Powerlink's network is actually reducing (as pointed out in many submissions), rather than increasing at around 6% per annum as originally proposed by Powerlink.

However, when calculating the price impacts, the AER is actually assuming that the energy delivered will increase at around 4.2% per annum. It is not clear why this is the case?

Powerlink's revised revenue proposal has not addressed the likelihood of declining energy delivered. When calculating price impacts (Table 1.4, page 12), Powerlink's revised proposal is still assuming that the energy delivered by its network will increase by an average of 5.5% per annum over the next regulatory period.

To show the impact of different scenarios of energy delivered see Table 1. The differences are significant, with price increases of up to 7 per cent pa in the case of the AER DD and up to 11 per cent pa in the case of the Powerlink revised proposal possible if, as expected, energy delivered is not as strong as assumed by the AER and Powerlink. Even under flat growth in energy delivered, prices would increase by 5 per cent pa (AER) or 8 per cent pa (Powerlink).

Table 1: Price Impacts Differ Based Assumptions in Energy Delivered

	Assumed Annual Growth in Energy Delivered				
	-2%	-1%	0%	1%	2%
Price increase pa - AER Draft Decision	7%	6%	5%	4%	3%
Price increase pa - Powerlink Revised Proposal	11%	10%	8%	7%	6%

The EUAA is concerned that the approaches used by AER and Powerlink have provided Queensland energy consumers with an unrealistically low indication of transmission price outcomes over the next regulatory period. This is even more of a concern given that electricity prices are under severe upwards pressure for a range of other sources.

Given the above, the EUAA urges the AER to adopt a more realistic assumption about energy delivered in their Final Determination (and one consistent number throughout the document) and to do some sensitivity analysis to provide users with a realistic characterization of price impacts. It is not acceptable for the AER to just assume one state of nature.

1.2.Interaction with Powerlink on the Determination

The EUAA has had a constructive relationship with Powerlink for many years, including at the top echelons of the 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 determination. We have had several fruitful discussion with Powerlink about their original and revised proposals in which they explained to us their methods and way of thinking about network expansion and the future of Queensland transmission generally. We asked and discussed some specific and general issues and Powerlink was very helpful in clarifying these issues. We would like to thank Powerlink for these initiatives, their level of engagement and their co-operative approach. Naturally, the EUAA has carefully considered Powerlink's input into the AER review to date and the points made in the discussions we have had with them, even though the views that we have formed do not always accord with their views.

2. Peak Demand and Energy forecasts

2.1.Powerlink's projection for peak demand

The future projection for peak demand is fundamental because it is the key driver of Powerlink's load-driven capex.

The AER's consultants (EMCa) were highly critical of Powerlink's peak demand forecast (the key driver of Powerlink's load driven capex).

The AER identified a number of issues that it considered contributed to Powerlink over-estimating its peak demand forecasts including:

- Flaws in Powerlink's temperature correction method
- Flaws in Powerlink's assumptions/inputs to the model (e.g., electricity prices, energy temperature assumptions, energy sector assumptions, population and GSP assumptions, etc)
- Concerns with Powerlink's proposed "S Curve" for its South East Queensland demand projections
- The use of macroeconomic variables that are "on the upper end of accepted forecast ranges"
- Various issues that "consistently lead to an upward bias in Powerlink's demand forecasts"

The AER compared Powerlink's past demand forecasts with past actual demand and identified that "Powerlink has consistently over-forecast its demand". (p 92, DD).

The AER instead forecast peak demand to grow from 9,632MW to 11,146MW during the next regulatory period. This is a growth rate of 3.7% per annum.

From Table 2.1 of the DD, Powerlink forecast peak demand to grow from 10,252MW in 2012/13 to 12,437MW in 2016/17. This is a growth rate of approximately 5% per annum. As mentioned above, the AER did not consider this projection realistic and substituted instead a growth rate of 3.7%.

In preparing its Revised Revenue Proposal, Powerlink has adopted a revised demand forecast to take into account the latest information available from the National Institute of Economic and Industry Research (NIEIR), in particular the use of the latest economic outlooks for Queensland and the recent commitment of additional new customers connecting directly to Powerlink's network.

There appear to be some inconsistencies in Powerlink's revised revenue proposal that make it difficult to directly compare with the AER's position. In particular, Powerlink's revised proposal focuses on its 50%probability of exceedence(POE) forecasts, rather than the 10% POE forecasts, which it actually uses for its network planning. Powerlink does not appear to have provided an explanation for this change.

The AER recognises that adjusting actual demand for weather and diversity is reasonable in principle and is common practice among network service providers in the NEM. It ensures that one-off events do not unduly bias demand forecasts. The issue is which is the best way to go about it when various options are available.

The EUAA is of the view that there are no perfect methods for forecasting the weather. It is not even certain which particular method best explains the available data. For example, in relation to temperature correction, Powerlink admits that the result of its analysis suggests that it is not clear whether using average temperature or daily maximum temperature is superior in explaining the data. That is, using average temperature (as practiced by Powerlink) or daily maximum temperature (as recommended by the AER) is equally valid. The results are mixed in that both methods are equally imperfect (p54, RP).

Another example of the practical difficulties in choosing between different methods is in relation to using the S curve in temperature correcting demand. The AER considers that the S curve has an upward bias and therefore prefers to use a linear relationship between temperature and demand. However, even in using a linear relationship, EMCa[1] (consultants for AER) found that the linear relationship does not provide a clearly improved fit to the data compared to the S curve which is used by Powerlink (p 9, DD).

2.1.1. The EUAA response

This being the case, the EUAA is more comfortable with letting the AER be the ultimate judge on the appropriate method. The basic reason is that the AER is independent and more likely to be objective in their analysis. In contrast, the regulatory framework is such that there are incentives for network companies to overstate their proposals.

In addition, research by the EUAA suggests that the AER peak demand projection, though still too high, is closer to the result of the analysis done by the EUAA. Using NEM data, calculation by the EUAA strongly suggests that between years 2000 and 2011, peak demand for Queensland grew by an average of 3% per annum. Furthermore, in the last 5 years of this period, that is, between 2007 and 2011, peak demand only grew by only 1 % per annum.

Noting the important consequences for load driven capex and opex, this strongly suggests that Powerlink could be investing in capacity that is not needed. To be sure, even if peak demand growth rates were to more than double, i.e. 2.5% in the next regulatory period, Powerlink would still need to approximately half its load-driven capex compared to a capex program that is intended to satisfy a growth rate of 5% in peak demand.

Last, if it turns out that in the next regulatory period, peak demand grows at 1%, that is, at a same rate as the last 5 years (2007-2011), then Powerlink's load driven capex (and opex) should be reduced by at least 60%.

[1] EMC are consultants working for the AER.

Furthermore, the fact that the air conditioning rate of penetration is reaching saturation, and more efficient air conditioning is being installed, the peak demand growth rate projection of 5 % by Powerlink is highly unlikely in future.

2.2.Energy delivered

As expected, the AER correctly identified that the energy delivered (MWh) by Powerlink's network is actually reducing (as pointed out in submissions), rather than increasing at around 6% per annum as originally proposed by Powerlink. In its revised proposal, Powerlink argues for energy delivered to be set at 5.5% per annum in the next regulatory period.

In the DD, the AER outline their key observations/conclusions regarding energy delivered trends. In particular, figures 2.9 to 2.11 support the view that electricity consumption and peak demand growth in the National Electricity Market (NEM) is falling.

In addition, figure 2.9 shows electricity distributed by transmission network service providers (TNSPs) in the NEM peaked in 2006-07 and has been declining ever since.

The EUAA having examined Powerlink's Annual Planning Report (2011) found that its energy delivered also declined absolutely in 2010/2011.

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

When estimating the forecast energy delivered the AER has stated (see footnote in Fig 1.3, Page 5) that they have simply taken the energy delivered forecasts from Powerlink's 2011 Annual Planning report and applied the same proportional reduction that they applied to Powerlink's peak demand forecasts.

2.2.1. The EUAA response

The EUAA understands that the AER independently analysed energy delivered and instead of forming a judgment on the basis of its own analysis, it has applied the same proportional reduction as they have applied to Powerlink's peak demand forecasts.

The EUAA strongly advised against this course of action by the AER. Given the perverse incentive for network companies to overspend, as the AER now recognizes, it follows that energy forecasts by network companies will also be optimistic. For this reason, the AER should not have relied on Powerlink's forecasts.

By applying the same proportional reduction that they applied to Powerlink's peak demand forecasts, the AER is still left with an energy delivered figure of around 4.2% per annum. The EUAA suggests that this assumption of 4.2% growth rate is far too high relative to what has been happening in the NEM and to other transmission service providers.

Again, more significantly, if the forecast for energy consumption and energy transmitted is less than what Powerlink predicted, than Powerlink will be overspending on capex and opex by a

significant amount. By implication, large energy users will be paying higher TUoS charges over the next 5 years from 2011/12 to 2016/17) for inefficient expenditures by Powerlink. If accepted, this may well represent the highest growth in transmission network charges in the NEM during this period.

The AER did not have to follow this course. The AER could and should have estimated energy delivered independently. Given that energy delivered has been declining in the NEM and in Queensland, the EUAA suggests that energy delivered declining may be more realistic.

3. Capital expenditure

3.1. Introduction

This section discusses load and non-load capex and the implications of Powerlink's carbon price trajectory on its capex.

The AER has not accepted Powerlink capex proposal of $3.4 billion. The AER has instead approved a capex allowance of $2.3 billion. This amount represents a reduction of 32 per cent on Powerlink's proposal.

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. The EUAA strongly suggest that the AER to scrutinize these expenditures closely.

Generally, the 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 transmission costs.

3.2.Non Load Capex

Non-load capex accounts for over 40% of Powerlink's total capex allowance in the AER's Draft Decision.

In its Draft Decision the AER has accepted all $1,390M ($2011/12) of Powerlink's proposed non-load capex, despite the critiques of this expenditure provided in various submissions to Powerlink's revenue proposal. The EUAA is therefore extremely disappointed that the AER has not applied the same level of scrutiny to Powerlink's non-load capex as it did to its load-driven capex.

The AER's rationale for accepting Powerlink's proposed non-load capex in its entirety appears to be predominantly based on its conclusion that Powerlink has related procedures and processes in place that "are likely to result in satisfactory decisions about non-load driven capex".

Consequently, the EUAA is of the view that this is a major failing in the AER's Draft Decision.

A major concern expressed within the EUAA and other submissions that does not appear to have been considered by the AER is that Powerlink's original proposal estimated massive unjustified increases in its non-load capex in the final year of the current regulatory period, including:

- A replacement capex of $339m in 2011/12 compared to an average annual replacement capex of $168m in the previous 4 years
- A security/compliance capex of $35.8m in 2011/12 compared to an average annual capex of $4.7m in the previous 4 years

"Other non-load capex' of $49.6m in 2011/12, compared to an average annual capex of $15.6m in the previous 4 years

These major spikes in estimated capex had the effect of dramatically increasing Powerlink's total estimated non-load capex during the current regulatory period to levels well above the levels incurred in the current regulatory period. It is particularly concerning that, following the AER's acceptance of Powerlink's proposed non-load capex in its Draft Decision, Powerlink has subsequently dramatically reduced its estimated 2011/12 spend for these components in its revised revenue proposal. For example, Powerlink has reduced its estimated 2011/12 replacement capex spend from $339m down to $255m.

This has very serious consequences; as the AER's Draft Decision was clearly based on unrealistic expectations of Powerlink's non-load capex spend in the current regulatory period.

It is in that context that the EUAA makes the following comments on Powerlink's proposed non-load and non-network capex.

3.2.1. Replacement Capex

The AER's Draft Decision accepted all $1,229.1 million ($2011/12) of replacement capex proposed by Powerlink.

As indicated above, the AER's rationale for accepting this expenditure appears to be predominantly based on the AER's perception that Powerlink has related procedures and processes in place that "are likely to result in satisfactory decisions about non-load driven capex".

Powerlink's proposal suggests that it "uses a range of tools to assess whether an asset needs to be replaced" and stresses that age alone is not the determining factor. Whilst we welcome this approach, Powerlink's justification for its asset replacement expenditure is dominated by generalisations regarding the need to replace groups of assets on the basis of age alone.

For example, Powerlink's original proposal included diagrams (replicated as Figs 3.10 and 3.11 in the AER's Draft Decision) highlighting the age profile of Powerlink's substation, secondary systems and overhead line assets, and their indicative replacement timing. The essence of Powerlink's claim is that:

- All substations commissioned prior to 1977 will be due for replacement over the next 5 years.
- All secondary systems commissioned prior to 1985 will be due for replacement over the next regulatory control period.

All transmission lines commissioned prior to 1967 will be due for replacement over the next 5 years.

These generalisations have been accepted by the AER in its Draft Decision. However, they do not stand up to close scrutiny.

For example, consider the implications of the above replacement policy for the most expensive component of substation plant – transformers. Given the conservative "N-1" reliability criteria inherent in the NEM transmission rules, transmission transformers are generally loaded at below 50% of their nameplate rating throughout their lives. In addition, the transformer ageing process

is predominantly driven by the thermal ageing of its insulation, which is inversely proportional to the transformer load. Consequently the "actual" age of most Australian transmission transformers is, in general, much "younger" than their "nameplate" age.

In practice, there are many "healthy" transformers throughout Australia that are over 50 years old, with no imminent need for replacement. Yet, Powerlink's replacement policy, which the AER has endorsed, will result in the early retirement of all transformers with a nameplate age of over 35 years.

Similarly, not all secondary systems have an asset life of less than 25 years, and not all transmission lines have asset lives of less than 35 years.

Powerlink's proposal also claims that its transmission assets located in Far North Queensland and in coastal regions are subject to aggressive environmental conditions, meaning that they need to be replaced earlier than in other regions. This is again a generalisation that does not reflect the fact that the equipment specifications for assets in those regions (e.g. protective coating standards) are much more substantial than those in the other regions.

Again, disappointingly, the AER has accepted Powerlink's generalisations regarding the replacement of these assets.

As the AER would be aware, recent commentaries by Professor Garnaut and others have identified that premature replacement of assets is one of the key drivers in unnecessary network investment and unnecessary electricity price increases.

Another key issue raised in the other submissions which does not appear to have been considered by the AER is that Powerlink's replacement capex during the current and previous regulatory periods has been well above the expected long term trend. As indicated by the analysis performed by Energy Users Group ('the Group') the historic trend would provide an expectation that Powerlink's average replacement capex should be around $175m pa, rather than the average $250m pa claimed in its original proposal, i.e., the forecast replacement capex should be some $75m pa less than sought by Powerlink.

3.2.2. Security and Compliance Capex

The EUAA reiterates the observations within the other submissions which highlighted that Powerlink did not provide any supporting information to justify its estimated 700% increase in security and compliance capex in the last year of the current regulatory period (2011/12); and that based on historical trends Powerlink's forecast is significantly higher than it should be.

As highlighted above, Powerlink's original proposal estimated that it would spend $35.8m in security/compliance capex in 2011/12 compared to an average annual capex of $4.7m in the previous 4 years.

3.2.3. Other Non-Load Driven Capex

Following the same pattern as above, Powerlink's original proposal estimated, without justifications, a major increase in its "other non-load driven capex' in the final year of the current regulatory period – claiming that it expected to spend $49.6m on "other non-load capex' in 2011/12, compared to an average annual capex of $15.6m in the previous 4 years.

Again, Powerlink did not provide any justification for this increase, or explain why there is such a large increase above the trend. As highlighted in the submission by the 'Group'' overall, there appears to be some $60m in capex over the 3 years (20010/11 to 2012/13) that is outside the long term trends, with the bulk of this to be incurred in the last year of the current regulatory period (2011/12).

3.3. Non Network Capex

3.3.1. Information Technology

The AER'S Draft Decision accepted all $78.1m of Powerlink's proposed IT capex for the next regulatory period. This equates to a 26% increase on Powerlink's estimated IT capex spend in the current regulatory period, but more importantly an increase of approximately 400% on Powerlink's equivalent IT capex spend in the previous regulatory period.

Again, Powerlink provides no justification within its proposal as to why its proposed expenditure is so much higher than its trend spend. As outlined in the other submissions, Powerlink's IT capex should be significantly lower than claimed.

3.4.Carbon Price Trajectory (CPT)

The EUAA notes that Powerlink's "probabilistic planning method" used for its capex forecasting incorporates variables for three "market development scenario themes" – load growth, LNG industry development and a Carbon Price trajectory (CPT) theme.

The CPT theme incorporates three alternative 2020 carbon reduction targets that Powerlink considered the Australian Government may commit to within the next regulatory period: 5 per cent, 10–15 per cent and 25 per cent. Powerlink has assigned probabilities to each of these alternative targets in its capex forecasting model.

Having reviewed the AER's Draft Decision and Powerlink's Revised Revenue Proposal, the EUAA considers that there are two key pertinent issues associated with the CPT.

1. The specific implications of Australia's 2020 carbon reduction targets for Powerlink's capex needs during the next regulatory period; and

2. The appropriate probabilities to be applied to the different carbon reduction targets

The EUAA notes that Powerlink's proposal focused on the second issue, with practically no discussion on the first issue.The EUAA's assessment of these two issues is as follows below.

3.4.1. The specific implications of Australia's 2020 carbon reduction targets for Powerlink's capex

Powerlink has not demonstrated in either its original revenue proposal, or in its revised revenue proposal, clearly enough how Australia's 2020 carbon reduction targets will actually impact upon its capex needs for the next regulatory period. However, it is clear that Powerlink's capex forecasting model assumes that higher carbon reduction targets automatically result in higher levels of capex.

The EUAA considers that there are a number of reasons why this assumption should be questioned.

On page 116 of its Draft Decision, the AER questions the impact and the timing of the impacts as follows:

> *"Even if the Australian Government commits to the higher CPT scenarios, there is still the question of when in the next regulatory period the commitment would take place and when those commitments manifest into policies and other instruments. In turn, there is the question of when such policies and instruments will affect Powerlink's network. An Energy Consumers Group operating in Queensland stated the cost impacts of carbon policies on Powerlink would be gradual and would be minimal in the early years".*

It is very important to note that Powerlink has been on the public record in claiming that carbon reduction policies will have minimal impact on its network development. For example, the EUAA draws the AER's attention to Powerlink's *Climate Change Information Sheets*, which Powerlink recently withdrew from its website. In one of those information sheets entitled *Impacts of climate change policy on transmission planning and development*, Powerlink stated:

> *"Our analysis shows that current government policies will not materially impact the need for, and timing of, upgrades and development of the Queensland transmission network."*
>
> *"There will be gradual changes in the generation mix".*
>
> *"We expect these changes will be similar to the changes that have been experienced in recent years, with new generation sources emerging in the Surat Basin".*
>
> *"Powerlink's established network planning and development processes will readily manage the changes in the flow of electricity on the transmission network resulting from gradual changes in generation."*

On the basis of the above, it is clearly contradictory for Powerlink to now claim that Australia's carbon reduction targets will be a key driver of its capex needs during the next regulatory period.

In addition, the EUAA considers that there are a number of issues that raise serious doubts about Powerlink's assumption that higher carbon reduction targets will result in higher capex needs, including:

- The key impact assumed by Powerlink appears to be the gradual changes in the generation mix. These changes will progressively impact upon Powerlink's non-regulated generator connection assets rather than its regulated network. Such impacts are clearly not relevant to this regulatory revenue reset.

- Higher carbon reduction targets would be associated with higher carbon prices, which would result in further increasing electricity prices. ,As demonstrated by the AER in its Draft Decision, consumers moderate their demand for electricity in response to increasing prices. Consequently, higher carbon reduction targets would further reduce the demand on Powerlink's network thereby further reducing its load-driven capex needs.

In its Draft Decision, the AER indicated its concerns with Powerlink's application of its probabilities in its probabilistic model. For example, the AER considered that Powerlink's application of its probabilities produces an upward bias of over $100m compared to the AER's application.

In light of the above, the EUAA considers that Powerlink has not demonstrated how Australia's carbon reduction targets will impact upon its capex needs for the next regulatory period, and it would appear that Powerlink has overestimated the magnitude of any impacts.

The EUAA concurs with the AER that, given the ambiguity in Powerlink's modeling, it is appropriate to simplify the modeling by excluding the higher carbon reduction target scenarios from Powerlink's model.

However, in the event that the AER decides to allow Powerlink's modeling to incorporate the higher carbon reduction target scenarios, the EUAA makes the following comments on the probabilities that Powerlink has assigned to the scenarios.

3.4.2. The probabilities assigned to the different carbon reduction targets

Table 2 below outlines the probabilities that Powerlink assigned to the three alternative carbon reduction targets in its original revenue proposal and in its revised revenue proposal.

Table 2: Australia's 2020 Carbon Reduction Target – Powerlink's Probabilities

Carbon Reduction Target (per cent reduction from 2000 levels by 2020)	Probability of Occurrence	
	Powerlink Original Revenue Proposal	**Powerlink Revised Revenue Proposal**
5 per cent	40 per cent	80 per cent
10-15 per cent	57.5 per cent	17.5 per cent
25 per cent	2.5 per cent	2.5 per cent

The AER's Draft Decision provided a comprehensive assessment of the probabilities that Powerlink applied to the carbon reduction targets and considered that the probabilities assigned by Powerlink are inappropriate, because:

- They do not reflect the current and previous Australian Governments' formal carbon reduction commitments to date.
- The Australian Government has only committed unconditionally to the 5 per cent target and has not altered its position for several years.

- The Australian Government's commitment to the higher reduction targets is conditional on action by other countries, with the potential for such action being highly uncertain.
- Powerlink was unable to justify its assigned probabilities particularly the high probabilities assigned to the 10–15 per cent and 25 per cent scenarios. .In particular, Powerlink was unable to provide evidence of global action that would trigger the Australian Government's commitments to the higher targets in the next regulatory control period.

The EUAA concurs with the AER's assessment of the probabilities Powerlink assigned to the alternative carbon reduction targets and also draws the AER's attention to the following quotation from an ANU Centre for Climate Change Law paper published in 2011:

> *"Given the state of the negotiations, the lack of ambition expressed by other developed countries, and statements made by the Australian Government, most analysts have assumed that Australia will pursue its unconditional 5% target for 2020. (p5)"*

In summary, the EUAA concurs with AER's assessment that there is no indication that Australia will move beyond its current 5% emissions reduction target. International progress is slow, and there is serious doubt over whether this progress will satisfy the conditions Australia has placed on increasing its target.

As such, the EUAA also agrees with the AER's view that "only the five per cent target reflects the likely scenario during the next regulatory period". The EUAA therefore agrees with the AER that it should adopt this single theme when setting Powerlink's capex in its Final Decision.

4. Operational Expenditures

4.1.The EUAA's Previous Submission

The EUAA's submission to Powerlink's original revenue proposal highlighted a number of concerns regarding the magnitude of Powerlink's proposed opex increases:

- A proposed average annual opex of approximately 1.5 times the average opex for the current regulatory period and around 3 times the average annual opex of the previous regulatory period.
- A proposed annual opex for the final year ($254m) which equates to 4 times Powerlink's annual opex at the start of the previous regulatory period ($65m).
- A proposed opex which would result in Powerlink's Opex/MWh more than tripling from the start of the previous regulatory period to the end of the next regulatory period.

The EUAA's submission identified many elements of Powerlink's proposed opex which it considered to be overstated, and urged the AER to subject those elements to a high level of scrutiny. In particular, the EUAA's submission raised the following key issues:

- The need for benchmarking to assess Powerlink's relative operational efficiency
- The EUAA identified significant inadequacies in Powerlink's opex efficiency claims, including the limitations of its use of the Opex/RAB ratio and the deficiencies and incompleteness of its ITOMS benchmarking.
- The EUAA urged the AER to perform benchmarking of Powerlink's opex with the other NEM TNSP's using more appropriate and more objective ratios, including Opex/MWh.
- The EUAA highlighted the research it recently commissioned comparing the efficiency of distribution networks in four NEM jurisdictions, which illustrated that privately owned distributions network entities are significantly more cost efficient than government owned entities. There is reason to believe the same conclusion would apply to transmission.
- In light of the major increases in operational expenditure being sought by Powerlink, the EUAA highlighted the need for the AER to undertake a thorough review, informed by benchmarking, of each element of Powerlink's opex, including field maintenance, operational refurbishment, asset management support, corporate support, maintenance support and network operations .
- The need for the AER to examine Powerlink's claims for "one-off" Items, which the EUAA considered to be more likely to be recurring expenditure items.
- The need for the AER to review whether the South-West Queensland extension should be regarded as part of the Regulatory Proposal at all because these are predominantly non-regulated assets.
- The EUAA's concerns regarding the extent to which the proposed opex increases are driven by Powerlink's network growth projections.

The following sections outline the EUAA's perspectives on the extent to which the AER has considered and addressed the above concerns in its Draft Decision.

4.2. The AER's Opex Assessment Approach

As outlined in Section 4.3 of the AER Draft Decision, the AER's approach to assessing Powerlink's operational expenditure is as follows:

- Identify efficient opex costs for the base year
- Adjust this base year opex to account for changes in Powerlink's circumstances that will drive changes in Powerlink's operating costs in the next regulatory control period, including:
    - removing non-recurrent costs from actual expenditure in the base year
    - escalating forecast increases in the size of the network (referred to as 'scale escalation')
    - escalating forecast real cost changes for labour and materials (referred to as 'real cost escalation')
    - adding step changes for efficient costs not reflected in the base opex, such as costs due to changes in regulatory obligations and the external operating environment.

4.3. Identification of Efficient Base Year Opex

As indicated above, the most significant component of the AER's opex assessment approach is the identification of efficient opex costs for the base year. All other elements of the AER's opex assessments involve adjustments to this baseline assessment.

Powerlink's revenue proposal assumes that its base year opex is efficient. However, Powerlink does not provide any sound justifications within its proposal to validate that assumption.

The EUAA queries the assumption that Powerlink's base year opex is efficient. The EUAA's rationale for doing so is outlined below.

4.3.1. The EBSS and Regulatory Incentives

In its Draft Decision, the AER includes some discussion questioning the effectiveness of the efficiency benefit sharing scheme (EBSS). On page 166 of its Draft Decision the AER states:

> *"The AER would expect TNSPs should be responding to the incentive regime by making opex savings over time. The AER observes that Powerlink has largely spent its opex allowance in the current regulatory control period despite the operation of the EBSS and the revenue cap control mechanism. This result could suggest that the allowance provided by the AER in the previous regulatory determination was set at an appropriate level. Alternatively, this result*

> *could suggest that Powerlink has not responded to the incentives in the regime and has not actively sought efficiency savings."*

The AER also notes in page 169 of its draft determination that:

> *"The data in table 4.3 of itself does not indicate whether Powerlink's opex in the current regulatory control period can be considered as efficient. Further it is not clear whether Powerlink has actively pursued efficiency savings during the current regulatory period".*

Based on its experience in being involved with most of the transmission network pricing reviews since the inception of the NEM, including Powerlink's two previous resets, the EUAA agrees that the reason Powerlink consistently spends its full regulatory opex is an indicator that the opex allowances have been set at an appropriate level. However, it could equally be an indicator that the EBSS does not provide sufficient incentives for Powerlink to spend less than the regulatory allowances. The AER needs to determine which is correct.

4.3.2. Opex Benchmarking

In its Draft Decision, the AER acknowledged that the EUAA's concerns regarding Powerlink opex efficiency claims were reinforced within most of the other submissions to Powerlink's revenue proposal.

As identified within the various submissions, Powerlink has a long track record in focusing on the Opex/RAB ratio as the key indicator of its operational efficiency – a ratio that significantly favours entities such as Powerlink which have undertaken major increases in capital expenditure in recent years, by providing them with high asset values and with the benefits of lower operational and maintenance costs associated with newer assets.

As the AER is aware, Powerlink has consistently used this ratio over many years to claim that it is the "most cost efficient transmission network entity in the NEM". Many of the submissions to the AER expressed concerns that the AER's previous regulatory determinations for Powerlink, has essentially accepted Powerlink's efficiency claims without subjecting them to any level of scrutiny or external benchmarking. As the AER is also aware, in recent years the EUAA has been urging the AER to implement formal objective benchmarking to assess the veracity of such claims.

The EUAA is therefore pleased that the AER has performed some high level benchmarking to assess Powerlink's operational efficiency claims, using alternative ratios including Opex/Line Length, Opex/GWh delivered and Opex/Peak Demand. The EUAA commends the AER for performing this high level benchmarking and strongly encourages the AER to develop its benchmarking approach in greater detail.

Importantly, the AER has concluded from its high level benchmarking that "Powerlink's current opex is in the average range when compared to other TNSP's in the NEM."

This represents a major shift in the AER's assessment of Powerlink's relative operational efficiency. By performing some rudimentary high level benchmarking, the AER has clearly moved from accepting that Powerlink is one of the most efficient TNSPs in the NEM, to now placing them in the middle of the pack. This illustrates the vital importance of benchmarking in enabling the AER to properly assess the relative efficiency of its regulated network entities.

Having commended the AER for performing its high level benchmarking, the EUAA however considers that the AER's analysis of the benchmarking results to be incomplete.

In particular, the EUAA is concerned that the AER analysis is over-reliant on the use of load density to normalise the benchmarking results. Whilst the EUAA accepts that load density is an important consideration when assessing the benchmarking results, the EUAA believes that there are other factors and trends in Powerlink's opex which are not easily explained on the basis of load density.

For example, the EUAA considers that the following key opex trends and ratios are not fully explained by the AER's analysis:

- Powerlink's Opex/GWh ratio is over twice the SP AusNet ratio and around 1.6 times the TransGrid ratio.
- Powerlink's Opex/Peak Demand ratio is around 2.5 times the SP AusNet ratio and around 1.8 times the TransGrid ratio.
- As outlined in Figure 6.2 of the AER's recently released "TNSP Electricity Performance Report for 2009/10" (replicated below), during the four year period from 2005/06 to 2009/10, Powerlink's opex has grown much faster than all of the other TNSPs
- Figure 6.5 of the same report also identifies that Powerlink's Opex/GWh has grown more than any other TNSP over the past 6 years.
- Powerlink's cost ratios are much higher than those of the other two largest networks - Transgrid and SP AusNet
- Despite being the largest network in the NEM, Powerlink's cost ratios are much closer to the two smallest transmission networks - ElectraNet and Transend, even though Powerlink's RAB is 4.7 times that of Transend, and 3.4 times that of ElectraNet.

The EUAA is therefore concerned that Powerlink's operational efficiency may well be below the average range when compared to its industry peers, and that Powerlink may not have realised the significant economies of scale that it should have realised by being the largest TNSP in the NEM.

In summary, it is the EUAA's view that the AER cannot conclude that Powerlink's base year opex is efficient.

4.3.3. The AER's Acceptance of Powerlink's Base Year Opex

In accepting Powerlink's base year opex as efficient the AER has essentially restricted its review of Powerlink's proposed opex to a review of 'second order' issues, such as Powerlnk's proposed escalation factors and step changes.

This has resulted in the AER only being able to apply an 8% reduction to Powerlink's proposed opex, thereby allowing Powerlink to increase its opex by 46% (in nominal terms) compared the current regulatory period. As indicated below, the majority of the AER's 8% reduction arose from the AER's changes to Powerlink's labour cost escalation, which as identified in many of the other submissions to the AER, was clearly an ambit claim.

The EUAA considers that the AER has essentially ignored the strong critiques of Powerlink's historical/proposed opex provided in many of the other submissions. For example, pages 26-41 of the submission by 'The Group' provided a detailed segmented analysis of Powerlink's base year opex, which arrived at the following key conclusions:

- Field Maintenance Costs - based on the current trends, the forecast starting field maintenance cost should be some $8m pa less per annum than sought by Powerlink
- Operational Refurbishment - based on the current trends, the forecast starting operational refurbishment cost should be some $7m per annum less than sought by Powerlink
- Asset Management Support - based on the current trends, the forecast starting asset management cost should be some $2m per annum less than sought by Powerlink

As highlighted by the presentation by 'the Group' at the AER's Pre-Determination Conference, this analysis has effectively been disregarded by the AER.

In summary, the EUAA strongly contends that the AER's acceptance of Powerlink's base year opex as efficient is questionable.

The EUAA therefore urges the AER to re-assess the efficiency of Powerlink's base year opex by subjecting it to a significantly higher level of scrutiny.

4.4. Choice of Base Year

The EUAA agrees with the AER's rationale for changing the base year to 2010/11, given that it is the most recent year for which Powerlink's audited expenditure accounts will be available. The EUAA also agrees with the AER's assessment that Powerlink's proposed use of 2009/10 as the base year is inconsistent with the intent of the EBSS.

4.5. Removal of Non-Current Costs from Base Year Expenditure

Having chosen 2009/10 as its base year, Powerlink's proposal simply states that: "all works in 2009/10 were normal operating costs, with the exception of costs associated with the development of this Revenue Proposal."

Powerlink's proposal then goes on to list a number of unquantified "new requirements", which it claims need to be added to its future years' costs. The AER identified in its Draft Decision that these "new requirements" amount to approximately $66m, the majority of which the AER has accepted.

In essence, Powerlink is claiming that there were no non-recurrent costs in its proposed base year (2009/10), yet it has managed to identify step changes amounting to up to $16m per annum in future years – which equates to around 12% of its controllable opex for the 2009/10 year.

It is also important to note, as pointed out in many of the submissions, that Powerlink has only identified step changes that result in cost increases, with no identified cost reductions.

The EUAA contends that it is extremely unlikely that a thorough analysis of any year's expenditure would conclude that there were no non-recurrent expenditure items. Furthermore, it is even less

likely that a thorough analysis would also then identify that all future step changes are cost increases, with no cost decreases.

Yet, that is exactly what Powerlink's proposal has claimed, and what the AER has essentially accepted.

The EUAA notes that the AER has proposed some minor changes to the treatment in the movement of provisions and that Powerlink has challenged this proposed change in its revised revenue proposal, providing a lengthy legal argument that cites a confidential document produced by KPMG. As the EUAA is not in possession of the KPMG document, the EUAA cannot comment on it.

In summary, the EUAA is strongly of the view that the AER has not applied an appropriate level of scrutiny to Powerlink's claim that there were "no material non-recurring costs" in its base year expenditure.

Given the magnitude of the one-off costs being claimed by Powerlink for future years, the EUAA expects the AER to perform a thorough assessment of Powerlink's base year expenditure, to identify and remove all non-recurrent expenditure items.

4.6. Projecting the Base Year Forward

4.6.1. Accounting for Network Growth

The EUAA notes the concerns raised in various submissions regarding Powerlink's proposed network growth factors being biased towards changes to the RAB. A key point raised in the submissions was that neither the RAB, nor the un-depreciated value of the assets are appropriate factors for accounting for network growth, as both of these measures give a greater weight to the cost of recent additions to the network than is appropriate.

The submissions identified the need for a composite measure to be developed for the Powerlink and other revenue determinations in order to provide an appropriate escalator for network growth. This composite measure needs to incorporate appropriate weightings to changes to asset value, demand, consumption and line length.

The EUAA notes that the AER has adjusted Powerlink's proposed network growth factors by removing real cost escalation. Whilst this assists in reducing the impact of changes in the costs of assets over time, it does not address the need for a composite measure to reduce the bias of the factor to changes to the RAB.

The need for such a composite measure is acknowledged by the AER in its Draft Decision (page 182), where it makes the following statements:

> *"The Energy Users Group noted that the AER used the physical size of the network and customer numbers to forecast the growth of distribution networks in recent DNSP determinations. The AER considers that assets volume data for Powerlink's network could be used directly to forecast network growth if reliable volume data are available to the AER. However, the AER could not obtain forecast volume data from Powerlink. The AER requested Powerlink provide historical and forecast volume data for each of its asset categories. Powerlink could not provide forecast volume data for all the asset categories and the historical data for some of the asset categories".*

> *" The AER further notes that recent studies recommending the use of composite size variables, such as customer numbers, line length and units of energy delivered, for measuring the 'size' of a network business focused on distribution networks, and the AER is not aware of similar studies conducted for transmission networks"*

In essence, the AER has concluded that it will not apply a composite network growth measure to the Powerlink revenue determination because Powerlink has not provided the information requested, and because such a measure has not yet been developed.

Given the implications of network growth on Powerlink's opex allowances, the EUAA urges the AER to develop a more appropriate composite measure for Powerlink's network growth escalation.

4.6.2. Economies of Scale Factors

The EUAA is extremely disappointed that the AER has simply accepted Powerlink's 'economies of scale' factors, which, as identified within many of the other submissions, grossly underestimate the scale economies of a monopoly asset management business.

The EUAA reiterates the point raised in the other submissions that Powerlink has not provided any substantiation for its proposed scaling factors, and that the AER should require Powerlink to demonstrate why it considers its scale factors to be appropriate, based on facts.

In particular, the EUAA concurs with the analysis performed by Wesfarmers and 'the Group' which concluded that:

- The scale factor for maintenance support should be no more than 15%
- The scale factor for network operations should be less than 20%
- The scale factors for planning and asset management support should be no more than 10%; and
- The scale factor for corporate support should be around 5%

4.6.3. Real Cost Escalation

The AER identified a number of issues with Powerlink's proposed real cost escalators (cost increases greater than the forecast inflation rate) including their proposed labour cost escalators, material cost escalators and land value escalators. The AER's draft determination has made changes to Powerlink's proposed escalators (supported with analysis from Deloitte Access Economics which challenged a few of the assumptions of Powerlink's consultants).

The AER's proposed revisions would reduce Powerlink's opex by around $64M and their total Capex by around $193M over the 5 year regulatory period. Powerlink has responded by commissioning consultants to challenge the AER's positions.

4.6.4. AWOTE vs. Labour Price Index (LPI)

The AER did not accept the Average Weekly Ordinary Time Earnings (AWOTE) Electricity Gas Water (EGW) labour cost measure for the Powerlink internal specialist labour category and AWOTE Business Services (BS) for the Powerlink internal general labour category, and substituted Labour Price Index (LPI) for Electricity Gas Water and Waste Services (EGWWS) for all internal Powerlink labour cost categories (page 60).

The AER has departed from its traditional approach and imposed a labour productivity driven reduction (2.3%) to these forecasts, which is based on expected labour productivity trends over the 2012/13 to 2016/17 period for the Queensland Energy Gas Water (EGW) sector, for internal labour cost escalators, and Construction sector for external labour cost escalators.

In addition, the AER has used the LPI instead of the AWOTE for forecasting labour cost growth. The EUAA understands that Access/ Deloitte (Consultant for AER) is effectively using the ABS standard labour productivity series for the EGW sector, including compositional effects, together with its AEM model as the basis for its productivity forecasts.

The LPI series measures changes in the price of a fixed quantity and quality of labour. In contrast, AWOTE measures changes in average gross earnings of labour. The LPI is constructed to measure the average price of labour (both wage costs and non-wage benefit costs) for a given basket of occupations and not the change in the average level of labour compensation, just as the CPI measures the rate of change in the average price of a specified basket of goods and services, rather than average cost of living changes. It is a measure of the change in the total cost of labour, including wage and non-wage benefits for time worked. The LCI controls for the same quality and quantity of work.

Powerlink considers that the AWOTE series is the most appropriate wage series for forecasting purposes. Powerlink sought Synergies' view on which wages series would be appropriate to establish labour cost forecasts. Synergies concluded that the AWOTE series is a better series than LPI as it:

- Is a more comprehensive series of labour costs since it includes penalty rates, bonuses and incentive payments, that in aggregate is more likely to be reflective of the labour costs faced by a TNSP; and
- Is prepared by the ABS for the Queensland EGW sector, whereas the ABS does not prepare an equivalent LPI series.

Powerlink argues that it must compete for labour resources with the mining and construction sectors and when the Queensland economy is strong and skill shortages emerge, it must meet the market to attract skilled staff. In this case the AWOTE series will recognise the higher earnings and the real cost of labour, while the LPI series, which holds labour quantities and quality constant, will not.

Powerlink argues that since the LPI does not take into account the compositional change in the workforce and its impact on earnings over time, whereas the AWOTE series does, then the AWOTE is a better method.

4.6.5. The EUAA response

Clearly, both measures are imperfect and each has its strengths. The question is which is the best measure on a net basis. The EUAA notes the thinking of the independent ABS (ABS 2005)

> *"The WPI…is the main ABS measure of changes in wages. The WPI measures quarterly changes over time in the cost to an employer of employing labour, and is unaffected by changes in the quality or quantity of work performed."*

The above response indicates that the ABS sees the LPI as their preferred measure for "changes in the price of labour". The EUAA sees no reason not to endorse the ABS position.

Powerlink sought the opinion of Professor John Mangan in relation to the importance of compositional change to Powerlink. Based on confidential company specific data provided by Powerlink, Professor Mangan found that labour compositional effects over recent years have had a significant impact on Powerlink's real labour costs.

Professor Mangan also found that compositional shifts raised Powerlink's average wage by around 2.7% over this two year period.

The EUAA cannot assess or verify this result by Professor Mangan since the data made available to him is not available to the public. Whist we do not question Professor Mangan's credentials, his assessment is obviously dependent on the information provided, which has not been made public.

4.6.6. The productivity adjustment by the AER

Powerlink considers that it is not reasonable for the AER to incorporate a broad sectoral labour productivity adjustment to the expected costs of its capital and operating expenditure program.

Powerlink argues that its AWOTE based labour cost forecasts for the next regulatory period already include productivity related and broader efficiency gains measures. Hence, these are already built into the capital and operating expenditure forecasts.

Powerlink notes that the ABS EGW labour Partial Factor Productivity series has consistently declined by 3.6% per annum since 1998. As a result, Powerlink does think it appropriate that they are required to perform to a higher level. Powerlink agrees with Synergies that the use of such a broadly based sectoral labour productivity estimate to determine future efficiencies in its capital and operating expenditure programs is both arbitrary and inconsistent with the Rules.

Powerlink argues that its operating expenditure has been assessed from a business specific perspective, whereas forecast labour escalation has been adjusted using productivity forecasts based on measures incorporating data from a wide range of industries. Powerlink considers that this is inappropriate.

In challenging the AER's labour cost escalators, Powerlink makes many claims about being the most efficient TNSP in the NEM. The motivation seems to be pointing out to the AER that Powerlink is already lean and efficient. Further, they are already implementing initiatives to further improve efficiency.

For example, Powerlink points to its high ranking in ITOMS, with above average reliability and below average costs. On page 37 of its revised proposal Powerlink claims that:

"As Powerlink is close to the efficiency frontier, significant additional gains in efficiency and productivity are not achievable. Powerlink has already implemented significant savings through a number of initiatives including

- *the relocation of its offices from the city to the suburbs in 1997*
- *consolidating control centre functions in 2000*
- *the introduction of program management in 2006 which provides coordinated delivery of the portfolio of work."*

4.6.7. EUAA response

Whilst not disputing the claims made, the EUAA has concerns with the above examples of Powerlink's labour productivity. For example, the EUAA draws attention to the AER's strong critique of Powerlink's Program management efficiency in its Draft Decision, which clearly contradicts the third example provided above.

The EUAA also draws attention to the fact that the examples of labour productivity efficiencies provided by Powerlink are 6-15 years old.

4.6.8. Productivity adjustment made by the AER

The EUAA supports the productivity adjustment made by the AER for the following reasons.

The first is to reduce inefficiency and provide more incentives for Powerlink to search for more efficiency gains.

The EUAA argues that government owned monopolies do not face enough competitive pressure. In addition, the regulated framework operates in such a way that regulated networks have a stronger incentive to increase expenditure rather than minimize cost as is the case in a truly competitive market. Research commissioned by the EUAA (Mountain 2011) shows that government owned distribution businesses are very inefficient relative to private networks.

Consequently, the EUAA is of the view that declining productivity in the sector may be due in part to over-expenditure because of perverse incentives in the NER.

The EUAA notes that influences on productivity are complex. The low productivity in Australia is not a strong reason for not imposing a productivity adjustment on network businesses such as Powerlink. Rather, the low productivity is a strong reason for providing additional incentives for network businesses to be more efficient in addition to what they are already doing.

Moreover, labour price increases that arise from labour productivity growth do not increase labour costs, and as such forecast labour price changes should be adjusted for labour productivity changes.

The basic economic reason is that higher skills are likely to be associated with higher productivity and higher wages.

As Borland (2011) notes in his advice to Powerlink at his Paragraph 17, "it is correct that higher skills should mean high labour productivity, and that a higher skilled workforce should be able to produce a higher output". As a consequence, unit labour cost need not rise.

The EUAA is of the view that the productivity adjustment, that is, to adjust the LPI by a productivity index is appropriate because we are ultimately concerned with the unit labour cost faced by Powerlink and it is possible that an increase in the LPI is consistent with a constant unit cost to Powerlink.

In other words, compositional change in skill mix is a business choice. If Powerlink chooses to pay for a skill mix with a higher (or lower) average wage, then it also gets the associated productivity benefit (loss) of that decision.

Hence, if the AER compensates a business for compositional effects that have seen a shift to a more skilled workforce, then the AER would be effectively paying twice in the sense that we would be compensating Powerlink for the higher labour cost as if there was not a corresponding benefit.

In summary, the EUAA contends that it is unit labour cost that is the most appropriate measure, i.e. LPI adjusted for productivity rather than unadjusted AWOTE.

The EUAA notes that Powerlink is arguing for an unadjusted AWOTE.

The EUAA also notes that the AWOTE has many shortcomings. For example, AWOTE is affected by shifts in the composition of employment. If a sector employs relatively more high-paid full-time workers over time (as has happened, for example, in the manufacturing sector as low skilled jobs have been lost to competitors in developing Asia), then that will tend to raise measured AWOTE even if the wage levels for a given level of skill have not changed at all. These compositional effects and the resultant volatility make AWOTE a poor base for undertaking wage forecasts for the utilities sector.[2]

4.6.9. Step Changes

The AER identified in its Draft Decision that Powerlink's original proposal had proposed $65.8 million of step changes for the next regulatory period, of which the AER has accepted $58.2 million.

Before commenting on Powerlink's proposed step changes, the EUAA wishes to reiterate its earlier comments that it does not accept that there were no non-recurring costs in the base year and, in light of the magnitude of the step changes being proposed by Powerlink, the EUAA expects the AER to perform a thorough review of the base year expenditure to ascertain the actual level of non-recurrent costs.

It is with that expectation in mind that in the EUAA makes the following comments on Powerlink's proposed step changes.

[2] This is consistent with the ABS measure of EGWW sector labour productivity, which can be found in publication 5204.0, *Australian System of National Accounts*, Table 15.

- *Land Tax*

The EUAA notes that the AER has accepted Powerlink's proposed step changes for land tax because of changes to the *Land Tax Act 2010* and the *Land Valuation Act 2010*, with some minor adjustments to land value escalation rates.

It would appear from Figure 4.13 of the AER's Draft Decision that these step changes amount to over $20M.

The EUAA urges the AER to ensure that all step change costs are genuinely associated with the legislative changes.

- *Tower Painting*

The EUAA notes that the AER has accepted Powerlink's proposed step changes for tower painting refurbishment costs, which it would appear from Figure 4.13 of the AER's Draft Decision amount to around $30m. The AER's rationale for accepting these costs appears to be simply based on EMCa's conclusion that Powerlink had a "well structured asset refurbishment policy".

The EUAA does not accept the AER's rationale for accepting these costs and does not accept that tower refurbishment costs are a step change.

As pointed out within various submissions, the need to protect its assets has always been a requirement on Powerlink to ensure that the assets reach their planned asset life. To claim that the protection of assets is a step change is completely at odds with prudent asset management principles and practices.

The EUAA therefore expects the AER to review its draft decision regarding these costs.

- *New Office Accommodation*

The EUAA notes that the AER has accepted Powerlink's proposed leasing and relocation costs associated with its new office accommodation, whilst removing Powerlink's proposed office maintenance costs which it considers will be covered by network growth escalation.

The EUAA does not accept the AER's rationale for accepting Powerlink's proposed leasing and relocation costs. Again, as pointed out within various submissions, the need to increase office space has been a continuing issue for Powerlink over the past 15 years, during which its staffing level has grown significantly and it has expanded into various new offices, warehouse premises and new car parks. The EUAA concurs with the views of the other submissions that this growth is more than accommodated for in Powerlink's network growth escalation factor.

- *Climate Change Investigations*

Powerlink proposed step change costs to identify and understand the impact of climate change on the development, operation and maintenance of its transmission network. The AER's Draft Determination considered that expenditure for such studies is a normal business cost and not a step change. In particular, the AER highlighted that "(t)he subject of such studies would vary over time. Even though Powerlink may not have undertaken a study on a particular issue in the past, it may still be possible that the base year opex includes the opex required to undertake such a study".

The EUAA draws the AER's attention to the fact that Powerlink had indeed performed such studies in the past, including the study performed by RPS referenced by Powerlink in its revenue proposal. Yet Powerlink did not consider this investigation to be a step change expense.

The EUAA also concurs with the AER's position that Climate Change is not a new phenomenon, and that prudent infrastructure owners have been incorporating climate change considerations into their infrastructure planning and design for a number of years. Indeed, this raises a very important question as to whether the Powerlink's $2.9 billion of capital expenditure in the current regulatory period has ignored the impacts of climate change, thereby passing on all of the risks and costs associated with climate change adaptation on to its consumers?

In summary, the EUAA agrees with the AER's decision not to accept Powerlink's proposed costs for Climate Change Investigations as a "new requirement".

- *Additional building maintenance*

The EUAA endorses the AER's decision not to accept Powerlink's proposed carpet replacement costs and office painting costs as "new costs". As highlighted by the AER, these costs are more than adequately covered for in Powerlink's base year opex.

- *South West Queensland Maintenance*

The EUAA notes that the AER has accepted Powerlink's proposed depot lease costs, whilst removing its proposed security requirement, vehicle fleet and helicopter support costs, which the AER considers are adequately covered by Powerlink's network growth escalation.

The EUAA agrees with the AER's rationale and decisions regarding these costs.

The EUAA notes the AER has responded to the concerns expressed by the EUAA and others that Powerlink's revenue proposal may include costs for its non-regulated assets in South West Queensland. The EUAA notes that the AER has requested Powerlink to adjust its proposed lease costs to exclude the non-regulated portion of its network in South West Queensland.

Given the magnitude of Powerlink' s non-regulated assets and non-regulated services in South West Queensland, the EUAA expects the AER to review Powerlink's cost allocation methodology to ensure that an appropriate proportion of Powerlink's costs have been allocated to its non-regulated activities.

4.7.Other Opex

- *Insurances*

The EUAA endorse the AER rationale for reducing Powerlink's insurance costs.

- *Network support costs*

The EUAA endorses the AER's rationale for disallowing Powerlink's proposed network support costs.

- *Debt Raising Costs*

The EUAA endorse the AER's rationale for reducing Powerlink's debt raising costs.

5. Cost of Debt

The 'return on capital' (WACC times RAB) is the most significant component of Powerlink's 'building block' revenue, accounting for approximately 70% of the total revenue.

Powerlink's original proposal was for a total WACC of 10.3%. The AER's draft determination reduced this to 8.31%. Powerlink asked for a debt risk premium (hereafter DRP) of 4.3% but the AER gave them 3.19% for a total cost of debt of 7.51%. Powerlink revised proposal asks for a DRP of 3.91%.

5.1. The AER methodology for calculating the DRP

The AER proposed approach is based on a sample of nine Australian corporate bonds, using a simple average of the margins over the relevant Australian Government bonds.

The sample has been chosen based on the following criteria:

- Australian domestic corporate issuance
- Rated as either BBB, BBB+ or A- by Standard & Poor's
- -Between 7 and 13 years remaining term to maturity
- Yield data observed by Bloomberg or UBS during the averaging period
- Fixed interest rate, or floating interest rate where this can be reliably converted into a fixed interest rate equivalent
- Standard bonds (that is, not callable or subordinated debt), or non-standard bond type where this can be reliably converted into a standard bond equivalent
- There are no strong qualitative grounds to indicate that the bond is unrepresentative of a benchmark 10 year, BBB+ rated Australian corporate bond.

The AER states that it has not included in its sample any callable bonds, subordinated debt or the Bloomberg BBB rated Fair Value Curve.

Having determined the bonds to be included in the sample, the AER has then calculated annualised yields from the sample (which includes converting floating yields to fixed), converted these to spreads over the estimated risk free rate, and calculated the debt risk premium as an average of the spreads.

Using this approach, the AER calculates a benchmark debt risk premium of 3.19 per cent over a forty business day averaging period ended 14 October 2011.

5.2. The PWC assessment of the AER estimate of the DRP

We note that PWC is the consultant for Powerlink.

PWC argues that there are some shortcomings with the approach taken by the AER to estimate the DRP for Powerlink. These are:

1. The AER's complete setting aside of the Bloomberg fair value curve
2. The robustness of the method employed by the AER
3. Errors in interpreting the wider market evidence the AER has cited.

PWC argues that the Bloomberg fair value curve (BFV) has a number of advantages as an input into a regulatory determination. These are:

- The Australian Competition Tribunal (ACT) has endorsed the BFV curve as an appropriate benchmark because it appears to be accepted by the market as providing accurate yield estimates
- The Bloomberg fair value curve is an observable benchmark and is simple to apply
- The Bloomberg method imposes a series of tests to ensure that the data that it applies is of sufficient quality
- The sample of bonds of which there are nine chosen by the AER is unrepresentative
- The method used by the AER to derive the DRP is simplistic
- The market testing done by the AER is not robust
- The reliance on the letter from Bloomberg by the AER is not conclusive

5.3.The EUAA Response

The EUAA considers that the NER does not require the AER to use the BFV. Thus the AER is allowed to search and use other methods to estimate the DRP. As to the previous endorsement of the BFV by the ACT, the EUAA is of the view that this does not mean that the ACT is favoring the FBV over the new method used by the AER. In other words, the ACT never compared the BFV with the new method used by the AER. The ACT never said that the FBV is superior to the new method used by the AER. On this occasion, the AER has considered that there is a more reliable method of estimating the DRP.

The EUAA is of the view that PWC's argument that the BFV curve should be used by the AER because it is observable and simple to apply is misleading. The fact is, the BFV term to maturity extend only to 7 years. Hence, it is only partially observable. Thus some form of extrapolation is required to derive the DRP for a 10 BBB+ benchmark bonds. Extrapolation is subjective. Reasonable people can differ both on the method to use as well as on the final estimation.

The EUAA considers the reasoning by PWC that the AER should continue to use the BFV curve because the data quality is high to be an unsubstantiated assertion. The EUAA challenges PWC to provide evidence of the existence of high quality data.

The EUAA has long argued that the BFV is an inappropriate benchmark because it is illiquid and there is total lack of transparency with regard to methodology and data set. Bloomberg has so far refused to make these public. As for the test that Bloomberg implements to screen different bonds for inclusion, again, we have no way of knowing because it is proprietary. Non-public information is not a sound way for regulatory decisions to be made. The EUAA is of the understanding that there are currently long dated bonds in the market but Bloomberg has yet to

include them in the BFV curve as Bloomberg did in the past. The EUAA also notes that Ofgem has discontinued using the BFV because Ofgem has found it unreliable.

This view is further supported by the fact that individual Australian corporate bonds are often not traded daily in the Australian financial market. The daily bond prices provided by Bloomberg do not necessarily reflect executed trades in the market on the day. For some days when there are not enough trades in the market, the daily bond pricing from Bloomberg is only an approximate market value of the bond

As for the sample of bonds chosen by the AER, PWC considers that the Coke Cola Amatil bond should not be included since it was issued in the European market. On the other hand, the Sydney Airport Bond should have been included in the sample.

The EUAA is of the view that illiquidity in the bond market has constrained the ability of the AER to have a large representative sample. Further, the EUAA takes the view that it does not really matter if a particular bond is issued overseas providing that it has been swap into Australian dollars. This view is cognizant of the fact that regulated entities are allowed and do in fact source some of their finance from overseas jurisdiction.

As to the proposition by PWC that Sydney Airport bond should be included in the sample. The EUAA is of the view that the AER has a transparent methodology for screening bonds for inclusion. This is in marked contrast to the BFV curve. The onus of proof is on PWC to demonstrate that the selection criterion developed by the AER is inefficient or to show evidence that the AER has not applied its selection criterion correctly.

5.4.Appraisal of the PWC econometric techniques to estimate the DRM.

This section briefly explained and discusses the statistical estimation by PWC.

PWC applied econometric techniques to derive the DRP. PWC argues that this technique would allow more analysis of the unique features of bonds. PWC handpicked 68 bonds in its sample.

PWC estimated two different equations, the first without distinguishing the credit rating of the bonds (pooled estimate). The second estimated the effect of credit ratings on the debt risk premium, allowing for the credit rating to affect the level, slope and degree of concavity of the relationship. PWC used a quadratic functional form for the estimation.

5.5.Problems identified by the EUAA

The EUAA is of the view that the statistical estimation by PWC is too imprecise to predict the 'correct' DRP. For example, an R-squared on 0.66 (p35 table 11) says that only 66% of the variation in the DRP is explained by the dependent variable, i.e. terms to maturity. That is to say, there is significant unexplained variation of the DRP not accounted for by PWC's estimation. More precisely, approximately 33% of the variation of the DRP is not accounted for in the regression by PWC. This mean the DRP could be anywhere between 290 - 390 bps.

As such, the EUAA is of the view that the econometric estimation conducted by PWC is too blunt a technique to settle the issue. Different econometric estimations are likely to come up with different numbers.

The EUAA notes that even PWC admit to finding it hard to work out the correct functional form (p. 19, Appendix). When PWC tried to estimate regression equations that first differentiated between credit ratings, and secondly, used a 'pooled sample approach (i.e. did not differentiate by credit rating), PWC found that neither the quadratic nor linear form showed a better fit to the data. EUAA contend that if it is difficult to even decide the correct functional form than it is very difficult to have much confidence in the DRP estimation. It is not inconceivable that two reasonable people can come to two different estimations.

Of even greater concern, however, is the fact that the fitted BBB+ curve is at every term to maturity higher than the lower rated BBB curve at the same term to maturity (fig 5. P20). Further, The A- curve has a hump at approximately 7 years term to maturity with its debt margin declining thereafter.

The EUAA contend that the above anomalies are contrary to financial theory, corporate practice, and the findings of empirical analysis.

The EUAA is of the view that having 68 bonds does not make the estimation by PWC superior. As discussed above, the statistical method used by PWC is far from accurate. There is no assessment by PWC to show why their method is superior to that of the AER. PWC has used one method of estimation and the AER used another.

In conclusion, the EUAA is of the view that all estimation methods of the DRP are imperfect. This is inevitable given the illiquidity of the market for BBB+ bonds in Australia. The relevant practical question is which estimation is more credible?

5.6.The Queensland Treasury Corporation (QTC)

QTC was hired by Powerlink to comment on the AER method of calculating the DRP. Its key findings are:

1. *The absence of a deep robust bond market in Australia. For example, prices of bonds chosen by the AER seem to be indicative (i.e. non-executable) prices from a limited number of data providers. There are data quality issues with the bonds selected by the AER. QTC suggests that as a consequence, the AER should rely on the BFV curve*

EUAA response

QTC correctly identified the source of the problem, i.e. lack of a liquid bond market, but then jump incorrectly to the conclusion that the AER should continue to use the BFV curve. The EUAA notes that there are only 9 bonds in the Bloomberg FV curve and prices shown by Bloomberg may well be indicative only. The EUAA suggests that the correct statement of the problem is that given there are two competing imperfect methods of estimating the DRM, the AER should evaluate their relative merits, given the paucity of information, and decide on the method that is relatively superior. Regulatory subjective judgments are inevitable.

2. *The sample picked by the AER is not capable of providing a sole basis to form a reasonable estimate of the benchmark bond yield. QTC suggests that SPI Electricity & Gas and Coca Cola Amatil should be excluded.*

EUAA response

Basic statistics suggest that a given sample should be large and randomly selected. In selecting the sample of bonds, there is a trade-off between having a large enough sample to obtain reliable results that are not unduly influenced by a small number of outliers, and having bonds that are truly representative with regard to terms to maturity and credit ratings. However, the lack of suitable long term bonds in Australia makes this difficult in practice. Whether a particular bond should be included or not is always going to be contentious. It is not difficult to select a particular characteristic of a bond and argue that it should not be included as QTC suggested. The EUAA takes the view that the methodology employed by the AER is appropriate. The EUAA suggests that the sample of bonds picked by the AER matches the maturity and credit rating of the benchmark firm. Further, the methodology is transparent and the AER is accountable for it. Last, SPI Electricity & Gas bond as well as Coke Cola Amatil bond satisfied the screening requirement employed by the AER. The EUAA contends that the reasons that QTC gives for excluding Coke are incorrect because the size of the bond issue and ownership are irrelevant attributes

3. *The AER's use of a simple average of the DRP is an inferior approach since it is not amenable to statistical testing.*

EUAA response

The EUAA submits that the use of the simple average by the AER is strength rather than a weakness. It is strength because it is simple, transparent and replicable. The EUAA takes the view that you ought to only opt for a complicated method if the complicated method clearly provides one with a superior estimation. To date, the EUAA is unaware of another complicated method that is clearly superior.

4. *The letter from Bloomberg telling the AER that the BFV is not suitable for calculating the DRP is open to many interpretations.*

EUAA response

It is the understanding of the EUAA that the AER wrote to Bloomberg and asked them about the purpose and usage of the BFV curve. Bloomberg replied to the AER telling them that the BFV curve was not meant for deriving the DRP. This implies that the BFV is not a suitable. The EUAA views this letter from Bloomberg to the AER as compelling evidence that the BFV is unsuitable as a benchmark for estimating the DRP. The EUAA also find it perplexing that PWC, QTC and SFG have all argued in favor of using the BFV curve when the very owner and developer of the BFV stated clearly that the BFV was not meant to be used for this purpose.

Last, the fact that the BFV was consistently used in the past suggests a choice in the absence of a better benchmark. The AER has now developed a better benchmark for deriving the DRP.

The EUAA has long argued for the cost of debt (and DRP) to be mostly calculated and inferred from actual debt issuance. To the extent that the AER is moving in this direction, the EUAA fully supports this more direct methodology employed by the AER to estimate the DRM. The EUAA also notes that in general, this more direct method of estimating the cost of debt is far less open to being gamed.

5. *QTC used a superior approach to estimating the DRP such as the paired bond analysis combined with CNF survey data. These analyses support a DRP in the range of 10 to 15 basis points per annum.*

EUAA response

The EUAA is not familiar with this method and thus cannot form an informed judgment of it. QTC has not made the methodology and data set that it used public. As a consequence, QTC's analysis should be discounted.

In summary, the EUAA considers that at a basic level, that QTC speaking on behalf of Powerlink cannot be regarded as an independent commentator on these specific WACC issues. They are in fact very conflicted in that they are very much aligned to the Queensland Government who in turn owns Powerlink. Because of the close alliance of QTC and the Government and the integral relationship between the Government and Powerlink, it is highly unlikely that the views of QTC can be contrary to that of Powerlink by association. The EUAA urges the AER to fully take this into account in evaluating QTC arguments and comments.

5.7.Appraisal of the argument by SFG Consulting.

Powerlink engaged SFG Consulting (SFG) to comment on the AER's method for calculating the debt risk premium in the context of current financial market conditions.

The basic argument by SFG is that both the Bloomberg fair value curve as well as the sample of relevant bonds chosen by the AER contains relevant information so it makes sense to use both.

EUAA response

The idea espoused by SFG that the AER should combined the two approaches (AER and BFV curve) seems compelling at first but is suspect under close inspection. At first it may seem sensible to use the information from two different sources. Why would not a regulator use all the information available? Surely, this will lead to a better estimation of the DRP.

The EUAA, however, does not agree with this proposition. The reasoning is as follows. If one method of estimation is superior to another than it makes more sense to just use the relatively superior method, i.e. combing the two will lead to a worse estimate.

The key challenge is judging which method is superior on a net basis. The EUAA is of the view that the direct approach taken by the AER is a superior method of estimating the DRM therefore the EUAA does not see much to gain by combining the two methods. Conversely, if the judgment is that the FVC is superior than the FVC alone should be employed.

Furthermore, SFG (as well as PWC and QTC) mis-specified the true nature of the choice set. SFG fails to point out that the BFV curve can't be used since it does not have any bonds with terms of maturity greater than 7 years. Somehow, the BFV has to be 'extrapolated' to get a 10 year bond yield. As pointed out above, there are many legitimate ways to extrapolate and estimate. It is inevitable that different stakeholders will come up with different numbers. This also makes extrapolation prone to bias and self interest. There is also the practical issue of who should do the extrapolation and how are the two methods to be combined.

The EUAA also submits that it is not prudent to combine the two different methods since they are fundamentally different. The AER method is a direct method of estimating the DRM that is simple, transparent and replicable. On the other hand, the BFV methodology is private. The EUAA asks whether it is prudent to combine a method that is transparent with another method that is non-transparent and has to be 'extrapolated' by somebody.

The EUAA has long 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.

To the extent that the AER is moving in this direction, the EUAA endorses the AER methodology.

6. Service Standards

The EUAA shares the concerns raised within other submissions regarding the AER's proposed service performance targets.

The key issues of concern to the EUAA are as follows:

- Powerlink has received bonuses in all four years of the Service Target Performance Incentive Scheme (STPIS), totaling $17.6m.
- The STPIS is intended to incentivise improvements in service performance, rather than providing rewards for maintaining average historical service performance. Based on the above results, it is clear that Powerlink's performance standards have been set too low.
- The magnitude of Powerlink's recent capex should automatically result in improved service performance levels. However under the STPIS, consumers have been paying bonuses to Powerlink for the improved performance that the increased capital expenditure automatically delivers.
- With the magnitude of the incentive scheme being recently increased from 1% to 3% (of MAR) due to the introduction of the "Market Impact Parameter" bonus scheme, Powerlink will potentially receive annual performance bonuses of up to $43.4m during the next regulatory period.
- The targets for the "Market Impact Parameter" scheme are clearly set too low. Being a 'bonus only' scheme (i.e. no penalties); Powerlink is likely to obtain the majority of its bonuses from this component of the STPIS. (It should be noted that Powerlink achieved 1.97% out of a total potential 2% in the first year of the "Market Impact Parameter" scheme.)
- Despite the major increases in prices, all performance targets proposed by the AER for the next regulatory period are below Powerlink's historical average performance. Consequently, Powerlink will receive substantial performance incentive payments even if it only achieves its average historic service performance.
- Powerlink's key justification for applying reduced service performance targets to the next regulatory period was that it would require more outages to accommodate its proposed increased capex program. As the AER's Draft Decision has actually reduced Powerlink's capex by almost 50%, to a level below the capex of current regulatory period, then clearly the targets should be increased accordingly.
- The historical performance data provided by Powerlink in its revenue proposal included performance data for the period before the STPIS was implemented. The EUAA concurs with the views of others that only performance data since the STPIS was implemented should be used for the basis of setting new targets. To use performance data that applied when there was no incentive is likely to distort the new targets.

7. Conclusion

Large energy users are again being asked to digest higher prices of up to 50% 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. As we mentioned in our initial submission, the challenge for this AER is to avoid such an outcome even within the confines of the existing Rules. Our assessment is that it has come part of the way there in its Draft Determination. However, for electricity consumers in Queensland, being asked to pay even higher electricity prices as a result of flaws in the Rules is not a situation that they or the AER should accept.

Higher electricity costs inevitably lead to higher costs of living and 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 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.