Our Ref: D07/6575

7 February 2007

Mr Mike Buckley
General Manager
Network Regulation North
Australian Energy Regulator

c/- email: powerlinkreset@aer.gov.au

Dear Mr Buckley

Submission in relation to Powerlink revenue cap draft decision

Transend Networks Pty Ltd (Transend) welcomes the opportunity to comment on the AER's draft decision on Powerlink's revenue cap for the period 1 July 2007 to 30 June 2012 (the Draft Decision).

Transend notes that the transitional provisions in the National Electricity Rules (NER) require the AER to set Powerlink's revenue cap for the next regulatory period substantially (but not entirely) in accordance with the chapter 6 rules that existed at 3 April 2006 (the old rules) and the AER's *Statement of principles for the regulation of electricity transmission revenues* (SRP). As such, the Draft Decision does not necessarily establish regulatory precedents for how the AER will discharge its role under the NER. In its submission, therefore, Transend has limited its comments to those matters that have implications for future regulatory practice, namely:

1. use of consultants' advice;
2. assessment of replacement capital expenditure;
3. estimating cost escalation factors;
4. hybrid approach to capital recognition;
5. benchmarking;
6. service standards.

Each of these matters is addressed in the attachment to this letter. If you would like to discuss any of the issues raised in this submission, please do not hesitate to contact me.

Yours sincerely

[by email]

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Submission: Transend's comments on the AER's Draft Decision for Powerlink's 2007/8-2011/2 revenue cap

1. Use of consultants' advice

Transend notes that the AER engaged Parsons Brinckerhoff Associates (PB) as a technical expert to advise it in relation to a number of key aspects of Powerlink's application, including past and forecast capex, opex, and service standards. The AER also engaged CHC Associates (CHC) to provide advice to it on technical issues that arose during the review. Access Economics was retained by the AER to provide advice on wage growth forecasts in the utilities sector.

In relation to a number of important matters, the AER adopted a position in its Draft Decision that is contrary to the recommendations of its consultants. The AER's ability to challenge authoritatively its consultants' conclusions depends on the availability of in-house staff with appropriate regulatory and technical expertise. It is therefore an encouraging development that the Draft Decision asserts the AER's views over the advice of its consultants in some important areas. Transend strongly supports the AER in continuing to develop and enhance its internal resources.

As a matter of principle, Transend strongly supports the AER's approach in developing its own reasoning and views, rather than relying exclusively on the advice of its consultants.

It is also worth noting that the apparent differences of view between the AER and its consultants clearly illustrates that regulatory decisions must rely on the exercise of sound judgment rather than the determination of fact. The exercise of judgment also introduces the possibility of regulatory error, which the AEMC described in the following terms[1]:

> "On the one hand, economic regulation is adopted to address the costs and inefficiencies that can result from the capacity of TNSPs to exercise market power, while at the same time providing incentives for them to invest in and operate their networks efficiently. On the other hand, economic regulation is an imperfect substitute for effective competition and the potential for regulatory error can also impose costs and inefficiencies, including in relation to the incentive and financial capacity to undertake long-term investments in transmission infrastructure."

In this context, Transend particularly welcomes the AER's comments in relation to the prudency of past capital expenditure, and its decisions to set aside PB's recommendations:

> "The AER accepted that PB has identified some issues with Powerlink's oversight of certain projects. However, the identified issues are not a consequence of systematic failings and the recommended prudency adjustment was not significant. In this instance, seeking a prudency adjustment was not viewed by the AER as being consistent with the broader regulatory objectives, including the need to provide certainty in order to maintain an environment that is conducive to efficient investment. For these reasons, the AER has not adopted the recommended prudency adjustment and has allowed an amount of $1165 million (exclusive of FDC) for projects commissioned during the current regulatory period to be rolled into Powerlink's RAB." (Draft Decision, pages x and xi)

[1] AEMC, Rule Determination, Economic regulation of transmission services, 18 November 2006, page 48.

In Transend's view, it is essential that the AER consider the broader implications for investment incentives in deciding whether financial penalties should be imposed on TNSPs. It should be recognised that investment decisions are often made in an environment of uncertainty, with imperfect underlying assumptions when viewed with the benefit of hindsight.

In light of the Draft Decision, the AER should consider providing further guidance to its consultants to ensure that future prudency reviews adopt a 'practical' rather than 'textbook' standard of prudency. In this regard, Transend also encourages the AER to ensure that prudency reviews are not overly forensic and costly.

Transend notes that the AER has adopted a 'practical' standard when reviewing many aspects of the Powerlink application. For example, the AER has recognised that in the present tight market for suitably trained service providers it is not practical or cost-effective to competitively tender for all planned and unplanned maintenance services or for individual projects.

2. Assessment of replacement capital expenditure

With respect to forecast capex, the Draft Decision explains that PB undertook a detailed review of 13 replacement projects. Overall, PB found that:

- Powerlink has procedures for identifying and prioritising its replacement requirements which are consistent with good electricity industry practice.
- The level of asset replacement expenditure in the current regulatory period is not sustainable and a significant increase is justified going forward as a number of lines and substations are now reaching the end of their expected lives.
- There was a need for replacement work during the next regulatory period on all projects reviewed; however, the project scope on which the forecast was based was often greater than justified by condition assessments.
- There was little evidence that Powerlink had considered any other measures apart from asset replacement, as a strategy for mitigating the identified risks.
- Powerlink's replacement forecast should be considered, at best, an upper bound to the range of possible replacement expenditure and that a prudent operator in a more competitive environment would be able to rely on a significantly lower replacement budget without any material impact on the level of service.

Although PB considered that Powerlink's proposed replacement expenditures were overstated it was not able to form a view based on the information available on the amount by which replacement expenditures should be reduced. PB therefore considered it reasonable to use a top-down approach to determine an appropriate level of replacement expenditure. Based on this top-down analysis, PB recommended that Powerlink's proposed replacement capital expenditure program should be reduced by $111 million.

The approach recommended by PB is reminiscent of the approach adopted by the ACCC in its 2003 review of Transend's revenue cap. The ACCC's consultants (GHD) considered that Transend had proposed a technically supported but unrationalised capital forecast, and recommended that subjective cuts be made by the ACCC. In response, the ACCC reduced the consultants' capex recommendation by a further 10%.

As the ex post regime remunerates all prudent capex, the penalties for customers and investors of arbitrary capital allowance reductions such as those imposed on Transend are less severe.

Under an ex ante regime the ramifications of making inappropriate reductions to capex allowances are far more significant.

In Transend's view, the top-down approach used by PB could not reasonably be relied upon to determine a prudent replacement capital expenditure program. In particular, the top-down analysis described in the Draft Decision could only provide a very approximate 'cross-check' of the reasonableness of the replacement program. Specifically, Transend is concerned that PB's analysis is based on the following calculation:

> "PB noted that Powerlink's estimated depreciation for 2007–08 of $154 million would indicate an undepreciated opening RAB of $5400 million, of which $3510 million (or 65 per cent) was older than 15 years at the end of the current regulatory period. Based on the assumption of a 35 year capital weighted average life for Powerlink's RAB, PB considered that Powerlink should be replacing its asset base to ensure that the $3510 million portion is renewed over 35 years. As such PB recommended that the replacement allowance for the next regulatory period should be around $500 million. It also recommended that a replacement premium of 20 per cent and a 20 per cent augmentation premium should be added to the allowance." (Draft Decision, page 69)

Transend's view is that the AER should give further consideration to the risks involved in reducing Powerlink's replacement capital expenditure program by $111 million. In its review of this issue, the AER should also note PB's comment that the level of asset replacement expenditure in the current regulatory period is not sustainable and a significant increase is justified going forward as a number of lines and substations are only now reaching the end of their expected lives. Transend notes that the 'broad brush' analysis conducted by PB in recommending a substantial reduction in replacement capital expenditure does not appear to consider the replacement cost of assets reaching the end of their expected lives in the forthcoming regulatory period. This appears to be a serious weakness in PB's approach.

3. Estimating cost escalation factors

Powerlink proposed the following cost escalation factors for labour and maintenance materials:

- For the labour rate escalation factors, Powerlink proposed a step increase in the years 2005–06 to 2007–08 and increases of 5.6 per cent per annum throughout the next regulatory period. The step increases in 2005–06, 2006–07 and 2007–08 reflect Powerlink's current EBA with wage rises negotiated to achieve wage parity with NSW TNSPs. Powerlink stated that the increase in rate is necessary to retain its current work force and attract new staff given the strong demand for skilled workers in Queensland. From 2008-09 the labour cost escalation factors match the wage rises in the current EBAs of other TNSPs.
- For maintenance materials, Powerlink applied a cost escalation factor of 4 per cent per annum for the remainder of the current regulatory period and throughout the next regulatory period. It pointed to major cost increases in materials such as steel, copper, aluminium and zinc and stated that aluminium is a major component of transmission line conductors and steel is used in towers and poles as well as substation structures. Powerlink also stated one of its major equipment suppliers has forecast electrical equipment prices to increase by up to 10 per cent per annum for the foreseeable future due to input cost increases.

- Powerlink lodged a supplementary submission to the AER, which identified further recent increases in the cost of tower steel of 15%, copper increases of 100% and aluminium increases for conductors of 40%. Transend notes that Powerlink's supplementary submission was not lodged in time for the AER to address the issues raised in its Draft Decision.

In response to Powerlink's proposed cost escalation factors for labour and maintenance materials, the AER commented that:

- "The AER is aware that the current resources boom, and associated public and private infrastructure projects, is driving the demand for skilled labour in Queensland. Measures are in place to address the current skills shortage in Queensland. These measures should ease the skills shortage over the next three to five years, as apprentices become sufficiently experienced to undertake unsupervised work, and new training positions are taken up. Further, many firms in Queensland, including Powerlink are considering recruiting from overseas. Coupled with this is the expected downturn in the resources boom, increasing the likelihood of the skills shortage improving." (Draft Decision, page 127)
- "Powerlink's application does not use the same escalation values for materials in the opex and capex forecasts. Powerlink has assumed that maintenance materials (opex) will escalate by a factor of 4 per cent per annum for the next regulatory period while construction materials (capex) will escalate by CPI. Powerlink has not provided any supporting information to justify this inconsistency.

  PB recommended that the escalation values for materials used for opex forecasts be adjusted so that they are consistent with those used for capex forecasts, stating that CPI is a more usual escalator used by network service providers.

  The AER considers that it is appropriate to apply an escalation factor to maintenance materials of CPI. This reflects the projected decline in base metal prices and maintains consistency with the capex materials escalator. The escalation of maintenance materials by CPI is also considered to be less arbitrary than the escalation factor of 4 per cent proposed by Powerlink." (Draft Decision, page 127)

Without commenting on the appropriateness of Powerlink's or the AER's views on the specific escalation factors that should apply in Queensland, Transend would like to make the following general observations:

- It is appropriate for the AER to consider whether input costs will increase more rapidly than CPI, and to reflect assumed cost escalation factors in the building blocks. Transend strongly supports the AER's in-principle acceptance of cost escalation factors – especially in the light of the rapid increases in input costs experienced in the current regulatory period.
- The AER's reasoning (supported by its consultants' advice) appears to make strong assertions regarding the future strength of the resources boom and the demand and supply of skilled labour in Queensland. In Transend's view, the AER's decisions to reduce allowances should not rely on these types of speculative propositions. This observation is further supported by Powerlink's supplementary submission, which indicates that the price of steel, copper and aluminium is continuing to increase rapidly.
- The AER appears to justify its decision to reject Powerlink's escalation values for materials by commenting that Powerlink's application is inconsistent in its use of escalation factors for operating and capital expenditure forecasts. In Transend's view, the

apparently inconsistent use of an escalation factor does not provide any evidence regarding the appropriate escalation factor per se. Again, the cost increases identified in Powerlink's supplementary submission further illustrates this point.

4. Hybrid approach to capital recognition

In its *Regulatory accounting methodologies* draft position paper (September 2005), the AER indicated a preference for recognising capital expenditure on an as-incurred basis, which requires modeling the return on and return of capital when that expenditure is incurred. The AER delayed its final decision on this issue, given the AEMC's review of the Chapter 6 Rules.

In its revenue cap application, Powerlink has modelled the return on capital under the as-incurred approach and the return of capital under the as-commissioned approach. The AER refers to this as the hybrid approach. In the Draft Decision, the AER accepted Powerlink's proposal in order to provide certainty for Powerlink and its customers.

Transend notes that the arrangements for the roll-forward of capital expenditure have proved to be a contentious issue. The contentious issues relate to practical concerns regarding the reporting of information to the AER and maintaining consistency with accounting standards. Transend understands that the hybrid approach to capital recognition is consistent with Australian accounting standards, which preclude depreciation, or return of capital, prior to the project being commissioned. The AER has stressed the importance of consistency with accounting standards elsewhere in the Draft Decision[3], and this principle therefore lends further support to the hybrid approach.

Transend's view is that it would be appropriate for other TNSPs to be afforded the option of adopting the hybrid approach to capital expenditure recognition. Transend looks forward to working with the AER in the coming months to finalise the arrangements for the recognition of capital expenditure.

5. Benchmarking

The AER's annual transmission regulatory report for 2004/05 (published in April 2006) includes operating expenditure benchmarks for NEM-based TNSPs. On page 55 of this report, the AER explains that:

> "the AER recognises that differences in operating conditions and scale can explain some variance in ratios such as opex/line length. Accordingly, the AER does not use benchmarking to establish opex allowances for TNSPs, but rather as a guide to whether the allowances are within a reasonable range."

In contrast to this qualified statement in the regulatory report, the AER makes the following findings in relation to the three operating expenditure benchmarks which are reproduced in the Draft Decision:

> "The figures support the claim that Powerlink is a relatively low cost operator in comparison to other TNSPs. Powerlink performs well when considering opex/line length measures (figure 6.2) and has the lowest opex/RAB ratio of the six Australian TNSPs shown (figure 6.3). Powerlink is around the mid point when comparing opex to peak demand (figure 6.4). This data might also indicate that other TNSPs are improving their efficiency levels relative to Powerlink." (Draft Decision, page 121)

[3] Draft Decision, page 140.

In Transend's view, the Draft Decision draws specific inferences from the operating expenditure benchmarks, which appear to be somewhat contrary to the view expressed by the AER in the regulatory report of 2004/05, that the benchmarks will only be used as a guide to whether the allowances are within a reasonable range.

Transend is concerned that the operating benchmarks employed by the AER do not provide a meaningful comparison between TNSPs because they neither take account of scale effects nor the impact that a rapidly growing network (such as Powerlink's) might have on the value of the regulatory asset base, average asset age and maintenance costs. In fact, the AER's regulatory report for 2004/05 provides a comprehensive list of factors that affect cost comparisons:

> "The following list provides examples of factors that affect the configuration and operation of the transmission network and result in differences between individual TNSPs:
>
> - the *age and quality of the capital stock*
> - *Government regulations* - companies which must control noise emissions may face higher average costs than those which do not
> - *environmental factors* - companies in regions with high temperatures or a greater propensity to electrical storms may have to take more precautions than those in more temperate areas
> - the *number, density, load factor and size distribution of customers* -companies which have a higher load factor or customer density may have lower average cost than those companies which do not. Companies which have to transmit over larger distances may have higher costs than those operating in a relatively compact geography.
> - the *volume of services* provided (a company carrying smaller volumes may have a higher average cost if there are economies of scale)
> - the *scope of services* provided – in Victoria, a separate entity incurs the costs of network planning.
> - the *quality of services* provided (a company which offers *n-2* reliability may have a higher average cost than a company which offers *n-1* reliability)
> - the *price of inputs* (a company servicing a large rural network may have to pay more to attract particular labour skills).
>
> Accordingly, caution must be exercised in making comparisons between TNSPs due to the influence of these factors." (AER, Regulatory Report 2004/05, page 21.)

Given that the AER's operating expenditure benchmarking does not take account of these important matters, it is simply not possible to draw specific conclusions from the reported data. Transend is concerned, therefore, that the AER continues to rely on this type of superficial benchmarking to support its conclusions. Transend believes that the AER's benchmarking for revenue-setting purposes should give appropriate consideration to the factors identified in the 2004/05 Regulatory Report.

6. Service standards

Powerlink's application explained that its large capital expenditure program would result in more outages associated with construction and connection of new works. Powerlink considered that the target levels for the circuit availability and loss of supply event measures

should reflect the proposed capital expenditure program. Transend welcomes the AER's acceptance of PB's recommendation that adjustments should be made to performance targets to take account of the execution of new works.

With this in mind, Transend notes that in the ACCC's 2003 revenue cap decision for Transend, the ACCC did not accept the proposition that adjustments to performance targets should be made to accommodate the increased capital expenditure program. In particular, the ACCC concluded that:

> "The ACCC agrees that outages are needed for the proposed capital works to be undertaken. However, Transend has spent large amounts on capital works over the past few years which should go some way to improving Transend's current and future performance.
>
> Hence the ACCC has applied the stretched performance targets in this decision on the following basis:
>
> - Transend did not quantify the improvement in performance as a result of the capital invested over the past few years
> - GHD's recommendation was to provide more challenging targets, noting that although outages required for capital works may affect short term performance, in the long term, performance should improve." (ACCC's revenue cap decision for Transend 2004–2008/09, December 2003, page 104.)

Whilst Transend accepts that it is not appropriate to revisit the ACCC's 2003 revenue cap decision, Transend considers that the AER's approach on this matter is appropriate and therefore expects the AER to carefully consider Transend's recent service performance and future targets in light of its capital expenditure program.

Transend also notes PB's comments in relation to the use of deadbands, and the AER's acceptance of PB's recommendations:

> "PB also recommended that the targets for the frequency of off-supply events measures be set without dead bands. It considered that dead bands smear the target across a range and reduce the accuracy, or sharpness, of a given measure." (Draft Decision, page 158)
>
> "The AER considers that using single data points as targets, rather than target dead bands, is appropriate for Powerlink's loss of supply events and average outage duration measures. It notes PB's concerns about uncertainty created by dead bands and therefore prefers the use of single data points for these measures. The AER does recognise that this preference for single data points may not always be appropriate in applying the service standards incentive scheme and will continue to assess their use case-by-case." (Draft Decision, page 159)

Transend does not accept PB's rationale for rejecting the use of deadbands, and is also concerned to note that the AER has apparently accepted this recommendation without any proper consideration of the issue.

In Transend's view a deadband is appropriate where performance within the deadband cannot be considered either 'good' or 'bad' and therefore worthy of a bonus or penalty. Therefore, the question as to whether a deadband is appropriate depends on the natural variability of performance as a result of random events that are beyond the control of the company. In other words, the variance in reported results for a given level of performance is such that performance within the deadband cannot be said to be statistically better or worse.

Therefore, Transend believes that the AER should not assume that a deadband is inappropriate on the basis that it reduces the accuracy or sharpness of a measure. In fact, the deadband may be necessary if the scheme is intended to reward genuine improvements in performance, rather than statistical 'blips'.