

Mr Mike Buckley
General Manager Network Regulation North
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Email: aerinqury@aer.gov.au

201 Elizabeth Street (cnr Park St)
PO Box A1000 Sydney South
New South Wales 1235 Australia
Facsimile (02) 9284 3456
Telephone (02) 9284 3000
Web <http://www.transgrid.com.au>
DX 1122 Sydney

Dear Mike

TransGrid's response to the submission by the Energy Users Association of Australia

TransGrid appreciates the opportunity to respond to the Energy Users Association of Australia (EUAA) submission to the Australian Energy Regulator (AER) dated 20 February 2009.

TransGrid would like to address the following specific matters raised by the EUAA:

1. Capital expenditure (capex) planning
2. Demand management
3. Contingent projects
4. Cost of capital and the regulatory framework
5. Operating expenditure (opex)

1. Capital expenditure (capex) planning

TransGrid's capital expenditure forecasting methodology was used to develop the capex estimates in TransGrid's Revenue Proposal and revised Revenue Proposal. This methodology references several factors including demand forecasts, asset management plans, risk analysis, cost estimation and cost escalation.

Parsons Brinckerhoff Australia P/L (PB) was engaged by the AER to review TransGrid's proposed capex programme. During this review PB found that TransGrid's forecasting methodology was "systematic and appropriate"¹, scenario planning was "sound, and represents a robust process that is well documented and evidenced"², and that TransGrid's asset management processes are "consistent with good industry practice"³. TransGrid's cost estimating database was found to be "sound and suitable for the purposes intended"⁴.

The EUAA have highlighted some of the improvement opportunities identified by PB and the AER, however it should be recognised that "PB was satisfied that TransGrid's overall governance framework was in line with good industry practice", and the "AER agrees with PB's findings that TransGrid's capital governance framework contains appropriate controls, checks, accountability, reviews and approval gateways".⁵

¹ PB, TransGrid Revenue Reset An Independent Review, page 86

² Ibid, page 93

³ Ibid, page 41

⁴ Ibid, page 62

⁵ AER, Draft decision, TransGrid transmission determination 2009-10 to 2013-14, page 28

TransGrid rejects the implication that its cost estimating processes lead to a systemic overestimation of project costing. TransGrid's use of base unit costs was accepted by the AER and PB as "reasonable and provide an appropriate basis to estimate the costs of its forecast capex program."⁶

TransGrid, whilst acknowledging there is always scope for improvement, does not agree with the conclusion drawn by the EUAA from the evidence provided in the PB and AER reports on TransGrid's Revenue Proposal. The EUAA asserts that "systemic deficiencies in TransGrid's capital expenditure planning methodology and procedures cannot ensure that the resultant capex program reasonably reflects the capex criteria under clause 6A.6.7(c)." PB surveyed a sample of nine projects and drew the conclusion that the issues around scoping and cost factors could have been applied inappropriately across the capex programme. However, further information provided by TransGrid has demonstrated that of the 205 projects proposed only four have applied non-standard factors and these were justified on the basis of the unique nature of these projects. Thus the PB conclusion is not substantiated.

The application of other than standard cost factors is justified on a project by project basis. It should be noted that "overall, PB was satisfied that the process used by TransGrid to determine project costs is reasonable."⁷

TransGrid sought independent benchmarking of the project cost estimates that were challenged by PB. As part of TransGrid's revised Revenue Proposal, Sinclair Knight Merz (SKM) prepared an independent cost estimate for the Cooma Substation Replacement project, included as Appendix C in TransGrid's revised Revenue Proposal. This estimate was within 5% of TransGrid's estimate and is considered to be well within the level of accuracy of an estimate prepared at this stage of the project. SKM also reviewed the cost factors used for the Beaconsfield GIS Replacement project, included as Appendix D in TransGrid's revised Revenue Proposal, and found that the cost factors used by TransGrid were below what SKM would expect for a project of this type.

In relation to options analysis, TransGrid undertakes a review of network and non-network solutions to identify a range of feasible options. Whilst engineering judgement is applied in the assessment of these identified options, it is not used exclusively and economic analysis is undertaken for all identified options, to determine the most prudent and efficient outcome. TransGrid also note that the "AER accepts that in developing its expenditure proposal that it may not be practical (due to the relative materiality of some of the projects, unknown variables and cost) for TransGrid to perform a thorough options analysis for all projects that it expects to undertake in the next regulatory control period."⁸

The EUAA are critical of TransGrid's use of engineering judgement but the AER noted in their Draft Decision in relation to the Beaconsfield GIS Replacement project that the "reliance on engineering judgement ... (was) not a problem per se"⁹. TransGrid provided additional information to the AER who concluded that the AER "generally found TransGrid's decisions to be reasonable".¹⁰

In its submission dated 16 February 2009, Powerlink recognised the valid use of engineering judgement in options analysis and in particular its efficient use in preliminary stages of an assessment¹¹. TransGrid supports the use of engineering judgement where appropriate, with sufficient documentation to explain its use.

TransGrid asserts that the NPV analysis it undertakes considers all material costs. Whilst PB and the AER noted some improvement opportunities that TransGrid could apply, PB concluded that "the qualitative assessment of the costs and benefits presented by TransGrid demonstrated the merits of the preferred option over the alternatives considered",¹² in relation to projects such as Newcastle-Sydney-Wollongong load corridor.

⁶ Ibid, page 75

⁷ Ibid, page 65

⁸ Ibid, page 49

⁹ Ibid, page 55

¹⁰ Ibid, page 48

¹¹ Powerlink, Submission on Draft Decision TransGrid transmission determination 2009-10 to 2013-14

¹² Ibid, page 50

In TransGrid's submission to the AER dated 16 February 2009 in response to the EUAA submission dated 15 August 2008, the issue of revised demand forecasting is discussed. As mentioned in that submission TransGrid has reviewed its capex programme in light of the updated DNSP demand forecasts. TransGrid has advised the AER that TransGrid's capex programme and demand forecast are consistent with the latest DNSP forecasts and that no further reduction beyond that implemented by TransGrid in its revised capex proposal is possible.

It is noted that the AER did not accept TransGrid's forecast capital expenditure in total and did make adjustments. However TransGrid's revised Revenue Proposal has provided additional information to support its revised capex forecast, which TransGrid considers is efficient, prudent and reasonably reflects the realistic costs required to achieve the capital expenditure objectives.

2. Demand management

TransGrid's submission to the AER dated 16 February 2009 in response to the EUAA submission dated 15 August 2008 discusses the consideration of deferral options as part of the increased capital expenditure proposed by TransGrid. It is noted that TransGrid adopts a multi-faceted approach to encouraging demand management (DM) and local generation options so as to reduce, defer or avoid the need for capital investment in its transmission network that would otherwise be necessary to meet its reliability obligations and meet the growing electricity demand in NSW.

The Demand Management and Planning Project (DMPP) resulted directly in the successful installation of a standby generation and co-generation at two major commercial customers in Sydney CBD and North Sydney. Applying the learnings from the DMPP project, TransGrid has contracted 350MW of network support to allow deferral of its proposed 500 kV Western Upgrade project. This network support is from a portfolio of support providers including a large embedded generator, an industrial load and load aggregation. This deferral will result in savings of approximately \$20 million, which will be passed on to customers.

TransGrid and EnergyAustralia are extending the experience gained through the DMPP to acquire network support to allow deferral of the next 330 kV and 132 kV developments necessary to secure supply reliability to customers in Sydney CBD and Inner Metropolitan region. To this end, the two organisations are working together to investigate available feasible options.

Experience and learnings from these major projects and the DMPP will also be helpful in sourcing Demand Side Responses for the Sydney region as well as other parts of NSW.

3. Contingent projects

As discussed in TransGrid's submission to the AER dated 16 February 2009 in response to the EUAA submission dated 15 August 2008, TransGrid prepares a list of contingent projects to cater for unforeseen developments, which if triggered will result in benefits flowing to customers.

Due to the uncertainties surrounding contingent projects it would be inefficient and impractical to develop detailed estimates and full scale assessments of every option. Triggers for contingent projects, which are outside of TransGrid's control, are well defined as is the process to initiate a contingent project. In all cases, the expenditure is subject to further close review by the AER in accordance with the National Electricity Rules (NER) before it can be used as the basis for revenue cap adjustments. Until these projects are triggered they do not add to TransGrid's capex or revenue requirements in the revenue determination.

4. Cost of capital and the regulatory framework

TransGrid's submission to the AER dated 16 February 2009 in response to the EUAA submission dated 15 August 2008 contained an extensive discussion on the cost of capital and the averaging period used to determine the risk free rate. This submission was supported by an additional submission from TransGrid with expert opinions provided by Professor Stephen Gray and Professor Bruce Grundy.¹³ These submissions clearly indicate that the current global financial crisis is negatively biasing the parameters used to calculate the risk free rate and thus the WACC. These opinions support TransGrid's submission that the averaging period should be a period that precedes the worsening of the financial crisis in September 2008.

The EUAA has raised a concern that the AER's review of WACC parameters will not be applied to TransGrid's Revenue Determination for 2009-2014 and that this will mean 'out-of-date' parameters will be applied. The AER must apply the requirements of the NER and it is incorrect for the EUAA to suggest that the AER has made an inappropriate decision simply because the EUAA does not agree with the NER.

The EUAA also raised concerns around the application of the NER in regard to:

- exemptions to service standards for capital work
- that cost pass throughs for Network Support events require rules to protect and inform end-users about overspending or underspending.

These issues should be handled through the Rule change process, not as part of a submission regarding a Revenue Proposal. TransGrid supports the consultation processes in place for any changes to the NER and would encourage the EUAA to raise their concerns via that process.

The EUAA's statement that the AER is incentivising the imposition of degraded service standards on consumers is misleading. The service target performance incentive scheme covers three areas:

- Availability measures
- Reliability measures
- Outage restoration time.

The NER requires the effect of the capex program to be taken into account in setting service standard targets. Whilst the capex program has led to a slight decrease in the availability targets for transmission lines and transformers, the availability of reactive plant has a higher target than that applied in the previous regulatory period. Availability measures the result of planned outages for which TransGrid has greater control over the scheduling. TransGrid is able to schedule these equipment outages to ensure service to customers is generally not impacted.

The reliability measures have a much greater impact on the end customer, and TransGrid has proposed more challenging targets for the 2009/10 - 2013/14 regulatory period. Similarly, the outage restoration measure has been reduced by almost 50% from the current regulatory period, providing a much higher level of service to customers.

5. Operating expenditure (opex)

The EUAA has sought assurance that efficiencies have been factored into the operating expenditure proposal, such as labour productivity improvements.

¹³ TransGrid, Submission of expert opinion supporting TransGrid's revised Revenue proposal

During the current regulatory period TransGrid achieved a real reduction in the ACCC operating expenditure allowance, but achieving such reductions in the future will be difficult in light of increasing labour costs and a growing asset base. TransGrid's opex forecasting was developed from an efficient base year, being 2006/07. External benchmarking of TransGrid's costs indicates that TransGrid has reached an efficient and prudent level of expenditure in the base year, and this was accepted as an appropriate base by PB and the AER.

The opex forecasting methodology also accounts for further efficiency improvements by adjusting the base year for one-off costs before using it to project forward costs. The methodology also applies economy of scale factors that provide reductions in cost increases relating to costs associated with growth in the asset base and provides for reduction in maintenance associated with replacement of assets with new technology.

The combination of these factors results in a reduction of the opex/RAB (regulated asset base) ratio over the regulatory period, which can be seen as a measure of TransGrid's ongoing efficiency improvements.

In relation to defect maintenance of new assets, TransGrid's revised Revenue Proposal provided more detailed information substantiating the inclusion of these costs. Whilst the AER accepted that new assets may require some defect maintenance expenditure, they considered the cost insignificant. Both TransGrid and Powerlink have provided submissions that detail the possible increase in defects from new equipment and the limited coverage of manufacturer's warranty. Powerlink have referred to a study undertaken by Asset Partnership who advised "that condition based maintenance is required for assets of all ages, including new assets, which tend to suffer from 'teething' problems or 'infant mortality'".¹⁴

SKM undertook a review of TransGrid's defect maintenance and this report was included with TransGrid's revised Revenue Proposal as Appendix L. In summary, SKM concluded that the costs forecast are appropriate and should not be adjusted. TransGrid has since provided PB and the AER with more detailed cost analysis that supports TransGrid's submission that defect ratios are not materially affected by the increase in new assets, nor is this increase materially lowering the average age of TransGrid's asset base. Defect maintenance costs per switchbay at new substations is comparable with costs at older sites. Both of these facts support the calculations within TransGrid's opex model and the inclusion of the defect maintenance costs as per TransGrid's revised Revenue Proposal.

In relation to non-regulated activities, TransGrid can confirm that non-regulated costs are identified and separately accounted from regulated costs. TransGrid's financial systems and Chart of Accounts are structured to support TransGrid's Cost Allocation Methodology. The General Ledger has been set up to facilitate the segregation of Prescribed, Negotiated and Non-regulated costs into different cost centres and account numbers. TransGrid employs a Project Costing System to collect and monitor costs associated with specific projects. Non-regulated projects are clearly distinguished from regulated projects through this process.

An Overhead Cost Allocation System is in place to provide an equitable allocation of support costs. The Direct Labour cost driver is applied for the allocation of support costs. The support costs are allocated based upon the following principles:


- Reflects the consumption or utilisation of a resource or service by a business, or part of a business;
- Prevents cross-subsidisation between lines of work; and
- Allows consistency and comparability in the provision and reporting of financial information over time in relation to the various services.

¹⁴ Powerlink, Submission on Draft Decision TransGrid transmission determination 2009-10 to 2013-14

The Annual Regulatory Accounts are audited by an independent approved auditor, in accordance with the AER Guidelines. The outcomes of prior years' audits have confirmed that the Regulatory Accounts presented fairly the information required by the AER. TransGrid reiterates that these costs are not included in the Revenue Proposal and this has been confirmed by PB during their review.¹⁵

If you have any queries in relation to this submission please contact Mr John Howland on (02) 9284 3509.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'P McIntyre', followed by the date '10/3/09'.

Peter McIntyre
General Manager/Network Development and Regulatory Affairs

¹⁵ PB, TransGrid Revenue Reset An Independent Review, page 130