Report to

Energy Users Association of Australia

AER Final Decision
TransGrid Transmission Determination
2009–10 to 2013–14

30 June 2009

McLennan Magasanik Associates

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1 INTRODUCTION

This report presents MMA's comments and observations in relation to the Australian Energy Regulator's (AER) final decision on TransGrid's Revenue Proposal 2009/10 to 2013/14.

2 MMA'S SUMMARY ASSESSMENT

Although MMA is pleased that the AER recognised that TransGrid significantly over-estimated their revenue requirements and has seen fit to reduce the capex allowance by $110M (real $2007/08) and its opex allowance by $52M (real $2007/08) over the regulatory period, it is noted that end-users are presently facing multifaceted and significant cost pressures on many fronts. MMA is therefore concerned that AER has allowed what in effect is a 25% increase in average TUoS between the current and next five-year regulatory periods.

The most significant factor that contributes to this 25% increase in average TUoS is the extensive capex program that has been accepted by the AER, effectively providing for an 80% real increase in the 5-year capex allowance. This increase is determined in part by TransGrid's Project Evaluation Approach that both the AER and their engineering consultant, Parsons Brinckerhoff Australia Pty Ltd (PB), acknowledge has systemic weaknesses; the AER and PB shared the observation that TransGrid's Project Evaluation Approach failed to appropriately use economic options analysis in the cost-benefit assessment of considered projects. We also note that some of this large increase may be caused by USD-AUD exchange rate assumptions that are 20% different from the current rate. MMA has the view that the AER has not demonstrated that its exchange rate and demand forecast conclusions are realistic, and therefore that these conclusions satisfy the requirements of the NER.

Added to this, the global financial crisis and the consequential economic downturn, including in Australia, makes the allowed increase in TUoS charges particularly ill-timed and unfortunate. In the context of many economic uncertainties, MMA is disappointed that the AER has supported a massive capex program that is largely supply driven, rather than encouraging greater demand management/distributed generation initiatives that may defer the need for physical investments, thereby providing time for these uncertainties to sufficiently resolve.

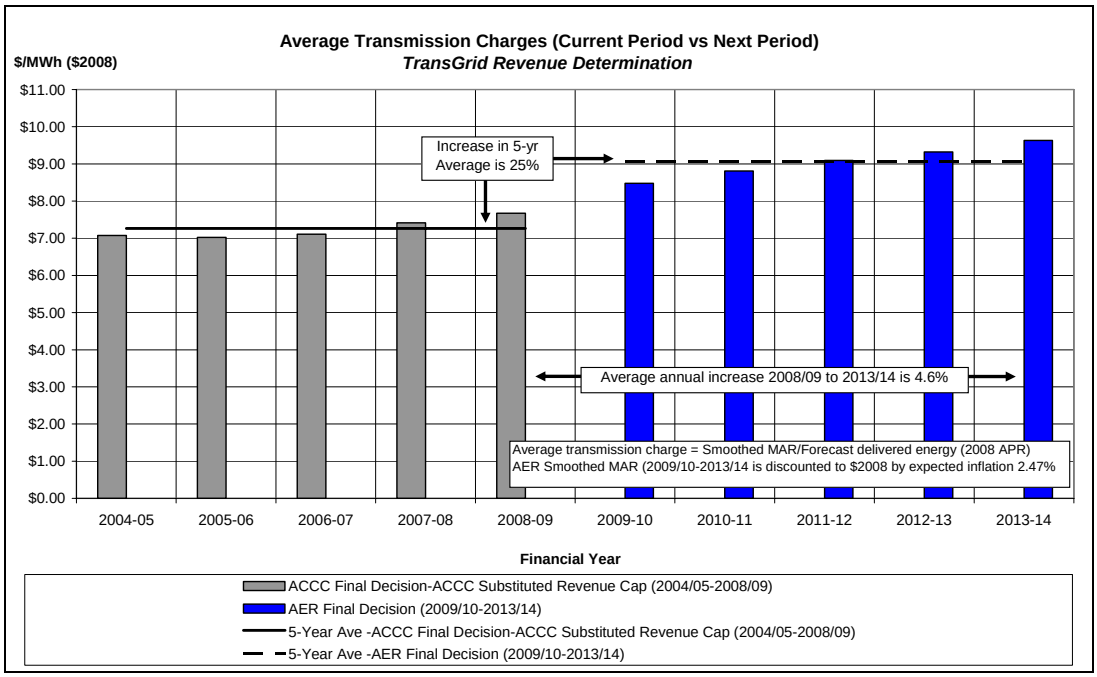
3 SPECIFIC OBSERVATIONS AND ISSUES

3.1 Impact on average transmission charges

The main impact for customers of the AER's final determination of TransGrid's revenue proposal is the effect on prices. Figure 3-1 shows transmission revenue (real 2008 $) for TransGrid from the current regulatory control period commencing 2004/05 until the end of next period 2013/14. The values presented are equivalent to the average TUoS that New South Wales consumers must pay for the delivery of electricity based on the AER's final determination. When averaged over each of the five year regulatory periods, the final determination provides for a 25% increase in average transmission charges.

It is MMA's view that average price increases of this order of magnitude are excessive; when combined with other significant energy cost pressures, including wholesale electricity prices, the rising cost of gas, other network cost increases, the coming carbon price and the expanded renewable energy target, MMA notes that the competitiveness of many end users in New South Wales will be significantly affected, particularly in an economic environment that limits the ability of firms to pass costs through to final customers.

Figure 3-1: Average Transmission Charges



3.2 Impact on average annual capex

The AER has adjusted TransGrid's proposed capex allowance down by approximately $110 million to $2,405 million over the 5 years from 2009/10. MMA notes that this still represents a massive increase of almost 80% in real terms ($2007/08) compared with the

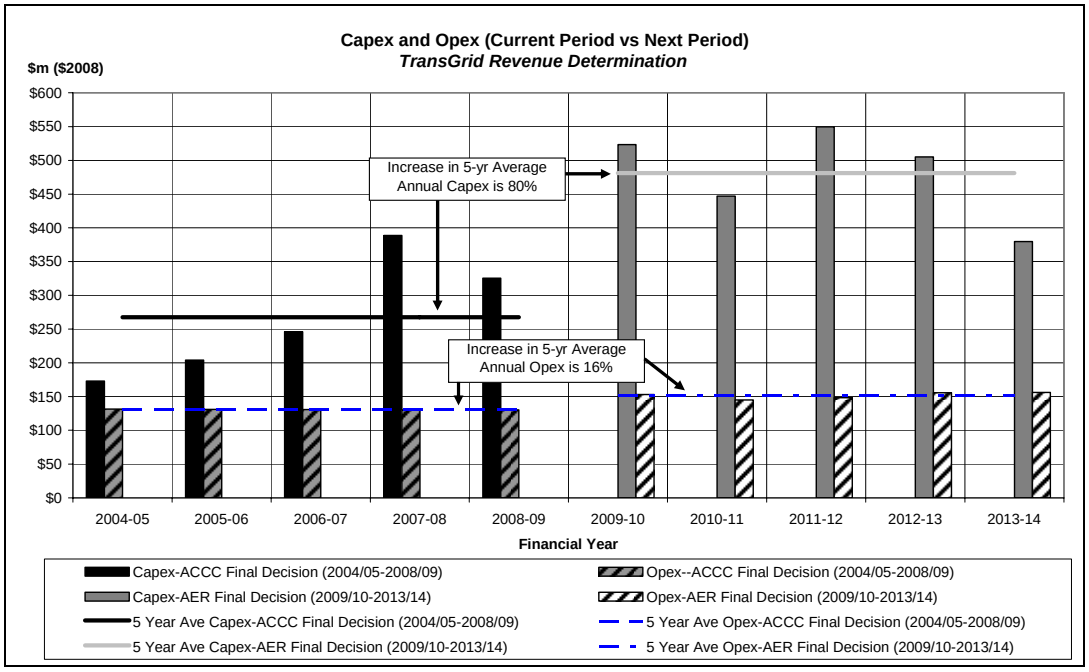
capex allowance that was determined by the ACCC for the current regulatory period (2004/05-2008/09).

The AER also approved an indicative contingent projects allowance of $1.8 billion.

TransGrid considered the impact of slower economic growth since it submitted its June 2008 proposal but determined that its schedule of proposed capital expenditure would not be affected by revisions to maximum demand, nor to recent developments associated with CPRS policy and the global financial crisis. The AER accepted this position. MMA does not agree however, that the 2008 APR provides a realistic demand basis for determining the capex program. It is noted that since the 2008 APR was developed, so much has changed; MMA does not consider it reasonable that the demand forecast is not independently reviewed given that since it was developed, the NSW, Australian and international economies have experienced a severe, coordinated and unexpected shock, resulting in simultaneous and worsening recessions, in parallel to significant development in CPRS and related energy policy that will definitely impact the demand for energy and transmission capacity during the next regulatory control period.

MMA also has concerns that this increase in allowed capex, and the large contingent projects allowance, is based on TransGrid modeling that has been found to have systemic weaknesses, and which is ultimately biased towards large, high cost engineering solutions. This massive increase was reviewed without a sound economic consideration of deferment and demand-management options, and was approved in the context of AER's exchange rate assumptions that are 20% different from current levels. We discuss these points later in this submission.

Figure 3-2: Average Capex and Opex



3.3 Impact on average annual opex

The AER has reduced TransGrid's proposed opex allowance down by $52 million to $757.6 million over the 5 years from 2009/10. This represents an increase of almost 16% in real terms ($2007/08) compared with the opex allowance that was determined by the ACCC for the current regulatory period (2004/05-2008/09).

The AER has also estimated a total opex efficiency allowance of $15.1 million.

MMA notes that during the current regulatory period TransGrid has typically spent less than its opex allowance, providing it with a contribution to its operating profit that is in excess of what was anticipated by the ACCC.

MMA also observes that a large proportion of the opex budget is related to the massive capex programme, including an 80% increase the value of approved projects that ultimately are based on modeling that was found to be flawed by the AER and PB.

MMA is not satisfied that the final determination has appropriately addressed the benchmarking requirements of section 6A.6.6(e)(4) of the National Electricity Rules (NER), nor section 6A.6.6(e)(7) of the NER relating to the review of substitution possibilities between operating and capital expenditure. These concerns are discussed below.

3.4 Exchange rate forecasts

The exchange rate forecast is a cost input that is relevant in the determination of required capital expenditure and required operating expenditure. Sections 6A.6.6(c)(3) and 6A.6.7(c)(3) together define the AER's obligations in relation to exchange rate forecasts. In particular, these sections require that the accepted exchange rate forecast is a realistic expectation of the exchange rate that may apply to cost inputs that are required to achieve the operating and capital expenditure objectives during the regulatory control period.

MMA does not accept that the AER has made sufficient investigations to ensure that its exchange rate conclusions for the next regulatory control period are realistic, potentially affecting the quality of the cost inputs that depend on them.

On page 152 of its final determination, the AER provides its conclusion of AUD-USD exchange rate forecasts; specifically:

Table A.12: AER conclusion on AUD/USD exchange rate forecasts

	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
AER's conclusion	0.85	0.96	0.67	0.65	0.63	0.62	0.62

MMA makes the following observations:

1. The NER does not provide guidance for an assessment of whether a cost input is realistic.

2. The AER is not a macro-economic forecaster. It is MMA's view therefore that the AER would require professional opinion to make a determination that the exchange rate forecast is realistic.

3. The AER considered that an exchange rate forecast by Econtech at the time of the final decision would represent a realistic expectation of forecast exchange rates over the next regulatory control period. The most recent exchange rate forecast by Econtech at the time of the final decision was published on January 23 2009[1]. This was used by the AER in its April 28 2009 final decision to calculate the cost escalators[2]. This exchange rate forecast was therefore 3 months old by the time the final decision was published.

4. The exchange rate profile produced by Econtech is derived by using the uncovered interest rate parity condition[3] that takes into account a current (spot) exchange rate assumption and the relative differences in interest rates between countries. The curve for the entire regulatory control period is significantly below the current exchange rate of almost $0.80. It is also downward sloping, indicating deterioration in the AUD/USD exchange rate over the term of the regulatory control period. Given the forecasting method used, the decline in the forecast AUD/USD exchange rate curve calculated by Econtech must therefore assume a relative deterioration in the Australian interest rate over the forecast period, combined with a low initial spot rate.

5. The RBA reduced rates during this period by 125 basis points, representing a very significant change in interest rates which is relevant when forecasting an exchange rate using an uncovered interest parity approach. Indeed, interest rates are a critical assumption and the magnitude of the RBA's interest rate decisions suggest that the assumptions particular to the Econtech forecast may no longer be appropriate.

6. By the time that the AER's final decision was published on April 28 2009, one financial quarter had elapsed since the date of the Econtech forecast on January 23 2009, and during this time the actual AUD/USD exchange rate had traded in a range that exceeded the January 23 2009 rate by upwards of 12%. Indeed prior to the publication of its final decision, the Reserve Bank of Australia (RBA) published a statement observing that volatility in Australia's exchange rate with the USD has reached an historically high level during the 18 months prior to March 2009[4].

7. The RBA also made announcements that indicated that the Australian economy was outperforming other advanced countries, and that its prospects appeared relatively

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[1] Econtech, Australian National State and Industry Outlook, 23 January 2009, p. 110.

[2] AER Final Decision: TransGrid transmission determination 2009–10 to 2013–14, P152

[3] AER Final Decision: TransGrid transmission determination 2009–10 to 2013–14, P25

[4] http://www.rba.gov.au/Speeches/2009/sp_ag_310309.html

better than these other advanced countries. In an April 21 2009 speech by its Governor Glenn Stevens[5], the RBA made the following comments:

a. *the Australian economy has been contracting, though on the best information we have, not at the pace seen in a number of other countries, where quarterly declines in real GDP of 3, 4 or even 5 per cent have been observed in the last quarter of 2008 and are likely to have occurred in the first quarter of 2009*

b. *at this stage, the fall in the terms of trade that is occurring does not seem to be reversing all of the previous rise. Even with the large falls in prospect for contract prices for bulk commodities, Australia's terms of trade look like they could, at the end of this year, still be about 40 per cent higher than the average for the period from 1980 to 2000. Perhaps that will not persist. Alternatively, perhaps what commodities markets are telling us is that some factors beneficial to Australia – foremost the continued likely emergence of China – remain in place. It is probably not entirely coincidental that the clearest signs of a turning point in economic activity appear to be accumulating in China, though not exclusively there.*

c. *Australia's genuine long-term economic prospects remain good, and there remain good grounds to think that we will continue to weather the storm better than most.*

d. *It is noteworthy that in measures of confidence taken from surveys, household confidence has fallen in Australia relative to the ebullient levels of a year ago, but it remains much more resilient to date than comparable results in major countries*

e. *Consumer demand in Australia, while weak compared with recent years, is actually at the stronger end of international comparisons among advanced countries. This presumably owes something to the stimulatory effects of fiscal measures and lower interest rates for borrowers (though savers are feeling the pinch). But perhaps it also shows the inherently optimistic view Australians take in the future. Optimism, combined with an awareness of risk, is a fundamental strength. It is to be hoped that this will be matched by a recovery in business confidence over the months ahead. That remains to be seen, though there have been some encouraging signs recently.*

8. These RBA announcements suggest that Australia is outperforming other advanced countries. Taking into account the uncovered interest rate parity forecasting approach used by Econtech, to a casual observer, the conditions prior to the release of the final decision appear therefore to indicate that interest rates may remain higher in Australia than in the US, and therefore the AUD/USD may not significantly deteriorate over the term of the regulatory control period.

9. In its March 2009 Australian Commodities report[6], ABARE Economics forecast a significant recovery in World growth and commodity prices, and forecast a strengthening AUD/USD exchange rate during the period of the next regulatory control period:

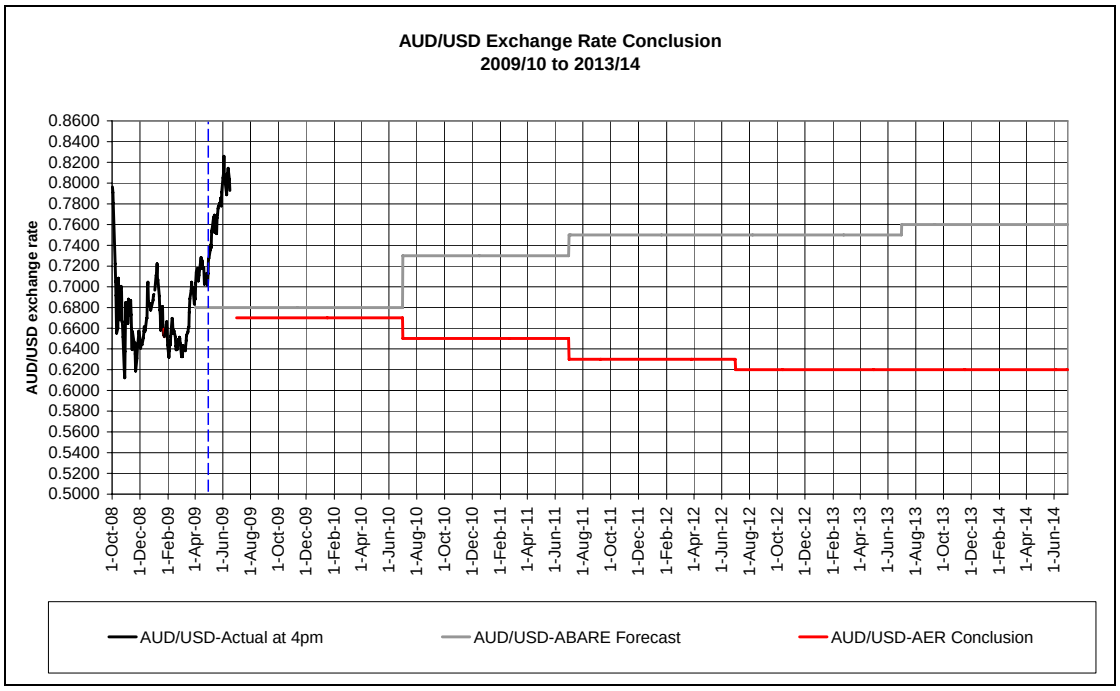
[5] http://www.rba.gov.au/Speeches/2009/sp_gov_210409.html

[6] http://www.abare.gov.au/publications_html/ac/ac_09/ac_09.html#

Under the assumption that world economic growth, and hence world commodity demand, recovers to levels that are more consistent with its longer term potential by 2011 and beyond, the value of the Australian dollar is assumed to increase to an average of US73c and TWI 58 in 2010-11. Toward the end of the outlook period, the Australian dollar is assumed to appreciate further both against the US dollar and on a trade weighted basis. By 2013-14, the Australian dollar is assumed to average around US76c and TWI 61[7].

10. Figure 3-3 compares the ABARE forecast exchange rate with that accepted by the AER in its final determination.

Figure 3-3: AUD/USD Exchange Rate Conclusion



11. A finding of whether the AER has satisfied the NER in relation to its acceptance of the January 2009 Econtech AUD/USD exchange rate forecast will depend on whether the Econtech report provided a realistic expectation of the AUD/USD exchange rate at the time of its final decision.

12. MMA notes that volatility in the foreign exchange market makes a decision of this type complex and difficult.

13. MMA's initial assessment is that the AER has perhaps not satisfied the NER in relation to its final decision on the AUD/USD exchange rate, for the reason that economic observations during the January to April period appeared to suggest an expectation of economic recovery, and therefore conditions that may be contrary to the assumptions of the Econtech January 2009 exchange rate forecast.

[7] http://www.abare.gov.au/publications_html/ac/ac_09/ac_09.html, P23

MMA's view is that the changed relative condition and situation of the Australian economy at the time of the final decision was readily apparent. Moreover, by March and April 2009, there was considerable evidence available to indicate that the January Econtech exchange rate forecast may no longer be realistic.

3.5 Demand forecast

The AER must accept a forecast of required operating and capital expenditure if it is satisfied that the total of the forecast for the regulatory control period reasonably reflects both the operating expenditure criteria of the NER (section 6A.6.6(c)) and the capital expenditure criteria of the NER (section 6A.6.7(c)). The forecast of this expenditure must therefore be efficient, prudent, and be based on a realistic expectation of the associated demand forecast and cost inputs.

In support of its final decision, the AER accepted TransGrid's demand forecast that was published in June 2008 as part of its 2008 Annual Planning Report (APR).

MMA observes that the economy is experiencing a significant deterioration with unprecedented rapidity. The economic outlook for NSW is significantly changed from the time when the 2008 APR was produced. The policy environment has also changed, particularly given the release of the Australian Government's White Paper on the Carbon Pollution Reduction Scheme (CPRS).

MMA has concern that the 2008 APR may now over-estimate the demand for electricity in NSW, thereby questioning whether TransGrid's proposed capex program is based on a realistic expectation of the demand forecast and of other associated cost parameters that are sensitive to the condition of the real economy.

MMA does not accept that the AER has made sufficient investigations to ensure that its demand forecast conclusions for the next regulatory control period are realistic, potentially affecting the efficiency and prudence of the expenditure allowance, and therefore the satisfaction of the operating and capital expenditure criteria of the NER.

MMA makes the following further observations:

1. As part of its final determination the AER noted that Country Energy, EnergyAustralia and Integral Energy (the NSW DNSPs) revised downward their proposed capex programs in their revised regulatory proposals in light of the:

   - anticipated impacts on peak demand of the worsening global financial crisis
   - release of the Australian Government's carbon pollution reduction scheme (CPRS) White Paper[8].

[8] AER Final Decision: TransGrid transmission determination 2009–10 to 2013–14, Page 15

2. On 6 February 2009, the AER sought information from TransGrid regarding how the revisions to the NSW DNSPs' maximum demand forecasts would affect its proposed capex program. TransGrid responded and noted:

   The revised NSW Distributor and ActewAGL global forecasts have been reviewed by TransGrid. Based on the information contained in the revised revenue [regulatory] proposals, along with additional information provided by EnergyAustralia and Integral Energy, TransGrid has determined that there will be no impact on the capital program within the 2009–2014 regulatory control period.

   The AER's final decision did not provide the detail of TransGrid's response to this request.

3. The AER accepted that the demand forecast was realistic based on this unpublished information from TransGrid:

   Based on the information provided by TransGrid, the AER considers TransGrid has adequately considered how changing maximum demand in NSW will impact its proposed capex program.[9].

4. The AER is not a demand forecaster. It is MMA's view therefore that the AER would require professional opinion to make a determination that the demand forecast is realistic. MMA does not accept that the AER should rely on TransGrid's opinion that the 2008 APR demand forecast is realistic, particularly given that the NSW DNSP's, who operate in the same economy, did determine that their demand forecasts should be revised down.

3.6 Concerns of systemic weakness in TransGrid's project evaluation approach

The AER must accept a forecast of required operating and capital expenditure if it is satisfied that the total of the forecast for the regulatory control period reasonably reflects both the operating expenditure criteria of the NER (section 6A.6.6(c)) and the capital expenditure criteria of the NER (section 6A.6.7(c)). The forecast of this expenditure must therefore be efficient, prudent, and be based on a realistic expectation of the associated demand forecast and cost inputs.

The AER engaged PB to undertake a detailed review of a sample of projects from TransGrid's capex proposal to ensure that it is in accordance with these requirements of the NER. PB reviewed 11 capex projects with a total value of $1.04 billion.

As a result of PB's findings, and the AER's consideration of these findings, a systemic weakness in TransGrid's project evaluation approach was identified.

The following extracts from the AER draft decision paper describe this deficiency:

[9] AER Final Decision: TransGrid transmission determination 2009–10 to 2013–14, Page 15

"Overall, while PB's detailed review of TransGrid's initial capex proposal found it to be generally reasonable in terms of prudence and efficiency it did find systemic issues, where there was scope for improvement. In particular, PB found issues with TransGrid's

- *application of scoping and cost factors which lacked transparency*
- *options analysis, which was inadequate." [p.47].*

"With reference to TransGrid's option analysis, PB considered it:

- *failed to include all relevant information and sensitivity analysis was not used to inform the options choice*
- *did not rely on the results of the options analysis, but tended to rely on qualitative arguments to dismiss the findings of the economic options analysis to justify its preferred option. " [p.48].*

"The AER also notes that TransGrid's capex estimating database manual allows for the standard factors to be altered if the project investigation identifies that the standard factors are not appropriate. As the weight of each factor can be adjusted on a discretionary basis for particular projects the capital estimation process can lack transparency, consistency and auditability. The AER therefore considers TransGrid's process for adjusting standard factors creates an environment where the scope for systemic overestimation of proposed capex project costs is present." [p.61].

"The AER agrees with PB's finding that in many cases TransGrid has relied on engineering judgement, which has not been transparently applied, to select a particular project option which would not be the preferred option on economic grounds." [p.48].

"Furthermore, the AER considers that the NPV assessments underlying several investment decisions have not been complete and often omitted certain costs and benefits." [p.48].

"The AER also notes that judgement has been applied in the scoping and costing of several projects, and in the development of TransGrid's risk allowance." [p.48]

"The AER considers that TransGrid has scope to improve its analysis of potential investments with regards to:

- *including all quantifiable costs and benefits in NPV analyses*
- *subjecting investment decisions to sensitivity analysis where options are closely ranked or are based on uncertain parameters*
- *properly documenting the basis for decisions (including the dismissal of alternative investment options and changes in project costs) that are based on judgement, with reference to credible evidence where possible."[p.49].*

"PB's detailed review of a representative sample of TransGrid's proposed forecast capex projects identified a number of issues that it considered may be prevalent across the entire proposed forecast capex allowance. These issues include the:

- *inadequate or non-consideration of likely reasonable options within NPV analysis*

- *discretionary adjustments to unit cost benchmarks to account for project specific matters."[p.60]*

It is the view of MMA that these issues are sufficiently serious, particularly the findings by PB that these issues are systemic, that economically preferable options have been dismissed on the basis of engineering judgement, that capex costs may be systemically overestimated, and that evaluation processes lacks auditability, such that a general finding of prudency and efficiency cannot be made. MMA has concern therefore that the expenditure program may not satisfy the capital and operating expenditure criteria of the NER.

The EUAA raised these concerns with the AER as part of its submission relating to the AER's draft determination. MMA has since reviewed the final determination, and the associated further review by the AER's engineering consultants PB, and note that this finding of systemic weakness has not been addressed, with the effect that the flawed modeling has been accepted by the AER.

3.7 Capex/opex substitution

Sections 6A.6.6(E)(7) and 6A.6.7(E)(7) of the NER requires the AER to consider the substitution possibilities between operating and capital expenditure when considering the forecast of operating and capital expenditure in its revenue decision.

MMA believes that a proposed 80% real increase in capex warrants a very careful, transparent and explicit consideration of investment trade-offs, including substitution possibilities.

TransGrid has not published information that describes the substitution options that it considered in the development of its expenditure proposal. The EUAA, in its response to the AER's draft decision, recommended the AER request from TransGrid detailed cost-benefit assessments, including an assessment of project deferral and demand management options, and capex-opex trade-off options, for each of the proposed initiatives in its capex program. The EUAA also requested that TransGrid be asked to explicitly show how its comprehensive DMPP database of demand management opportunities was used in the evaluation of each capex project.

The AER's final decision does not address EUAA recommendations in relation to capex/opex substitution, nor did PB, its engineering consultant, in its review of submissions on the AER's draft decision.

The apparent absence of the AER's consideration of this requirement in the documentation of its final decision, both in terms of considering whether the proposed expenditure requirement satisfies the expenditure criteria of the NER, and in response to concerns raised by the EUAA, gives MMA some doubt that the revenue decision is efficient and prudent.

Section 3.6 summarises concerns about defects in TransGrid's capex forecasting methodology. These defects will similarly affect the quality of TransGrid's assessment of capex/opex substitution possibilities. The findings by the AER of systemic and multiple weaknesses in TransGrid's Project Evaluation Approach, including the failure by TransGrid to appropriately assess investment alternatives in its cost-benefit assessments, should be grounds for a complete and thorough independent review of all capex and opex project proposals, including all alternative investment initiatives, deferment options and substitution possibilities.

3.8 Benchmarking capex and opex

MMA is not satisfied that the AER has demonstrated in its final determination that it has appropriately considered benchmarking requirements under sections 6A.6.6(e)(4) and section 6A.6.6(e)(7) of the NER. These sections of the NER require that the AER have regard to benchmark operating and capital expenditure that would be incurred by an efficient Transmission Network Service Provider over the regulatory control period.

Although the NER does not provide guidance to assist the AER in performing a benchmarking exercise, it is reasonable to presume that such an exercise would feature the following:

1. The implementation of a framework to collect and compare operational and capital cost expenditure inputs with a set of associated service performance outputs that provides an accepted basis for a measure of efficiency by TNSPs in the delivery of prescribed services.

2. The use of this framework to collect data from all TNSPs that operate within the jurisdictional scope of the AER, and to the extent feasible, from or in relation to other transmission service providers that operate in other jurisdictions, in relation to similar services.

3. The implementation of a comparison method to identify factors beyond the control of a transmission service provider that may have influence on the specific cost inputs and/or service performance outputs of the service provider, therefore providing a basis for adjusting internal measures of efficiency to account for these factors, and allowing a comparison of efficiency between transmission service providers that reasonably accounts for these factors.

4. The use of this framework and comparison method to define an efficiency benchmark for each of the prescribed services, and the use of this benchmark to assess the expenditure inputs and service performance outputs, and therefore the relative efficiency of the TNSP that is subject to a revenue determination.

MMA makes the following observations that suggest that the AER has not satisfied the benchmarking requirements of the NER:

1. The Final Decision contains no information on any benchmarking other than in respect of the cost of raising debt and equity.

2. In the Draft Decision the AER stated that it used its Engineering Consultant, PB, to conduct a benchmark assessment of TransGrid's costs and performance compared with other businesses.

3. PB's review of TransGrid's revised revenue proposal makes no mention of benchmarking, suggesting that the changes that TransGrid made in relation to its initial revenue proposal have not been fully and rigorously assessed in a manner that takes into account the capital and operating expenditure factors of sections 6.6.6(e) and 6.6.7(e) of the NER, and therefore in relation to the benchmarking requirement.

4. PB's supplementary report that considered the impact of TransGrid's updated 2008 APR and therefore impact of the demand forecast revision on the proposed expenditure program made no reference to benchmarking, suggesting that the changes that TransGrid made in relation to the lower demand forecast have not been fully and rigorously assessed in a manner that takes into account the capital and operating expenditure factors of sections 6.6.6(e) and 6.6.7(e) of the NER, and therefore in relation to the benchmarking requirement.

5. PB's review of TransGrid's initial revenue proposal does consider benchmarking, however it is MMA's view that this consideration may be deficient because of the following observations:

   a. The initial revenue proposal was based on an unrealistic demand forecast that was resultant from the 2007 APR;

   b. The expenditure program was based on TransGrid's Project Evaluation Approach that the AER and PB found to be defective, with systemic weakness in many areas that are critical to an assessment of expenditure efficiency (see section 3.6 of this document);

   c. PB describes its 'top-down' benchmarking approach as a 'high-level sense check'[10] and 'basic'[11]. The method does not appear sufficiently robust and thorough so as to provide a useful assessment of relative expenditure efficiency. Indeed, PB acknowledges that the method does not account for exogenous factors that may distort the efficacy of a benchmarking comparison; specifically:

      "The limitations associated with this type of high-level benchmarking are fully recognised – particularly the difficulties in capturing, and reflecting, a transmission network's unique geographic, environmental and/or demographic characteristics. The development of

[10] http://www.aer.gov.au/content/item.phtml?itemId=723872&nodeId=90d5dcbe2726edf9d375cfafdf2e8619&fn=PB%20main%20report%20(12%20November%202008).pdf, p17

transmission networks can vary considerably, especially over the typically long lives of the assets, and can be influenced to larger or lesser degrees by the following matters:

- *government rules, regulations and incentives*
- *business structure and roles undertaken*
- *stakeholder expectations*
- *environmental factors*
- *the number, density, load factor and size of customers*
- *the number, density, type and size of generators*
- *the extent of interconnection and variations in inter-regional flows*
- *the mix and age of assets and design philosophies adopted.*

In particular, as electricity transmission is essentially a transport activity, geographical distance has a significant influence. Other than this, network expenditure is shaped by major cost drivers such as size and design of the network (generation, demand, energy, voltage levels adopted, etc.), the level of reliability and security provided (planning criteria and network configuration), the environmental and regulatory conditions within which it operates and a businesses appetite for risk. In addition to TransGrid, PB has included the four NEM connected TNSPs within this analysis." [12]

d. PB also notes the following simplification:

"Whilst comparative benchmarking benefits from the use of larger peer groups, PB has excluded other TNSP's within Australia (such as Western Power, MurrayLink, DirectLink and EnergyAustralia), and excluded international businesses for the purposes of simplifying the assessment. Data available for the NEM connected transmission businesses is consistent, as is the efficiency incentive based regulatory framework within which the businesses operate."[13]

e. The results of PB's analysis does not appear to establish or justify an efficient benchmark for each category of expenditure and service performance. It appears to be narrowly and selectively applied, highly aggregated, and with the exception of

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11 http://www.aer.gov.au/content/item.phtml?itemId=723872&nodeId=90d5dcbe2726edf9d375cfafdf2e8619&fn=PB%20main%20report%20(12%20November%202008).pdf, P45

12 http://www.aer.gov.au/content/item.phtml?itemId=723872&nodeId=90d5dcbe2726edf9d375cfafdf2e8619&fn=PB%20main%20report%20(12%20November%202008).pdf, P46

13 http://www.aer.gov.au/content/item.phtml?itemId=723872&nodeId=90d5dcbe2726edf9d375cfafdf2e8619&fn=PB%20main%20report%20(12%20November%202008).pdf, P46

data for Transend which is based on proposed expenditure for 2009-14, is specific to expenditure in the previous regulatory control period. [14]

f. The benchmarking analysis that PB conducted does not assess TransGrid's proposed expenditure for the 2009-14 regulatory control period.

g. Although PB also conducted a 'bottom-up' assessment of selected elements of the expenditure program, this assessment does not feature a benchmarking component.

h. PB advised the AER of its view that TransGrid is currently a prudent and efficient provider of transmission network services, implementing prudent maintenance policies in a cost efficient manner. This view was based in part on ITOMS benchmarking results and a benchmarking report provided by the UMS Group; both of these reports compared historical data and were not therefore specific to TransGrid's proposed expenditure for 2009-14 regulatory control period.

[14] http://www.aer.gov.au/content/item.phtml?itemId=723872&nodeId=90d5dcbe2726edf9d375cfafdf2e8619&fn=PB%20main%20report%20(12%20November%202008).pdf, P47