Submission by:

Energy Users Association of Australia (EUAA)

TRANSGRID REVISED TRANSMISSION CAPEX PROGRAMME

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FOREWORD

The Energy Users Association of Australia (EUAA) appreciates the opportunity to provide comments for consideration on Transgrid's revised transmission revenue cap application in response to the ACCC's proposed regulatory framework.

As you may be aware the EUAA is a non-profit organisation focused entirely on energy issues on behalf of large business end users of electricity and / or gas. The EUAA currently has approximately 80 members. Membership ranges across a number of sectors, including mining, manufacturing, construction, commercial property and service sector. Many of the EUAA's members operate across States.

Hence, this submission represents the views of large consumers of Transgrid's transmission services. Our submission addresses the main issues of concern to our members and seeks to ensure that these issues are captured in the ACCC's consultation and decision-making processes.

The submission has been assisted by funding provided by the National Electricity Consumer Advocacy Panel and technical input from McLennan Magasanik Associates Pty Ltd (MMA). This support is gratefully acknowledged.

It should be noted, however, that the views expressed herein are solely those of the EUAA.

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1 INTRODUCTION

The Energy Users Association of Australia (EUAA), appreciate the opportunity to provide comments for consideration on TransGrid's transmission capital investment expenditure application to the Australian Competition and Consumer Commission (ACCC). This submission addresses the main issues of concern to our members and seeks to ensure that these issues are captured in the ACCC's consultation process. It is our view that the application has significant deficiencies and should not be approved by the ACCC without significant amendments. These deficiencies include:

- the potential incentive for the TNSPs to inflate the likely cost of capex given that in both the allowed and excluded projects cases, the TNSPs will retain the returns to any underspend for the 5 year period,
- the revised claim represents a significant increase of capital expenditure when compared with its original application in September 2003 given that the original application was only prepared some months earlier,
- a 75% increase in replacement capex with no corresponding reduction in opex when compared with its original application,
- a failure to comply with the *ex-ante* regime arrangements by including uncertain generation and interconnection related projects under the *ex-ante* allowance rather than as an excluded project,
- a failure to consider demand side solutions to reduce system peak load instead of inefficient and costly network solutions to meet increase demand, and
- a failure to include an assessment of the impact on consumers' bills resulting from such an increase in capex.

2 THE *EX-ANTE* APPROVAL REGIME

TransGrid has submitted its revised transmission capital investment programme in accordance with the ACCC's Draft Decision based on the *ex-ante* capex regime found in the Statement of Regulatory Principles (SoRP). The change from an *ex-post* to an *ex-ante* capital incentive regime is aimed at providing an incentive to ensure efficiency in the transmission network service provider's (TNSP) capital expenditure. While customers welcome the ACCC's desire to provide incentives for efficiency, we are unsure of how these incentives will work and thus are withholding our total support until we see its impact, which could be significant. Of concern at this stage is the evidence we see that there is some attempt at "strategic" gaming of the new arrangements.

The features of the new regime include:

- an *ex-ante* allowance that covers most or all expected investments during the regulatory period;
- the provision of an excluded projects mechanism that covers very large and uncertain investments;
- projects under the *ex-ante* allowance would be specified up front, but the TNSPs would have discretion as to what projects they construct;
- TNSPs will be required to provide quantified analysis of the relationship between any cost drivers (such as growth in peak demand) and the resulting investment requirement;
- the capex proposals would also need to establish how the relevant parameters would be measured and audited;
- a project is excluded from the main *ex-ante* capex allowance if the expected error presented by the inclusion of that project in the revenue allowance is equal to more than 10 per cent of the revenue required to cover depreciation and return on investment of all projects;
- TNSPs can apply to the ACCC for specific projects to be excluded from the *ex-ante* allowance, even where this value threshold is not satisfied. It will be at the ACCC's discretion as to whether these projects will be considered as excluded projects;
- projects excluded from the *ex-ante* capex allowance must be linked to unique investment drivers—such as a major point load or expected power station—rather than to general investment drivers (such as expectations of load growth within a region);

- Where events occur that lead to cost increases, TNSPs will be compensated via pass through arrangements. There is however no provision to reduce the *ex-ante* allowance should forecast events not occur.

Of some concern to customers, in the new *ex-ante* regime is the potential incentives for the TNSPs to inflate the likely cost of capex given that in both allowed and excluded projects cases, the TNSPs will retain the returns to any underspend for the 5 year period.

The ACCC should consider allowing the sharing of any gains from capex underspend in the following regulatory period with customers partially compensating the TNSPs for prudent overspending on projects that were not envisaged during the regulatory review. This may reduce the incentive to the TNSPs to overstate expected capex spend while still providing a level of incentive to operate efficiently. The very large amount forecast in TransGrid's revised application under the *ex-ante* allowance highlights this shortcoming.

PB Associates had identified a substantial portion of the *ex-ante* projects forecast as being more appropriately classified as part of the excluded projects as these projects are uncertain. There is every possibility that these projects will not go ahead during this regulatory period.

With the transition to this new arrangement, customers would urge the ACCC to keep a close eye on how the arrangements are actually put into practice by the TNSPs. It is our contention that TransGrid has an incentive to engage in inflating their *ex-ante* capex requirements to obtain a high allowance given these arrangements. This comment is made on the basis of the significant increase in capex when compared with their historical capex as well as when compared with their original application of 2004. Given the large increases applied for in TransGrid's original application, the major concern customers will have in this revised application is the impact this further capex increase will have on the cost of electricity supply to them.

While the draft SoRP had indicated that TNSPs will not be compensated for any overspend above the *ex-ante* allowance, the final decision provides that the written down value of the actual investment in that period that complies with the code will be rolled into the Regulatory Asset Base (RAB). This change was justified as removing an asymmetric treatment of over and under spending on capex. However, to the detriment of customers the same treatment is not available to customers on the pass through of events that lead to cost increases or reductions.

Customers are concerned that the *ex-ante* regime does not address the asymmetric manner in which the pass through arrangements operate with customers expected to bear its full cost. This is highlighted in the recently published network tariffs in Victoria where the impact of the pass through of the transmission easement land tax

has lead to demand customers facing increases of up to 24% for peak energy, 10% for maximum demand.

3 PROPOSED CAPEX

3.1 TRANSGRID'S REVISED PROPOSAL

TransGrid has proposed a total capex spend of $2.15 billion for the next regulatory period. Of this total over $1.52 billion are covered by the *ex-ante* allowance and approximately $0.62 billion are regarded as excluded projects.

The projects covered under the proposed *ex-ante* allowance include:

- $326 million for asset replacements
- $987 million of augmentations and
- $122 million to support the business

3.1.1 Overview of Revised Capex

This revised claim represents an increase of 48% in capex over and above the original application. This is on top of the already substantial 25% increase in capex sought by TransGrid in its original application. TransGrid had sought an increase in capex of some 25% in its original capex application over the actual amount spent in the previous five years. With the increase in their revised application, TransGrid is forecasting a capex spend (in real terms) of some 85% above that spent between 1999/2000 and 2003/04. This seems excessive. This is shown in Figure 3-1.

We also note that the schedule for capex is very back-end loaded. In the first three years of the regulatory period, the expected capex spend is in fact lower than that envisaged in the original. It is in the last two years that the substantial increase takes place. This can be seen in Figure 3-2 where the expected capex spend is about 2.5 times that of the original application. The impact of this profile is that TransGrid enjoys the returns of and on capital prior to the expenditure in the first three years of the regulatory period due to the smoothing arrangements. This is a direct result of the distortion that the current incentive regime provides to TNSPs. It also sets up the potential for TransGrid to base the next regulatory period's capex request on the high expenditure of last two years.

Figure 3-1 TransGrid Capital Expenditure

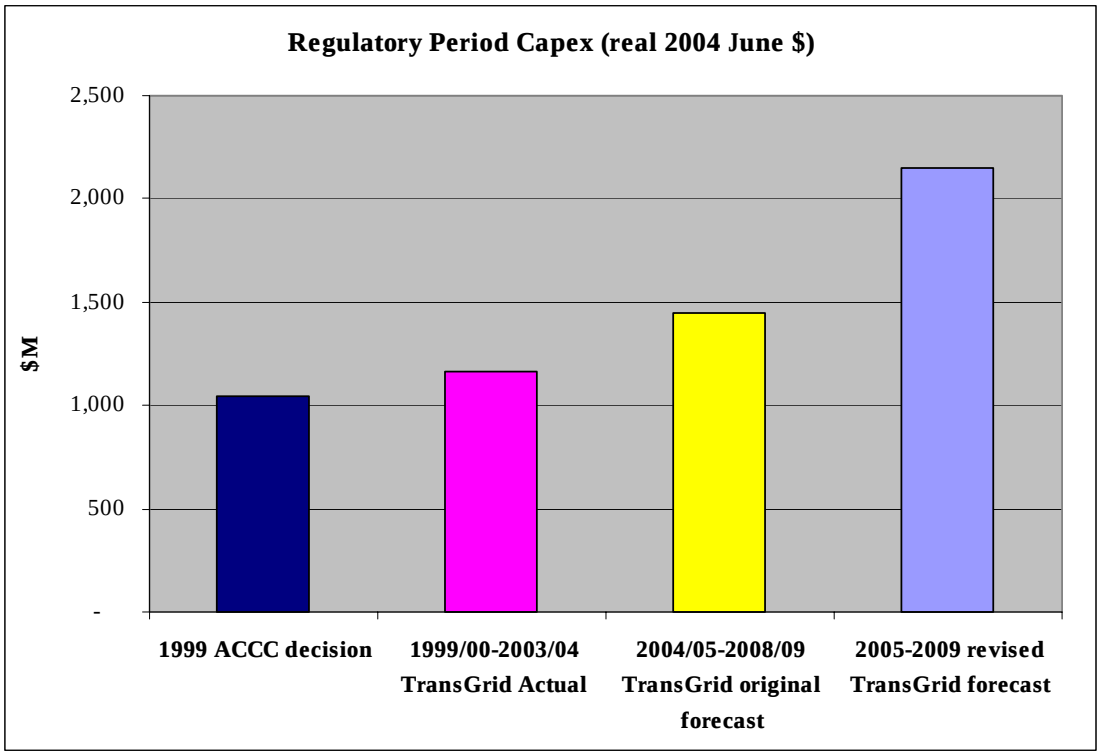
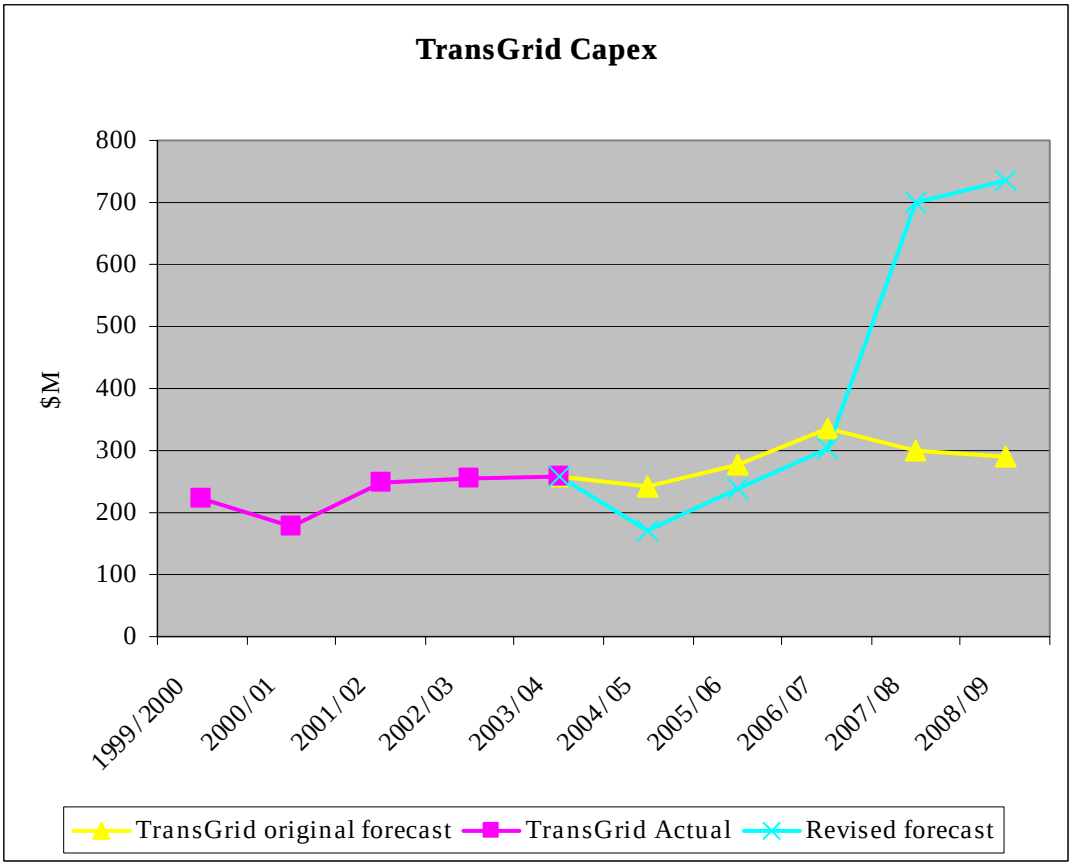


Figure 3-2 TransGrid Capital Expenditure Schedule (real June 2004 dollars)



3.1.2 Generation Driven Projects

TransGrid has also identified a number of generation driven projects in its revised capex application. In page 2 of section 6, TransGrid states that:

> "New generation developments will require transmission works for connection of the power stations to the system and also deep network augmentations in NSW to enable the state loads to be reliably supplied whilst maintaining system security. "

We submit that these generation driven projects should be allocated and charged directly to the generators despite the fact that capital works are required to be performed on the shared network. In the case of new generators, the National Electricity Code provides for these connection costs to be paid for by the generators. Why should customers have to bear these same costs if these costs were incurred not by new generators but by existing ones? These costs should not be paid for by consumers as part of TransGrid's allowed revenue but rather by the generators requiring these upgrades. In addition, given that these projects are discreet and the timing is uncertain, all such projects should be classified as excluded projects (not just some of them as proposed by TransGrid).

3.1.3 Interconnection Driven Projects

TransGrid also states that some of the capex is required as:

> "Power transfer over the interconnections with Queensland and Victoria also loads the NSW main system"

While such interconnections may be necessary for the efficient functioning of the NEM, NSW consumers should not bear the full cost of TransGrid's investments with benefits flowing to generators and consumers in other jurisdictions. As with the generation driven projects, these interconnection related projects are discreet with an uncertain timing and thus should be classified as excluded.

The National Electricity Code requires that interconnections projects are subject to a separate regulatory test. Why then are the costs associated with interconnections included as part of TransGrid's revenue assessment at this stage?

We accept that NSW customers should pay for increases in the interconnection capacity due to load growth within NSW (or to maintain import capacity for to meet the demand within NSW). In such instances it is incumbent on TransGrid to justify its investments as part of the regulatory test. It is however not appropriate for NSW customer to subsidies customers in other jurisdictions and generators where investments on the TransGrid system are required to facilitate power transfers between Queensland and Victoria / South Australia or even for exports to these states. The beneficiaries in this case are generators (including those in NSW) and customers in Queensland and Victoria / South Australia.

3.1.4 Trade off between Capex and Opex Ignored

In its original application of September 2003, TransGrid states that "*as assets reach the end of their useful life the level of operating expenditure required to maintain them increases. TransGrid is continually optimising the replacement of these assets when the cost of doing so is less than the cost of maintaining them*".

In its original application, replacement capital over five years amounted to some $186 million. In the revised capex application, asset replacement costs have increased to $326 million, which is an increase of some 75%. As a consequence, customers should thus be able to expect that operating expenditure would fall to compensate for the increased capital recovery costs. However, TransGrid seems to have conveniently ignored this trade-off. If on the other hand, there is no reduction in operating costs, customers must ask why it is necessary to replace assets if by doing so it would not lead to any operational savings or efficiency. Customers call on ACCC to ensure that TransGrid's application for increased replacement capex is balanced by a corresponding reduction in operating costs.

3.1.5 Demand Management Options Ignored

With peak demand only occurring for a very short period of time (usually only during the hottest summer days), and being dependent on the extremity of summer weather, capital investments in network assets are a very inefficient means of meeting peak demand growth. More flexible options are better suited to such duty. Even short-term, low capacity demand management options can defer investment for several years and can thereby reduce the risk of stranded transmission investments and surplus capacity.

The costs incurred in investing in capacity to meet such peak demand would have to be covered during non-peak periods when such additional capacity is largely unnecessary. Peak demand growth would more efficiently be met by demand management and embedded generation where customers would be paid to reduce their demand during times of system stress. The total cost of such measures would inevitably be lower than the cost of augmenting the system to meet the limited duration when peak demand occurs. The impact of considering only network solutions is also borne disproportionately by flat load customers which do not contribute to the peak demand problem to the same extent as peaky loads relative to their total energy consumption. These customers would still be faced with significant increases in cost of supply while obtaining little benefit from the additional investments. With demand side solutions, some customers may at least have the opportunity of obtaining a benefit if they were paid to shed load during times of system peak demand whilst the remainder would not have to pay for the expensive capex.

In NSW, IPART has made a determination that promotes demand management in the state's distribution network. While TransGrid is not required to adhere to the state regulator's determination, as the economic regulator, the ACCC should ensure that TransGrid seriously considers the opportunities for demand management instead of

simply applying a network solution to meet increased demand. This would also provide for a more seamless and consistent approach to network support demand management throughout the NSW system. The recent high and volatile peak energy prices in NSW would give additional value to embedded generation and demand side response and increase the economic opportunity to reduce network investment to meet peak demand.

TransGrid has suggested that it encourages demand management and embedded generation responses. In its 2004 Annual Report, TransGrid claims that it "*strongly supports network driven Demand Side Management (DSM) principles and practical implementation of associated projects.*" Its original as well as the revised capex applications however includes little information on how it plans to implement these programs or any details of how it has evaluated demand management alternatives. We are concerned that the incentives that the TNSPs face continue to discourage demand side response while promoting network solutions to managing peak demand growth.

TNSPs are rewarded based on the value of their assets. This provides an incentive to increase their asset base. Demand management solutions detract from this objective as they reduce the need to expand the asset base. It is therefore important for the ACCC to ensure that regulatory incentives are realigned to promote demand management solutions by TransGrid. TNSPs should be required to provide evidence of the demand management solutions that they have considered and the attempts made to obtain demand side responses. These attempts must be serious and meaningful.

3.1.6 Support the Business

The capital costs to support the business also seem to have experienced a substantial increase in one year. In September 2003, this was forecast to be $107 million (or $109.6 million in June 2003 dollars). In the revised capex application, the costs have increased to $122 million, an 11% increase in real terms. Has the TransGrid business expanded to such an extent that it needs to invest so much more in support the business category?

3.1.7 Customer Impact

It is also disappointing that when customers are expected to pay for these massive increases in capex that TransGrid has chosen not to include a tariff impact assessment in its submission. Providing a tariff impact assessment would provide some transparency as to how the application would affect customers' bills. The ACCC should require that such applications provide an analysis on how different types of customers would be affected by the application. At the very least, the ACCC should require that TransGrid provide an assessment on what this increase in capex would mean in terms of their allowed revenue. Customers can then assess its impact.

Rough estimates indicate that this revised capex application would further increase TransGrid's allowed revenue by about $72 million over the five years and transmission

costs by about $0.20/MWh. This is on top of the already significant increases flagged by the ACCC in it Draft Determination of April 2004 of between $1.10 and $2.67 annually. This increase thus represents an additional 7.5% to 18% increase. For a 1 MW customer this would translate into approximately $2000 per year. What extra benefits will customers get for this increase?

3.2 PB ASSOCIATES REPORT

The PB Associates report was released by the ACCC on Friday, 31 January 2005. The ACCC requires that submissions be provided by Monday 14 February 2005. This allows stakeholder only two weeks to analyse a very substantial report, determine its impact on their interest and develop a coherent response. This is clearly insufficient time especially with groups such as the EUAA who also have to consult its members to canvass their views. We once again wish to remind the ACCC that the consultation process must provide sufficient time for stakeholders to be properly consulted rather than simply going through a process.

3.2.1 Inflated Capex

The PB Associates report[1] highlights the excessive nature of TransGrid's revised capex forecast. It reduces the total *ex-ante* capex claim by $573 million over five years, reallocating some $310 million to excluded projects. The reduction amounts to some 36% of the TransGrid revised request. The PB Associates report highlights the game that TransGrid is playing by identifying the many instances where TransGrid had inflated the costs by applying unit costs that are "at the high end of industry comparisons" and contingencies at both a project specific level as well as an overall level. It also recommends substantial project deferrals where the need for these investments could not be demonstrated during this regulatory period.

3.2.2 Augmentation Asset Expenditure

Nevertheless, even after this reduction, we note that the PB Associates recommended 5 year capex is still some 33% above that which TransGrid forecast in September 2003. This is extremely disturbing to NSW end users and we remain perplexed as to the reasons for it. However, it does seem to signal some disturbing prospects for the application of the new *ex ante* capex approach adopted by the ACCC.

Despite a reduction of $50 million, replacement capex is still up 48% from the initial forecast and augmentation capex (*ex-ante* and excluded) is up 35%. It is only in the "capex to support the business" category that PB Associates has recommended reducing the forecast to around the amount initially requested. The greatest reduction however is in

[1] PB Associates, TransGrid's Forward Capital Expenditure Requirements 2004/05 to 2008/09, January 2005

network augmentation where PB Associates recommends a reduction of $100 million in *ex-ante* and excluded capex. This is shown in Figure 3-3.

Figure 3-3 TransGrid Augmentation Asset Expenditure Forecast

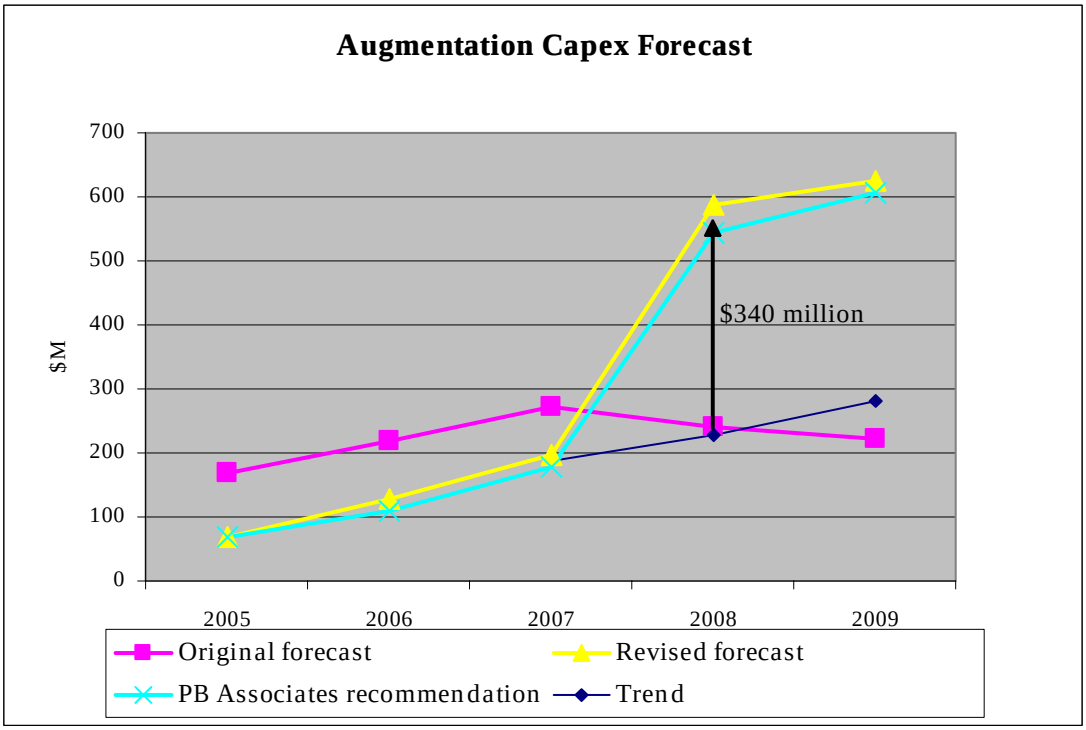


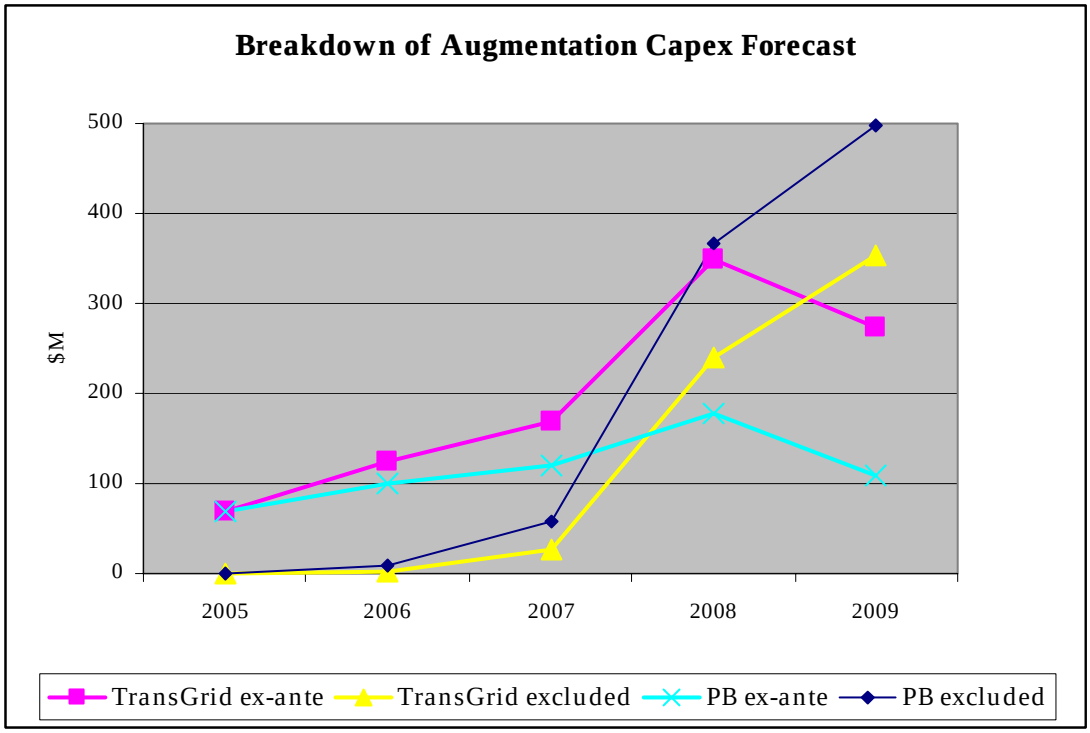
Figure 3-3 shows that an average of about $100 million capex is delayed from the first three years of the regulatory period compared to the original forecast. However in the final two years, the forecast augmentation capex increases by about $350 million per year. Even if we followed the trend increase from the previous three years, the difference is around $340 million. We find this step change difficult to accept and view it as attempting to prepare the ground to justify a vastly increased augmentation capex for the next review. We note with concern that similar patterns have been seen in the previous regulatory period in the context of both opex and capex[2] and the fact that the regulatory framework provides an incentive to underspend in the initial years and back end load the expenditure. As the revenue would be smoothed over the full five year period, all the benefits of such an expenditure profile will be captured early while the actual expenses are incurred later.

This may be even more important as we move into an *ex-ante* approval regime where the projects approved under the *ex-ante* allowance are no longer placed under any further scrutiny at the next review. Significantly, PB Associates has seen fit to recommend reallocating a substantial portion of this capex from the *ex-ante* to the excluded category.

[2] See the Joint Customer Group submission, "TransGrid and EnergyAustralia Revenue Application to ACCC" dated 14 April 2004, pg 6, 12, and 25

This is shown in Figure 3-4. This indicates that a significant number of projects that TransGrid has identified are uncertain and may not be undertaken during this regulatory period.

Figure 3-4 Comparison of Breakdown of TransGrid Augmentation Capex Forecast



Given the uncertainty of the excluded projects, we urge the ACCC to consider some sharing of benefits should these projects not be developed. Since customers have begun paying for these projects in the current regulatory period, the savings achieved by not proceeding with the project could be easily shared. This could take the form of an imputed credit in the next period's revenue thereby reducing the TNSP's allowed revenue and thus TUoS charges payable.

3.2.2.1 Sydney 500 kV project

Of particular interest to customers is the project to convert the 330 kV transmission line around Sydney to 500 kV. TransGrid claims that this project is required to prevent voltage collapse in the next few years. However, PB associates notes that the while the need for the upgrade may have been identified, the timing of this upgrade is highly dependent on generation flows. PB Associates' analysis indicates that "*suitable levels of generation located between Newcastle to Wollongong, and/or sufficient generation from the south offsetting generation from the North may defer the requirement for major network augmentation*." The high cost of this project makes it imperative that TransGrid undertakes a proper assessment and that the process is fully transparent. This project has significant implications for reliability in the Sydney area and customers would expect to be kept informed and be assured that any costs incurred are fully justified. Customers are not

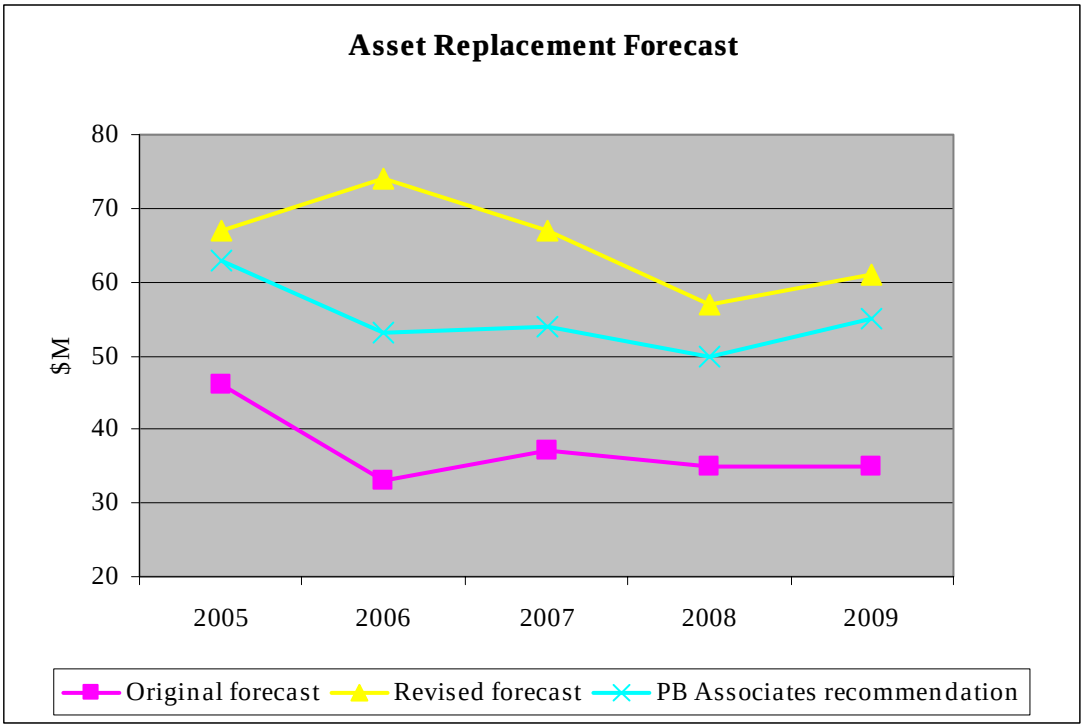
satisfied that the process that TransGrid has undertaken to justify this project are sufficiently transparent and are concerned that PB Associates have found reason to question the appropriateness of the timing.

3.2.3 Replacement Asset Expenditure

Figure 3-5 shows the annual forecast for replacement capital. We question the need for the doubling of replacement capex in some years. Based on figures provided by PB Associates, it is clear that TransGrid is forecasting to replace existing assets at a substantially higher rate than that applied for in its initial application. Surely the age profile of TransGrid's assets has not changed to such an extent in the few months between the initial application and the revised forecast? We would be seriously concerned if TransGrid were in fact seeking to replace assets at an accelerated rate before the end of its useful life and in doing so, earning increased revenues at the expense of customers. We strongly urge the ACCC to critically assess the reasonableness of this claim.

While PB Associates has recommended a slightly lower forecast we are concerned with the statement in its report (pg 18) "*that there are significant implications for TransGrid's operating expenditures which are likely to arise as a result of the recommendations in this report regarding capital expenditures*". We believe that the significant increases in replacement asset expenditure from the initial forecast should be accompanied by a corresponding reduction in operating costs. It is unfortunate that the terms of reference given to PB Associates do not include requiring it to determine how this increase in replacement capex from TransGrid's original application would have impacted on the forecast opex that the ACCC published in its draft determination. We urge the ACCC to commission further work on this important matter before making a final determination and to ensure that such trade-offs are analysed in future transmission revenue determinations.

Figure 3-5 TransGrid Asset Replacement Expenditure Forecast



Given the large increases in capex forecast especially in replacement expenditure, customers must question if TransGrid is not engaging in an ambit claim to eliminate any risk of overspending the allowance given that they will retain all the benefits of underspending the allowance during the current period.

3.2.4 Demand Side Management

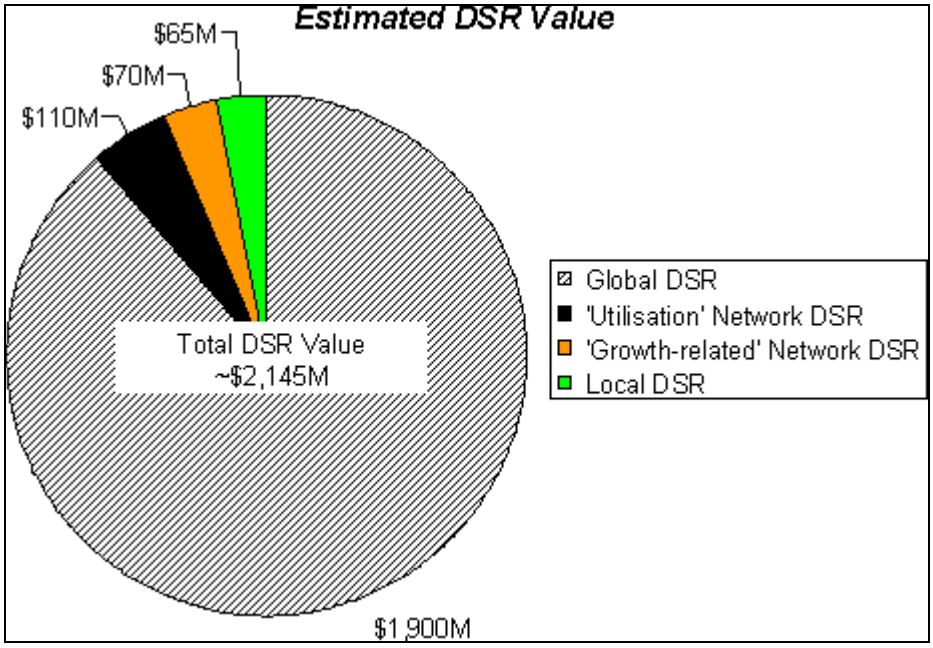
PB Associates also notes that "*with respect to DSM or grid support by generators, TransGrid is proposing nearly $1bn between 2008 and 2012 in network investment to improve the supply paths to the Sydney load centre. … If the market does not act to optimally locate new generation then some form of support payment may provide sufficient commercial incentive deferring the need for major network augmentation*." (pg 133) This is exactly what customer groups have been advocating for some time.

If TransGrid (and EnergyAustralia) actively support demand side response by providing sufficient support payments to customers to reduce demand during times of system stress, major network augmentation may be deferred which will lead to lower overall costs. Unfortunately, as discussed earlier, this is not in the interest of network service providers as they get no returns on such measures. That TransGrid is proposing to spend nearly $1 billion in network investments which is almost half of all its capital expenditure rather than funding any DSM simply highlights this short coming of the incentive regime.

The EUAA has recently completed a trial that enabled customers to participate in the market by responding to high pool prices and system stress by bidding to shed load

during such periods. It found that the system would stand to gain significantly if customers are empowered to participate in the electricity market. Trial results suggest that demand management could release up to $2 billion a year in value – or around 10% of retail turnover in the NEM. This is shown in Figure 3-6.

Figure 3-6 Estimated Value of Demand Side Management



While most of the value is created in the more efficient pricing of pool energy, the value to networks (both distribution and transmission) comes from savings of:

- $60-80 million / year from the deferral of 'growth-related' capital investment; and
- $110 million / year from improving utilisation of 'sunk assets' that are currently rolled into regulatory asset bases.

4 CONCLUSION

Our submission has highlighted a number of serious deficiencies in the TransGrid revised capex application. It is our view that the application should not be approved by the ACCC without significant amendments. Amendments will have to address the following issues:

- the revised claim represents a significant increase of capital expenditure when compared with its original application in September 2003 given that the original application was only prepared some months earlier,
- a 75% increase in replacement capex with no corresponding reduction in opex when compared with its original application,
- a failure to comply with the *ex-ante* regime arrangements by including uncertain generation and interconnection related projects under the *ex-ante* allowance rather than as an excluded project,
- a failure to consider demand side solutions to reduce system peak load instead of inefficient and costly network solutions to meet increase demand, and
- a failure to include an assessment of the impact on consumers' bills resulting from such an increase in capex.

In addition, we urge the ACCC to consider how the new *ex-ante* regime will address the following issues:

- the potential incentive for the TNSPs to inflate the likely cost of capex given that in both the allowed and excluded projects cases, the TNSPs will retain the returns to any underspend for the 5 year period,
- the incentive for TNSPs to underspend in the initial years and back-end load capex. As the revenue would be smoothed over the full five year period, all the benefits of such an expenditure profile will be captured early while the actual expenses are incurred later; and
- to encourage TNSPs to actually invest in demand management instead of simply paying lip service to the concept of demand management given the distorted incentives in the regulatory framework.