EnergyAustralia's response to

ACCC Supplementary Draft Decision for Revenue Cap (2004-2009)

24 March 2005

Energy

TABLE OF CONTENTS

INTRODUCTION

EnergyAustralia is pleased with some aspects of the ACCC's supplementary draft decision with regard to forecast capex. However, there are a number of critical areas where there is a clear difference of opinion between EnergyAustralia's experts and the ACCC and its consultants, PB Associates (PB).

EnergyAustralia has been pleased with the ACCC choice of consultants in the review of its revised capital program. PB Associates showed themselves to be professional both in the way they conducted their review and in the way they outlined their intended approach beforehand and made their expectations explicit. The outcomes for both PB and EnergyAustralia have been significantly better in this latest review than the outcomes were for EnergyAustralia and GHD in the initial capital expenditure review.

EnergyAustralia remains disappointed that the ACCC has wholly taken the outcomes of PB's report and included the recommendations made by PB almost word for word in its own decision. It is disappointing that the ACCC has not questioned the conclusions reached by its consultants, who undertook a "desktop" review only, even when presented with further more detailed information from the proponent.

EnergyAustralia strongly objects to the $64.5m cut to its replacement program proposed by PB and imposed by ACCC. The replacement program that EnergyAustralia developed is based on condition reports for individual assets as well as an over-arching long term and strategic view of the need to rejuvenate the network through targeted replacement. The program is designed to maintain supply reliability by addressing the poorest performing assets in this period as well as smoothing out the replacement of a significant portion of the asset base likely to be required in the 2009-2014 period. The cuts made by PB and ACCC are unacceptable because they restrict EnergyAustralia's ability to manage the risks of its aging network. While the network is likely to manage the reliability and safety risks in this period, EnergyAustralia believes that the risks that will result in the next period will simply be too high. EnergyAustralia is not prepared to risk the network's performance or indeed the safety of its staff and will replace assets to ensure that neither or these outcomes are compromised.

EnergyAustralia is also gravely concerned at the trend towards micro management of utility businesses that the ACCC appears to be taking. EnergyAustralia believes that it is the responsibility of the business to ensure that its equipment is in working order, and to manage the replacement of those assets. Further, we believe that the ACCC should restrict itself and its consultants to reviewing the systems and processes that are used to derive the replacement program, not the individual condition reports for assets. EnergyAustralia believes that any process that requires such detailed review of individual assets is not appropriate for an **economic** regulator.

EnergyAustralia is also disappointed with the ACCC's decision not to fund all excluded projects in the revenue cap. Instead, the ACCC has decided that excluded projects will continue to be assessed under the ACCC's new framework, but that the costs of some of these investments will be borne fully by the TNSP until the completion of a five-year incentive period. This means that the price impact of providing sufficient revenue to support the investment is simply deferred, not minimised or avoided. EnergyAustralia believes that the decision not only compromises the cashflow position of TNSPs, but that it only defers an inevitable price increase thereby exacerbating the pricing impact in future periods. In addition, those TNSPs with very large amounts of capital categorised as excluded projects should seriously question

how the ACCC's failure to provide a revenue stream to support investments on a prospective basis can be justified under the Code.

The excluded project regime is just one element of the ACCC's SRP which ACCC believes cannot be fully implemented without a change to the Code. EnergyAustralia remains of the view that it is the job of the ACCC to deliver a regulatory framework that is consistent with the Code, not one that rejects elements of the Code and replaces them with new and untried concepts that are not currently Code compliant. EnergyAustralia believes that the ACCC's apparent disregard for the tenants of the Code is a significant issue that has lead the industry to seek to limit the ACCC's involvement in the Code change process in the future.

Consequently, EnergyAustralia believes it is incumbent on the ACCC to issue a final determination that fully complies with the existing Code, and that the implementation of the SRP in full, should only be contemplated by ACCC in future determinations if, or when, the Code changes eventuate. EnergyAustralia looks forward to its involvement in the process of fully implementing the ACCC's SRP, however, we note that this should not be the primary focus of this concurrent determination.

The fundamental issue for this determination is the ACCC's failure to provide sufficient funds to ensure reliability of supply. **The annual price impact of the ACCC accepting EnergyAustralia's full capital program for the 2004-2009 is approximately 82cents on an end user's bill.** EnergyAustralia is astonished that the ACCC would impose increased risks on the network and its customers for such a marginal price impact. EnergyAustralia notes that the ACCC's capital recommendation does not avoid future costs but merely defers them to later periods and by doing so, EnergyAustralia believes that the ACCC has compromised the ability to deliver the optimal replacement program whereby the costs in NPV terms are lowest over the long term.

REPLACEMENT

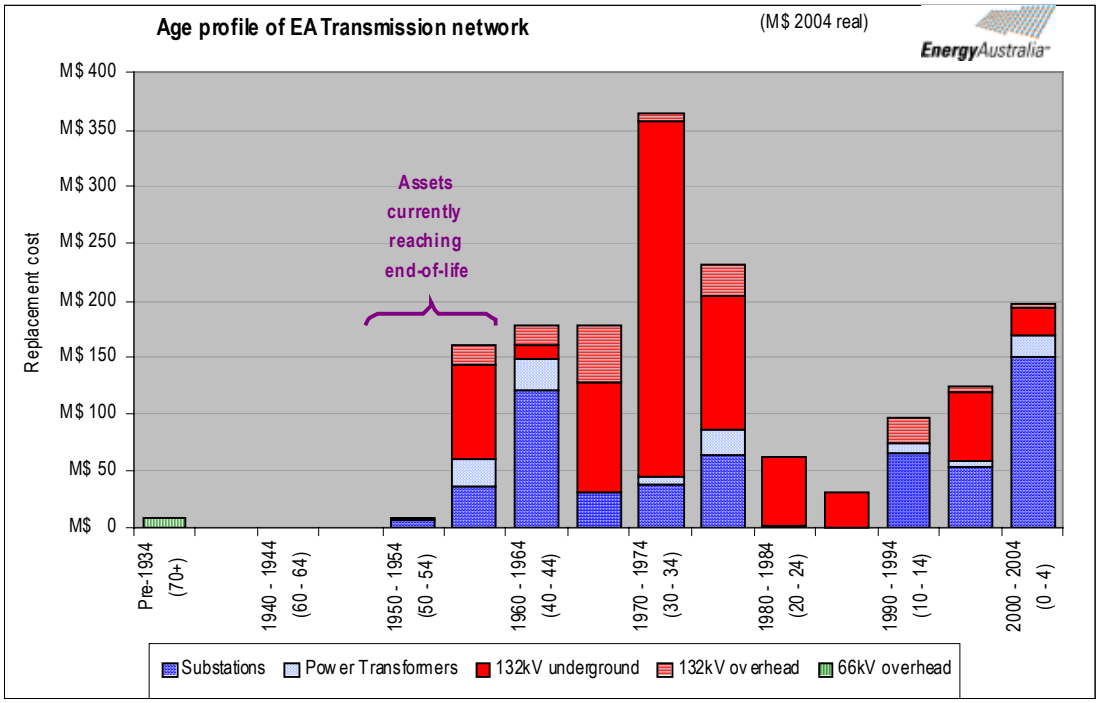
The ACCC has reduced EnergyAustralia's replacement program by $64.5m. EnergyAustralia believes that the cuts could result in network reliability and safety standards being compromised and believes that the decision to defer replacement of assets will make it very difficult for EnergyAustralia to keep up with replacement of aged assets in the future.

GENERAL ISSUES

Early replacement

PB Associates made several comments in its report that it believed EnergyAustralia were planning replacement of assets before age and the condition reports suggested replacement was required. EnergyAustralia rejects this statement and strongly believes that in most cases, the condition reports suggest that the assets should be replaced within the period. Furthermore, EnergyAustralia believes that the replacement of assets marginally ahead of time is justifiable in the context of a bow wave of replacement that is approaching and on the basis of obtaining synergies and efficiencies with other capital works taking place.

Figure 1 – Age profile of EnergyAustralia's Transmission network



This graph shows the substantial number of assets that are reaching the end of their serviceable life in the 2004-2009 period. It is clear that the increase in replacement that EnergyAustralia has proposed for this period will need to be further increased in the next period to address an even greater number of assets that will reach the end of their serviceable life between 2009-2014. It is prudent for the business to consider the long term planning for the inevitable ramp-up of replacement spending over the next 2-3 regulatory periods. It would simply not be practical to replace 10 years worth of assets within the 2009 regulatory period.

EnergyAustralia also believes that it is prudent to smooth out the impact of replacement costs where possible.

The suggested approach by ACCC amounts essentially to running equipment to failure. This leads to increased replacement costs (as work cannot be planned to minimise costs) and to a decrease in reliability.

We are disappointed that the ACCC has removed our ability to smooth the replacement of assets and by so doing, we believe ACCC has heightened the future failure risks of the network which will be accompanied by inevitable customer outcomes of decreased reliability and increased cost.

Risk categorisation

PB also made several comments about EnergyAustralia's categorisation of risks. While PB supported the methodology used by EnergyAustralia, PB rejected the replacement of assets that were categorised as a C2 risk, saying that this was considered a minor risk and therefore replacement should be delayed.

EnergyAustralia would again like to draw the ACCC's attention to the definition of a C2 risk. The risk is labelled minor but this is relative to catastrophic failure across EnergyAustralia's entire network. It should be noted that the C2 risk includes risks that could cause damage to EnergyAustralia's own assets of up to $1m as well as liability of up to $10m to third party property. C2 risks are given to assets that have been known to fail within EnergyAustralia's own network.

The consequence of a C2 risk is considered minor compared to catastrophic failure of the network. However, this does not mean that the risk should not be mitigated where possible. EnergyAustralia believes that it is prudent for the business to address such risks through a program of replacement, particularly as failure of these assets could cause safety concerns for staff working in and around these assets. Furthermore, EnergyAustralia believes it to be prudent to address areas that are likely to negatively impact supply reliability.

PB's recommendations that reject EnergyAustralia's replacement of these assets effectively restricts EnergyAustralia's ability to mitigate this risk internally. We believe that it is contrary to any commercial business practice to ignore risks that could cause up to $1m worth of damage to the business's own assets and risk up to $10m in liability. EnergyAustralia therefore requests that the ACCC reconsider PB's recommendation and reinstate funding to allow for the replacement of assets with a C2 risk classification assigned to them.

ACCC's micro management of the network

EnergyAustralia believes that there are a number of examples in the supplementary draft that show serious signs of the regulator expanding its scope of activities to that of transmission planner and asset manager. By rejecting the judgement of experts, the ACCC is effectively acting as the network's asset manager and putting itself into the shoes of the network's Board and management. However, unlike the network's Board and management, the ACCC will not be required to take responsibility for errors in its judgement if, or when network failure occurs. EnergyAustralia is convinced that the ACCC does not have the expertise to make judgements on the appropriateness or otherwise of individual asset replacement. Furthermore, the expert

consultants that are brought in to review TNSP's programs are not necessarily transmission planning engineers and cannot gain a full understanding of the implications of deferral or delay in replacing equipment within the one month desktop review that they conduct.

EnergyAustralia believes that it is the responsibility of the business to ensure that its equipment is in working order, and to manage the replacement of those assets. ACCC's rejection of this program seriously compromises EnergyAustralia's ability to manage the orderly replacement of switchgear in future years and thereby compromises our ability to ensure the safety and reliability targets are achieved.

EnergyAustralia requests that the ACCC restrict itself to reviewing the systems and processes that are used to derive the replacement program. Any review that requires analysis of individual assets must be considered as the ACCC's micro management of a utility. EnergyAustralia believes that such behaviour is well outside the scope of the regulator's obligations as the **economic** regulator under the Code.

Relevance of historic replacement capex

ACCC made several comments in its supplementary draft determination that the increase in replacement budget for the 2004-2009 period was substantially larger than that spent in the last period. EnergyAustralia would not argue with this fact, however, we question the relevance of historic capex as an indicator of how large a forward capex replacement program should be.

EnergyAustralia's assets are aging. However, the assets are not all reaching their end of life at the same time, nor are they evenly spread. Table 1 clearly shows that the value of assets reaching the end of their lives increases substantially during the 2004-2009 period. Given this fact, it is clear that replacement expenditure must increase over the next 15 years. It is the role of the asset manager to ensure sustainable levels of asset replacement are maintained. At various times in the capex cycle this will require greater or lesser concentration on replacing aged assets compared to building new assets to meet demand.

The 1999-2004 period was a period of higher than expected growth within EnergyAustralia's network. EnergyAustralia's distribution business invested approximately $600m more than the allowed amount to keep abreast of consumer demand. In its transmission business, EnergyAustralia spent more capital than it had forecast, but most of this was directed to building new assets driven by load pressures. The replacement spend in this period was unusually small and does not reflect a normal or sustainable level of replacement spending.

SKM analysed EnergyAustralia's long term strategic needs to maintain asset ages at sustainable levels, and concluded that the replacement spending during the last period was unsustainably low. Further, SKM's report concluded that a sustainable level of investment in replacement was around $40m per annum for the medium-long term (30 years).

EnergyAustralia has not sought to justify its replacement spend during the 2004-2009 period using the figures from the 1999-2004 period. The actual spend from last period is only relevant to the extent that it shows EnergyAustralia, despite spending more than the ACCC's initial estimates overall, underspent in replacement last period and that such under-spending cannot afford to keep occurring. The level of appropriate spending is not justified on previous levels of spending but on the future needs of the network.

SUBSTATION EQUIPMENT & MAINS REPLACEMENT PROGRAM

ACCC removed $23.2m out of the substation and mains capital replacement program. This funding is earmarked for replacement of aged switch gear and was rejected by PB Associates because individual condition reports were not made available for each item of switchgear that is proposed to be replaced.

SKM in their report on the sustainable replacement of EnergyAustralia's transmission assets, recommended that the aged switchgear be replaced. SKM's view confirmed our own internal advice about the equipment in question. EnergyAustralia did not provide individual condition reports for each unit of switchgear on the system believing that the long term and strategic view of replacement would be sufficient to justify the expenditure. However, ACCC has rejected the claim. While not opposed to providing individual condition reports for high value network elements, EnergyAustralia does not see that there is value in providing individual analysis for individual items of plant which are of the same type and experience similar problems. We question why the regulator should seek such specific information and question their motives in doing so.

EnergyAustralia requests that the ACCC review this decision and reinstate funding for the full program of substation equipment and mains replacement in order to allow the network to manage its own risks of asset performance (or lack thereof in the case of aged assets).

FEEDER 860

ACCC did not accept the replacement of feeder 860 as a prudent part of the replacement program. EnergyAustralia notes that this feeder is over 70 years old. The condition assessment suggests that the feeder is showing signs of aging and that it will need to be replaced in the near future. Whilst EnergyAustralia is prepared to continue to maintain this asset during the 2004-2009 period, EnergyAustralia believes that this is an example where EnergyAustralia is faced with a judgement by the regulator to spend money to maintain an asset that is over 70 years old and which we believe to be more economic to replace.

TRANSFORMER & REACTOR REPLACEMENT PROGRAM

PB reviewed condition reports for all of the transformers included in the program. PB questioned the results of the condition information and even where the results showed clear signs of aging, PB suggested that EnergyAustralia further investigate the potential for refurbishment of transformers that have not yet reached their standard life.

EnergyAustralia believes that refurbishment is not a viable option for transmission transformers on a large scale, particularly in cases where the transformer is within ten years of the end of its serviceable life. For smaller distribution transformers and/or large units that are relatively new, the costs of refurbishment can be such that refurbishment may be an economic alternative to replacement. EnergyAustralia's view is that for the transformers that were listed for replacement in our submission refurbishment is not a viable option.

A major refurbishment of a transformer includes the rewinding of the entire HV or LV winding, replacing the bushings, major overhaul or replacement of the tapchanger, repairing rust and painting the entire transformer. Despite the extensive nature of a major refurbishment, in many cases the works do not materially extend the life of the transformer as the new equipment lives

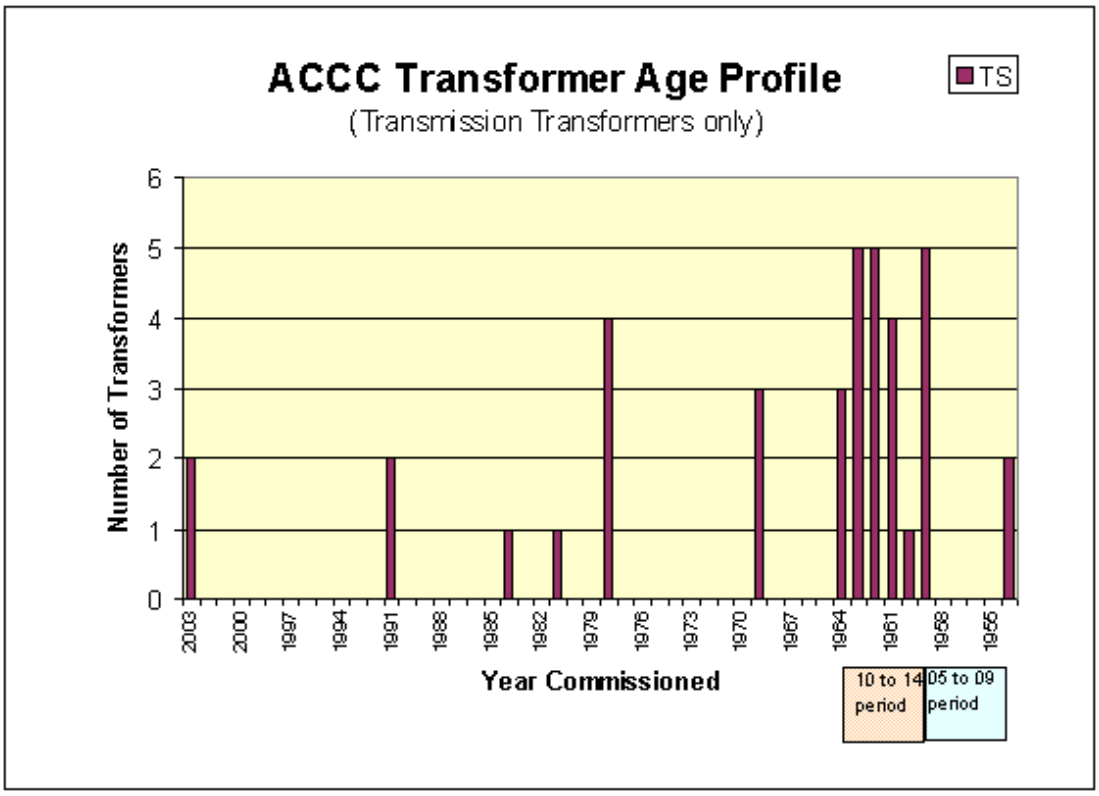
within an aged case which is limited to the original life of the transformer. The extent to which the transformer is close to the end of its serviceable life is therefore a key consideration in the decision to refurbish or replace.

EnergyAustralia takes the condition of its transformers extremely seriously. An expert committee assesses each transformer's condition results to establish the priorities for maintenance, refurbishment and replacement. The committee has identified all the transformers included in our revised capital submission as needing replacement in the next regulatory period.

Specifically, EnergyAustralia believes that refurbishment of the transformers at Canterbury and Kurri is not economic as the units are within 7-8 years of their end of life. Despite PB's recommendation, EnergyAustralia will not refurbish these transformers but will replace them as planned. However, EnergyAustralia is in the process of investigating further opportunities for some refurbishment (rather than replacement) of transformers as per PB's recommendation. At present, EnergyAustralia has identified only one supplier of refurbishment services and the availability of these services will obviously be a key consideration in the economic decision to pursue refurbishment on a greater scale. As mentioned above, refurbishment only really assists a poorly performing transformer to reach its standard life. It does not usually prolong the life of the transformer significantly.

Figure 2 shows that in the next regulatory period (2009-2014) there are more than 20 transformers that will reach the end of their regulatory life. EnergyAustralia believes that it is impractical to replace over 20 sub-transmission transformers in a single regulatory period and in any case, many of these transformers have test results that indicate these units have already reached the end of their serviceable lives. EnergyAustralia assessed the transformers with the poorest condition to prioritise their replacement and included the poorest performing transformers in the replacement program for the 2004-2009 period. The replacement of the remaining, better performing transformers has been delayed.

Figure 2 - ACCC Sub-transmission Transformer Age Profile



If the ACCC does not allow the replacement of identified transformers to begin in this period (2004-2009), EnergyAustralia's transmission network will be placed in the position of an unacceptable level of risk of equipment failure in the next regulatory period (2009-2014). EnergyAustralia will be required to manage the replacement of **one third** of the transmission transformer assets and the bulk of our sub-transmission transformers in a single period. This is an untenable scenario as the transmission assets are our most critical assets in terms of the performance of the EnergyAustralia network. Asset replacement experts within EnergyAustralia believe that to gain access to this many transformers in one 5 year period would lead to a deterioration in service outcomes for our customers, for which EnergyAustralia would again be penalised under the ACCC's service standard incentive scheme.

EnergyAustralia requests that the ACCC reassess its stance on transformer replacement, and reinstate the full amount of funds assigned to the program to ensure that EnergyAustralia is able to manage the replacement of assets in a structured way. To fail to reinstate the funding for the program removes a key mechanism for EnergyAustralia to manage the risks of an aging network.

OURIMBAH SUBTRANSMISSION SUBSTATION

The ACCC has moved this project from the excluded category to the main cap. While we support this approach, we do not endorse the significant reduction in the allowance sought for the project.

The ACCC rejected the replacement of Ourimbah sub-transmission substation on the Central Coast at the time suggested by EnergyAustralia, but instead recommended that the replacement be deferred. The outcome of this recommendation is to remove $16m of funding

for the project during this period (from $25.6m sought in our revised submission to $9.6m accepted by ACCC).

EnergyAustralia objects to this decision and requests that the ACCC reconsider PB's recommendation. The materiality of the costs of including the full funding for Ourimbah's replacement in EnergyAustralia's capital forecast for this period is minute and has been calculated to be approximately **15 cents extra on EnergyAustralia's customers retail bills**. The cost of not replacing the sub-station in time is significant for the 49,000 residents of the Central Coast that are supplied by the Ourimbah substation.

Ourimbah contains some of EnergyAustralia's oldest equipment and therefore is a critical part of the strategy of ensuring manageable levels of replacement in future years. However, it is important to note that some of the equipment within the Ourimbah substation has already failed. Repair work has already taken place as a result of an explosive instrument transformer failure. It is therefore astonishing to EnergyAustralia that the ACCC via its consultants have recommended that the replacement of the substation be delayed, particularly when the costs to the network and to the community of not doing so could be significant. **49,000 customers could suffer extended outages if the substation failed prior to its replacement.**

As a final point, the ACCC commented that it did not receive condition information for all of the elements within the substation. EnergyAustralia would like to draw the ACCC's attention to the SKM condition report commissioned by EnergyAustralia in response to similar comments made by ACCC in their initial draft submission.

Table 1 is taken from SKM's report on Ourimbah, which was provided to ACCC as an attachment to EnergyAustralia's revised capital submission in October 2004. It is clear from Table 1 that there are many elements within the substation that have lives limited by condition to 5 years or less, and there are other elements, which despite reasonable condition, are predicted to be limited by load within 5-7 years.

Table 1 – Summary of condition and loading limitations for elements of Ourimbah substation

Equipment	Remaining life based on condition assessment	Remaining life limited by load growth
Category 1 – Relatively new equipment		
132kV CB, isolators, VT and SD in new bay for 132kV feeder No 951	43 years	
33kV isolators	25 years	5 years
66kv circuit breakers	43 years	
Category 2 – Items with a class life longer than a substation class life		
Site, earthworks, access	45 years	
Building	20-30 years	
Category 3 – Items with established methodologies to assess remaining life		
Structural steelwork	25 years	
Major transformers 132/33kV and 33/66Kv	5-10 years	5 years
132kV galvanised steel busbar	25 years	5 years
Category 4 – Items with useful life less than 10 years		
ASEA 132kV circuit breakers (*very high maintenance, limited spares*)	5 years	
132kV & 33kV transformers surge diverters; 132kV feeder surge diverters	5 years	
33kV capacitors (*no spares available, on-going can failures*)	5 years	
Protection and control systems (*inadequate documentation / drawings*)	5 years	
132kV CTs (*with no oil sampling points or poor test results*)	5 years	
66kV CT (*elevated levels from DGA tests*)	5 years	
Category 5 – Items with a rolling 10 year remaining life		
132kV isolators *(5 years if full rating required)*	Reassess within 10 years	7 years
132kV CTs (*with oil sampling points and acceptable test results*)		
66kV isolators		
33kV circuit breakers		7 years
33kV busbar *(subject to clearances meeting operating / safety req'ts)*		7 years
132kV 66kV and 33kV VTs		
66kV, 33kV surge diverters (refer also Cat 5)		

EnergyAustralia requests that the ACCC review the SKM report (previously provided) and review its recommendation for deferring the replacement in the context of both loading and condition constraints.

IMPACT ON OPEX

EnergyAustralia commented in its response to PB Associates final report that significant cuts to the replacement program would necessitate an increase to our operating costs to cope with the higher costs of maintaining aged assets compared to newer assets. The opex/capex tradeoff is heavily influenced by the type of equipment that is maintained or replaced. In the case of the substation mains and equipment which suffered the most savage cuts, the costs of maintaining these assets is particularly high. Typically such equipment is monitored and maintained every three months. EnergyAustralia's program sought to replace large numbers of breakers and transformers, which we believe could significantly improve the maintenance costs for these asset classes.

As mentioned in our response to PB Associates final report, EnergyAustralia foreshadows an increase of approximately $20m in maintenance expenditure as a result of PB's failure to recognise asset replacement needs. EnergyAustralia requests that our operating and maintenance allowance be increased by $20m to cover these costs should the capex reduction be maintained in the final decision.

IMPACT ON PRICES

EnergyAustralia has calculated that **if ACCC approved the full replacement program and funded all excluded projects the impact on annual average prices faced by end users would be approximately 82 cents.** The impact of transmission costs is a small part of the retail bill faced by customers. However, poorly performing transmission assets can have a significant impact on the reliability of supply. EnergyAustralia believes its customers would be willing to pay 82 cents extra to ensure better reliability of supply.

EXCLUDED PROJECTS

UNFUNDED EXCLUDED PROJECTS

EnergyAustralia notes that the ACCC's supplementary draft decision is inconsistent in its treatment of the excluded projects. The replacement of 908/909 has been accepted as an excluded project and ACCC has provided funding for the project in its revenue cap up front. EnergyAustralia understands this is the case because ACCC considers the project to have been triggered and therefore to have a very high likelihood of proceeding. However, the treatment of the Inner Metropolitan 132kV development is different. Despite ACCC and its consultants agreeing on the likelihood of the project, and agreeing that the estimates are appropriate for the project's stage of development, ACCC did not provide funding for that project in the revenue cap at all.

Under the ACCC's SRP, it is envisaged that there is a mechanism whereby the TNSP can trigger a specific review of an excluded project and that having approved the project, the ACCC can then adjust the TNSP's revenues to take account of that project. Unfortunately, the ACCC believes that the Code does not allow the revenue line to be adjusted to account for the excluded project. Thus if the excluded project is not funded in the revenue cap up front, the TNSP effectively bears the cost of funding the investment until the end of the 5-year incentive period. EnergyAustralia does not believe that this constitutes provision of a sustainable commercial revenue stream (on a prospective basis) which includes a fair and reasonable rate of return to TNSPs on efficient investment.[1]

LOWER HUNTER MOVE TO THE MAIN ALLOWANCE

The ACCC did not agree that the augmentation to the Lower Hunter should be an excluded project but instead considered that the uncertainty surrounding TransGrid's selection of options for the Lower Hunter had been resolved and that EnergyAustralia's uncertainty around project selection had been removed. In the ACCC's view, this has justified the project being moved from the excluded project category into the main allowance.

ACCC left open the opportunity for EnergyAustralia to respond to the transfer of the Lower Hunter project into the main allowance. EnergyAustralia is reasonably comfortable with the project being moved into the cap, but seeks to update the estimates included in the cap as per the ACCC's suggestion. The project that corresponds to the option that ACCC believes TransGrid has chosen is Option 2 as set out in our revised capital submission. (In the revised submission EnergyAustralia believed that the most likely option was Option 1.) In light of the ACCC's information with regard to TransGrid, EnergyAustralia seeks to have the cost estimates for Option 2 ($15.6m) included in main allowance. The net effect for EnergyAustralia of changing from Option 1 to Option 2 is an increase in the allowance of $4m. We note that Option 2, which aligns to the ACCC's assertion of TransGrid's preferred approach, was prepared with the same degree of precision as Option 1.

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[1] Clause 6.2.2(b)(2) of the National Electricity Code (Code).

EXCLUDED PROJECTS IN PRACTICE

EnergyAustralia acknowledges that the ACCC has attempted to align its excluded projects regime to EnergyAustralia's internal governance process, we are concerned that the ACCC has not considered the existing Code requirements for planning or tried to synergise its proposed timetable for excluded projects to the planning requirements contained in the Code. EnergyAustralia is also concerned about potential delays under the ACCC's framework and remains unconvinced of the necessity of a 4-6 month timeframe to assess one individual project, particularly given that a similar amount of time is spent assessing a full 5 year program of works during a revenue reset.

Under the Code, TNSPs are required to notify an augmentation project to NEMMCO, interested parties and Code participants and undertake the Regulatory Test. EnergyAustralia believes that this notification and the requirements of the Regulatory Test should form the basis of the ACCC's excluded project assessment. EnergyAustralia, as part of its notification of the project, will also provide ACCC with its governance documentation as outlined in previous submissions.

The requirements for small and large network augmentations are different, but in summary, interested parties have between 20 (or 30) business days to make submissions following notification of a small (or large) augmentation. EnergyAustralia suggests that a similar period of 4-6 weeks should apply to the ACCC's initial review of the excluded project application.

Following submissions, for large augmentations, the TNSP must hold meetings within 21 business days with parties that raised issues during the consultation process. This time could be spent with the ACCC's consultants as they conduct a review of the project.

EnergyAustralia suggests that another 4-6 weeks be used for the ACCC and its consultants to draft its report on the excluded project, leading to a maximum review period of between 3-4 months. This timeframe could be managed in parallel to the normal consultation requirements of the Code rather than dragging out the process by setting them one after the other. EnergyAustralia is concerned to minimise any additional hurdles the TNSP may have in obtaining approval via the Regulatory Test for augmentations (and the regulator in the case of excluded projects). The concurrent process would allow TNSPs to use their Regulatory Test reports as the basis for the ACCC's project prudence review, thereby minimising the number of reports that the TNSP would need to write.

EnergyAustralia acknowledges the effort of ACCC staff to understand EnergyAustralia's governance procedures, but believes that further streamlining of the proposed timetable of excluded project assessment can be achieved if the process is synergised with that of the Regulatory Test. EnergyAustralia proposes that staff from both organisations be involved in developing a solution that takes account of the ACCC's need for sufficient time to evaluate the project and EnergyAustralia's need to ensure against unnecessary delays.

ACCC SRP PROCESS

CODE COMPLIANCE OF THE SRP

EnergyAustralia is disappointed that the ACCC finalised its SRP without ensuring it was Code compliant. EnergyAustralia believes it is incumbent on the ACCC to deliver a framework that is consistent with the current code. Further, we object to the manner in which the ACCC has tried to garner support for a Code change from TNSPs who are now in the invidious position of having to facilitate the Code change or face the prospect of negative cash flows from funding excluded projects that are not included in the revenue line.

EnergyAustralia is also disturbed by the willingness of the ACCC to introduce concepts into its finalised SRP that were not the topic of consultation. The re-opener mechanism has been presented as a replacement for both the off-ramp and pass-through concepts. However, EnergyAustralia believes that while it may cope with the off-ramp issue, it is certainly not as effective an option for maintaining flexibility within the framework as the pass-through mechanism.

The re-opener mechanism cannot be utilised by TNSPs under the current Code. EnergyAustralia believes that a pass through mechanism and an excluded project regime can be accommodated within a determination, obviating the need for a Code change.[2] While we note that there has been some debate surrounding the Code compliance of the pass-through mechanism, there has been no debate about the compliance of the re-opener mechanism. All parties agree that it is prohibited under the current Code. Why then implement a framework that requires such a mechanism to work before having secured the means by which it could operate?

EnergyAustralia believes that this issue highlights the ACCC's view of the Code as an optional set of rules that can be changed at any time. The intention of the Code was to have a framework that was largely stable and that could provide certainty and stability to the workings of the market, and to the regulation of TNSPs. It is not appropriate that the ACCC seek to change the Code to facilitate its latest untried concepts.

PASS-THROUGH & RE-OPENER

EnergyAustralia notes that TransGrid was allowed a pass-through for tax events in its supplementary draft determination despite the ACCC's move away from the pass-through mechanism. EnergyAustralia argues that consistent treatment must be applied to TransGrid and EnergyAustralia, particularly in relation to tax, as any tax levied in the NSW jurisdiction will certainly effect both EnergyAustralia and TransGrid.

EnergyAustralia is very disappointed in the ACCC's treatment of the pass-through mechanism. The pass-through mechanism was a well understood process by which the revenue cap could be varied to allow the pass-through of costs of certain pre-determined events that were outside the control of the TNSP. The pass through mechanism was well developed, had been

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[2] EnergyAustralia has advice from Gilbert & Tobin that argues that the pass-through rules could be implemented under the current Code provided that they were included in the determination.

negotiated with TNSPs over a number of years, and represented a balancing of interests between the fixed nature of the revenue cap and the uncertainty of external events.

In its finalisation of the SRP, the ACCC removed the pass through mechanism in favour of a "re-opener" mechanism. ACCC claimed that this change had been made in response to comments made by TNSPs. However, EnergyAustralia has seen no evidence to suggest that the TNSPs requested the pass through mechanism be removed in favour of an untried concept such as the re-opener.

The re-opener cannot be implemented under the existing Code and in order for the ACCC to fully implement its SRP, it must secure a Code change. EnergyAustralia believes that the re-opener as originally proposed by ACCC has limited value because of the ACCC's insistence that it retain the right to re-examine any/or all aspects of the revenue cap decision at the same time as it assesses the legitimacy of the triggering event. EnergyAustralia strongly believes that the ACCC, by retaining this right, is trying to limit the use of this mechanism. EnergyAustralia believes that the ACCC is not interested in maintaining the flexibility of the framework as was enabled by the pass-through mechanism, but instead, is motivated to provide a "discipline" on businesses not to pursue a pass through.

EnergyAustralia strongly believes that the pass-through mechanism represents a fair and reasonable mechanism by which TNSPs can pass-through unforeseen costs of events outside their control. This is consistent with the flexibility available to businesses in a commercial environment and has been recognised by IPART as well as other jurisdictional regulators as a legitimate mechanism to cater for unforeseen external costs.

Furthermore, EnergyAustralia believes that in the absence of a Code change that allows the re-opener mechanism to work, the ACCC's failure to include the pass through rules in the determination will deliver a framework that has **less** flexibility than the previous ex-post regime. In EnergyAustralia's view, this would be a step backwards and would be a disappointing conclusion to the last 12 months of framework development.

EnergyAustralia has provided legal advice to the ACCC that explains how the ACCC could implement the pass-through rules under the existing Code. EnergyAustralia requests that the ACCC reinstate the pass-through rules in its final determination for EnergyAustralia's revenue cap as per our advice. EnergyAustralia also draws the ACCC's attention to specific comments on the pass through rules as they were contained in the initial draft determination. This issue is covered later in this submission in the section "Outstanding issues from the supplementary draft".

OTHER ISSUES IN THE SUPPLEMENTARY DRAFT

DELIVERABILITY

The ACCC made several comments in its supplementary draft determination in relation to deliverability. EnergyAustralia is concerned that deliverability is an issue for the business to manage internally. EnergyAustralia has taken steps to ensure that it can deliver the capital program the network requires. EnergyAustralia believes that the capital program represents an appropriate level of capital spending, and believes that the spending in the program is not only justified on the basis of condition information, but is consistent with our long-term strategy for sustainable asset replacement.

EnergyAustralia believes that the ACCC has begun a dangerous trend of second guessing the deliverability of capital programs without having expertise in the area. EnergyAustralia believes that the ACCC's comments are unwarranted and unacceptable, and we request that these comments be removed in the final determination.

INDEXATION OF COSTS

EnergyAustralia believes that it is appropriate to link costs incurred by transmission businesses to indices other than CPI. CPI is a generalised measure used to gauge economy wide inflation. The basket of goods selected by the ABS does not include costs typically borne by transmission companies. EnergyAustralia does not believe that the CPI is an accurate measure of the cost pressures facing transmission companies.

Table 2 shows the latest data regarding materials used in manufacturing industries.

Table 2 - Annual percentage change for basic metals and fabricated metal products.[3]

	Dec.2003	Mar.2004	Jun.2004	Sep.2004	Dec.2004
Basic metal products (271-273)	-3.3%	-4.4%	2.3%	13.7%	13.0%
Fabricated metal products (274-276)	1.1%	0.4%	7.8%	12.0%	12.6%

It is clear that the index of fabricated metal products, which is primarily related to steel products is increasing at an annual rate of almost 13%. Since December 2004, there is further evidence of substantial increases in iron ore, copper and aluminium prices which are key inputs for electrical equipment. In fact, these products represent 30% of EnergyAustralia's input costs on capital projects on average. According to anecdotal evidence from steel manufacturers, these prices are likely to continue for some time as major supply shortages in this sector drive price increases well above CPI.

[3] Table 14. Materials used in Manufacturing Industries (a) ANZSIC Subdivision and Group Indexes. This data has been accessed via the NSW Government portal to the ABS website www.abs.gov.au. Data can be found by searching for " 6427.0 Producer Price Indexes".

This rapid movement in prices highlights the need for the regulator to build in a degree of flexibility into the determination which takes account of these external cost factors. Failure to do so is likely to lead to situations where actual capital costs are significantly above those forecast in the determination.

EnergyAustralia is a major participant in the power industry, and therefore is subject to the impact of the shortage of skills that currently exists within the industry. EnergyAustralia had anticipated this skills shortage and has significantly increased its apprentice intake over the last two years but it is inevitable that this broader industry issue will result in real labour cost increases that are higher CPI. It should be noted that no allowance for real increases in operating cost estimates were included in our original submission. It is also important, therefore, that operating costs (which are predominantly labour costs) are indexed to an appropriate indicator of cost fluctuations.

EnergyAustralia believes that indexing material and labour costs to published indexes such as:

- Average Weekly Earnings (Seasonally Adjusted) Persons, All employees Total earnings Catalogue No. 6302
- Producer Price Index Catalogue No. 6427, Table 19 Materials used in other than House Building (Sydney) (data publicly available but not published)
- Producer Price Index Catalogue No. 6427, Table 11: Articles Produced by Manufacturing Industries - Electrical Equipment and Appliance Manufacturing (ANZSIC Code 2852 and 2859)

would significantly improve the transparency of the capital cost cycle and would help to explain the variations in actual project costs compared to estimates made by transmission planners. Furthermore, linking costs to an appropriate index is also likely to mitigate the potentially negative cashflow risks that are borne by the business when transmission cost inputs increase at a higher rate than CPI.

OUTSTANDING ISSUES FROM THE *INITIAL* DRAFT DETERMINATION (APRIL 2004)

In July 2004, EnergyAustralia made a comprehensive submission to the ACCC in response to its initial draft determination of April 2004. EnergyAustralia is concerned that the extended consultation period for this revenue cap review and its emphasis on capex framework issues has prevented other significant concerns from receiving due consideration. In light of this, and the ACCC's invitation in its supplementary draft Decision to do so, EnergyAustralia provides a summary of the arguments made in response to the ACCC's initial draft, and references to where this information can be found in previous EnergyAustralia submissions.

CUTS TO OPEX BASED ON ADJUSTED STARTING POINT

'General efficiency' factor

The ACCC made an adjustment to the starting point for opex for an 'general efficiency' factor based on the recommendation of GHD. These related to the delivery of efficiencies associated with:

- Future savings available through further consolidation. EnergyAustralia completely rejects this assertion. Over the past 10 years, EnergyAustralia has undergone significant organisational consolidation. We believe it is extremely unlikely that further consolidation of our distribution and transmission business will continue into the future. We also believe that business restructure is outside the scope of appropriate review.

- Staffing and productivity improvements during the last period. EnergyAustralia believes that GHD failed to recognise the increasing cost of existing staff and the continued high level of competition for skilled staff in the domestic electricity sector driving higher staffing costs. Further, GHD's comments that the costs of recruiting and training for new staff can be offset with the lower salaries of trainee staff is simply erroneous. EnergyAustralia's internal analysis suggests that the net *cost* to EnergyAustralia of employing apprentices is around $150,000 over four years of training.

EnergyAustralia contends that the general efficiency factor was designed as a convenient way to arbitrarily cut EnergyAustralia's future opex program. The general efficiency factor effectively rolls in a number of vague and indeterminable factors which, presented on their own, are meaningless but together, manifest in a general efficiency factor, have been used to strip away more than $4M from EnergyAustralia's opex program. The reduction is made without reasonable grounds and we submit that it should be removed.

Further discussion of this issue can be found in EnergyAustralia's July 2004 submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap, pages 55, 62 – 64.

Superannuation

In its draft Decision, the ACCC removed $1.97M from EnergyAustralia's forecast opex for 2003-04 for what it considered to be 'abnormal' superannuation expenses associated with movements in the provision for defined benefits schemes. This amount was estimated from the actual expense for 2002-03 and inflated by 3.1% based on assumed changes in CPI. The

ACCC noted in its draft Decision that it would adjust EnergyAustralia's opex by the full amount of the abnormal superannuation expenditure allocated to transmission.

Since the draft Decision, no expense associated with movements in the provision for defined benefit schemes for 2003-04 has been realised. It therefore follows that no adjustment should be made to EnergyAustralia's 2003-04 starting point for 'abnormal' superannuation expenses. EnergyAustralia requests that an explicit adjustment be made to the opex starting point.

CUTS TO OPEX BASED ON OTHER FACTORS

IT expenditure

GHD was particularly critical of EnergyAustralia's systems. EnergyAustralia is surprised that, given GHD's scathing comments in relation to EnergyAustralia's information systems, it subsequently recommended cuts to the program. This appears entirely inconsistent and opportunistic. EnergyAustralia believes that it is naive to suggest that savings are likely to be delivered as a result of introducing and maintaining an improved reporting system, an outage management system and a better asset management system. These are in place in order to enable EnergyAustralia to better understand the needs of its network and will allow EnergyAustralia to better respond to its customer needs. It is not clear how these systems will deliver cost savings equivalent to 3 percent per annum over the course of the regulatory control period. The reduction is made without foundation and we submit that it should be removed.

Further discussion of this issue can be found in EnergyAustralia's July 2004 submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap, pages 65 – 66.

Confidential project

EnergyAustralia provided information to GHD relating to a proposed procurement strategy that was in its early stages of development. It was provided to GHD to simply demonstrate that EnergyAustralia was actively pursuing options to achieve greater efficiency in various business processes. Unfortunately, GHD misconstrued the information provided. It had no regard for the fact that this strategy was based on early, untested analysis. GHD did not undertake any subsequent analysis to determine whether such efficiency savings were achievable or not. These ill-considered cuts wiped away approximately $5.6m from EnergyAustralia's proposed opex program. EnergyAustralia believes that this funding should be reinstated.

Further discussion of this issue can be found in EnergyAustralia's July 2004 submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap, page 68.

FAILURE TO RECOGNISE PAST CAPEX

In relation to capital spent during the 1999-2004 period, the ACCC has applied investment criteria after capital has been sunk. This breaches every investment principle and highlights the significant level of regulatory risk facing TNSPs in Australia subject to the ACCC's ex-post review. The ACCC recognises that its approach of "penalising" TNSPs for past capex inefficiencies by not allowing the return on any "inefficient" expenditure as adopted in the draft has no basis in economic theory. Despite this admission the ACCC has still adopted the approach as a simplistic penalty without a basis or context. We do not support this approach and believe its arbitrary nature sets a dangerous regulatory precedent.

In the absence of any guidance from the ACCC on this matter, it is unacceptable to place more onerous tests on us than were in place at the time of the investment. Continuation of this approach in our view would be irresponsible and would help to dampen incentives to invest in much needed electricity infrastructure. EnergyAustralia submits that its past expenditure was prudent, efficient and in the public interest to ensure reliable electricity supply and as such should be added to the RAB in full.

EnergyAustralia, as part of its response to the ACCC's initial draft decision, asked SKM to review the scope and capital costs of the solutions implemented by EnergyAustralia which the ACCC had deemed to be inefficient. SKM was asked to considered whether the expenditure in question had been used to build "capital efficient" solutions.

SKM's findings and conclusions were as follows:

- The Macquarie Park 132/11kV project was selected as the least cost (NPC) option from six alternatives that represented the most likely technically and economically viable scenarios. The final project cost of $20.49 million ($12.0 million allocated as transmission) was comparable with the original Board Approval of $14.25 million (plus 132kV cable cost approved by the EnergyAustralia Board at $5.3 million). The transmission component of $12.0 million of the final costs compare favourably with the benchmarked industry costs of $16-17 million (excludes 11kV feeder works).
- The Beresfield 132/33kV STS project is currently timed for 2005, which is somewhat overdue by all reasonable electricity industry planning standards. The preferred option has been selected as the least cost (NPC) option of the three logical solutions. As each stage of project authorisation has been reached, EnergyAustralia has reviewed the NPC comparisons to validate the preferred option. The extent of concept design information, preliminary designs and estimates, and estimated costs for the various stages of the project are as good as one would expect for this type of project, given the vagaries of public consultation processes. SKM is of the view that the approvals process, and staged authorisations, documentation and regular review of NPC's of alternatives represents a "Model Case Study for the Corporate Governance of Capital Works Projects".
- The Homebush Bay 132kV overhead transmission line undergrounding was undertaken in 1998 and 1999 at the request of the Olympic Coordination Authority, who contributed most of the $37 million cost of the project, with EnergyAustralia contributing the remaining $10 million. It appears this project was not necessary for electrical / network reasons, and delivers little benefit to electricity consumers during the period of the remaining life of the overhead lines that were replaced. Some of these lines were, however, apparently in poor condition and may have required replacement around 2005 anyway, with the others expected to remain serviceable until 2015. It appears reasonable that the (depreciated) cost of the new underground assets be included in EnergyAustralia's regulatory assets from the date when replacement of the old assets would have been necessary.
- The CBD Haymarket / Campbell St project was initiated to add new transmission capacity to the Sydney CBD and inner suburbs required by 2004 to maintain supply reliability and cater for strong load growth. The expected cost of delivering the CBD substation and transmission projects of approximately $94 million are significantly above initial estimates and the $46 million[4] cost used in the 1999 regulatory test. The overruns are mostly due to

[4] Slightly different cost estimates are quoted in different source documents, reflecting incremental changes in the design and costing of the project as it was developed.

underestimating the actual costs ($34.8 million), followed by externally imposed scope changes ($9.3 million).

In general, the selected option and project costs appear reasonable for an undertaking of this nature in a dense CBD location. While noting a formal re-evaluation of project alternatives was not undertaken, SKM suggests it is likely EnergyAustralia would have experienced similar increases in most of the other options, as the variation has been shown to be overwhelmingly due to systemic underestimating of costs. The final delivered cost of the project appears reasonable, and it can be expected that the competitive procurement processes that applied to over 80% of costs would deliver efficient market prices for those items.

SKM's considerations of the Macquarie Park, Beresfield, and the CBD projects concluded that the costs were efficient. In each case the lowest cost option from a suite of alternatives was chosen, and the costs for project delivery appeared to be in line with independent estimates.

EnergyAustralia requests that the ACCC review this information and that it reinstate the full costs of the past capital expenditure. See pages 35 – 36 of EnergyAustralia's submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap for a more detailed explanation of EnergyAustralia's concern regrading the lack of investment criteria.

Modelling concerns for 'inefficient' investment

EnergyAustralia has reservations about the way in which the ACCC has determined and modelled reductions to EnergyAustralia's RAB to account for inefficient investment. In its Decision on the treatment of historic capex, the ACCC determined not to allow the *return on* what it deemed to be imprudent capex during its period of construction. It calculated a proportional reduction for each deemed 'inefficient' investment which was fed into the ACCC's roll forward model. The proportional reduction affects both the 'return on overspend' and 'actual capex' calculations. The ACCC approach leads to the removal of $23M in actual capex, and $7M in associated returns from EnergyAustralia's opening RAB for the 2004-09 regulatory control period. But the result in this model is misleading. The intention was simply to remove the *return on* imprudent capex, not the *actual capex* itself.

EnergyAustralia has undertaken its own modelling, based on the approach described in the draft Decision, to assess the accuracy of the ACCC's modelling. Rather than attempting to arrive at overall percentage rates as calculated by the ACCC, EnergyAustralia has separated out the return on capital from the underlying investment. The application of the penalty adjustments as described by the ACCC in the draft decision then become transparent and repeatable.

The ACCC has been presented with the roll forward model adjusted for the changes outlined above, but as yet EnergyAustralia has not received any indication that the ACCC has reviewed this matter.

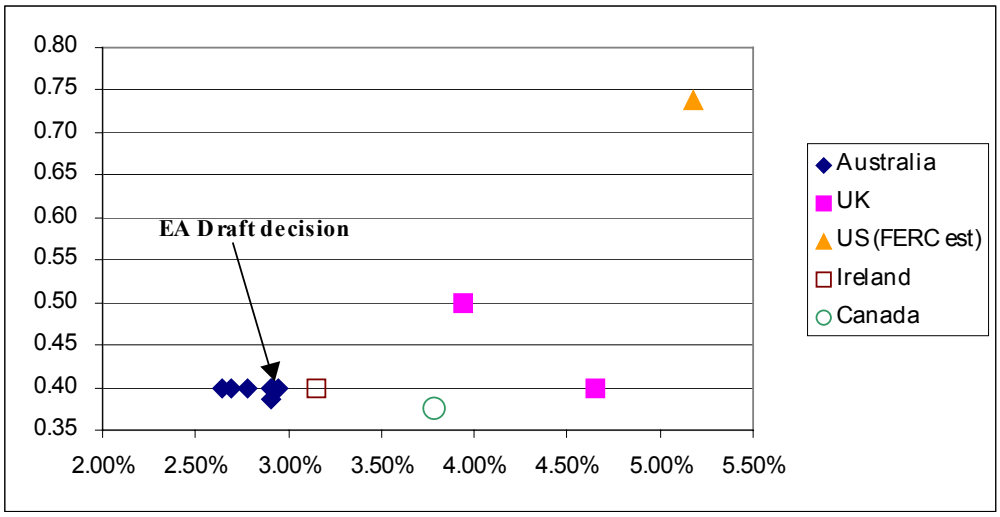
Although EnergyAustralia does not support the approach taken by the ACCC to address concerns of inefficient past capital investment, we believe that the ACCC must review its financial modelling in light of EnergyAustralia's findings. This will ensure that the decision taken by the ACCC is accurately reflected in its financial modelling.

Further discussion of this issue can be found in EnergyAustralia's submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap, pages 25 - 26.

WACC CONCERNS

The WACC in the draft decision, while similar to previous decisions by the ACCC in electricity transmission, is still considerably lower than that implicit in comparable decisions adopted by overseas regulators. Figure 3 sets out the margin of the vanilla WACC over the prevailing 10 year Government bond for various electricity transmission decisions, with these all reflecting the outcome that would have occurred had the relevant overseas regulator adopted a market risk premium of 6 percent. In NECG's opinion this is the most credible approach to comparing international WACC allowances.

Figure 3 – Comparison of electricity transmission decisions



Source: NECG submission to the Productivity Commission, September 2003 (Number 56). ACCC decisions since this date have been added (Murraylink, Transend, TransGrid/EnergyAustralia).

NECG notes that while this approach to comparing regulatory decisions has been criticised by the ACCC and its consultants, the Allen Consulting Group, neither party has provided a superior approach to analysing WACC allowances in regulatory decisions. The only alternative provided by the ACCC was the comparison of total returns. However, this approach is a more restrictive measure as it assumes that investors expect the real exchange rate to remain constant and that there is no country risk premia embedded in risk free rates.[5]

Debt margin

The ACCC's approach to debt margin will understate the required debt margin for an efficient benchmarked transmission business. Inclusion of Government owned comparators in the list of benchmark companies violates principles of competitive neutrality, systematically biases the credit rating upwards and systematically biases the allowance downwards.

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[5] For further details see NECG's submission to the Productivity Commission Review of the Gas Code in March 2004 (DR97).

In addition, errors in the ACCC's credit rating calculations understate the required debt margin. Correcting for these errors results in a benchmark credit rating of "BBB+", not "A" as stated in the draft decision, and an increase in the debt margin of 20 basis points. EnergyAustralia submits that the debt margin used to determine our WACC should be increase by at least 20 basis points to 1.07% (excluding debt issuance costs).

Debt issuance

EnergyAustralia believes that the ACCC's allowance for debt issuance (which is the equivalent of 10.5 basis points) is too low and sites NECG's comments that there is credible evidence to suggest that margins should be well in excess of this level. With regulatory support for 25 basis points, NECG believes this represents a more appropriate allowance.

Further discussion of these issues can be found in EnergyAustralia's submission to the ACCC on its draft Decision on EnergyAustralia's 2004-09 Revenue Cap, pages 71 - 74.

PASS-THROUGH

The ACCC accepted that a pass through mechanism be applied to EnergyAustralia's revenue cap in its initial draft decision. However, as mentioned above, the ACCC has since decided to withdraw the mechanism completely in favour of the "re-opener". The discussion in the previous section focussed on the mechanism itself. However, should the ACCC agree to reinstating the pass through mechanism in this determination, it should not do so without reviewing the comments made by EnergyAustralia in its response to the ACCC's initial draft determination on pages 83 – 86 of that document.

SERVICE STANDARDS

EnergyAustralia is committed to providing high quality outcomes for customers of the transmission network. As part of its revenue cap application, EnergyAustralia presented an integrated package of expenditure programs and the maintenance of existing service outcomes. We reiterate that it is not appropriate to reduce expenditure programs without detailed justification whilst at the same time fail to make any corresponding adjustment to service target levels.

EnergyAustralia believes that there are a number of issues to be resolved in regards to recording service standards in the 2004-2009 period. However, given the impending audit report from SKM, EnergyAustralia recommends that these issues be discussed between ACCC and EnergyAustralia staff once SKM's report has been made available.