ENERGY MARKETS REFORM FORUM

RESPONSE TO THE ACCC's DRAFT DECISION

ON

TRANSGRID AND ENGERY AUSTRALIA

REVENUE CAPS

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INTRODUCTION

The Energy Markets Reform Forum (EMRF) welcomes the opportunity to provide additional comments to the ACCC in respect of the ACCC's draft decision on TransGrid's and EnergyAustralia's revenue caps. Substantial comments have already been provided to the ACCC at the recent public conference called by the EMRF, where opportunity was taken by EMRF representatives (including by the Chair of EMRF) to also respond to questions and comments from the ACCC and other participants. The detailed EMRF presentations (and the Response to Observations Critical of the Research Paper "*Further Capital Markets Evidence In Relation To The Market Risk Premium And Equity Beta Values",* Headberry and Lim, April 2004) are attached to this submission.

There are a number of fundamental concerns with the ACCC's decisions on TransGrid's (TG) and EnergyAustralia's (EA) revenue caps. These concerns are developed more fully below but notwithstanding these it is considered that the ACCC has made a valiant attempt to set a revenue cap for both businesses that is equitable, providing sufficient funds for the businesses to continue their operations, as if they are subject to the rigours of competition, but at the same time attract a return sufficient to ensure there are adequate drivers to encourage the required investment in the networks. The fact the outcome falls short of being reasonable for consumers should not be laid entirely at the door of the ACCC.

Both TG and EA (especially) have made limited effort to provide a clear and unequivocally reasoned basis for many of their claims to increase their asset base, and their opex claims. That the ACCC has had to defer its decisions regarding past capital roll-in and the establishment of a reasonable forward capex is an indictment on the approach taken by both TG and EA in this review, which is critical to all NSW electricity consumers, and the EMRF member companies faced with increasing competition from inter-State and overseas competitors. TG and EA both profess to be competent business managers. The fact that in both draft decisions, the ACCC highlights that there are grave concerns about the businesses' ability to track, monitor and correct manifest over-runs for a large number of capital projects indicates that neither business apparently appropriately understands the need, or has the ability, to closely manage this integral aspect of their business. These are capital intensive businesses.

However, the lack of clarity in controlling the capex process shown by both TG and EA in managing their past capex would imply that both businesses do not meet the standards required by modern and competitive businesses to adequately invest hard won capital. For the ACCC to consider easing its ability to review and control future capex without being able to assess and satisfy itself (and to stakeholders) that past capital has been expended prudently and efficiently is of great concern.

The EMRF is of the view that the ACCC has been diligent in attempting to rationalize the capex claims from TG and EA but due to the lack of evidence that past capex was in fact prudent and efficient being provided by both businesses, there remains considerable doubt as to whether the amount of past capex proposed to be rolled into the opening RAB is not over stated. As

usual, where there is doubt, the EMRF is concerned that the regulator may elect to decide in favour of the businesses, granting the business a relaxation of the rigours faced by competitive business. This only encourages regulatory gaming.

The decision to defer making a determination regarding future capex in light of the proposed changes to the SoRP is supported. This will provide additional time to assess the prudency and efficiency of the capex programs proposed by the two businesses, as well as to provide an opportunity to examine the proposed changes to the method for inclusion of future capex into the roll forward of the RAB.

The EMRF also considers that there are a number of aspects where the ACCC has failed in its regulatory duties to reflect the right of consumers to pay only for the reasonable costs for provision of the regulated services. These are detailed below.

PAST CAPEX

The ACCC states that (page 40 EA Draft Decision):-

> "Without a demonstration that EnergyAustralia was prudent in incurring these cost increases the ACCC will not roll the entire spend of $62 million into the RAB for the final revenue cap decision. Therefore, consistent with the draft TransGrid revenue cap decision the ACCC will disallow any return on EnergyAustralia's investment in the CBD upgrade during the period of construction for the draft decision. This amounts to a $8.7 million or 14 per cent reduction to the carried forward value of this project.
>
> For the remaining projects, the ACCC considers that EnergyAustralia has failed to provide sufficient information to demonstrate that these projects were efficient investments. Without sufficient information the ACCC is unable to ascertain an efficient level of expenditure for these projects; therefore, the ACCC's draft decision is to also disallow any return on EnergyAustralia's investment in these projects during the period of construction for the draft decision."

A similar observation is made regarding the ACCC's approach in the TG Draft Decision. The EMRF strongly supports these decisions. To do otherwise will mean a failure to abide by Code obligations.

The ACCC devoted much time and effort in an earlier review with regard to the inclusion of MurrayLink as a regulated transmission asset. This project comprised an expenditure of over $180m. After applying the regulatory test to the Murraylink assets, the ACCC considered that Murraylink had a value of less than $100m. The past capital investments (in excess of regulated capex) made by TG and EA are no less than "unregulated" assets until the ACCC determines whether the investment was prudent and efficient. If the ACCC does not carry out a "prudency and efficiency" examination of the historic capex, then the ACCC must not include any amount forward into the RAB. The only amount that can be carried forward is that which equates to a prudent and efficient amount.

Thus, for the ACCC to decide that the amount might well be considered "prudent and efficient" by excluding the return on the capital involved during the construction phase is a fundamental failure of its regulatory responsibility to consumers. Such an approach is not consistent with provisions in the NEC.

As an example, in its entirety the MetroGrid project had an expenditure of nearly twice the Murraylink project. There has been a marked difference in the approach taken by the ACCC between assessing the viability of the options for the Murraylink project and those for the MetroGrid project. If the rigorous approach used for Murraylink was adopted in assessing that "prudent and efficient" investments are made by TG and EA, then we are certain that the ACCC would be surprised at the outcome. In particular, the option of a cogeneration (Alise) project based at Botany (originally proposed and part funded by EA as an alternative to the MetroGrid project) could well have delivered the same outcome at a much lower cost. For this option to be discarded on the **perception** that it would face environmental concerns is not supported by the facts. As the Alise project is referred to as a potential alternative to the MetroGrid project, it behoves the ACCC to more fully investigate this option.

In attempting to reach a conclusion regarding past capex for roll-in into the RAB so that tariffs can be set for July 2004, the ACCC has been prevented from a rigorous assessment of prudency and efficiency of the past capex by the businesses' practices, and as a result the ACCC has had insufficient time to properly assess the legitimacy of the past capex, and so has elected to use an approach that appears to significantly favour the businesses. It would appear that the tactics used by the businesses to obfuscate regarding past capex and so get the bulk of the over-run in past capex approved, have been successful. The ACCC must not simply accede to such practices.

OPEX CLAIMS

The ACCC has addressed the TG opex claim and developed a forward looking approach to incentivising better practices. The benefit of increased capex for refurbishment should result in decreasing opex and the ACCC appears to have incorporated some of the flow through of this into the opex. The incorporation of the 2% annual reduction in opex reflecting an expectation for future improvements is welcomed as this does reflect the actuality of what occurs in competitive enterprises, although most businesses would target a higher reduction (perhaps 5%) as indicated by GHD in its report. The ACCC should reconsider its decision on this issue.

The comparisons of benchmark activities show that TG's opex is neither the highest nor the lowest in any benchmark category and on balance it would appear that the opex granted will give TG an opex level that is third highest when related to RAB, GWh and line length; second highest when related to substations; and in a ruck of four when related to MW. Thus, when compared to the other transmission businesses in Australia, TG would appear to be well rewarded by the ACCC for opex by all measures.

This is in distinct contrast to the views of the other transmission businesses when similar benchmarking analysis was performed. By and large, all other businesses have been of the view that their networks were sufficiently different from TG to warrant a higher level of opex than TG, which is seen as having a relatively dense network, a higher load factor, higher demand and higher population density than each of the others (excepting perhaps PowerNet). Using the observations of the other transmission networks, we would expect to have seen benchmarking of TG opex resulting in TG consistently in the lowest or second lowest range.

This has not been the case and confirms our view that the benchmarking and the grant of opex across all transmission businesses, results in an upward trend over time, as any current review awards the business being reviewed benchmark opex levels consistently in the upper ranges of comparison.

The EMRF is of the view that the reason for this upward spiral of opex levels results from the misguided but widely promulgated view by transmission businesses that opex *rises as a consequence of increasing RAB.* This is totally incorrect. Based on the experience of EMRF companies, there are three reasons why the RAB increases over time:

1. By replacement of existing depreciated assets with replacement assets (commonly referred to as refurbishment)
2. By replacement of existing assets with larger assets to reflect an increase in demand (commonly referred to as augmentation assets)
3. By extending the reach of the existing assets (commonly referred to as expansion assets)

When examining the opex implications of each of these reasons for asset base to increase in size, the justification of increased opex can be put into proper context.

(i) Opex from refurbishment

There is no doubt that refurbishment increases the value of the asset base. Replacement of a depreciated asset with new assets, will axiomatically result in an asset base increase.

However the business case for justification of refurbishment is usually presented as a *reduction* in opex. In competitive enterprise such a business case is made on the basis that recovery of the capital will result from the saving in opex, often with a payback duration measured in months, and commonly within two years. If this business case cannot be made the increased opex related to keeping the asset in working order is tolerated.

Thus, capex related to refurbishment should result in a significant reduction of opex.

(ii) Opex from augmentation

There is no doubt that the replacement of a capital item with a larger unit to accommodate an increase in output will increase the asset base. The replaced item will either be relocated to another point in the business replacing another similar item, held in stock for future use, be sold, or scrapped.

When examining the opex implications of an augmentation, the new item will almost invariably be newer than the replaced item if the asset base is to increase. The issue then is: does the opex requirement for an item increased in size (eg a transformer increased from 10 MVA to one of 25 MVA, or a power line increased in diameter for higher current carrying capacity) require a proportionate increase in opex related to the value of the larger item? The answer to this question is in most cases "only marginally at most".

It costs the same to monitor a small transformer as it does a larger one, it may take a little longer to replace the oil, but a larger diameter cable or aerial requires the same amount of attendance as a smaller diameter cable or aerial. Newer equipment should require less maintenance than older plant.

In sum total, opex from augmentation should result in a modest reduction as a result of an augmentation of assets.

(iii) Opex from expansion

Expansion of the network results from increasing the reach of the network. This could come from increasing the number of equipment items at an existing facility or from providing a service to a new area not previously serviced. Expansion increases the asset base.

Opex from expansion will increase with the asset base, although not necessarily proportionately. There are two fundamental expansion options – embedded in the existing network and external to the existing network.

Embedded expansion, whilst requiring additional attendance, allows the opex increase to be marginal. An example of this is where a third transformer is added to an existing facility. In this case the time for attendance is a marginal increase on the cost to service the existing two plant items. Another example is where a new power line is erected adjacent to an existing power line, or even off the existing towers. In this case the opex cost should be measured as a marginal increase in cost and not a proportionate increase.

External expansion is where the new items are remote to the existing network and the opex costs will be proportionate to the increase in asset base.

(iv) The opex implications from this analysis

It is the mix of capex (refurbishment, augmentation, embedded expansion and external expansion that will determine the extent of opex reduction or small opex increase. The greater the refurbishment, the greater the opex reduction as a proportion of RAB. Until the regulated business advises what this mix is it is impossible to develop a quantitative view as to the extent that opex should be reduced as a proportion of RAB.

Unfortunately, the benchmark graph for all TNSPs shows that opex to RAB is either constant or only shows a marginal fall, clearly implying that the opex granted provisionally by the ACCC is too high.

WACC

The ACCC has elected to continue with current regulatory practice and maintains the same inputs to the CAPM formula to develop a weighted average cost of capital to be used to set the "return on capital" element of the building block approach to setting the revenue caps. The EMRF supports the mechanistic approach inherent in the development of the return on capital **BUT** only if the inputs are identified as returning a reasonable rate of earnings to assets used or on funds employed.

The debate about which variable inputs are most contentious, focus on market risk premium and equity beta. It is generally agreed that these two variables do change over time and are affected by prevailing conditions. There have been many analyses carried out as to what constitutes appropriate levels for these two inputs at this point in time.

The ACCC itself has commissioned reports as to what constitutes an appropriate equity beta. Allen Consulting responded by demonstrating the equity beta for equivalent businesses to the electricity transmission business might be as low as 0.4, admittedly from a small sample and with a significant volatility. At the hearings involving the ACCC and GasNet in 2003, the ACCC offered very sound argument that the equity beta should be no more than 0.7. This level of equity beta is consistent with values used in overseas jurisdictions, such as in the UK.

The transmission businesses state that an equity beta of 1.0 is too low and suggest levels between 1.0 and 1.2, citing that the higher level of gearing makes this level more appropriate. That a high level of gearing is possible for a regulated entity is directly related to its security and size of cash flow relative to its borrowings and this is possible totally independent of the equity beta level. Equity beta is a measure of the level of risk and volatility of return, not a measure of the ability to increase gearing while maintaining the same credit rating.

The eminent Prof R Officer who advised the Victorian government on the levels of market risk premium to be used to underpin the sale of the Victorian gas businesses has maintained that a market risk premium should be at least 6%. He identified this figure despite his own workings which show that the market risk premium averaged between 3% and 4% during the period 1970 and 2001[1]. Other studies indicate that higher levels of MRP might apply.

Countering, this view the transmission businesses state that a higher level than 6% should apply, perhaps even higher than 7%.

It is understandable that the transmission businesses would seek higher levels of equity beta and MRP as these will lead to higher WACCs and so enhance the return to their shareholders.

[1] Source: ESCoV 2002 Final decision on Victorian gas distribution businesses table C2, citing Officer, R., 'Rates of Return to shares, bond yields and inflation rates: An historical perspective', in *Share Markets and Portfolio Theory; Readings and Australian Evidence*, 2nd edition, University of Queensland Press, 1992.

Equally, consumers would seek the lowest appropriate levels for equity beta and MRP to minimize the WACC and so pay less for the service.

If a mechanistic approach to WACC calculation is to be reached then there is a necessity to resolve the difference in views of the competing parties. Until there can be agreement then there will continue to be an impasse on this issue.

It was to seek a break from this impasse that Headberry/Lim prepared their research paper on market risk premium and equity beta which was submitted to the ACCC earlier (and subsequent, discussion with ACCC officers held). The research uses the actual returns earned by companies, both private and public operating in Australia. Developing on from this work, combined with the expected strong criticisms of it levelled by the regulated businesses, there have been identified a number of paradoxes:-

Paradox 1

The CAPM determines the returns (both dividends and capital) of companies listed in the ASX200 or ("all ordinaries") accumulation index. This is a reasonable assumption and is used as a performance benchmark by many funds managers.

However, as the benchmark includes a limited number of companies, acquisition of a smaller or unlisted company this increases the value of the ASX 200 without adding to national growth. Conversely the elimination of a company from this group can have massive repercussions to the index, such as is currently resulting from the decision for News Ltd to list on the NYSE.

Paradox 2

The WACC calculated from CAPM inputs should provide a comparable return to the average of businesses operating in a competitive environment, ie the regulators should not provide favour to regulated businesses and should attempt to replicate the result of competitive pressures.

The ACCC, in its TG and EA decisions, has calculated that the EBIT/assets resulting from their decision on WACC will provide an EBIT to assets of about 11% in year 2004/05. Because of the assumptions needed in developing this figure (that opex as granted will be consumed, depreciation awarded is the same as accounting depreciation, that little of the earnings are at risk from performance measures, etc), it must be assumed that the earnings to assets are essentially driven by the WACC calculation.

What is absent from analysis of this financial indicator is any comparison of EBIT to assets of businesses operating in the competitive arena. The research by Headberry/Lim indicates that EBIT/assets for competitive enterprises has averaged between 9% and 4%, and declining over the past ten years. The weighted average of EBIT/assets of the 326 companies included in the 2002 assessment showed an EBIT to assets of less than 4%.

To assume that average earnings will nearly triple between December 2002 and July 2005 raises clear doubts about the benchmark return set by the ACCC for TG and EA.

Paradox 3

The estimation of MRP uses the accumulation index as the basis of the rationale behind developing this input to the CAPM formula. Thus, to use actual accounting data rather than developed economic data is invalid.

Analysis of the accumulation index shows that its growth is predominantly driven by the share growth rather than dividend, as the dividend/share ratio has remained relatively constant over time.

Investors in a business view the equity value of an enterprise as based on its earnings. An investor may decide that there is greater potential for earnings than is being achieved currently with the existing assets, due to staffing changes, market changes, new technology, new products, etc. It is the expectation of the growth of future earnings using the same level of equity that drives the assessment of a share price upwards. Increasing the asset base but retaining the same gearing and rate of earnings does not axiomatically lead to an increase in the growth in the value of equity.

A regulated asset has a fixed rate of earnings for the regulatory period. The increase in earnings is essentially tied to the investment of new capital approved by the regulator. Thus, for the regulator to base its return on capital assuming that there is an expectation of increased earnings is patently contradictory.

Paradox 4

The WACC assumes that the regulated business has a gearing (based on interest bearing debt) of 60%. It is generally accepted that businesses in a competitive environment have a gearing of interest bearing debt lower than this (commonly between 30% and 50%). It is further accepted that debt is a lower cost source of funding than equity. That is, the lower the level of equity, the lower the average cost of capital.

Accepting that even at this higher level of interest bearing debt regulated businesses can retain the same credit rating as businesses in the competitive environment can but at lower levels of interest bearing debt, this means that the average cost of capital for a business with the higher gearing, should be less than that for a business with a lower gearing, all other variables remaining constant.

The research carried out by Headberry/Lim indicates there is potential for the ACCC to benchmark its WACC formula using EBIT/assets. There is data readily available which tracks the performance of all Australian businesses, and from which the ACCC can develop the average EBIT/assets for comparison purposes.

Such benchmarking work can be carried out retrospectively by comparing the weighted average of EBIT/assets of all enterprises in Australia with the EBIT to assets calculated for a WACC developed from the CAPM formula, using the same inputs as are currently used. Thus, the average EBIT/assets actually earned in any given year, can be compared to the EBIT/assets calculated using the CAPM formula for the same year. If such a correlation shows that the calculated EBIT/assets shows similarity to the average EBIT/assets over a period of time, then this demonstrates conclusively that the inputs to the CAPM formula have legitimacy.

If however there is a marked difference, then this would provide the ACCC with substantiation for varying from the continued usage of benchmark inputs which have been hotly disputed since the "Great WACC Debate" held by the ACCC (in concert with the ESCoV) in late 1998.

Headberry/Lim have detailed their responses to comments to their research made by other stakeholders and these are attached to this submission. In addition, discussions have been undertaken with ACCC officers in relation to the relevance of the Headberry/Lim research for the WACC draft decision determined by the ACCC for TG and EA.