MAJOR ELECTRICITY USERS' GROUP

2 September 2010

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Commerce Commission

By email to regulation.branch@comcom.govt.nz

Dear Karen

Cross-submission on Input Methodology for cost of capital for Transpower, Electricity Distribution Businesses and Gas Distribution Businesses

1 Introduction

1.1 MEUG has reviewed many of the submissions on the draft cost of capital input methodology. All are from (or for) parties whose returns are the target of the methodologies. Those parties might think that their interests lie in a determination that overstates the cost of capital[1].

1.2 Not surprisingly virtually all the expert evidence promoted by those parties tends to urge approaches likely to result in a cost of capital higher than is expected from the methodology in the Draft Determination.

1.3 MEUG do not assert that the experts are ignoring the Code of Conduct for Expert Witnesses (in the High Court Rules). They may be satisfying their duty to assist the court/Commission impartially, and not to be advocates. But that does not deal with the problem familiar to economists, of adverse selection. Submitters are not obliged to lodge expert evidence from experts whose opinions would be unhelpful to them.

1.4 Effectively many of the submissions take the model in the Draft Determination as the datum. They then propose adjustments from that datum to accommodate uncertainties and other factors that might theoretically or empirically cause a cost of capital to rise above the theoretical datum.

2 Difficulties for the Commission

2.1 Accordingly the Commission is faced with some difficult problems:

[1] Though an unwarranted high rate could make the regime untenable over the longer term with risks of regulatory instability.

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2.1.1 Whether it can draw from the material before it a sufficiently balanced view to be confident of intellectual rigour in the resulting methodology; and if not

2.1.2 Whether it can now research further, engage new independent analysis or rely on their own knowledge, and judgment notwithstanding a volume or preponderance of evidence (before them) in one direction; and if not;

2.1.3 The extent to which it must persevere with appearing to apply the theory underlying the model in the draft input methodology. Can it instead make some simple adjustments to give more certainty and suitability for the purpose?

2.1.4 The Commission may have been overly influenced by a perceived need for the model or methodology to have more theoretical authority than is available. The Draft appears to apply a CAPM/WACC theory when the adjustments necessary to make it work conflict with the usual consequences or assumptions of the model.[2]

2.2 MEUG considers that the most important evidence now before the Commission lies in the "sanity check" data available about the actual costs of capital implicit in the market acquisition prices of businesses incorporating regulated assets. They suggest an expectation that the returns permitted by regulation will substantially exceed the cost of capital allowed for in the regulatory methodology.[3] This is strong evidence of the derivation or anticipated derivation of rents well above the target maximum return rates.

2.3 The Commission should ensure that its evaluation of the submissions and cross submissions does not lock in for 10 years a methodology that delivers such excessive rents to the suppliers.

3 Regulatory role of the Commission

3.1 MEUG is conscious that the Commission is anxious not to err toward discouragement of desirable investment in new assets. Most submissions place great stress on this as justification for increasing the derived cost of capital. There is no statutory authority to subordinate the other stated purposes of the regulatory regime. MEUG understands that the statutory purposes (section 52A) prevail over government expressions of anxiety for more investment.

3.2 We note that Transpower and the Electricity Networks Association referred to a Government Policy Statement (GPS) issued under section 26 of the Act.[4] It emphasises the incentives to invest. That GPS recognises the balancing act the Commission must make. It is up to the Commission to exercise its own expert judgment between the considerations highlighted in the submissions it has received and that of paragraph 8 of the GPS.[5]

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[2] MEUG's earler submission cited the evidence of Ireland, Wallace & Associates Ltd to the effect that the Commission's proposed deemed leverage approach was flawed to the extent that it built in an increase in WACC for leverage that was neither theoretically nor empirically sound.

[3] Refer to text discussion of this issue and the Cameron Partners submission.

[4] Specifically the 10 August 2006 GSP entitled "Statement to the Commerce Commission of Economic Policy of the Government: Incentives of regulated businesses to invest in infrastructure".

[5] "*The Government also considers that it is important that regulatory control ensures that: (a) the consumers of regulated businesses are not disadvantaged by the investments of regulated businesses in other infrastructure and services;* ***(b) regulated businesses are held accountable for making investments in that business where those investments have been provided for in regulated revenues and prices; and (c) regulated businesses provide infrastructure at the quality required by consumers at an efficient price*** [emphasis added]."

3.3 The more recent GPS of 4 June 2008 primarily focuses on consumers as stakeholders in electricity market regulation.[6] It requires the Commission among other things to:

3.3.1 actively consult with the Ministry of Consumer Affairs when pursuing outcomes which impact on small consumers (paragraph 6);

3.3.2 make extensive use of advisory groups representative of affected parties, including consumers (paragraph 7);

3.3.3 to keep in mind the importance of encouraging innovation (paragraph 8); and

3.3.4 ensure that principles in pricing methodology are applied so that sunk costs are allocated in a way that minimises distortions to production/consumption and investment decisions by grid users and consumers, and provide beneficiaries with strong incentives to identify least-cost investment options (paragraph 109).

4 Two tier regime

4.1 There is a mechanism that can cut tension between the Part 4 purposes to a minimum. MEUG reiterates its submission that the Commission articulate a two tier mechanism.

4.2 The first level would apply to the capital reflecting the existing regulated asset base.

4.2.1 This rate should be set at a level that is conservative, ensuring that asset values are not distorted by the "extract[ion of] excessive profits" in terms of section 52A throughout the first and second five year periods.

4.3 The second level would apply only to the capital reflecting newly installed assets.

4.3.1 This higher tier would permit a more generous return (or margin for regulatory error). As it would apply until the start of the third five yearly regulatory period (after the first 7 year input methodology review) there could be a significant period of potential excessive profit, but only in respect of capital attributable to additional assets[7].

4.3.2 It might be objected that the investment incentive of a higher allowable rate for new-build assets would be undermined by disincentive effects of the lower WACC for the first tier. In effect that objection would see an uncertainty risk in the lower rate, a signal that eventually the lower rate might be applied to the funds involved in a new-build before it reaches obsolescence.

4.4 Even if the existence of a lower tier is of concern to investors it can hardly be a greater uncertainty than the provisions for scheduled reviews and regulatory resets. The regulators get regular clean slate opportunities.

5 Purpose of input methodologies and certainty

5.1 The Commission will not satisfy the statutory requirement of section 52R for promoting certainty for suppliers and consumers if it allows itself to be persuaded to establish a cost of capital input methodology that comes to be seen as too generous, just to enhance incentives to invest, if that perception creates political and consumer agitation. The agitation itself will contribute to uncertainty as to the robustness and longevity of the input

[6] "Government Policy Statement on Electricity Governance".
[7] MEUG is advised that a methodology distinction between capital employed in existing and new assets is open to the Commission. It is common to draw cost of capital distinctions between enterprises involving new ventures projects and those involving existing operations.

methodology. The Commission should ensure that the input methodology established now should be easily defendable against subsequent analysis suggesting over-generosity.

5.2 MEUG notes that many submissions propose what may be compared to a "block tower" construction. They recommend allowing cumulatively for the empirical contradictions and uncertainties highlighted in the expert evidence and the unresolved theoretical issues. That could create more complexity and more factors pushing the derived cost of capital up, but no more assurance of consensus authority in the methodology, and less of the statutorily required certainty. Indeed, the amount of evidence of factors not properly accounted for in the proposed input methodology suggests that the model may be too theoretical or fragile. It is not an adequate foundation or template for predictable results. It might accord more with a consensus of the experts paid by the regulated businesses, but the Commission cannot know, without commissioning its own checks or research, whether that is a balanced consensus of experts generally.

6 Role of the Commission

6.1 The Commission is called upon to determine the methodology. It is not an umpire, required to rule among submitters. The submission process is intended to tease out arguments iteratively. It tests Commission propositions, not who might be judged right or wrong among submitters.

6.2 The consultation process does not mean that the Commission is supposed to take the approach a Court would to decide among the competing propositions. The Commission plays the role of a final expert, not an arbitrator.

6.3 It is arguable that the Commission is no longer free to seek fresh balancing data or input outside the process published for the purposes of section 52V(1).[8] The tenor of section 52V (2)(d) and (4) suggests that the Commission may be constrained to rely on its own existing work and the reasoning of the draft methodology as the balancing elements to protect against the predictable skew in the sample of expert opinion submitted.

6.4 But there is nothing in the Commission's published process descriptions to prevent the Commission continuing to apply its own expertise in determining the final input methodology. The process descriptions in no way rule out the Commission applying its own knowledge and judgment.

6.5 In summary MEUG urges that the Commission apply its own judgment in its final input methodology determinations.

7 Submissions

7.1 In its submission dated 13 August MEUG made the following points:

Paragraph 35: "*Using a leverage value of zero avoids the problems above. It is at least as certain as using 40%, but it is consistent with generally accepted methodology. It will steer pressure toward empirical refinement of the model, rather than to spurious attempts to tie actual leverage to permitted WACC calculations*."

[8] Commerce Commission, Regulatory provisions of the Commerce Act 1986 – Discussion paper, 19 December 2008, (Provisions Paper).
Commerce Commission, Input Methodologies - Discussion Paper, 19 June 2009 (Discussion Paper).
Commerce Commission, Update on Process to Determine Input Methodologies and Airports, December 2009; Update on Timing for Input Methodologies Draft Determinations May 2010. The original section 52V(1) 'notice of intention' referred to on page 5 of the Discussion Paper appears to be no longer available online

Paragraph 38: "*The Commission should orient the model toward eliciting research and submission effort on underlying uncertainties. That may be by expressly admitting the subjective and unquantified estimation involved in allowing any margin above the cost derived by applying the model at the zero leverage point. Parties could be encouraged to bring forward evidence to refine the formula, or the factors that should impinge on margins for uncertainty. Research could provide New Zealand data to populate a more rich (less simple) formula. The outcome could be a rise in the zero leverage WACC estimate, or a flattening of the relevant curve, or a change in the formula. Much of that effort will not be elicited if the current approach is suspected to produce results more generous than a more rigorous model. Parties who benefit will prefer ignorance*."

7.2 MEUG notes that the same concern about the Brennan-Lally CAPM/WACC formulation expressed in MEUG's submission dated 13th August is supported by Officer:

> "It is peculiar to adopt a framework which requires a level of one parameter that is inconsistent with the actual because of estimation errors of another parameter – it reminds us of the aphorism '…it is a complex web we weave when we first start to deceive". The estimation of equity and debt returns should be capable of adjusting for leverage changes under a more conventional framework, recognising that the betas or risk premiums change as leverage changes. We cannot see why the current Brennan- Lally CAPM framework is not capable of such adjustment but we acknowledge Lally's advice in paragraph 6.5.21 of the Commission's EDB Draft Reasons Paper, which states:
>
> > "*When using the simplified Brennan-Lally CAPM in conjunction with the simplified beta gearing model, WACC … rises with leverage and therefore implies that leverage is undesirable. However, the use of debt by companies is typical. This implies that companies are acting irrationally or that there is some deficiency in the models used to estimate WACC. This paper shows that there are some deficiencies in the WACC model currently employed by the Commerce Commission, but these are not readily correctable, leaving the choice between the status quo (which overstates WACC) and a simple alternative in the form of setting WACC equal to the unlevered cost of capital (which would understate WACC). Choosing between these two options is a judgment matter for the Commission*."
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> It makes it hard to go to empirical evidence to find the correct estimate of a parameter when the use of such evidence may increase errors in another parameter, leaving the Commission with a trade-off between the options, a trade-off that does not apparently have a framework that can be contested."[9]

7.3 The base cost of capital for Electricity Distribution Services Industry should be based on a flat line cost of capital of 6.0% rather than the base cost of capital adopted by the Commission of 6.5%. The difference represented the effect of the Brennan-Lally CAPM/WACC model result where WACC increases with leverage. The Commission's 75th percentile draft cost of capital is estimated at 7.3% which is an increment of 0.5% (variously assessed at between 0.5% and 0.8% by Submitters) to the mid-point Commission estimate.

[9] Source Officer submission

7.4 In reviewing the Submissions from suppliers it is clear that their proposed cost of capital is some 3% in excess of the MEUG proposed base cost of capital of 6.0% (rounding previously used 5.98%) and 1.7% above the Commission's 75th percentile estimate. Is this creditable? Does it pass the sanity checks of recent price transaction precedents? Does the submitters' "block tower" approach to estimating cost of capital lead the Commission to a "wrong" result? How can the Commission be so different to the views of supplier experts given the processes it has conducted? In exercising its judgments the Commission should not just rely on just the sum of the parts approach resulting in a formulaic answer. Models are just vehicles to assist judgements.

7.5 The overall cost of capital estimate of most submitters can be generalised at around 8.5% plus. Transpower largely follows the Officer view of cost of capital of 8.7% except that it prefers a 90th percentile estimate. Cost of capital on this basis would be expected to exceed 9%. Both Transpower and Officer have not included compensation for questionable stranded asset risk identified by Harding Katz in their estimates. Table 1 provides a summary of the principal submissions with a focus on Transpower. It provides a quick comparison of selected final cost of capital estimates including identifying what is 'included' and 'excluded'. Section A is Transpower Experts; B is Transpower, and C is other selected Submitters.

TABLE 1

Transpower Submissions:

a selective general summary specifically related to Transpower (it can equally to be related to EDBs and Gas Distribution Services)

A	Rates of Return Results	Excludes	Includes
Guthrie evidence	**8.40% to 8.65%** (TP submission p4 para. 11) Guthrie recommends the upper end of the range. Given uncertainty in financial markets. 90th percentile (add 1.76% to 2.02% to point estimate of WACC instead of CC's 0.67% implying a base WACC of 6.6%)	Intra-cycle variation. Model error Possible risk factors identified by Harding Katz principally stranded asset risk.	Estimation error using CAPM at start of regulatory cycle. Differences between actual cost of capital and theoretical predicted generated by CAPM
Officer evidence (Table 1 p30)	**8.7%** 75th percentile (assumptions including Rf 5.48%; debt premium +debt issuance 2.96%; TAMRP of 9.53%; leverage 60%; asset beta of 0.4 and debt beta of 0.2)	Possible risk factors identified by Harding Katz principally stranded asset risk.	10 year duration.
Officer estimated AER view	**8.1%** based on AER view (termed "Tax adjusted cost of debt in WACC, may be incorrectly defined, p2) Percentile n/a (leverage 60%; Rf 5.48% debt premium +debt issuance 3.33%; MRP of 6.5%, and, asset beta of 0.32)	Possible risk factors identified by Harding Katz principally stranded asset risk.	
Officer assumed CC WACC	**7.3%** 75th percentile CC WACC of 6.6% + 0.7% (75th percentile adjustment) = 7.3% at leverage of 40%)	Possible risk factors identified by Harding Katz principally stranded asset risk.	
Cameron Partners evidence	**8.7%** mid point estimate (range 8.2% to 9.3%)	Possible risk factors identified by Harding Katz principally stranded asset risk.	

B	Rates of Return	Excludes	Includes
Transpower Submission (p10-12)		Possible risk factors identified by Harding Katz principally stranded asset risk.	Leverage 60% "… should approximate Transpower's actual leverage …" 10 year term TAMRP should be increased by "… 2 per cent …" Asset beta should be 0.4 Debt beta "… should be set at 0.2" Cost of capital range estimate preferred is 90th percentile.

C	Rates of Return Results	Excludes	Includes
Submitter Cost of capital estimates other than for Transpower include:			
ENA (PwC)	9.35% at 75th percentile point estimate 8.6%		
ENA (LECG)	Point estimate of 8.60% and high estimate of 10.13% plus model error of 1% vanilla WACC) Para. 72 p16		
20EDBs (PwC)	check 9.35% at 75th percentile point estimate 8.6%		
Vector	Cost of equity is "… around 4% too low." CEG para. 7		

7.6 The "block tower" approach to cost of capital adopted by supplier submitters results in the following menu of proposed adjustments:

7.6.1 low asset beta bias adjustment to Brennan-Lally CAPM estimation through the adoption of a new CAPM model called the "Black CAPM" (Grundy/CEG);

7.6.2 90th percentile estimate;

7.6.3 small size premiums adjustments to TAMRP (CRA);

7.6.4 thin trading beta adjustments (PwC);

7.6.5 plea for real option adjustment (Guthrie);

7.6.6 stranded asset risk adjustment (Harding Katz);

7.6.7 leverage at 60%;

7.6.8 asset beta at 0.46 (PwC) and 0.56 (LECG);

7.6.9 debt premium of about 3%;

7.6.10 10 year duration;

7.6.11 bond issuance of 2.6% and 6.5% for large and small firms respectively (PwC);

7.6.12 equity issue costs (CEG p48);

7.6.13 top end of range estimate including for GFS reasons (Guthrie and Powerco); and

7.6.14 debt issuance cost adjustment to convert a 5 to a 10 year duration (Grundy).

7.7 These adjustments potentially contribute to end result of a supplier cost of capital at around 9%. The cumulation of all independent or non-conflicting adjustments would result in a cost of capital justified by the submitters of well in excess of 9%.

8 Sanity check

8.1 MEUG questions why supplier cost of capital estimates differ to other voluntarily chosen cost of capital measures. For example it appears that Transpower now has two positions on cost of capital one for the regulator and one for the owner.

8.2 MEUG wishes to draw to the attention of the Commission Transpower's Statement of Corporate Intent (SCI) August 2010[10]

8.2.1 For the annual "Commercial Value of the Crown's Investment" Transpower adopted a discount rate of 7.7% to value the unregulated activities based on future forecast cash flows set out in the Transpower 10 year business plan.

8.2.2 This should be compared with the Transpower's submission cost of capital in excess of 9% as explained in paragraph 7.5 above. The SCI and submission were disclosed in the same month.

8.2.3 The SCI also discloses Transpower's "Economic Value Added" (EVA) estimates. This performance measure matches the net operating profit after tax with the capital charge (i.e. capital times the cost of capital). Transpower's forecast EVA for 2009/10 was for a loss of $25m; budget 2011/12 for a loss $15m; and, Plans 2011/12 and 2012/13 for positive $3m and $11m respectively. Given its size essentially Transpower expects to just earn its required return reflecting its assessment of cost of capital. Presumably the cost of capital used for calculating EVA is consistent with that used in the SCI valuation.

8.3 The Commission should then consider Transpower's Formal Settlement Proposal of May 2008[11]

[10] http://www.transpower.co.nz/f3921,34919371/transpower-sci-2010-2011.pdf

8.3.1 The Commerce Commission accepted cost of capital rates proposed by Transpower of 7.2% for 2007 and 2008 and 7.8% for 2009 to 2010.

8.3.2 At that time the risk free rate was 6.3% and tax rates were higher than presently.

8.4 It is instructive (although not directly comparable)to compare the State-owned Enterprises Generators' cost of capital rates disclosed in their Statements of Corporate Intent to Transpower. They are approximately at the same level as being urged in its submission by Transpower. This does not seem right. Transpower as a monopoly provider and the three generators operating in competitive markets will not have equivalent levels of risk.

8.4.1 Meridian Energy Statement of Corporate Intent 1 July 2010[12].

For the annual "Commercial Value of the Crown's Investment" PricewaterhouseCoopers applied "… the Board-approved …" 9.1% post tax nominal cost of capital (p5).

8.4.2 Genesis Energy Statement of Corporate Intent 2010/11-2013[13]

For the annual "Commercial Value of the Crown's Investment" The "… estimate of WACC … fits within the range of WACC estimated by PwC of 8.6% to 9.5%".

8.4.3 Mighty River Power Statement of Corporate Intent 2010-2012[14].

For the valuation of generation assets PricewaterhouseCoopers applied 9% post tax nominal cost of capital (p6).

8.5 Cameron Partners has advised Transpower about Investors' rate of return expectations. There are some peculiarities in that report[15]

8.5.1 Pages 14 and 15: The required investor equity return (Equity IRRs) for comparator industries and firms is stated without related return leverage, tax assumptions, model, etc. which unfortunately limits the value of the information and insights. Some shortcomings are acknowledged in respect to Australian comparators such as impact of franking credits, mix of business and different credit risks. The conclusions drawn from the Merrill Lynch analysis must be weakened as a result.

8.5.2 Pages 15,16 and 28: Similar issues affect the US Required Returns. First, the definition of return. In the paper Cameron Partners draws from at page 11:

8.5.3 "For the market as a whole, the Required Return is defined as the Gross Business Return that, on average, would cause the Enterprise Value to equal its Gross Assets … In this framework, the Required Return replaces both depreciation and cost of capital in the traditional analytics and captures the investors' combined demand for return of capital and the return on capital."

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[11] http://www.comcom.govt.nz/assets/Imported-from-old-site/industryregulation/Electricity/ElectricityLinesBusinesses/TargetedControl/ContentFiles/Documents/Transpower-Formal-Settlement---703905_1.PDF

[12] http://www.meridianenergy.co.nz/NR/rdonlyres/F0F7391F-E29E-4CAD-A70C-566A49A38EDC/25125/0394MEDSCI2010_FAweb.pdf

[13] http://www.genesisenergy.co.nz/shadomx/apps/fms/fmsdownload.cfm?file_uuid=AEF70748-5056-AC66-4C4F-3FB627D359F0&siteName=genesis

[14] http://www.comu.govt.nz/pdfs/MRP-SCI-2010-2012.pdf

[15] Cameron Partners submission

8.5.4 The "1000 Largest Non-Financial Companies Required Return" has changed as the graph shows. However what is uncertain is the significance of the absolute Required Returns for Utilities at 9.2%, Energy at 10.3% and Telecommunications at 11.7% as at February 2010. These returns do not appears to be equivalent to "Equity IRRs" or equity returns. They appear too low. It raises a question as to how these sectors fluctuated relative to the 1000 Largest Non-Financial Companies Required Return just referred to given they are low beta industries? It is not clear that the 1% adjustment made to reflect the GFC applies based on the data presented.

8.5.5 Pages 14, 16, 18 and 19: The basis for the expected equity return of a range of 10% to 12% seems to be based on a general conversation with an analyst fund manger, and Cameron Partners' intuition. Other factors contributing to the uptick of 1% include Transpower's capex profile and increased leverage, significant lower earnings growth and greater liquidity risk relative to Australia and offset by Transpower higher credit ratings.

8.5.6 Page 27: Appendix A4 Table seems to contradict the view that Transpower has significant lower earnings growth potential relative to Australian companies. Table shows EBITDA growth equal to SP AusNet. Transpower's growth arises from the future capex plans.

8.5.7 Page 9: A conclusion is that the investor return assessment does not provide a clear basis to be confident on whether the required return is in fact 12%. If it were say 11% then the average rate of return falls from 8.7% to 8.3%

8.6 Another sanity check on the reasonableness of the cost of capital point estimate for the Commission's purposes is to observe RAB (or ODV multiple) in market transactions and in the market place. The question to be asked is why does $1 invested at RAB/ODV get priced in the marketplace at up to $2? This maxim is compelling for the assessment of the incentives to invest: "Build it and bank it".

8.7 Cameron Partners provide lists of RAB transaction multiples for New Zealand and Australia in its appendices A2 and A3. For New Zealand the overall average multiple is 1.9 and Australia 1.57. Why do these premiums exist and persist? Do they reflect the regulatory environment? Cameron Partners provided a number of reasons for accounting for the premium at paragraph 3.1.2. However they are justified, an investor expects to recover the premium through cash flows or another transaction. A regulator may seek a market outcome where $1 invested was worth say $1.25 in the market as that provides incentives for suppliers. Higher multiples suggest an overly generous allowance for cost of capital may be a contributing factor.

8.8 A final sanity check is to consider the Transpower suggestion that stranded asset risks need to be considered in setting the cost of capital input methodology. The Commission will determine a set of input methodologies to enable the calculation of a cost of capital. The rate reflects an assumed risk profile of the supplier industry/firm. With the return fixed there is an incentive for the supplier to reduce all risks of the business especially systematic risks to increase the reward to risk ratio. There is an incentive to pass risk to those who are better able bear it either by contracting or through terms of trade etc.

8.9 Stranded asset risks (arguably specific or market risk) may be passed to or shared with a new customer. If Transpower is not adequately compensated for construction work in progress for instance it would suggest that it contracts for supply nor construction on a

turn key basis. The price includes a financial element. Transpower rely on the report by Harding Katz analysis of stranded risk. In the appendix to this report is an analysis of that material.

9 Sensitivity of potential cost of capital adjustments

9.1 Table 2 show materiality of changes to the Commission's draft cost of capital and estimates of capital charges for Part 4 entities and charges payable by consumers assuming different cost of capital rates for existing and approved Part 4 regulated asset base of $16.2b. The shaded row is the Commission's draft proposal at the 50% percentile. This is the Commission's draft proposal that MEUG describes as the "counter-intuitive leverage" approach. These calculations are identical to that presented in the MEUG submission of 13th August 2010 (refer table in paragraph 6).

9.2 The MEUG submission of 13th August 2010 proposed an "independent of leverage" approach. This would reduce the post-tax cost of capital by approximately 0.52% compared to the Commission's "counter-intuitive leverage" approach. This results in a reduction in capital charges for Part 4 entities and charges payable by consumers. The results are in the row below the Commission's draft proposal. The differences in charges compared to the Commission's draft proposal termed the "Base" are set out in the columns shaded. These calculations are identical to that presented in the MEUG submission of 13th August 2010 (refer table in paragraph 10). All other submitters on EDBs, GDBs and Transpower proposed increases in cost of capital compared to the Commission's draft proposal. The table below considers increases in the post-tax WACC of ½%, 1%, 2% and 3% to illustrate the resulting change in capital charges and charges payable. These are material amounts.

TABLE 2

	Post-tax WACC				Capital charges for Part 4 entities		Charges payable by consumers	
Regulated sectors:	EDBs	TPNZ	GDBs	Airports	$m pa	Δ	$m pa	Δ
Sensitivity on CC Draft:								
WACC +3.0%	9.50%	9.50%	10.20%	11.67%	$1,598	+$488	$2,220	+$678
WACC +2.0%	8.50%	8.50%	9.20%	10.67%	$1,436	+$326	$1,994	+$452
WACC +1.0%	7.50%	7.50%	8.20%	9.67%	$1,273	+$163	$1,768	+$226
WACC +0.5%	7.00%	7.00%	7.70%	9.17%	$1,192	+$82	$1,655	+$114
CC draft proposal "counter-intuitive leverage"	6.50%	6.50%	7.20%	8.67%	$1,110	Base	$1,542	Base
MEUG proposal "independent of leverage"	5.98%	5.98%	6.68%	8.15%	$1,026	($84)	$1,425	($117)

9.3 In setting the final input methodologies the Commission must be mindful of ensuring that the purpose of Part 4 are meet. Suppliers in general state that they are unlikely to invest unless the return is right for them. As far as we are aware there is no evidence of under-investment caused by the returns established by the Commission being insufficient. Despite the noise there is investment which seems to have or will meet reasonable market demands. Any threat of underinvestment related to cost of capital has got to be seen by the Commission in this context. Wanting compensation for every risk associated with the cost of capital is nice if you can get it. Managers should manage risk by having

some incentives to be innovative. The menu of adjustments (XX above) justifying risk compensations reflects this view.

10 Conclusion

10.1 MEUG submitted to the Commission on 13 August 2010 that by making respectable a flawed SB-L CAPM/WACC formulation (with an upward sloping curve) supplier parties are incentivised to "bank the gains" made by the implicit acceptance of the point on the invalid upward sloping line. As predicted interested parties have concentrated on representations and lobbied to increase the deemed leverage on the same slope.

10.2 MEUG invites the Commission to either refine the model[16] *or* use a leverage value of zero. Either could ensure that focus is on delivering a more rigorous model rather than work-rounds (to the flaws in the endorsed model) and the leverage variable.

10.3 The Commission should avoid using a 'block-tower' approach that the supplier submissions have endorsed, to work-around the acknowledged flaws in the model *and* a menu of additional adjustments leading to potentially generous costs of capital.

10.4 MEUG endorse a two tier approach as most consistent with cutting the tensions between consumer interests and ensuing future investment in the regulated industries.

10.5 MEUG submit that the Commission should apply the sanity check contained in this document and must apply its own independent analysis in determining the final input methodology.

Yours sincerely

Ralph Matthes
Executive Director

[16] Where WACC does not rise with leverage - consistent with CAPM.

Appendix

The Harding Katz stranded asset issue

The cover memo by Transpower to their suite of cost of capital submissions states[17] "Harding Katz concluded that the risks in the Commission's proposed regime are materially greater than those experienced by Australian transmission companies subject to Australian Energy Regulator (AER) regulation." Transpower say "These risks are strongly asymmetric" and "outcomes are overwhelmingly skewed toward delivering a return on investment below the Commission's estimate of WACC". Transpower argue these issues are so significant they justify an up-tick on WACC.

The Transpower cost of capital cover memo doesn't actually set out all the evidence from Harding Katz to support this view; rather readers are left to find the Harding Katz report in the other IM submissions and or see what Transpower's other experts on cost of capital said.

References to Harding Katz by cost of capital experts engaged by Transpower

Three expert reports were submitted by Transpower. One refers directly to Harding Katz and another to an issue identified by Harding Katz.

Cameron Partners mention Harding Katz in 5 of their 29 pages[18]. Cameron Partners do not actually critically assess and take a view in their own right on the validity of the Harding Katz analysis; they simply repeat the conclusions of that report of "potentially higher stranded asset risk" and "other risks identified by Harding Katz under the NZ regulatory regime that potentially deliver NPV negative outcomes and create incentives to deter capital expenditure."

Page 22 concludes "The Commerce Commission should make an additional adjustment for these risks factors in setting the regulatory rate for Transpower." Having not critically examined the validity as experts in their own right, Cameron Partners then recommend an adjustment but give the Commission no insights as to how to do that or how material it should be.

Professor Officer and Dr Bishop discuss the treatment of diversifiable or non-systematic risk in section 7 of their report[19]. This is a more recognisable text-book account of the treatment of diversifiable and non-diversifiable risk. Officer and Bishop say, in a roundabout way, that Transpower has a risk that only approved capital expenditure will be added to the Regulatory Asset Base and not actually incurred expenditure. This is a key point of difference between the Australian and proposed NZ regime identified by Harding Katz. Officer and Bishop say this "is not usually the systematic or non diversifiable risk that affects an asset beta". As a consequence they conclude Transpower must self insure such risks itself.

The analysis in section 7 of the Officer and Bishop report is not otherwise referred to elsewhere in their report. It's an islanded thought with no linkages to possible (and we would argue incorrect) arguments to take those concerns into account when assessing the asymmetric risk shift from a starting 50th percentile point estimate. We think this is appropriate and agree with their assessment, as we read it, that stranding risks are diversifiable and non-systematic and therefore

[17] http://www.comcom.govt.nz/assets/Pan-Industry/Input-Methodologies/Transpower-Costcapital-Sub/Transpower-Attachment-to-Submission-Draft-Determination-Input-Methodologies-Part-1-Cost-of-Capital-16-August-2010.pdf , paragraph 19.

[18] http://www.comcom.govt.nz/assets/Pan-Industry/Input-Methodologies/Transpower-Costcapital-Sub/Transpower-Attachment-to-Submission-Draft-Determination-Input-Methodologies-Part-2-Cameron-Partners-Report-16-August-2010.pdf, pages 4, 5 and 6, 9, 20 and 22.

[19] http://www.comcom.govt.nz/assets/Pan-Industry/Input-Methodologies/Transpower-Costcapital-Sub/Transpower-Attachment-to-Submission-Draft-Determination-Input-Methodologies-Part-2-Prof-Officer-and-Dr-Bishop-Report-16-August-2010.pdf, pages 25 to 27.

do not fall within the bounds of estimating the regulatory cost of capital. Instead managing such risks is governed by other aspects of the regime that allow room for Transpower to have incentives to efficiently and innovatively manage those risks but not simply pass them on to others with less ability to manage the risk.

In conclusion the other expert reports on cost of capital prepared by Transpower do not assist in validating or supporting a Harding Katz adjustment to cost of capital.

The Harding Katz report[20]

This report was one of a bundle of submissions by Transpower on all other IM, apart from cost of capital. This is an important point. Harding Katz is not a cost of capital expert and this report was not intended to be used as such. The stated purpose of the report (first sentence of the report) "is to provide a comparison between the New Zealand and Australian arrangements for regulating electricity networks." Twenty two specific issues are compared. Issue 14 is "Overall approach for the cost of capital". The overall assessment of this issue is "Not examined. We understand that Transpower is obtaining a separate expert opinion on the cost of capital."

This leaves reliance by Transpower in their covering memo on cost of capital with no foundation based on the Harding Katz report, unchecked references from Cameron Partners and no support from Officer and Bishop to including stranding risk, the largest issue identified by Harding Katz, affecting cost of capital.

What does the Harding Katz report do then? The proposed Individual Price-Quality Path Regulation for Transpower comprises a range of IM covering amongst other things revenue/price caps, service standards, mechanisms to incentivise efficiency improvements, asset valuation, capital expenditure (major and minor), deprecation, taxation, operating expenditure, non-monopoly related businesses, information disclosure as well as cost of capital. Harding Katz has a general overview of these arrangements.

It's more noticeable that most of the regulatory framework in Australia and that proposed by the Commission is similar or the overall assessment of differences as being "neutral" as opposed to being different. There is a lot of repetition in comments on investment related issues on the so called key difference of stranding risk. According to Harding Katz (issue 6, recognition of capital additions) the Australian regime allows over-expenditure on capital to be rolled into the asset base at the start of the next regulatory period whereas the Commission propose to exclude over-expenditure permanently.

We agree with Officer and Bishop that this is not a risk to be covered in setting the regulated cost of capital. The Commission proposal gives a very strong incentive on Transpower to manage that risk by not seeking approval on ill defined projects or laying-off cost overrun risk with building contractors. We think this is the right approach because Transpower does not have the systems or confidence of the regulator that it can leap straight to the more mature regulatory regime that Australia has. Transpower needs such a strong lever now whereas the more mature Australian regulated transmission businesses do not. Harding Katz does not assess the capability of Transpower to actually perform in an Australian type regime immediately; but the evidence and agreement from Transpower itself is that a slow shift towards an Australian regime is appropriate.

Finally it should be noted the Harding Katz report is subjective. For example in considering the Rolling Incentive Scheme under IPPs (issue 19) they recognise the Australian arrangements

[20] http://www.comcom.govt.nz/assets/Pan-Industry/Input-Methodologies/Transpower-Draft-Decisions/Transpower-Attachment-on-Transpower-Input-Methodologies-Draft-Determination-and-Reasons-Paper-Harding-and-Katz-Report-9-August-2010.PDF

provide symmetry to positive and negative carryovers; whereas the Commission proposal is only that positive net balances be carried forward. This is clearly a negative for New Zealand compared to Australia in terms of incentivising behaviour. Harding Katz assesses the difference as "Neutral."