

MAJOR ELECTRICITY USERS' GROUP

Mr John Groot

Commerce Commission

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

Thursday, 5 April 2012

Dear John

Transpower Cost of Capital Input Methodology

- 1 This submission is by the Major Electricity Users' Group Inc ("MEUG") on leverage in the Transpower Cost of Capital Input Methodology ("IM").
- 2 For the purpose of the consultation, the Commission is treating the decision and reasons on leverage set out in its 23 December 2010 determination for Transpower (including by reference to the determination for the EDBs and Gas) as a draft decision and draft reasons. To avoid confusing that determination with the Commission's draft determination and reasons issued in June 2010, MEUG will refer instead to the "December decision" and "December reasons" and the "June decision" and "June reasons" respectively. Reference to a decision may refer also to its accompanying reasons.
- 3 MEUG submitted before the Commission's December decision that the IM would have been materially better if the notional leverage had been set at zero. That would eliminate the anomaly in the modified Brennan-Lally formula that delivers a cost of capital that increases with leverage. A preference for zero-leverage remains MEUG's view and this submission is without prejudice to that position.

Scope of Reconsideration

- 4 The Commission has been directed by the High Court to reconsider the value of leverage in the cost of capital IM determination relating to Transpower. The Commission has acknowledged that as leverage affects the calculation of the value of other parameters, such

as beta, any discussion of other cost of capital components that are or should be relevant to the December decision on leverage will properly form part of this reconsideration.¹

- 5 This is consistent with the Court's reference to the inter-relationship of leverage and equity beta and asset beta in paragraph 203 of the decision granting to Transpower the present consultation.

*"To derive a sector notional equity beta from the chosen sample of comparator firms it is necessary first to remove the effect of gearing from a firm's equity beta, which results in what is known as the firm's asset beta. Firm specific (albeit averaged over time for that firm) leverage estimates are used at this point. A sector-specific asset beta can then be calculated, and a sector-specific equity beta derived by adjusting for debt on a sector-wide basis, ie by applying the sector estimate of leverage."*²

- 6 The Court nevertheless expressed an expectation that the reconsideration, in light of the augmented sample of comparable companies (discussed below) would be narrow. MEUG submits that the Commission is nevertheless obliged to ensure that any resulting methodology that uses the notional leverage assumption must do so in a way that satisfies all of the statutory requirements. If during the reconsideration it emerges that another element has a suboptimum interaction with whatever notional leverage assumption results from the reconsideration, the Commission should correct the position. The Commission should ensure that the notional leverage does not have undesired effects on the quality or intellectual consistency and defensibility of the IM, alone or in its interaction with other factors.

Summary of Submission

- 7 Subject to the reservations in paragraph 3 above and this summary, assuming the logic of a notional leverage assumption, MEUG would accept that leverage of 44% is a reasonable point on which to fix that variable from the Commission's December decision comparator sample. Transpower has special characteristics that distinguish it from most of the comparator companies in the Commission's sample of 79, but not in ways that would make it unreasonable to fix a notional leverage precisely at the average of the sample. This approval applies if, and only if, the conditions outlined in paragraphs 18 to 17 below are satisfied.

Consistency in sample

- 8 The notional average leverage applied in the CAPM/WACC formulation must be within a factor framework consistent with the other data from which it is drawn – in particular that the average asset beta of the same sample is used. The Commission should ensure that the chosen asset beta and notional leverage are technically aligned (i.e. instead of the asset beta of 0.34 drawn from the superseded June sample, the updated December sample average of 0.28 must apply). To the extent that they are not aligned, despite using a nominal leverage within the framework, the leverage anomaly reappears.

¹ "The Commission does, however, acknowledge that leverage affects the calculation of the value of some other parameters, for example, equity beta. As requested, we therefore confirm that discussion of other components of the cost of capital that are directly relevant to the draft decision on leverage is within the scope of this consultation." Letter from the Commerce Commission to Franks & Ogilvie, 21 March 2012

² *Wellington International Airport Limited v Commerce Commission* HC WN CIV -2011-485-1031 [21 December 2011].

9 The Commission may assert that the chosen asset beta of 0.34 was drawn from the updated December sample albeit with a deliberate bias toward the upside. But it has not established that the extent of the bias is reasonable. It should bring the beta closer to the actual sample average. The 0.34 figure is 6 basis points above the December augmented sample mean of 0.28.

10 We cannot presently imagine a reason why, but if the Commission concludes that it should not use the comparator sample averages consistently, and chooses another point estimate for asset beta not anchored to the midpoint in the updated and augmented sample of comparator companies, it should restore the connection between leverage and beta (and thus integrity to the application of the CAPM/WACC models) by adjusting the notional leverage with “breakeven analysis” to match the two (see paragraph 43). MEUG note that a breakeven WACC, holding the asset beta at 0.34 that would follow from applying the sample average factors contained in the December determination sample would deliver a notional breakeven leverage of 19%.

Rely on monthly beta figures

11 The Commission should not give weight to daily or weekly average betas calculated for the comparator sample. The Commission records that it calculated such averages without explaining exactly what significance it gave to them.

Confirm sample accuracy

12 The Commission’s derivation of the data for the comparator companies should be confirmed as accurate enough to rule out material invalidation of the averages (i.e. the reliability is not invalidated by mischaracterisation of data, for example in treating negative leverage as zero leverage).

Weight for closeness of risk comparisons

13 The businesses in the sample which have risk characteristics more comparable to those of Transpower should be given more weight in all factors drawn from the sample. In this regard National Grid appears to be the most closely comparable business. That could justify a higher leverage than 44%, but only if the asset beta is correspondingly much lower than 0.34. In the December comparator companies sample data, National Grid has an asset beta of 0.24 and leverage of 48%.

Act on practical ‘reasonableness’ checks represented by comparison with EDBs

14 The Commission should pay greater regard to reasonableness tests in setting the notional leverage applicable for Transpower and its interaction with the asset beta. In particular the final determination should eliminate the possibility that the cost of capital for Transpower is deemed higher than the cost of capital for comparatively smaller EDBs which are inherently more risky. EDBs have:

- (a) less stable revenue. EDB investment decisions are not directly regulated and they do not have a statutory right to payment of the charges determined under a transmission pricing methodology (or equivalent);
- (b) less geographic dispersion;

- (c) less influence on regulatory policy; and
- (d) less recognition in capital markets.

Less reliance on considerations inconsistent with revealed patterns

- 15 When considering the consistency of the chosen average leverage point with other components of the WACC formula, past estimates of the asset betas and cost of capital by Transpower and the Treasury should be taken into account. The Commission should give weight to Transpower's own prior statements and assumptions on:
- (a) likely rates of return (as evidenced in statements of corporate intent and other material published for Transpower's shareholders);
 - (b) Transpower's stated historical asset beta assumptions; and
 - (c) Transpower's record of willingness to invest with expectation of capital charges or rates of return lower than those implicit in the December decision.

Apply generosity factor once only, at the end

- 16 The Commission should exclude any "judgment increment" or "generosity" allowance in its notional leverage setting or in any other factor that interacts with leverage in the WACC. After deciding on reconsideration what the notional leverage should be, the Commission should revisit any generosity in that leverage or in other parameters which interact with it, judging whether they result in a reasonable WACC figure. The Commission should allow such headroom only after it has satisfied itself that the chosen notional leverage together with the other factors is not unjustifiably generous in aggregate effect to Transpower.
- 17 Sections 52A(1)(c) and (d) of the Commerce Act ("the Act") that protect consumers (including from the extraction of excessive profits) are not subordinate to section 52A(1) (a) (incentives to invest). An increment that does not follow the logic of the CAPM/WACC formulation allowed in effect as a precautionary margin against the risk of fixing a WACC that discourages investment, should be calculated after the overall effect of the disciplined formula is known. It should not be applied to justify loose headroom in each factor, which then compounds as it multiplies, and is augmented by a generous choice of the range percentile at the end.

Commission's Decision on Leverage

- 18 The Commission was concerned to address a serious anomaly in the Brennan-Lally CAPM model which caused WACC to increase as leverage increased; an effect which has been accepted by all parties as being counterintuitive ("the leverage anomaly").
- 19 Mr Ireland of Ireland, Wallace and Associates originally highlighted for the Commission the leverage anomaly. He submitted on behalf of MEUG that the most technically correct way of addressing the anomaly was to set leverage at zero. The Commission decided instead to adopt a notional leverage parameter. In its June decision, the Commission chose a pan-industry notional leverage parameter of 40%. In its December decision, the Commission switched to service-specific notional leverage parameters of 17% for airports, and 44% for energy including Transpower.

- 20 The Commission's decision to change its approach to leverage was based on arguments made on behalf of the Electricity Networks Association ("ENA") and Telecom from PricewaterhouseCoopers ("PwC"). PwC's submission criticised the leverage parameters for being inconsistent with the formula for calculating the asset beta. In the June decision, the Commission had calculated asset beta and leverage by averaging monthly data over a five-year period, taken from a survey of 54 listed utility companies from New Zealand, Australia, the United Kingdom and the United States ("June comparator companies"). PwC said that³:

"[The] Commission is technically wrong to attempt to apply a single fixed leverage assumption to all regulated firms. If debt betas are to be excluded from the WACC analysis (which we concur with), then to be consistent the notional leverage used in the WACC estimation should be close to the average leverage of the comparator companies used to derive the (average) beta estimate. This is a fundamental requirement in order to be able to justify application of a "short cut" approach and thus ignore debt betas."

- 21 The PwC submission was echoed by CEG on behalf of Vector, by ENA in a separate submission, and by Powerco.⁴
- 22 In its December reasons, the Commission accepted that the PwC solution was a more technically correct way of addressing the leverage anomaly given an assumption of a zero debt beta.⁵
- 23 In the December reasons, the Commission updated the monthly asset beta data for the original 54 comparator companies and added a further 25 companies. The average of the estimated asset betas of the augmented sample ("December comparable companies") changed from 0.34 to 0.28.
- 24 There needs to be consistency between the leverage used to deleverage the equity beta (to determine an asset beta) and the reverse calculation releveraging the asset beta (to determine an equity beta). Adopting the leverage of the sample is an essential requirement to determine the equity and asset beta.
- 25 The leverage anomaly is fixed at the intersection of the leverage with WACC as illustrated in 'Chart 1: The technical correction (December decision)' and 'Chart 2: The technical correction (December corrected for inconsistency)' below. The "sweet spot" determines the WACC which is invariant to leverage – a horizontal line through the sweet spot. Any different leverage or asset beta adopted in releveraging the asset beta will undo the fix.

³ As cited by the Commission in the December decision at paragraph 6.6.10 and footnote 339.

⁴ Refer to the December reasons, page 424. .

Vector Limited, *Submission in response to the Commerce Commission's Input Methodologies Draft Reasons and Determinations for Electricity Distribution Businesses and Gas Pipeline Businesses Cost of Capital*, Attachment: Competition Economists Group, *Cost of Capital Input Methodologies: a report prepared for Vector Limited*, 15 August 2010, pp. 32-35; Electricity Networks Association, *Cost of Capital Cross Submission on EDBs and GPBs (Input Methodologies) Draft Determination and Reasons Paper*, 3 September 2010, p. 1; Powerco Limited, *Cross Submission on EDBs and GPBs (Input Methodologies) Draft Determination and Reasons Paper*, 2 September 2010, p. 7.

⁵ Refer to December reasons, paragraph 6.6.14 and Appendix H3.

Chart 1: The technical correction (December decision)

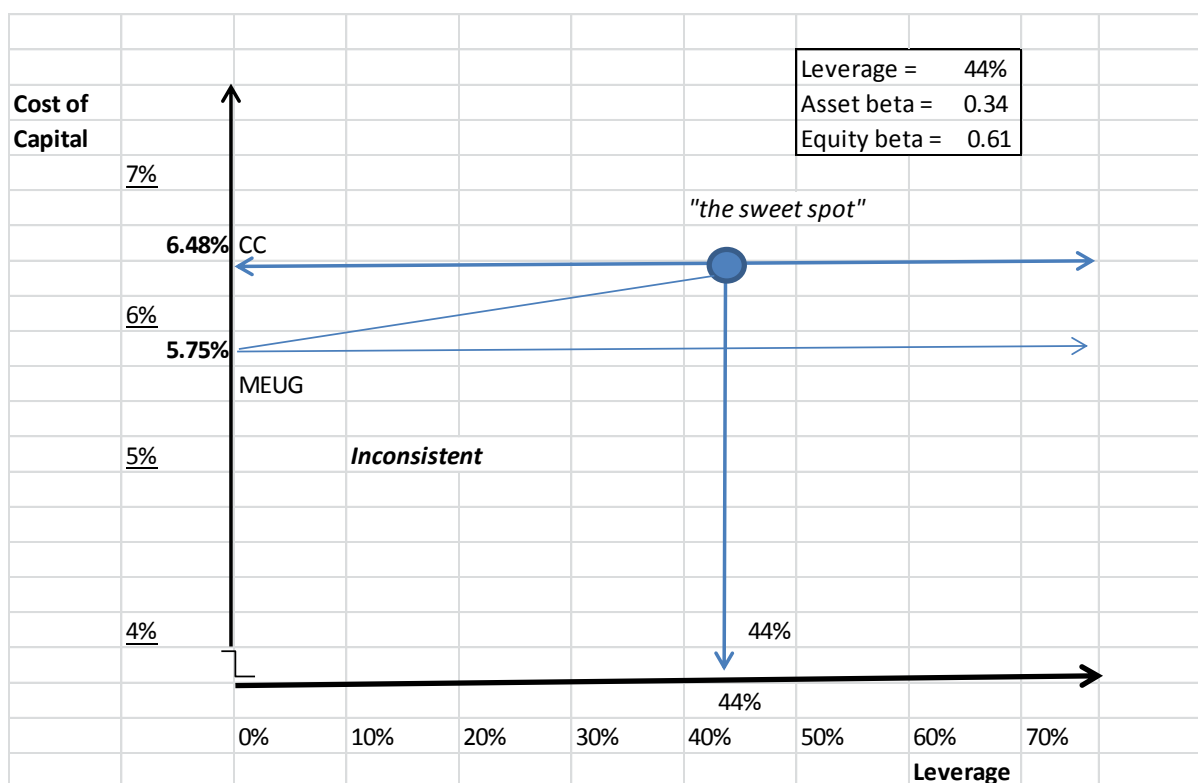
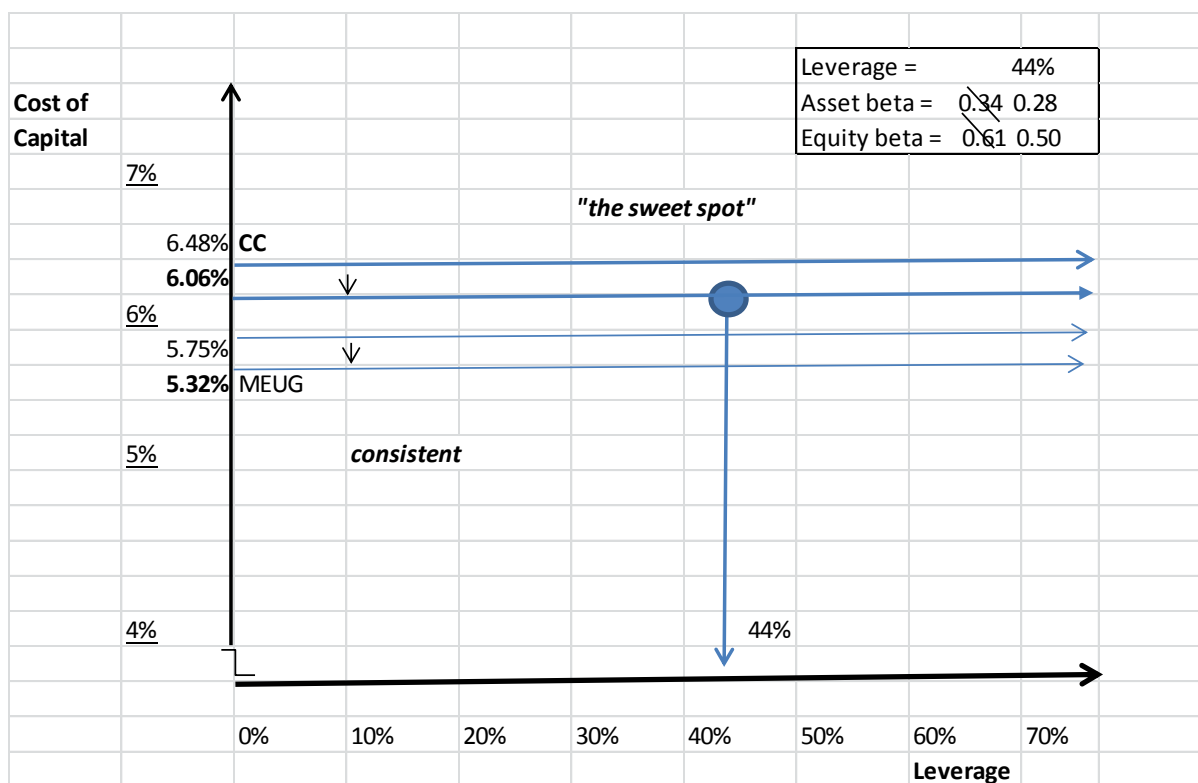


Chart 2: The technical correction (December corrected for inconsistency)



26 The Commission explained the “leverage anomaly” by reference to a submission from Transpower that its actual leverage should be used:

“Transpower submitted that its actual leverage should be used. It is not appropriate to use actual leverage for any regulated supplier as this would introduce the same technical issues into the estimation of the cost of capital that PwC identified with the issue of notional leverage across different services. That is, using any leverage assumption other than that of the comparative firm sample for estimating the asset beta, would bias the estimate of the cost of capital. If actual leverage were used, non-zero debt betas would have to be used in the simplified Brennan-Lally CAPM to minimise the effect of leverage on the cost of capital and ensure there are no incentives on suppliers to increase leverage or propose increases in leverage that would exploit the anomaly in the model.”⁶

- 27 The Commission addressed the issue by adopting the solution proposed by PwC and others:

“The Commission considers that where the use of the simplified Brennan-Lally CAPM results in estimates of WACC which increase with leverage the model is displaying an anomaly. Given the differences can be large, the Commission considers the anomaly should be addressed. The use of a single notional leverage assumption across all services under Part 4 would achieve this, but the Commission accepts (in line with the submission from PwC) that applying this approach to each service separately would ensure the WACC is invariant to leverage in a more technically correct manner.”⁷

- 28 WACC therefore is invariant to leverage when the asset beta based on that leverage is assumed. If leverage and asset beta are not consistent then the leverage anomaly re-emerges.
- 29 In the December reasons the leverage of 44% was derived from the December comparable companies sample while the retained asset beta of 0.34 was inconsistent with the sample derived 0.28. Leverage of 44% is consistent with an asset beta of 0.28.⁸ In the June reasons the notional leverage of 40% was inconsistent with the asset beta of 0.34 derived from the sample.

Subsets of the augmented sample information – influence of the additional companies

- 30 MEUG’s re-analysis of the data taken from the two Commission reasons papers shows that the June comparator companies (i.e. the original 54) updated with the asset beta information contained in the December reasons paper recalibrated the asset beta average of the June comparator companies from 0.34 to just under 0.29.
- 31 The average asset beta of the December comparable companies (i.e. the expanded group of 79) of 0.28 was almost the same as the *updated* June comparable company group average at

⁶ December reasons, paragraph H3.63.

⁷ December reasons, paragraph H3.59.

⁸ In “Step 4” of the December reasons the 0.34 should be substituted for 0.28. Refer to December reasons, paragraph H8.71.

0.29. See the appended table *'Table: 1 List of comparable firms: leverage and asset beta reanalysis of Commission's comparable samples and data'*.

Subsets of the augmented sample information – regulatory regime effects

- 32 MEUG has examined the leverage and asset beta estimates for the December reasons sample companies according to whether they are regulated along lines comparable to Transpower. The appended table *'Table 2: List of Comparable Firms: Average Market Leverage and Asset Beta by Regulatory Regime'* shows that regulation type makes little difference to the averages for the leverage and asset beta parameters. The average leverage of firms under incentive regulation is 43% and the average asset beta is 0.28.

Practical importance of the selected asset beta

- 33 The selected notional leverage parameter in the December decision was precisely the average leverage of all 79 companies. The Commission's chosen asset beta estimate of 0.34 was described as drawn from that sample but it was clearly not the average asset beta from the same source. That updated and augmented sample's average asset beta is 0.28.
- 34 The December decision in retaining a 0.34 asset beta (as proposed in the June decision) allows regulated suppliers a materially higher WACC. The following table shows that the decision not to use the December comparable companies average asset beta results in a WACC which is 42 basis points higher. The higher WACC would generate on Transpower's regulated asset base \$29m more in permitted pre-tax capital charges per annum.

Table 3: Practical importance of the selected asset beta

Inputs		December decision	December decision (adjusted)	
Risk Free	Rf	4.64%	4.64%	
Debt premium	Dp	2.35%	2.35%	
Leverage	L	44%	44%	
Asset beta	Ba	0.34	0.28	
Debt beta	Bd	0.00	0.00	
Market risk Premium	TAMRP	7.1%	7.1%	
Corporate Tax	Tc	28.4%	28.4%	
Investor Tax	Ti	28.2%	28.2%	
Calculations				
Be		0.61	0.50	
Ke		7.64%	6.88%	
Results				
WACC (50th percentile)		6.48% ⁹	6.06%	
WACC relative to December Decision		0.00%	-0.42%	
Draft Decision RAB est. ¹⁰		\$4,902m	\$4,902m	Variance (pa)
Capital Charges (pa)		\$318m	\$297m	\$21m
Pre-tax charges @	28.40%	\$444m	\$415m	\$29m

- 35 In contrast the increase of the leverage from 40% in the June decision to the notional 44% in the December decision, ceteris paribus, increases the WACC by only 7 basis points and the permitted capital charges by only \$5m.

DEFECTS IN DECEMBER REASONING

Absence of same sample consistency

- 36 The Commission concluded that the 0.34 asset beta (to be applied with the 44% notional leverage) is within the range of appropriate values.¹¹ It also said of the asset beta estimate in the December decision:

⁹ The Commission have calculated the WACC at 6.49%. When replicated by MEUG the result is 6.48%.

¹⁰ This is the same as the assumption in MEUG submission to the Commerce Commission on Pan Industry Input Methodologies for cost of capital, 13th August 2010, paragraph 5, refer <http://www.comcom.govt.nz/assets/Pan-Industry/Input-Methodologies/Draft-Reasons-Papers/Draft-Reasons-EDBs/Costcapital-Sub/MEUG-Submission-on-EDB-Input-Methodologies-Draft-Determination-and-Reasons-Paper-13-August-2010.pdf>

¹¹ Paragraphs 6.5.19-6.5.32 in the December 2010 Reasons Paper.

“The additional analysis confirms the Commission’s original estimate of 0.34 included in the Draft Reasons Paper is a reasonable estimate of the asset beta for the sample. Indeed it could be argued, based on the broader range of time periods that were analysed, that an allowance of 0.34 is generous in favour of suppliers, and could be reduced to around 0.30 (the average of the weekly and monthly estimates), and is in line with the Commission’s estimates in previous decisions. However, given the variability in the estimates, and that beta cannot be estimated with precision, the Commission considered the more prudent approach was to leave the estimate of the asset beta at 0.34 as proposed in the [June decision].”¹²

- 37 MEUG considers that those comments do not explain the decision. Other than declaring that the chosen values are within an observed range, there appears to be no analysis to define what is appropriate, and certainly none that explicitly tests what is appropriate in relation to the purposes of Part 4 of the Act.
- 38 The word “appropriate” may mean something like “within the average range of values that are observed in differing time period and interval data for comparators”. The ranges of some of those measures are provided, but without enough information to work out whether they constitute useful information. MEUG considers it likely that the additional time and interval measures add little to the more commonly used and standard monthly figures.
- 39 Secondly, there is little indication of why it is sufficient for a chosen point to be within a range of appropriate values. MEUG considers that the methodology should be based on the most likely point in the range (around the mean in a normal distribution).
- 40 MEUG submits that the 0.34 asset beta cannot be paired with a 44% leverage assumption drawn from and justified by the December comparable companies sample. The asset beta of 0.34 is not sufficiently anchored to that sample. The December decision justification for sticking with the sample average asset beta from the June reasons is not persuasive, for the following reasons:
- (a) The Commission’s more detailed comments on the December decision asset beta of 0.34 do not elucidate. The precise reflection of the average leverage of the December sample data is not consistent with the latitude for the asset beta estimate. The comments merely amplify but do not justify the decision to stay with the 0.34 asset beta and not the new sample average.
 - (b) It is not obvious why the Commission has pointed to weekly averages for estimating the asset beta. International industry and regulator standard practice is to rely on monthly measurements except where that data is not sufficient. For example, PwC’s WACC formula disclosed on its website states:

“Equity beta estimates used in calculating our WACCs are based on an average of monthly returns over (up to) five years, blended with weekly based estimates where less than three years of data is available. The beta estimates incorporate no adjustments to historical betas as measured”¹³

¹² December reasons , paragraph H8.71.

¹³ See <http://www.pwc.co.nz/publications-1/cost-of-capital-report/pwc-wacc-formula/>

- (c) The asset beta average of 0.28 was for a sample that is bigger than the June comparable companies sample and an average over “all sampling periods”¹⁴. A larger sample period would usually be taken as prima facie more reliable.
- 41 There is no explanation of how the model works when a model defined relationship is used to derive an asset beta from an equity beta and leverage but the relevant leverage is then dissociated from the asset beta (appearing to be a relict from a different sample).
- 42 There is no explanation for disregarding the express assumptions of the PwC arguments for using the same data set for both asset beta and leverage, despite the Commission citing the PwC argument to support the December decision to adjust the notional leverage value.¹⁵
- 43 The significance of the discrepancy between the chosen asset beta and the actual average can be demonstrated by “breakeven analysis” where the leverage anomaly illustrates the effect of adopting an asset beta other than the midpoint taken from the updated sample data. As illustrated by the table below, the effect of the Commission’s decision, measured by leverage to arrive at the same resulting WACC, requires leverage of 19%.

¹⁴ December reasons, paragraph H8.60..

¹⁵ Refer to paragraph 26 above

Table 4: Breakeven analysis

Inputs		December decision (adjusted ¹⁶)	Breakeven leverage
Risk Free	Rf	4.64%	4.64%
Debt premium	Dp	2.35%	2.35%
Leverage	L	44%	19%
Asset beta	Ba	0.28	0.34
Debt beta	Bd	0.00	0.00
Market risk Premium	TAMRP	7.1%	7.1%
Corporate Tax	Tc	28.4%	28.4%
Investor Tax	Ti	28.2%	28.2%
Calculations			
Be		0.50	0.42
Ke		6.88%	6.31%
Results			
WACC (50th percentile)		6.06%	6.06%

- 44 On the one hand the Commission has determined the nominal leverage (to avoid regulated suppliers taking advantage of the leverage anomaly) for example distinguishing between 40% and 44% leverage. On the other hand, the asset beta factor, which has a greater impact on cost of capital, and thus the returns to regulated suppliers and charges to New Zealand consumers is 6 basis points from the sample average, seemingly in the interests only of “generosity” and “prudence”.

Generosity to Suppliers

- 45 The chosen asset beta point dissociated from the leverage sample average is described as a “reasonable estimate” incorporating an “allowance” that is “generous in favour of suppliers” and “the more prudent approach” and elsewhere as a matter of “judgment”.
- 46 None of those terms is explanatory. They could describe a guesstimate anchored to nothing more certain than a feeling. They are not analytical terms. With the same expressions regulated suppliers could urge the picking and choosing of one set of comparable companies for leverage and another for asset beta assessment. Because of the difference in time and sample size, that is effectively what has happened in the December decision. MEUG can think of no principled reason for adopting separate samples of comparable companies for the two purposes.

Generosity as prudence

- 47 The December reasoning implies that it is “prudent” to leave the asset beta at 0.34 because it is not possible to estimate the parameter with precision. That does not seem to be a matter pointing in any direction and certainly not away from the average or midpoint of the

¹⁶ Asset beta adjusted to midpoint of December comparable companies.

range. MEUG doubts that is what Commission means, but it is not clear what else the references to variability and imprecision were supposed to mean.

Prudence for who?

- 48 The reference in the December reasoning to “prudence” appears to assume that prudence is assessed from the supplier’s perspective. There is no explanation for not considering whether the prudence consideration should start from the position of (say) an electricity user to be considered under section 52A(c) and (d) of the Act, perhaps one whose business is dependent on low costs.

Disciplined prudence allowance?

- 49 If there is an inference that it is prudent to err in favour of higher returns to suppliers, than to err in favour of better protecting consumers from the extraction of excessive profit, there should be an assessment of the required scale or amount of the desired margin of error. There seems to be no calculation of any rate or quantitative margin of “prudence”.

Undermining the leverage anomaly fix

- 50 MEUG is concerned that this urge to “generosity” or “prudence” may have obscured the effect on the intellectual coherence of the leverage anomaly fix. MEUG considers that the mismatch of the asset beta and the leverage reintroduces the effect of the leverage anomaly. An essential condition of the fix (notional leverage taken from the sample) is that leverage be complementary with the asset beta, and therefore suitable for use in the conversion of equity beta to asset beta using leverage, and vice versa.

Compounding ‘generosity’ allowances

- 51 This urge to generosity is seen frequently in the December decision. MEUG has identified 10 statements in the cost of capital chapters (and relevant appendix) that record it in some form or other. In cost of capital alone, the Commission expresses what MEUG sees as supplier preference in paragraphs 6.3.40¹⁷, 6.4.35¹⁸, 6.5.22¹⁹, 6.5.29²⁰, 6.8.11²¹, H5.100²², H8.71²³, H8.210²⁴, H8.213²⁵, and H13.58²⁶. None of the references subject the generosities

¹⁷ “This implies the 0.35% per annum allowance for debt issuance costs in the IM is appropriate, if not generous in favour of suppliers.”

¹⁸ “That is, use of a domestic CAPM (such as the simplified Brennan-Lally CAPM) is therefore more likely to be generous in favour of New Zealand suppliers, than the use of an international variant of the CAPM.”

¹⁹ “This confirms the Commission’s original estimate of 0.34 included in the Draft Reasons Papers for EDBs, GPBs, and Transpower is a reasonable estimate of the asset beta. Indeed it indicates, based on the broader range of time periods that were analysed, that an allowance of 0.34 is generous in favour of suppliers, and that the asset beta estimate could be reduced to around 0.30. This would be in line with the Commission’s estimates in previous decisions.”

²⁰ “While this could be seen as a concession in favour of GPBs, and notwithstanding the submissions which encourage the Commission to limit the use of ad hoc adjustments, the IM provides for the uplift to continue.”

²¹ “This implies the New Zealand regime is favourable to New Zealand GPBs, but the Commission considers this is appropriate given New Zealand GPBs likely face greater exposure to systematic risks than EDBs and Transpower.”

²² “This implies the 0.35% per annum allowance for debt issuance costs in the IM is appropriate, if not generous in favour of suppliers.”

²³ “Indeed it could be argued, based on the broader range of time periods that were analysed, that an allowance of 0.34 is generous in favour of suppliers, and could be reduced to around 0.30 (the average of the weekly and monthly estimates), and is in line with the Commission’s estimates in previous decisions.”

(or sum of generousities) to analysis. None quantify it. There is no obvious attempt to weigh the compound effect of 'generosity' at successive stages of a calculation. It is not clear whether the Commission has assessed the aggregate impact of the preference for regulated suppliers.

- 52 Nor is there any indication of an attempt to quantify the extent of any error margin or incentive assurance that might be needed to avoid having insufficient incentives to innovate and to invest in replacement, upgraded and new assets for the purposes of section 52A.
- 53 MEUG submits that the Commission should articulate a disciplined framework for its "prudence" before reaching any conclusion on the appropriate leverage for Transpower. The Transpower arguments for a notional or fixed leverage set at the level of its current actual leverage could be seen as another opportunity for "prudent" generosity to Transpower. Similarly the Commission might be urged in that direction on the related asset beta. MEUG urges that the such advocacy be matched by careful and quantitative analysis.

Consider incentive allowances only at the last stage

- 54 The Commission should avoid expressing the preference in any of the factor estimates. Instead it should be expressed after other factors or variables have been estimated. Then it can be expressed in an appropriate percentile point on the cost of capital range determined from the factors, if at all.

Confine "generosity" to statutory purpose – only as an incentive

- 55 MEUG submits that if such advocacy is undertaken it must be within a framework of disciplined restriction to a statutory purpose, and only for such a purpose. Instead of expressing an apparently intuitive and crude preference to err on the side of higher returns to suppliers, the Commission should set a more precise, targeted and careful way to achieve the statutory balance of objectives in sections 52A.

Two-tier cost of capital - incentives or 'generosity' only for new investment

- 56 An incentive margin or generosity factor, whether in the notional leverage or any other factor related to leverage, should apply only to benefit new investment. It serves no statutory purpose when allowed on sunk capital. Avoiding the extraction of excess profits from consumers and the sharing with consumers of efficiency gains would be best served by that "two-tier" approach. Generosity justified by concern about new investment alone is not novel in regulatory terms. It is applied in Germany.

²⁴ "This provides some confidence that the raw asset beta for gas (before the adjustment to reflect greater exposure to systematic risks for New Zealand GPBs) is reasonable (if not generous in favour of suppliers)."

²⁵ "On balance, the Commission considers that prior to any potential adjustments being taken into account, 0.34 represents an appropriate unadjusted asset beta, albeit somewhat generous estimate for EDBs, GPBs and Transpower."

²⁶ "This is below the Commission's estimate of the post-tax WACC for EDBs, which could suggest the Commission's IM may be generous in favour of regulated suppliers."

- 57 We attach copies of material describing the application of the two-tier approach in Germany.²⁷ Note that the margin between the incentive return on equity (for new investments and sunk capital) set out on page 8 of the RWE Fact book is 173 basis points.

Confirm sample accuracy

- 58 MEUG has concerns that the data in the comparator sample table may not reveal factors that should influence the leverage and asset beta averages and their application to Transpower. This concern arises from work done by MEUG to test the attributed leverage figures in the comparator sample table for another sector. MEUG has asked for the underlying Bloomberg data pages to drill into the nominal leverage for the regulated industries. For example, having examined the background financial data for the first airport company listed in the Airport sample of comparable companies on table E2²⁸ of the Airports Reasons Paper, MEUG found that Aerodrom Ljubljana had substantial negative gearing. It has no debt and substantial financial assets. The Commission table describes it as having zero leverage. MEUG's analysis is set out in 'Table 5: Aerodrom Ljubljana analysis' which shows that cash assets exceed 25% of total assets.

Table 5: Aerodrom Ljubljana analysis

Euros	2008	2009	2010
Cash and Cash Equivalents	498,796	286,033	251,543
Available-for-sale financial assets [bonds, shares financial assets]	23,034,313	18,601,687	17,051,988
Current financial assets [financial assets and short-term loans]	13,340,726	13,116,611	15,005,984
	<u>36,873,835</u>	<u>32,004,331</u>	<u>32,309,515</u>
Total Assets	124,045,257	128,071,992	128,108,228
"Cash Assets"/Total Assets	30%	25%	25%
Commerce Commission Net Debt/Net Debt plus Equity (at MV)	0%	0%	0%

source: <http://www.lju-airport.si/eng/about-the-company/investor-info/financial-reports>

- 59 It appears to MEUG that average leverage figures in the EDB & GPS comparator table could be materially affected by variations in treatment of the items that make up reported leverage.

²⁷ RWE publication.

²⁸ Page 217

- 60 Another similar illustration of the importance of accounting classifications is found in the attached PwC report.²⁹ Page 95 suggests Grupo Aeroportuario del Pacifico and Grupo Aeroportuario del Sureste have negative leverage, but like Aerodrom Ljubljana, the Commission lists those entities as having zero leverage. It suggests that the sample data the Commission has used should be examined carefully, with access to the underlying data that was before the Commission staff when the table of comparator companies for Transpower (and EDB & GPBs) was prepared.
- 61 This questionability in relation to airports leads MEUG to request from the Commission the Bloomberg raw data used to draft the tables of comparable companies for the Transpower IM. The Commission has cited licence provisions preventing the release of the information. MEUG asks that the decision not to release be re-examined. MEUG believes that the underlying data must be treated as having been part of the documentary information that was before the Commission when it made its December decision. MEUG asks the Commission to recheck its classifications and to disclose negative leverage and any other matters going to the accuracy of the table summary of leverage and asset beta estimates for comparator companies in the December reasons.
- 62 Further, the apparent error in the measurement of leverage in relation to airports demonstrates the inherent difficulty in determining the correct (albeit nominal) leverage for the chosen Brennan-Lally CAPM. The point supports MEUG's submission that zero leverage is materially better for the IM by avoiding the need to address the capital structure issues, such as:
- (a) the otherwise appropriate leverage;
 - (b) debt margin;
 - (c) credit rating;
 - (d) debt allowances; and
 - (e) debt duration.

Reasonableness checks and weightings for closeness of risk comparisons

- 63 Transpower's circumstances make it problematic to rely on comparator samples of companies without Transpower's unusual features. These features generally tend to reduce the risk of investment in Transpower, compared with EDBs in New Zealand, and with many of the companies in the sample.
- 64 The December decision does not reflect the difference in the relative risk profile of Transpower and EDBs. In the introduction to Chapter 6 of the Transpower specific December reasons paper the Commission said:

"In relation to the IM for the cost of capital, the Commission considers that as a regulated supplier of electricity lines services, Transpower is subject to similar risks, and similar expectations as to the required rate of return, as a regulated supplier of

²⁹ Queenstown Lakes District Council, Issue of Shares in Queenstown Airport Corporation Limited to Auckland International Airport Limited, 15 March 2011

electricity distribution services. The cost of capital IM for Transpower is therefore very similar to that for EDBs.”³⁰

65 MEUG submit that Transpower has lower risks which should be reflected in a lower asset beta applied for the CAPM calculation. The Commission’s statement overlooks the security of revenue associated with the close regulatory supervision of Transpower capex. Once Transpower’s major capex proposals have regulatory clearance it is highly unlikely that Transpower will be precluded from invoicing to recover planned revenues in accordance with the approvals.

66 As the Commission noted in its Reasons Paper:³¹

“If the regulatory regime is such that it insulates the regulated supplier from the effect of any shocks to the economy, then the returns that are achieved will only be weakly correlated with market returns and the supplier will be exposed to less systematic risk, which will be reflected in a lower asset beta. Such an outcome is more likely to emerge if regardless of any shock that uncontrollably decreases demand or increases the cost of the service, the regulated price that is charged is simply adjusted by the regulator so that there is little, if any, effect on the return that the regulated supplier earns.”

67 As the Commission is aware, section 44(4) of the Electricity Industry Act 2010 gives Transpower a right to recover revenue on its investments that reinforces other characteristics that make Transpower’s revenue extraordinarily predictable relative to the EDBs. MEUG submits that the relative business risk should be reflected in the opposite of ‘generosity’ on the asset beta.

68 The section stipulates that

“Every transmission agreement between Transpower and an industry participant is deemed to include a provision under which the industry participant agrees to pay Transpower any amounts that Transpower charges the industry participant in accordance with the transmission pricing methodology.”³²

69 Transmission agreements are contracts between Transpower and its customers based on the benchmark agreement incorporated under Part 12 of the Electricity Industry Participation Code 2010 (“the Code”)

70 In this respect Transpower’s low risk position continues a history. Before 1 November 2010, the Transpower Board had absolute discretion on transmission contracts and price setting but also had the risk of customers refusing to pay invoices knowing that Transpower wouldn’t cut them off (“hold-out risk”).³³

³⁰ Paragraph 6.1.1

³¹ December decision, paragraph H8.88

³² Section 44(4) of the Electricity Industry Act 2010.

³³ Refer to Commerce Commission, Transpower Capital Expenditure Input Methodology, Reasons Paper, 31 January 2012.

- 71 Since the implementation of the new Part 4 Commerce Act regime, the Commission has control of the maximum allowable revenue and contract terms are controlled by the Electricity Authority. Transpower's (low) hold-out risk has been replaced by (lower) regulatory risk.
- 72 MEUG notes a deliberate bias for "incentives to invest" in the prescription of how the regulatory regime operates (including the input methodologies). MEUG submits that the regulatory risk is lower than the former hold-out risk. MEUG therefore submit that previous self assessed cost of capital estimates and asset beta estimates for Transpower are likely to be relevant still. If anything they reflect a more risky Transpower than now.
- 73 MEUG ask that the Commission examine sceptically what risks Transpower face that could mean its asset beta has increased materially. The difference in WACC between the last self-disclosed asset beta and the December decision would increase WACC by 64 basis points.
- 74 Under the previous lightly regulated regime (with hold-out risk present) Transpower assessed its asset beta at just 0.25. Transpower, now in a more regulated environment with provision to mitigate regulatory uncertainty and a regulatory encouragement to incentivise investment, should have a lower asset beta.

National Grid as the lead comparator

- 75 The businesses in the sample which have risk characteristics more comparable to those of Transpower could be given more weight in all factors drawn from the sample. MEUG considers that of all 79 comparator companies in the December reasons tables only the National Grid is closely comparable. That could justify a higher leverage than 44%, but only if the asset beta is correspondingly much lower than 0.34. National Grid in the comparator sample has an asset beta of 0.24 and leverage of 48%.

Other practical reasonableness checks

- 76 Transpower has in the past sought a leverage of 60%. Without adjusting the asset beta that would allow for Transpower capital charges to be greater than for EDBs. That result does not conform to reality. EDBs face more systematic risk than Transpower.
- 77 MEUG submits that the Commission should, in setting the notional leverage applicable for Transpower and assessing its interaction with the asset beta in particular, eliminate the possibility that the cost of capital for Transpower is deemed higher than the cost of capital for EDB companies which are smaller and have higher systematic business risk. The Commission should also ensure that the EDBs do not gain an opportunity to lever up their own estimated cost of capital on a reasonableness check by pointing to the absurdity of being deemed to have a lower cost of capital than Transpower.
- 78 In support of the judgement that EDBs have more systematic risk than Transpower, EDBs have:

- (a) less stable revenue. EDB investment decisions are not directly regulated and they do not have a statutory right to payment of the charges determined under the transmission pricing methodology³⁴;
 - (b) less geographic dispersion;
 - (c) less influence on regulatory policy; and
 - (d) less recognition in capital markets.
- 79 In performing reasonableness checks on the outcome of reconsideration of Transpower's leverage (in application with asset beta in a WACC calculation) the Commission should take account of:
- (a) the rates of return (as evidenced in statements of corporate intent and other material published for Transpower's shareholders)³⁵; and
 - (b) Transpower's stated historical asset beta assumptions.
- 80 When considering the consistency of the chosen leverage point with other components of the WACC formula, the asset betas and cost of capital estimates used by Transpower in the past should be taken into account.
- 81 Between 1999 and 2002, Transpower disclosed its self assessed asset beta in its statements of corporate intent. In each of those years Transpower considered that its own asset beta was 0.25. For convenience we have attached the relevant pages of those disclosures.³⁶

No assessment of comparables

- 82 MEUG submit that if a non-zero nominal leverage is applied to Transpower, it should take into account the unique circumstances of Transpower in contrast to the list of comparator companies. For example, the Commission should consider whether National Grid should be a more apt comparator for Transpower than most of the other 78 comparators in the table.
- 83 National Grid has a leverage of 48%, similar to that of Transpower, yet an asset beta of 0.24, that is 10 basis points less than the asset beta the Commission proposes for Transpower in the December decision. Applying to Transpower leverage of 48% and all other variables constant (as applied in the December 2010 decision) the difference in WACC between using 0.24 asset beta and 0.34 converts to \$32 million in annual capital charges for Transpower and \$44 million in pre-tax charges.

³⁴ Refer paragraph 71 above.

³⁵ Transpower has revealed that the December decision is adequate to incentivise its investment in revealed practice for example in the SOI that was current at the time of the December determination (and also current around the time the June reasons data was derived).

³⁶ 1999/2000 Statement of Corporate Intent, Transpower New Zealand Limited (page 3); 2000/2001 Statement of Corporate Intent, Transpower New Zealand Limited (page 3); 2001/2002 Statement of Corporate Intent, Transpower New Zealand Limited (page 4); 2002/2003 Statement of Corporate Intent, Transpower New Zealand Limited (page 4). Pages are attached.

- 84 We attached a “National Grid today” factsheet which is a summary of National Grid’s business. We invite the Commission to consider National Grid as the suitable comparator to Transpower.³⁷

Concluding comments

- 85 MEUG’s still considers that a neutral leverage of zero would be a more principled fix to the leverage anomaly, for reasons previously canvassed. However, if the choice is between a pan-industry notional leverage as per the June 2010 decision or a service-specific notional leverage as per the December 2010 decision, MEUG agrees that the latter is the more technically correct option **provided** that the leverage used in the WACC estimation is in fact the average leverage of the comparator companies used to derive the average asset beta estimate. Accordingly MEUG urges the Commission to follow its own theory that justifies the fix to the leverage anomaly.
- 86 The effect of the Commission’s December decision is that the natural leverage attributed to Transpower has increased because of updated sample information without a proper, correlated, corresponding adjustment to the asset beta estimate for the same sample. In other words, the Commission’s attempt to fix the leverage anomaly would create a worse inconsistency. The significance of this discrepancy in dollar terms is substantial.
- 87 MEUG is also concerned that the December decision is infused with ‘generosity’ to Transpower that is not the product of any:
- (a) Careful consideration of what is needed to incentivise more investment by Transpower; or
 - (b) Care to relate the generosity to the statutory purpose and the tension set up by them; or
 - (c) Testing of the overall outcome of the WACC calculation against the relative current and projected risk protection of Transpower in relation to:
 - (i) Other companies in the comparator sample, in particular National Grid;
 - (ii) The EDBs; and
 - (iii) Transpower in the past (recognising its new regulatory relationships and the extent to which its capital expenditure programme is committed, and the “locked in” revenue).

³⁷ Refer to the 2010/2011 Annual Report, Transpower New Zealand Limited; and 2011/2012 Half Yearly Report, Transpower New Zealand Limited for comparison with the National Grid factbook.

Table 6: Summary

	June decision	December decision	MEUG Submission	Materiality test (change in pre-tax transmission capital charges)
* midpoint calculations				
L	40%	44%		
β_a	0.34	0.34		
WACC	6.50%	6.48%		
(1) <u>Consistency</u>				
L			44%	
β_a			0.28	
WACC			6.06%	-\$29m pa
(2) <u>National Grid</u>				
L			48%	
β_a			0.24	
WACC			5.84%	-\$44m pa
(3) <u>L=0</u>				
L			0%	
β_a			0.28	
WACC			5.32%	-\$80m pa

Yours sincerely



Ralph Matthes
Executive Director