
COMMERCE COMMISSION

**Input Methodologies Discussion Paper
Cross Submission**

Report to Major Electricity Users' Group

Ireland, Wallace & Associates Limited
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1. The Major Electricity Users' Group (MEUG) has asked Ireland, Wallace & Associates Limited (IWA) to review cross submissions related to cost of capital issues of leverage (**L**) and debt premium (**p**).
 2. PricewaterhouseCoopers¹ suggest that the "current" leverage of 40% is too low when compared with 60% applied by UK and Australian regulators.
 3. Synergies Economic Consulting² state that the upper bound of that [leverage] range would be at least 60%.
 4. IWA³ asserted that WACC increases as a function of increasing L (and related p) under the Commission's preliminary view for estimating WACC. **Appendix Table B** set out the calculations to support this view. To illustrate the IWA argument the WACC as used by the Commission for the Gas Authorisation Decision was referenced. The assumptions were L = 40% and p = 2.7% for the WACC mid-point of 8.582% - some 0.756% percentage points higher than if L = 0%.
 5. IWA has now broadened its analysis of L and p and WACC. **Table C** tabulates the effects of changes in L for 0%, 40%, 50% and 60% and changes in p for 1%, 2%, 3%, 4%, 5% and 2.7% on WACC.
 6. For example, based on L = 60%, referenced by PricewaterhouseCoopers and Synergies Economic Consulting, and adopting the Commission's p = 2.7% the WACC is 8.96%. This is 1.13% points higher than if L = 0% and WACC 7.826%.
 7. **Table C** provides a wide range of combinations of L and p supporting the adoption of L = 0%.
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¹
http://www.comcom.govt.nz/IndustryRegulation/Part4/ContentFiles/Documents/Powerco%20-%20PWC%20-%20Cost%20of%20capital%20-%20881077_1.pdf , page 6

²
<http://www.comcom.govt.nz/IndustryRegulation/Part4/ContentFiles/Documents/Appendix%203%20Synergies%20Economics%20WACC%20report.pdf> , page 6 para. 3

³
http://www.comcom.govt.nz/IndustryRegulation/Part4/ContentFiles/Documents/MEUG%20attached%20Ireland%20Wallace%20-%20IM%20Paper%20-%20875570_1.pdf , para. 4.2

WACC: Leverage and Debt Premium Effect

Table C

A.							
Leverage (L)	0%	40%	40%	40%	40%	40%	40% 1
Debt Premium (p)	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	2.7% 1
WACC	7.826%	8.11%	8.39%	8.67%	8.95%	9.23%	8.582%
Change in WACC	0.00%	0.28%	0.56%	0.84%	1.12%	1.40%	0.76%
B.							
Leverage (L)	0%	50%	50%	50%	50%	50%	50%
Debt Premium (p)	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	2.7%
WACC	7.83%	8.18%	8.53%	8.88%	9.23%	9.58%	8.77%
Change in WACC	0.00%	0.35%	0.70%	1.05%	1.40%	1.75%	0.95%
Change in L 40% to 50%	0.00%	0.07%	0.14%	0.21%	0.28%	0.35%	0.19%
C.							
Leverage (L)	0%	60%	60%	60%	60%	60%	60%
Debt Premium (p)	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	2.7%
WACC	7.83%	8.25%	8.67%	9.09%	9.51%	9.93%	8.96%
Change in WACC	0.00%	0.42%	0.84%	1.26%	1.68%	2.10%	1.13%
Change in L 40% to 60%	0.00%	0.14%	0.28%	0.42%	0.56%	0.70%	0.38%

Note 1: Gas Authorisation Decision 2008