

28 January 2020

Dr Stephen Gale  
Telecommunications Commissioner  
Commerce Commission

Dear Dr Gale

### **Fibre Input Methodologies draft decision – submission on the Tax Adjusted Market Risk Premium**

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Commerce Commission draft decision reasons paper for Fibre Input Methodologies dated 19<sup>th</sup> November 2019.
2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.
3. The Tax Adjusted Market Risk Premium (TAMRP) is a market wide factor in the assessment of the cost of capital. It is relevant to both MEUG and the general capital market as it will potentially reset the market “discount rate” rate from 7.0% to 7.5%. The Commission’s long history of empirical based analysis and decisions inform the capital allocation metrics and cost of capital used by the public and private sectors.
4. The issue for MEUG is the unintended consequences of applying a rounding rule of thumb for setting the TAMRP as proposed by the Commission in the Draft Decision.<sup>1</sup>
5. In assessing the TAMRP, the Commission adopts Dr Lally’s five methods for estimating TAMRP based on the median of the equally weighted means of five methodologies for estimating TAMRP, subject to rounding to the nearest 0.5%. The Commission also considered a survey of investment bank and analysts.

For context, the 2015 and draft 2019 TAMRP estimations are contrasted in **Tables 1** and **2**:

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<sup>1</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0038/189893/Fibre-input-methodologies-Draft-decision-paper-19-November-2019.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0038/189893/Fibre-input-methodologies-Draft-decision-paper-19-November-2019.pdf). The Commission cites the rationale outlined by Dr Lally in his advice to the Queensland Competition Authority in August 2012 (see footnote 438, p295 of the Draft Decision).

Table 1				Table 2	
<b>TAMRP estimates:</b>				<b>TAMRP estimates:</b>	
Decisions analysis 2015 and 2020				NZ Investment banks/analysts 2019	
	Actual	Draft		UBS	7.00%
<b>NZ</b>	<b>2015</b>	<b>2019</b>	<i>change</i>	Deutsche Bank	6.50%
Ibbotson	7.10%	7.40%	0.30%	Forsyth Barr	7.80%
Siegel v1	5.90%	6.00%	0.10%	Macquarie	7.00%
Siegel v2	8.00%	9.40%	1.40%	Credit Suisse	7.40%
DGM	7.40%	7.30%	-0.10%	Woodward	7.00%
Survey	6.80%	6.40%	-0.40%	Jarden	7.40%
<b>Median</b>	<b>7.10%</b>	<b>7.30%</b>	0.20%	Median	7.00%
Mean	7.04%	7.30%	0.26%	Average	7.16%
<b>CC Decisions</b>	<b>7.0%</b>	<b>7.5%</b>	<b>0.50%</b>	source: Draft Decision: Table 3.11 p294	
<b>Other Markets</b>					
Ibbotson	7.00%	7.30%	0.30%		
Siegel v1	5.90%	6.60%	0.70%		
Siegel v2	7.50%	8.30%	0.80%		
DGM	9.00%	8.20%	-0.80%		
Survey	6.30%	6.60%	0.30%		
Median	7.00%	7.30%	0.30%		
Mean	7.14%	7.40%	0.26%		
source: Draft Decision: Tables 3.9 and 3.10 p292					

6. To quote from the 2016 “Input methodologies review decisions” topic paper the Commission states:<sup>2</sup>

“Rounding saves regulators from the need (and hence the cost) to estimate the TAMRP to a very high degree of precision, and this is desirable because high levels of precision in this area are spurious. Rounding also helps limit lobbying over small variations in the TAMRP estimate.”

Yes, high levels of precision can be spurious. However, in the special case where the median TAMRP is close to the mid-point for the rounding to the nearest 0.5%, it is not. This is the current situation.

7. To illustrate, based on the 5-year duration application: the “New Zealand” median TAMRP (of the five means) for 2019 is 7.30%. The mid-point applying the rounding rule is 7.25%. Any margin above the mid-point of 7.25% triggers an uplift in the TAMRP of 0.25% (or 0.20% above the proposed TAMRP of 7.30%). Accordingly, The TAMRP would change from 7.0% to 7.5%. The reverse also applies where the median TAMRP is below 7.25%. If this was the case the TAMRP would be unchanged at 7.0%.

<sup>2</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0021/60537/Input-methodologies-review-decisions-Topic-paper-4-Cost-of-capital-issues-20-December-2016.pdf](https://comcom.govt.nz/_data/assets/pdf_file/0021/60537/Input-methodologies-review-decisions-Topic-paper-4-Cost-of-capital-issues-20-December-2016.pdf) para. 500.5, p130.

8. The median (and mean) are themselves rounded numbers. The data build up for various TAMRP methodologies makes assumptions about rounding (number of places and up/down rounding direction) and when accumulated may incorrectly reflect the true position.<sup>3</sup> MEUG does not know whether this is the case here. The margin about the reference point of 7.25% is just 0.05%.
9. Importantly, for the various TAMRP methodologies, assumptions have been made which also include data rounding along the way. This particularly applies to the Dividend Growth Model (DGM) method resulting in 7.30% (the 2019 median of the TAMRP means). Very small changes to assumptions about dividend growth rates, derived or referenced to GDP, inflation rates, timing and duration highlights the issue of applying the 0.5% rounding rule where the difference between rounding up or down is 0.05%. Rounding up to the nearest 0.50% is disproportionate: 0.05% above the mid-point 7.25% results in an 0.20% change to TAMRP (above 7.3%).
10. In 2014 the Queensland Competition Regulator (QCA) changed its MRP methodology subsequent to receiving Dr Lally's advice in 2012 referred to in footnote 1 above.  
  
QCA position in 2012: "The QCA has previously set the market risk premium based on taking an equally weighted average of the four estimates from these methods and rounding to the nearest whole percentage point."  
  
QCA in 2014: "Given the broader set of information to be relied upon, the QCA considers it is no longer appropriate to base the market risk premium on an average of equally weighted estimates produced by various methods. Appropriate weights will be difficult to specify, and some information will be qualitative. The QCA will consider a range of evidence and will apply judgement in arriving at an estimate of the market risk premium."<sup>4</sup>  
  
The QCA does not now have an explicit rounding rule (previously rounding to the nearest whole number).
11. The Commission referred to Dr Lally's advice: "Over time the small over and under estimations implicit (but essentially unobservable) in a TAMRP rounded to the nearest 50bps will net out. In this respect it is not error in any one regulatory period which matters, but error over the life of the assets."<sup>5</sup>

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<sup>3</sup> The inputs for the cost of capital model are rounded in the standard Commission model: risk free, debt margin and equity beta to two decimal places. The TAMRP is rounded to one decimal place.

<sup>4</sup> [https://www.qca.org.au/wp-content/uploads/2019/05/23161\\_QCA-Final-decision-Cost-of-capital-market-parameters-1.pdf](https://www.qca.org.au/wp-content/uploads/2019/05/23161_QCA-Final-decision-Cost-of-capital-market-parameters-1.pdf), para 4.1, p16 and, 4.3.3, p22-23.

<sup>5</sup> Draft Decision para. 3.979.3, p295.

12. What is missing from this statement is that methodologies can change over time which potentially undermine the strong assumption that unders and overs cancel out errors. The Commission changed, or modified, its TAMRP methodology in 2010. The QCA did so in 2014 and the AER in 2016 (it gave less or little weight on the DGM methodology).<sup>6</sup>
13. The application of the Commission's mechanistic approach to estimating TAMRP should be subject to a "roundings and errors" review. Potentially, a small change could swing the draft TAMRP by 0.5% - it just takes a 0.051% change in the median TAMRP.
14. The Commission does not apply a rounding rule to the estimation of other cost of capital variables such as: beta, risk free rate, leverage and debt premium. Why the TAMRP?
15. MEUG recommends that the Commission accept the median point estimate of 7.30% as the appropriate TAMRP. The median selection process (median of five means) itself avoids the need for rounding to the nearest 0.5%. Besides, the QCA has discontinued its practice of rounding as noted in paragraph 10. above. The Commission, as always, has an override authority as it exercised in 2010.
16. The capital charge impact for regulated infrastructure over the life of the regulatory contract is potentially significant.<sup>7</sup> Table 3 (see Appendix) provides an illustrative overview of the financial effects of potential changes to the TAMRP. Given a range of TAMRPs, and resulting cost of capitals, the annual capital charges (post-tax) and consumer charges (pre-tax) are calculated. Given an effective regulatory term of 7 years the additional aggregate charges are matched to the potential TAMRP. Finally, the TAMRP consumer charge equivalent from moving from 7.25% to 7.30% is presented.
17. The market effect of following the Commission's lead to increase the TAMRP from 7.0% to 7.5% will influence a revision of the Public Sector WACC Discount Rates.
18. This special case of applying the rounding rule of thumb results in a jump in the TAMRP. It can be resolved by simply choosing the median TAMRP.

Yours sincerely



Ralph Matthes  
Executive Director

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<sup>6</sup> <https://www.aer.gov.au/system/files/Rate%20of%20Return%20Instrument%20-%20Explanatory%20Statement.pdf>

"Based on the reasons above we note that our confidence in the informative value of the DGM based MRP estimates have diminished." And, "In our 2013 Guidelines, we used our HER estimate of 6.0 per cent as the starting point and moved our estimate up based on the direction of the other evidence, particularly the DGM evidence. In this final decision we are not satisfied that such an upward adjustment is justified on the basis of the information available to us." [para. 5.3.1.2, p94]

<sup>7</sup>Based on the "Fibre IMs draft decision WACC calculations spreadsheet – 19 November 2019.xls"

Potential financial impacts

Table 3					
<b>Illustrative financial effects of applying a rounding rule:</b>					
Regulatory sector based Draft Decision WACC					
	TAMRP	7.00%	7.25%	7.30%	7.50%
	Cost of capital	4.64%	4.76%	4.78%	4.88%
	RAB \$m	Annual capital charges			
Fibre	4,823	224	230	231	235
Electricity Transmission	4,621	214	220	221	226
Electricity Distribution	1,144	53	54	55	56
Gas	926	43	44	44	45
Airports	2,394	111	114	115	117
Total	13,908	645	662	665	679
Change from 7% TAMRP		0			34
		0		20	
		0	17		
		Annual consumer charges			
<b>Consumer charges</b>	tax rate 28%	896	919	924	943
<b>Effective Regulatory term years</b>	7				
<b>Sum of potential additional charges</b>		0	166	199	331
Change from 7% TAMRP		0			47
		0		28	
		0	24		
<b>TAMRP change 7.25% to 7.30%</b>			0	33	