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Geoff Brooke  
Senior Economist,  
Commerce Commission  
P O Box 2351  
Wellington

Via email: [im.review@comcom.govt.nz](mailto:im.review@comcom.govt.nz)

Dear Geoff

**Re: 2023 WACC review**

1. This submission is made in response to the Commerce Commission issuance of the *CEPA report on aspects of the cost of capital Input Methodologies for the 2023 review* dated 29 November 2022. The submission is made on behalf of the Major Gas Users Group Inc (MGUG).
2. Our members have been consulted in making this submission. Nothing in this submission is confidential and some members may choose to make separate submissions.
3. Our submission addresses the specific matters the Commission requested views on:
  - a. Asset Betas
  - b. WACC Percentile
  - c. Methodology when updating the cost of capital estimates
  - d. Other Aspects of Cost of Capital

## SUMMARY of SUBMISSION

4. The cost impact on consumers using gas pipeline services with the current WACC settings (0.05 asset beta uplift and 67<sup>th</sup> percentile settings for WACC determination) vs using the midpoint WACC without uplift is approximately **\$66 million** for current RCP3 for GPBs. This additional cost on consumers do not appear justified based on the CEPA report.
5. **Asset Betas** – within the context of the current methodology (SBL-CAPM)<sup>1</sup>:
  - a. Acknowledging the paucity of data for New Zealand conditions, we don't think that it is necessary for a further selection of comparator companies or jurisdictions. Instead, the Commission should look for other methods to cross check the outcomes.
  - b. We consider that a single energy asset beta is supported by the evidence and is appropriate for both EDBs and GPBs.
    - i. We see no statistical evidence from the CEPA report to support an uplift of asset beta for gas relative to wider electricity/ energy asset beta.
    - ii. As supported by information on Vector's asset beta, WACC settings appear to favour New Zealand suppliers.
6. **WACC percentile**- We support choosing the WACC being set at the 50<sup>th</sup> percentile:
  - a. The regulatory precedent has shifted towards this outcome. If regulatory precedent was a reason for recommending the higher percentile in 2016, then equally, since precedent has shifted in the intervening years, the consistent outcome is to follow this shift.
  - b. The wider social benefits of choosing a higher percentile are likely overstated for all regulated industries if it assumes decisions are based purely on a single project return. Regulated services carry their own unique risks to under-investment that bolster incentives to invest in reliable and safe assets (PQ regulation, HSE regulation, and corporate/ brand reputation management).
  - c. The asymmetric risk assumption of underinvestment for gas consumers is moderated for most mass market consumers given the fuel switching options they have (LPG or electricity).
  - d. the AER observed on theoretical grounds, when considering whether to select a WACC estimate away from the midpoint, any adjustment would be arbitrary and could lead to less efficient outcomes than the midpoint.
7. **Methodology** –We believe that the SL-CAPM continues to enjoy widespread support by regulators despite ongoing debate around its limitations. Rather than argue for alternative models we see merit in the advice received by the Commission in 2008 to use a range of different methodologies to provide a more complete assessment of available information.

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<sup>1</sup> It's not explicitly stated anywhere in the papers but we are assuming that the Commission continues to use the Simplified Brennan-Lally CAPM

8. **Other Aspects of Cost of Capital** – The WACC determination uses a range of parameters that are not included in the discussion of the CEPA report including; risk free rate, tax adjusted market risk premium (TAMPR), debt premium, debt issuance cost. We assume that these matters will be reviewed later with an opportunity to comment then.

## Impact of asset beta uplift and 67<sup>th</sup> percentile on gas consumers

9. The current asset beta uplift for GPBs relative to EDBs and Transpower is 0.05, as reflected in the 2016 IM review final decision<sup>2</sup>. For the 2023 cost of capital determinations for gas<sup>3</sup> the asset beta is 0.40 for gas, vs 0.35 for Transpower and EDBs.
10. The 67<sup>th</sup> percentile is calculated at the mid-point WACC + 0.44 x 0.0105 (standard error of WACC).
11. In the Building Block Model (BBM), the effect of WACC on Maximum Allowable Revenue (MAR) is to increase the revenue to GPB by these adjustments relative to no uplift and using the midpoint WACC estimate. The current settings are costing gas consumers an approximately additional \$16 million per year (\$66 million for RCP3) –
12. Table 1

*Table 1: Cost impact consumers - higher WACC settings*

2023 Opening RAB – GPB <sup>4</sup> (\$'000)	1,473,107
WACC differential <sup>5</sup>	0.84%
Additional Revenue – pa (\$'000)	16,502
<b>Additional Revenue – RCP3 (4 years) (\$'000)</b>	<b>66,007</b>

*Source: Commerce Commission*

13. As discussed below, we see no basis from CEPA’s evidence, for continuing with these additional costs on gas consumers.

## Asset Beta

14. The CEPA report is limited to the Commission’s instruction to follow its methodology. CEPA was asked provide evidence to update the estimates for asset beta and notional leverage. Given this brief, the report provides sufficient clarity and transparency on how CEPA have gone about their task to arrive at their recommendations.

<sup>2</sup> Commerce Commission “Input methodologies review decisions: Topic paper 4: Cost of capital issues” (20 December 2016), para 339-457

<sup>3</sup> Cost of capital determination for disclosure year 2023 for information disclosure regulation- First Gas and Powerco gas pipeline businesses, [2022] NZCC 34, and Cost of capital determination for disclosure year 2023 for information disclosure regulation. For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end), [2022] NZCC 28

<sup>4</sup> Sum of opening RAB as published in CC financial model for DPP3

<sup>5</sup> The differential = WACC with 0.05 uplift on asset beta and 67<sup>th</sup> percentile – mid-point WACC with no uplift as published [2022] NZCC 28, and [2022] NZCC 34. Note the WACC differential is the same regardless of whether vanilla WACC, or post tax WACC calculations are used.

15. A strength of the CEPA report is its independence from vested interest. We also note that the results are still broadly in line with the 2016 determination. Regulation changes only slowly and characteristics of regulated industries as a sector relative to other sectors might likewise be expected to alter only slowly. The updated figures reflecting only slight change from 2016 is reassuring.
16. CEPA applied the same criteria as the Commission in selecting comparator firms for its study. The fact that this resulted in a weighting towards US listed firms is simply an outcome of the process. We have no preference at this point as to whether the selection of comparators needs to be widened to include other jurisdictions, particularly any firms that have been delisted. Ideally there would be more New Zealand firms in the sample but we accept that only Vector met the criteria for appropriate comparator firm selection.
17. The inclusion of Vector as the only NZ firm included in the comparator sample however does *give further information* on the validity of the final recommendations<sup>6</sup>. Across all time periods Vector's assessed asset betas (0.18-0.30) are consistently below the average of the selected comparator firms (0.27-0.39)<sup>7</sup>, and below the recommended 0.35 for asset beta to use for the energy sector. This suggests that adopting the results from the comparator studies might already be favouring New Zealand suppliers<sup>8</sup>.
18. If more New Zealand specific information is sought to cross check recommendations for the cost of equity, then the Commission should consider looking at recent transactions in the New Zealand market, to estimate whether the current asset betas are being reflected in the prices paid<sup>9</sup>.

#### Beta uplift for gas not warranted

19. The current asset beta uplift for GPBs relative to EDBs and Transpower is 0.05 as reflected in the 2016 IM review final decision<sup>10</sup>. The 2016 final decision changed the draft decision which argued against any uplift<sup>11</sup>. The arguments for, and against uplift, appear to have been finely balanced and ultimately relied on a judgement call by the Commission to provide for some uplift while winding it back from its 2010 setting.

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<sup>6</sup> It is a single data point, but has informational value to bring alongside other information in the report.

<sup>7</sup> CEPA – Appendix B For integrated suppliers

<sup>8</sup> This outcome suggests that more New Zealand firms should be selected within the comparator study. However, we accept that the criteria for selecting comparator firms left only a single NZ based firm in the sample. Rather Vector's asset beta can be seen as an *additional piece of information* to support an imperfect conclusion.

<sup>9</sup> For example, First Gas's acquisition of the Vector and MDL transmission system and Vector's North Island distribution networks. Likewise, the recent (Nov 2022) Eastland Energy sale offers an opportunity to see whether the \$75 million premium on book value has something to say about the Commission's assessment of WACC settings.

<sup>10</sup> Commerce Commission "Input methodologies review decisions: Topic paper 4: Cost of capital issues" (20 December 2016), para 339-457

<sup>11</sup> Commerce Commission "Input methodologies review draft decisions: Topic paper 4: Cost of capital issues" (June 2016), para 330

20. We expect that the same arguments for, and against, the proposition of uplift can continue to be made in this review with little clarity as to why one argument should be stronger than the other. Instead, we can look to the CEPA empirical evidence, which includes statistical confidence bounds concluding that gas asset betas are indistinguishable from electricity sub samples<sup>12</sup>.
21. The Commission should also note that the evidence of Vector's asset beta relative to the average of comparator firms is lower by more than the current gas uplift (0.05). i.e. there may already be an upward bias on asset beta for New Zealand firms.
22. The current evidence provided in the CEPA report supports the removal of any asset beta uplift for GPBs. It combines the already weak case for the current uplift decided in 2016, with the two other pieces of information from CEPA's work showing that no uplift is needed (i.e., high degree of confidence interval overlap, and Vector's asset beta being considerably lower than the recommended energy asset beta).
23. Removing the gas asset beta uplift better meets the purpose of Part 4, particularly S52A(1)(d)<sup>13</sup>. Limiting supplier profitability is not necessarily risking the other S52 outcomes from being achieved (see further below).

#### Midpoint WACC percentile supported

24. CEPA conclude that evidence for a WACC above the 50<sup>th</sup> percentile pull in opposite directions. The regulatory precedent (UK and Australia) shows reduced support for a higher WACC percentile above the midpoint. However, using the Oxera cost/ benefit methodology, CEPA suggest that the importance of network reliability has increased in New Zealand. CEPA provide no direction to the Commission as to what it should decide on setting the WACC percentile other than to suggest that the Commission should take the opportunity for a fresh look at the issues of setting WACC percentiles<sup>14</sup>.
25. We see no reason to equivocate on the position of whether or not to go beyond the 50<sup>th</sup> percentile of the WACC estimate. As CEPA noted<sup>15</sup>, the AER observed when considering whether to select a WACC estimate away from the midpoint any adjustment would be arbitrary and could lead to less efficient outcomes than the midpoint. AER argued that if the estimation of the rate of return was not systematically biased, then the probability of the rate of return being too high or too low is symmetrical. Hence if the estimate is unbiased then the risk of over/under investment is minimised by selecting the 50<sup>th</sup> percentile as the point estimate.
26. The AER position was also one taken in 2008 by Dr Lally and Professor Myers who also argued that the WACC distribution is a reflection of the uncertainty over the true WACC value and

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<sup>12</sup> CEPA – p16 commentary, including Figure 2.3. We would expect a statistical test on whether the mean outcomes are the same (null hypothesis) would show that there is no evidence against this.

<sup>13</sup> Specifically, S52A(1)(d) – limiting supplier ability to extract excessive profits

<sup>14</sup> CEPA - p31

<sup>15</sup> CEPA – p47

therefore should not be used to deal with the unrelated issue of an appropriate allowance for asymmetric risk<sup>16</sup>.

### Regulatory Precedent and Problem definition are related

27. CEPA's analysis discusses regulatory precedent and the Oxera analysis as two different and unrelated pieces of information, when in fact one follows closely from the other. The biased WACC was *a solution* to addressing the "problem of underinvestment".

*Oxera argued that UK regulatory precedent was evidence of "a consistent commitment from the regulators to assume a WACC above the midpoint, **and therefore to seek to address the underinvestment problem**"<sup>17</sup>.*

28. The argument for a WACC above the midpoint is also weakened by its circular reasoning as CEPA point out<sup>18</sup>.
29. The AER makes a stronger theoretical point, that over the long run, the true rate of return of an unbiased estimate should not be persistently under/over-estimated because it leads to persistent under/over investment<sup>19</sup>.
30. It seems that while the underlying concern for risk of under/over investment remains, the preferred solution to bias the WACC towards suppliers has lost regulator support since 2016 for the reasons outlined above. Instead, alternative approaches are advocated that are removed from the blunt instrument approach of using the cost of capital to mitigate the risk of underinvestment<sup>20</sup>.

### Likelihood of underinvestment should be re-examined

31. The argument for a WACC above the 50<sup>th</sup> percentile has largely persisted on a belief that suppliers would underinvest in networks if the allowed WACC was too low, thereby incurring a wider social cost on consumers through increased probability of network failure.
32. CEPA's updated Oxera analysis focuses entirely on EDBs and Transpower, with no analysis for gas and GPBs. CEPA notes that climate policies encourage a greater reliance on electricity infrastructure. CEPA conclude that the cost of (electricity) network outages would be more acute, and this in turn means that ensuring investment in a reliable (electricity) network is more important<sup>21</sup>. This is what leans CEPA towards evidence that a WACC percentile above the midpoint may still be justified (based on Oxera's methodology)

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<sup>16</sup> Franks J., Lally M., Myers S. Dec 2008, *Recommendations to the New Zealand Commerce Commission on an appropriate Cost of Capital Methodology*, para 162 (p37)

<sup>17</sup> CEPA report p26 (our emphasis added)

<sup>18</sup> CEPA – p30 "Importantly, the CMA relied heavily on evidence from the Commission's 2014 decision to choose the 67th WACC percentile, which relied heavily on UK regulatory precedent for evidencing that aiming up is a common practice among international regulators".

<sup>19</sup> CEPA – p47

<sup>20</sup> CEPA – Table 4.4 -p31 appropriate incentive and performance-based conditions in the regulatory package

<sup>21</sup> CEPA – p43

33. Applying the same reasoning to gas, suggests that because government policy regards gas as something that we should *less* of, then the cost of (gas) network outages would be *less* acute, and this in turn means that ensuring investment in a reliable (gas) network is *less* important. Hence biasing the WACC percentile above the midpoint has *less* justification (at least for gas).
34. We don't argue that gas network reliability is less important than it was. Particularly for large industrials represented by MGUG, gas is not an optional fuel in the short to medium term. For mass market consumers however gas reliability is less essential or critical, given options to switch to LPG or electricity<sup>2223</sup>. From a consumer perspective, the trade-off between underinvestment risk and lower gas transport charges would bias more towards a preference for lower gas transport charges.
35. There are three further reasons why the risk of underinvestment needs a wider perspective than just what project economics might suggest:
  - a. **Preserving asset options** - The NZ gas market context is what makes underinvestment in gas networks also a risk for GPBs looking to preserve optionality in the infrastructure, to avoid not just economic stranding, but also physical stranding. Once a consumer loses confidence in a GPB to deliver a reliable and safe service for one gas, why would they expect a better level of service if lower carbon gasses were instead to be delivered? Instead, consumers might look to switch to LPG if they continue to prefer gas (or switch completely to electricity). If a GPB is investing in pipeline repurposing for low carbon gases, they should prefer to keep existing customers connected to meet long term objectives, even if it carries short term risks to do so.
  - b. **Enterprise Risk Management** - GPBs (Powerco, Vector, Firstgas) operate other businesses under their name/brand<sup>24</sup>. The interrelationship between different segments of their businesses means that investment decisions are considered in the context of their overall investment portfolio. If consumer detriments emerge from underinvesting in gas network reliability and safety, the risk is not just demand loss for gas pipeline services but can carry over to the wider social licence across their wider portfolio. It may also invite further regulation on their other businesses.

GPBs also need to comply with existing regulation that have cost and reputation impacts:

- i. HSE regulation including for the integrity and safety of gas pipelines. There are strong incentives, particularly for Directors to avoid significant health and safety breaches created out of underinvestment.
- ii. Price quality regulation carry financial penalties associated with loss of reliability that factor into project economics.

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<sup>22</sup> Albeit with some stickiness and affected by split incentives between landlords and tenants.

<sup>23</sup> See also Commerce Commission – *Input Methodologies (EDBs & GPBs) Reasons Paper December 2010* para 6.4.2 and 6.4.3 noting that gas is a less essential service than electricity.

<sup>24</sup> Electricity distribution, LPG, gas

- c. Aside from the firm's internal disciplines to maintain a sustainable business, the Commission has its own monitoring tools and processes to assess and deal with emerging underinvestment risks in a timely fashion.
  - i. Annually updated supplier Asset Management Plans (AMPs) provide a 10-year forecast on risk measures for service levels and spending programs that support asset integrity and reliability outcomes. They also usually contain explicit assurances on these bottom-line outcomes from senior management. This provides sufficient indication on whether under investment might be a reason for reduced asset reliability expectations.
  - ii. If the AMP outlook should dramatically alter from one year to the next, the supplier also has the option of applying for a CPP.

Watching what firms do, rather than what they say gives better insight into their priorities. The advantage of scrutinising AMPs is that this gives timely information updates into what suppliers' actually believe, when they aren't just trying to influence the regulator for more advantageous setting.

#### WACC Percentile Conclusion

- 36. Our conclusion from the CEPA report is that the Commission should follow the trend in regulatory precedent. Regulators in Australia and the UK have shifted towards using the midpoint estimate for WACC.
- 37. CEPA's conclusions from Oxera's methodology were based on electricity. The same reasoning applied to gas networks would not be expected to provide a strong case for going beyond the midpoint of the WACC.
- 38. We also consider that the Oxera methodology fails take into account the other current incentives that regulated businesses have to provide reliable and safe services to consumers that aren't just about individual investment decisions. Investments aren't only made on the basis of individual project economics, but consider the wider strategic risk framework for maintaining a long-term sustainable business.

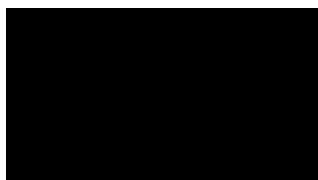
#### Methodology

- 39. CEPA's brief assumed the current methodology for assessing the cost of equity in the WACC determination. While not explicitly stated, we assume this to mean the Simplified Brennan-Lally CAPM, itself a version of the Sharpe Lintner CAPM, popular with regulators.
- 40. The CAPM model continues to be challenged on theoretical and empirical grounds and we would expect that submitters in this process might continue to try and relitigate arguments against both the model and its parameter determination.



41. At this point it's more useful perhaps to note the original 2008 advice to the Commission on determining the appropriate cost of capital methodology<sup>25</sup>. In particular, the panel made a recommendation that cross checks should be employed on the CAPM estimates of the cost of capital<sup>26</sup>. We believe that this step can help in justifying the asset pricing model outcome. One type of cross check is to consider what recent transactions for purchase of network assets might be saying about the current WACC settings.
42. There was a further recommendation (7) in the 2008 advice, that the Commission identify and review new estimation methods periodically. In case the Commission hasn't seen this, we can point to recent work done for the AER<sup>27</sup> concluding that when comparing six different asset pricing models, the SL CAPM as a domestic model met most of the criteria including reliability, relevance to domestic settings, suitability for use in regulated environments, and simplicity.

Yours sincerely



Richard Hale/Len Houwers  
Hale & Twomey Ltd/Arete Consulting Ltd  
Secretariat for the Major Gas Users Group Incorporated

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<sup>25</sup> Franks, Lally, Myers - Recommendations to the New Zealand Commerce Commission on an Appropriate Cost of Capital Methodology - 2008

<sup>26</sup> Ibid – recommendation 6

<sup>27</sup> Partington G., Satchell S. *Report to the AER: Alternative Asset Pricing Models* - 30 June 2020