Submission

Commerce Commission Input Methodologies Review

CEPA report: Review of Cost of Capital 2022/2023

3 February 2023

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1. Introduction

1. The Commerce Commission (the Commission) has called for submissions on Cambridge Economic Policy Associates' (CEPA's) report - "Review of Cost of Capital 2022/2023" (the Report) as part of the 2022/23 input methodologies (IM) review[1].

2. CEPA states that it was engaged by the Commerce Commission (the Commission) to update various cost-of-capital parameters, replicating the methodology used to determine those parameters in the 2016 input methodologies (IM) review. It was not charged with critiquing or updating the underlying methodologies for determining the updated parameters.

3. The cost-of-capital parameters assessed by CEPA are:
   - asset beta;
   - notional leverage; and
   - equity beta.

4. The methodologies used for estimating the above parameters are described in the Commission's 2016 cost-of-capital reasons paper[2]. Specifically, the methodologies for estimating:
   - Notional leverage are set out in paragraphs 546 to 572;
   - Asset beta are set out in subparagraphs 266.1 to 266.5; and
   - Equity beta is set out in subparagraph 266.6.

5. Notional leverage and equity beta are stated as fixed WACC parameters[3] in the IMs.

6. Aurora Energy Limited (Aurora) welcomes the opportunity to submit its views on the Report. No part of our submission is confidential.

7. Aurora Supports the submission made by the Electricity Networks Association.

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1 Commerce Commission. (2022). Covering letter to stakeholders - CEPA report on aspects of the cost of capital Input Methodologies for the 2023 review.

2 Commerce Commission. (2016). Input methodologies review decisions. Topic paper 4: Cost of capital issues.

3 Commerce Commission (2020). Electricity Distribution Services Input Methodologies Determination 2012 (Consolidated as of 20 May 2020). Clause 4.4.2, p122.

2. General Comments

2.1. WACC Parameters

8. Regarding the updated parameters that CEPA has produced, Aurora has little to say. It seems reasonable to assume that inputs to the estimations will have changed over time, leading to a change in the parameters if the same methodology is applied. An example of the changed inputs is the change to the comparator selection driven by "*… delistings, comparators now having sufficient data for estimation when they previously did not and changing characteristics of the comparators themselves*."[4]

9. An informal group of New Zealand's six largest price-quality regulated electricity distribution businesses (EDBs)[5] commissioned Oxera to review the WACC parameter-setting methodologies, compare them to practice in other jurisdictions, and recommend areas for further examination and consideration by the Commission.[6]

10. In addition to examining the WACC parameter-setting methodologies, Oxera was also tasked with considering whether a financeability test should be added to the cost-of-capital IMs, as exists within the AER and Ofgem regulatory frameworks. Aurora considers that financeability tests may become an important consideration as decarbonisation lifts investment pressure on EDBs. It is in the long-term interests of consumers to ensure that EDBs remain financeable, in order to ensure investment incentives are maintained and that the firms do not suffer financial distress.

11. We have not summarised Oxera's evidence in this submission; however, we commend Oxera's report to the Commission for consideration. Where relevant to the Commission's specific questions (section 2.1.1, below), we have highlighted Oxera's views.

2.1.1. The Commission's specific questions

> The economic consequences of COVID have resulted in an increase in asset betas for airport services, as indicated in CEPA's calculation of the average asset beta for the 2020-22 period compared to the average asset beta for the periods 2012-2017 and 2017-2022. We are considering whether we should use a term for airports that is either longer or shorter than the last two five-year periods.

13. Aurora considers that care needs to be taken in removing or dampening the impacts of the COVID pandemic in any of the Commissions IM deliberations. Oxera notes that both the AER and Ofgem have resisted excluding the Covid from recent draft decisions.[7] Oxera recommends that "*COVID data is included in the equity beta*

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4 Cambridge Economic Policy Associates Ltd. (2022). Review of Cost of Capital 2022/2023. P4.

5 Vector, Powerco, Orion, Wellington Electricity Lines, Unison, and Aurora

6 Oxera Consulting LLP. (2022). Review of the NZCC's WACC-setting methodology.

7 Oxera Consulting LLP. (2022). Review of the NZCC's WACC-setting methodology. Section 4.2, p32-34.

estimate because the COVID period still contains important information regarding the exposure of networks to systematic risk.".[8]

14. While Oxera's comments views were expressed in the context of electricity distribution networks, we consider that they remain relevant for other regulated suppliers. While pandemics are relatively infrequent events, they can have a potentially high impact on some regulated suppliers. Their risks should not be overlooked or arbitrarily discounted.

The comparator sample identified by CEPA for this review is now largely a sample of businesses from the United States. We are considering whether we should continue to use companies from Australia that have been recently delisted, and whether we should provide weightings to countries to reduce the weighting of companies from the United States in the comparator sample. We are also considering whether airport companies that have recently been delisted should be included in the comparator sample.

16. Aurora's preference is that delisted companies be removed from comparator groups. Those companies that have delisted have done so for specific reasons that may be unique to themselves, and may not be reflective of New Zealand regulated suppliers.

17. Oxera has noted that the comparator size used by the Commission is larger than it needs to be, particularly when compared to the size of comparator groups used by the AER (9) and Ofgem (5). In particular, Oxera notes that the bulk of the Commission's comparator group comprises rate-of return regulated US-based utilities that it considers are exposed to lower risk than price/revenue capped businesses. Oxera is further concerned that the Commission's sample contains illiquid companies, "*which can result in a mis-statement of the equity beta.*".[9]

In this review, we are considering whether to split the energy comparator sample into gas and electricity. We note CEPA's finding that while the average asset beta for gas is higher than for electricity, the difference between the two estimates is not statistically significant.

19. Provided that the difference between the gas and electricity estimates remains 'not statistically significant', then Aurora supports retention of a combined comparator group.

20. Aurora recommends that the Commission first reviews the comparator group composition to remove companies that might unreasonably bias the result (as noted by Oxera), and then reassesses the significance of separating the gas and electricity comparator groups.

For the calculation of the asset beta for airports, we are considering whether to continue to apply a downward adjustment to the average asset beta from the comparator sample. At the last review, we concluded that the average asset beta from the comparator sample was likely to overstate the beta for regulated aeronautical activities. We came to this conclusion because the companies in the sample generally had a mix of aeronautical and non-aeronautical activities, and we considered the asset beta for aeronautical services was likely to be lower than the asset beta for non-aeronautical services.

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[8] Ibid. Section 4.3. p35.

[9] Ibid. Section 4.3, p35.

21. Aurora prefers that comparator groups should be constructed to be as representative of the New Zealand context as possible, rather than applying adjustments which, although reasoned, may contain subjective bias.

> We are also considering whether some airport companies identified by CEPA should be excluded from the comparator sample on the basis that the markets in which they operate are substantially different to the New Zealand market.

23. Aurora considers that comparator groups should be comprised of businesses that operate under similar circumstances to New Zealand's regulated suppliers. Including comparator companies that operate in materially different markets can only serve to skew/bias the resulting estimates, and should be removed as a matter of good practice.

2.2. WACC PERCENTILE

24. CEPA was tasked with updating the relevant evidence for setting the WACC at the 67th percentile. In conducting its examination, CEPA identified two conflicting issues:

24.1. regulators in other jurisdictions have reduced their support for 'aiming up'; and

24.2. evidence suggests that the importance of network reliability in NZ has increased.

2.2.1. WACC percentile uplift - rationale

25. In its 2014 reasons paper for amending the WACC percentile applying to gas pipeline businesses (GPBs) and EDBs, the Commission summarised the problems that the WACC percentile uplift is designed to address:

- WACC must be estimated (it cannot be observed), giving rise to potential estimation error;
- if the estimated WACC is higher than the actual WACC, consumer losses will be incurred through prices that are too high;
- if the estimated WACC is lower than the actual WACC, suppliers will face a disincentive to invest, and consumers are likely to face losses through a diminution of service quality, innovation and reliability; and
- the losses faced by consumers as a result of WACC estimation error are asymmetrical.[10]

26. Houston Kemp summarised this rationale and also highlighted the importance of not mischaracterising the purpose of the uplift:

> *"In assessing the merits of setting the WACC above the midpoint level, it is important to be mindful that the intention is not to provide firms with a rate of return that is above their cost of capital but to reduce the risk of setting the WACC at a level that is below the cost of capital.*
>
> *It is therefore inappropriate to characterise the Commission's use of a WACC above the midpoint as a decision to provide firms with an above normal return in order to encourage investment.*

[10] Commerce Commission. (2014). Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper. Paragraphs 3.2 to 3.5. p37-38.

Rather, the Commission's choice hinges on balancing the probabilities, and so the risks, of over- versus under-compensating firms and the associated losses that would arise from such errors"[11]

27. In Aurora's view, the WACC uplift does not provide an incentive to invest. By compensating for potential estimation error, it satisfies reasonable investor expectations that, on the balance of probabilities, a normal return on investment will be achieved if an investment decision is made.[12] While we consider that no incentive to invest is created, it is our view that the WACC uplift assists to ensure that no disincentive to invest is created.

2.2.2. Regulatory precedent

28. In its report, CEPA presents the view that regulators in overseas jurisdictions are tending toward setting WACC at, or nearer to, the midpoint. CEPA also points to the fact that other regulatory frameworks contain mechanisms that assist to minimise the risk of underinvestment (presumably irrespective of whether that risk arises due to a mis-estimation of the cost-of-capital or otherwise).[13]

29. Oxera, in a further report commissioned by the large EDB group, also noted the trend toward mid-point estimation, and the existence of accompanying, offsetting measures:

> *"… we note that this generalised move towards aiming straight within the calibration of the allowed WACC has tended to be accompanied by other measures that have reduced (but not eliminated) the ability for the regulated WACC to deviate from the true WACC."*[14]

30. Noting Australian precedent, CEPA states that *"… after considering available evidence, the AER decided to not apply an arbitrary adjustment to their WACC estimate and use the midpoint"*[15]. In the AER's decision paper, there are numerous references to (refusing) arbitrary adjustments, and in the context of the AER framework such adjustments might truly be arbitrary. However, in the context of the Commission's framework, uplifts to the WACC are made on the basis of a reasoned framework, and it would be a gross mis-categorisation to label the uplift as arbitrary.

31. Oxera considers that the regulatory precedent in other jurisdictions is of limited value when considering the Commission's approach to WACC uplift:

> "*We note that regulatory precedent shows that overseas regulators have tended to aim straight in recent decisions, although CRE has aimed up on the WACC in its most recent decisions. However, this regulatory precedent is of limited direct read-across, as it comes from countries that do not explicitly undertake analysis related to applying the network reliability framework in setting the WACC, as the NZCC has done. In addition, in many of these countries, aiming straight has tended*

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11 Houston Kemp. (2014). Analysis of Selected Submissions on the Commerce Commission's WACC Percentile Draft Decision: A Report for Powerco. Section 2.2, p2.

12 There are, of course, several sources of estimate error. For example, the Commission sets a five-year WACC for price-quality regulated EDBs and circumstances within the regu;atory period can result in consuderable variance between the regulated WACC and the actual WACC, as currently exists due to rising interest rates.

13 Ibid. Table 4.4. p31.

14 Oxera (2022). Review of the percentile of the WACC distribution that should be targeted by the NZCC. Section 4.5, p33.

15 Ibid. Section 4.3.2., p32.

to be accompanied by measures that have reduced (but not eliminated) the ability for the regulated WACC to deviate from the true WACC, such as the use of indexation of the cost of equity and/or cost of debt allowances."[16]

32. In Aurora's view, regulatory precedent does not provide a reasoned basis for departing from applying a WACC uplift when seeking to overcome the risks associated with misestimating the cost-of-capital, especially when the unique New Zealand regulatory construct and the application of the network reliability framework (asymmetric loss function) is considered.

2.2.3. Commission questions

33. The Commission is seeking views on two aspects of the WACC percentile. Aurora's views are presented below.

> …, when we first set the WACC at the 67th percentile for price-quality regulated energy businesses, the justification for the uplift was developed solely with reference to electricity distribution and transmission and the cost of electricity blackouts. We welcome views on whether we should continue to apply an uplift to price-quality regulated gas businesses.

35. Aurora considers that it is important for the WACC uplift to be maintained for GPBs.

36. The Commission has recently sought submissions on options to maintain investment incentives in the context of declining demand[17], with the key consideration within the consultation paper being the circumstances of GPBs in the context of the Emissions Reduction Plan (ERP)[18] and forthcoming gas transition plan.

37. The consultation paper outlines the materially heightened risk that climate change policy may lead to GPBs' assets becoming economically stranded and specifically notes that:

"Investment is required to ensure networks continue to provide a safe and reliable supply of natural gas until they are no longer needed. This means that it is important that we continue to deliver ex-ante FCM through the BBM to provide incentives for continued investment."[19]

38. As we pointed out in section 2.2.1, above, the rationale for an uplift in the WACC percentile is to compensate for potential estimation error when setting the cost-of-capital which, if the estimate of WACC is below the actual WACC, may lead to an investment disincentive. It would seem illogical to us, therefore, that while considering approaches to maintain GPBs' incentives to invest, a mechanism that manages the risk of WACC misestimation, leading to investment disincentives, would be removed. Aurora considers that, in the context of decarbonisation, maintenance of the WACC uplift for GPBs is vitally important.

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16 Ibid. Section 6, p43.

17 Commerce Commission. (2022). Input Methodologies Review: Options to maintain investment incentives in the context of declining demand.

18 New Zealand Government (2022). Towards a productive, sustainable and inclusive economy: Aotearoa New Zealand's first emissions reduction plan.

19 Ibid. Paragraph 2.25, p28.

…, the most important change to the wider energy economy since 2016 is the expectation of increased electrification of the economy as part of the response to climate change. We welcome views on how the increased electrification of the economy impacts our reasoning around the costs of blackouts and our methodology for considering whether a WACC uplift is warranted.

40. It seems clear that EDBs will face investment pressure as a result of New Zealand's decarbonisation policy settings, and that any investment disincentive created by a mis-estimation of the cost-of-capital would be counterproductive.

41. CEPA notes that:

> *"…, the Climate Change Commission has recommended steps to eliminate fossil gas use in residential, commercial, and public buildings. This suggests that there will be increased reliance on electricity relative to gas for energy purposes going forward. This increased reliance may mean that the costs of a network outage are more acute and in turn mean that ensuring investment in a reliable network is more important.*
>
> *On the other hand, the overall electricity system is evolving as customers are more able to affordably purchase distributed energy resources. For example, rooftop solar, battery storage and electric vehicles. It is possible that ownership of such technologies means consumers are less reliant on the network. For example, a battery may be able to provide a sufficient backup for a period of network outage. In an extreme case distributed energy resources may allow a consumer to forego reliance on the network entirely."*[20]

42. We agree with CEPA on the increased importance of investment in reliable networks, as stated in the first paragraph. We consider, however, that CEPA's contrasting comments in the second paragraph should be afforded little weight, as it hints at the 'death spiral' theory that was popular in the early part of the last decade, and which has now been supplanted by the view that networks are undergoing a transformation that will unlock new value for consumers.

43. CEPA's main focus appears to be on using regulatory precedents in other jurisdictions to dissuade the Commission from applying an uplift to the cost-of-capital , and does not nominate a WACC percentile that the Commission should target if it chooses to maintain an uplift.

44. Oxera, on the other hand, notes that "*the network reliability framework supports targeting a percentile between the 65th and 85th percentiles of the WACC distribution, based on our assessment of the socio-economic benefits of aiming up on the WACC percentile*". In identifying a target percentile, Oxera noted:

44.1. in support of a higher percentile, that "*the increased asymmetry of the loss function from the decarbonisation framework we have introduced would tend to support the upper end of the 65th to 85th percentile range*";

[20] Ibid. Section 4.6, p43.

44.2. but in contrast, and in support of a lower percentile, that "*the existence of other regulatory tools mitigates the risk, at least in the short term, of substantial under-investment"* and that *"the current regulatory period, which targets the 67th percentile of the WACC, appears to be delivering good outcomes for consumers—albeit with returns that are potentially slightly too low for the EDBs as per the NZCC's assessment. These points tend to support the lower end of the 65th to 85th percentile range.*"

44.3. before concluding that "*across all of the evidence considered in this report, a percentile between the 65th and the 75th is appropriate. As the 70th percentile is in the middle of this range, this provides a focal point for the NZCC's decision on the appropriate percentile as part of the upcoming IM review.*".[21]

45. Aurora supports targeting the 70th percentile as an appropriate protection against the risk of creating an investment disincentive if the WACC is mis-estimated.

[21] Ibid. Section 6, p43.