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SUBMISSION ON COMMISSION'S DRAFT DECISION ON THE WACC PERCENTILE

1 Orion New Zealand Limited (**Orion**) welcomes the opportunity to provide a submission on the Commerce Commission's (**Commission's**) "Proposed amendment to the WACC percentile for electricity lines services and gas pipeline services" issued on 22 July 2014. (the **Draft Decision**) The Electricity Networks Association (**ENA**) has also provided a submission, which Orion endorses.

1. Overview of our submission

2 Orion is pleased that the Commission has accepted the overwhelming body of evidence that it is appropriate to use a weighted average cost of capital (**WACC**) estimate that is above the mid-point for price-quality regulation. The Commission acknowledges that there is a substantial asymmetry in the social costs associated with getting the regulatory WACC wrong that warrants such an increment, i.e., that:[1]

> *"[T]he potential costs of under-investment from a WACC that is too low are likely to outweigh the harm to customers (including any over-investment) arising from a WACC that is too high."*

3 Over time, under-investment reduces the quality of service that customers receive.[2] As Oxera rightly observes,[3] reductions in quality may only become apparent when it is much too late, e.g., when an adverse event occurs and the network cannot be restored within a reasonable time frame, imposing substantial economic costs on consumers and society. The Commission has wisely confirmed that it is in consumers' interests to

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[1] Draft Decision, p.8.

[2] *See:* Orion, *Submission on Invitation to Provide Evidence on the WACC Percentile*, 1 May 2014, p.10.

[3] Oxera, *Input methodologies, Review of the '75th percentile' approach, Prepared for the New Zealand Commerce Commission*, 23 June 2014, p.44.

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be "insured" against those potential costs through an increment upon the mid-point WACC.

4 However, Orion is concerned by the proposal to reduce the WACC estimate from the 75th to the 67th percentile. In our opinion that proposal is not well justified, since it is based on analysis that contains material errors and inconsistencies and is informed by a number of irrelevant considerations, including:

4.1 the Commission's belief that the High Court's judgment means that the 75th percentile has "no special standing"[4] as the status quo, which has led to it determining the percentile "afresh" rather than testing whether something else would be materially better (which it has not established);

4.2 the Commission's comparisons with WACC estimates prepared by New Zealand analysts for similar businesses, which it has re-engineered with the effect that differences between the analysts' estimates and its own are disguised – Orion submits that no such adjustments are justified and, if anything, the higher WACCs estimated by analysts suggest that the 75th percentile is too low;

4.3 the Commission's analysis of RAB multiples does not reveal a systematic trend (only the Powerco estimate is materially above one) and so is an unreliable basis on which to conclude that the regulatory WACC exceeds investors' WACC;

4.4 the Commission's belief that tools such as an IRIS for capital expenditure and revenue-linked quality incentive schemes can also be used to incentivise investment, when these elements of the broader regulatory framework have not even been developed (and may not be), i.e., their effect cannot be known;

4.5 the Commission's assertion that a diversified investor would require minimal or no compensation for bearing the risk of events such as natural disasters – this is simply wrong as a matter of finance theory and inconsistent with how businesses behave in practice; and

4.6 the Commission's analysis of recent capital expenditure and quality of service outcomes that is based on a time-series that contains far too few observations for any meaningful trends to be discerned and, in any case, is not capable of providing any insight into the reasonableness of the 67th percentile.

5 The Commission has also overlooked and/or discounted several other matters that are highly relevant to any decision on the appropriate WACC percentile. It has provided no good reasons for disregarding these matters – all of which indicate that the current WACC estimate is **too low**; namely:

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[4] Draft Decision, p.24.

5.1 the Commission has overlooked deficiencies in its cost of debt calculation in the term credit spread differential that, if addressed, would result in a higher mid-point estimate – we note that the High Court also asked questions about this aspect of the Commission's approach;

5.2 the Commission effectively concedes in its Draft Decision that it has not properly accounted for all forms of uncertainty when specifying the distribution around the mid-point – this means that its current distribution is overly narrow and will under-estimate any percentile it is seeking to obtain; and

5.3 the Commission has ignored asymmetric cash-flow risks – the expected costs of which are material to regulated businesses, are not currently "dealt with through cash-flows" (the Commission's supposedly preferred treatment) and cannot be "diversified away" by investors.

6 Orion submits that, once these deficiencies are recognised, the Commission does not have a sufficient basis to reduce the WACC percentile for price-quality regulation. Indeed, it is likely that, if the above matters are properly considered, the Commission would conclude that the current 75th percentile WACC estimate is **too low.** We elaborate on these matters in the remainder of this submission, which is structured as follows:

6.1 **section 2** explains why the Commission is incorrect to assert that the 75th percentile has "no special standing"[5] as the status quo;

6.2 **section 3** explains why the Commission cannot reduce the WACC percentile without considering important interdependences;

6.3 **section 4** explains why the Commission should not ignore asymmetric cash-flow risks; and

6.4 **section 5** explains why the Commission should not rely on its "reasonableness checks" to draw any inferences about the robustness of its selected percentile.

7 Finally, it is worth reiterating that, if the Commission chooses to disregard these important matters and gives effect to its Draft Decision, Orion would not be immediately affected.[6] Nonetheless, we are concerned about the potential precedent value if the decision remains unchanged. In our view, the matters we broach in the following sections are significant and the Commission should address them both now and in any future WACC determination.

2. Threshold for change

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[5] Draft Decision, p.24.

[6] As the Commission notes, we would continue to set our prices by reference to the WACC defined in our customised price path (CPP) until such time as we reverts back to the default price path (DPP) or apply for a new CPP.

8 In Orion's submission in response to the previous *Process and Issues Paper*, we explained that the relevant threshold question facing the Commission should be:[7] "is there any reason why we *should* reduce the WACC point estimate from the 75th percentile?"[8]

9 We still hold the view that the 75th percentile carries weight as the status quo and that, consistent with good regulatory practice, it should therefore not be departed from without good reason, i.e., unless there is strong evidence furnished to support such a change.

10 The Commission takes a different view in its Draft Decision. It contends that the effect of the High Court's judgment is to essentially vacate its previous decision, meaning that it must start afresh. It states that:[9]

> *"The consequence of the Court's judgment is that the Commission's previous choice of the 75th percentile does not logically have any special standing as the status quo. We have therefore approached the evidence afresh …"*

11 We disagree. In Orion's view, there are two significant problems with this approach, which we elaborate upon in the following sections.

The 75th percentile <u>does</u> have special standing as the status quo

12 The first problem with the Commission's contention that the 75th percentile has no "special standing" as the status quo is that the High Court *did not overturn the application of that percentile estimate* – it upheld it. If the Court believed that another WACC percentile might be materially better – say, the 67th, which the Commission is now proposing – it was within its power to refer the IM determination back to the Commission with directions as to the particular matters that required amendment.[10] If the Commission really believes the WACC percentile has no special standing, then *none* of its upheld IMs have any special standing. We submit that position is untenable.

13 For example, the Court could have refused to uphold the IM until the Commission had obtained the empirical evidence to which it refers in its judgment. In that case, the Commission would have been quite entitled to say that it needed to approach the issue afresh. But the Court did not do that. Instead, it confirmed the Commission's selection of the 75th percentile, and observed that it could have been supported by more empirical evidence. It subsequently refused to grant the Major Energy Users Group leave to appeal the decision to the Court of Appeal.

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7 CEG Report, section 2.2.

8 Orion, *Submission on Invitation to Provide Evidence on the WACC Percentile*, 1 May 2014, p.7.

9 Draft Decision, p.24.

10 *See:* section 52Z(3)(b)(iii) of the *Commerce Act 1986.*

14 It is therefore inaccurate to characterise the 75th percentile as having "no special standing as the status quo". It does. It follows that the Commission should not be starting this exercise with "a blank sheet of paper". Rather, the presumption should be that the 75th percentile should be retained unless there is good reason for it to be changed. The Commission does not approach its task in that way. Instead, it essentially asks itself the following question:

> *"Is there any empirical evidence to suggest that there should be an increment on the mid-point and, if so, what should that up-lift be?"*

15 It starts from the inappropriate assumption that the mid-point is the "default option" and concludes that that there is empirical evidence to suggest an increment is needed, and that the 67th percentile represents an appropriate uplift. The problem is that even if those answers are correct (we believe the increment is wrong, for the reasons we set out in subsequent sections), they *are not addressing the right question*. What the Commission *should* have asked is:

> *"Is there any empirical evidence to suggest that we should change the WACC point estimate from the 75th percentile?"*

16 If the Commission had addressed this question, its answer would have been "no". During the course of the current consultation, the Commission has gathered the empirical evidence that the High Court alluded to and that exercise has shown that *the 75th percentile is appropriate.* Most notably, the Commission concludes that a "reasonable range"[11] for the WACC percentile is the 60th to the 75th percentile.[12] The 75th percentile is *within that reasonable range* (the "upper limit" of which is, as we explain in following sections, likely to be too low in any case).

17 Given this, how could the High Court conclude, based on the evidence that has now been collected and considered, that the 67th percentile is "materially better" than the 75th percentile if it was (hypothetically) asked to choose between the two estimates?[13] Indeed, the Commission's own analysis reveals that the 75th percentile is reasonable.

18 Put simply, the Commission has not met the threshold that a regulator should be expected to reach before departing from a past decision – especially one that was upheld on appeal by the High Court. It has presented no compelling evidence to indicate that the 67th percentile would be materially better than the 75th and has instead relied solely on "judgement". In Orion's opinion, that does constitute a sufficient basis to reduce the percentile estimate in the manner proposed. Investor confidence is not promoted where the Commission departs from a long-standing approach that is well supported by the available evidence.

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[11] Note that we do not agree the Commission has, in fact, identified an appropriate "reasonable range" because, amongst other things, its range makes no allowance for asymmetric cash-flow risks, which continue to be ignored. We describe these shortcomings in more detail in following sections.

[12] Draft Decision, p.10.

[13] *Supra* note 10.

The Commission has reacted to one aspect of the judgment, but ignored others

19 The second problem with the Commission's approach is that it focusses unduly on *one aspect* of the High Court's judgment. The Commission is undertaking a narrow review of the WACC percentile because it believes that the questions the Court raised about its approach to the WACC percentile created intolerable uncertainty. Assuming that unacceptable uncertainty was indeed created (which we do not believe it was[14]), this begs the question: *what about the other things that the High Court queried?*

20 The Court's consideration of the capital asset price model's (**CAPM**) tendency to understate the returns on low beta stocks is one example. The Commission had taken the view that, once it had decided that the Simplified Brennan-Lally (**SB-L CAPM**) was the best model for estimating the cost of equity, it should be implemented in the "conventional manner".[15] Powerco appealed this aspect of the determination, claiming that the Commission should account for any bias in the IM.

21 The Court was not prepared to dismiss Powerco's point of appeal out of hand – and certainly not on the grounds suggested by the Commission, i.e., based on its contention that it was obligated to apply the SB-L CAPM "warts and all". Rather, the Court stated that:[16]

> *"We would not go that far. There is no principle that bars well-based adjustments being made to the output of a model, although it is a task that should be approached with caution … The question is whether the SB-L CAPM is biased in the sense that the estimates it produces for the Energy Appellants are likely to be lower than their actual cost of equity."*

22 The Court went on to conclude that:[17]

> *"It would have to be shown that the alternative models produce unbiased or less biased estimates for the regulated New Zealand firms. Powerco and Transpower make no such claim."*

23 In other words, the Court did *not* conclude that the CAPM contained no bias towards low beta stocks. Rather, it concluded that empirical evidence of that bias had not been presented by any party, including Powerco. In the absence of that empirical evidence, it was therefore not prepared to conclude that an alternative approach would have constituted a "materially better" IM. In principle, this is *no different from the High Court's observations about the WACC percentile*.

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[14] *See:* Orion, *Submission on Invitation to Provide Evidence on the WACC Percentile*, 1 May 2014, pp.5-7.

[15] *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC, [11 December 2013], paragraph 1703.

[16] *Ibid*, paragraph 1704.

[17] *Ibid*, paragraph 1706.

24 In both cases, the High Court raised questions about the Commission's approach, cited an absence of empirical evidence and then, ultimately, upheld the original decision. It is therefore not clear to Orion why the Commission has launched a narrow review seeking empirical evidence on the WACC percentile, but not sought additional evidence on whether alternative WACC models "produce unbiased or less biased estimates for the regulated New Zealand firms". We find this difference in response difficult to reconcile.

25 This is just one of a number of examples. The Court also raised questions about the Commission's design and application of the term credit spread differential (**TCSD**)[18] and the Draft Decision itself raises yet further questions, including about the way in which the Commission has estimated its WACC distribution. As we explain in more detail below, all of these factors suggest that the Commission's current estimate of the 75th percentile may well significantly understate the "true" 75th percentile.

26 In Orion's opinion, it is therefore inappropriate for the Commission to focus narrowly on the WACC percentile without also addressing these other matters. We reiterate our view that the suitable forum to consider these matters is *a full review of the IMs*. If the Commission is not prepared to address all of the questions that were raised by the High Court and are posed by its Draft Decision, then it has no justification for reducing the WACC percentile to the 67th percentile. Put simply, it will not have taken into account all relevant considerations. We elaborate on this point below.

3. Broader matters must also be considered

27 The Commission essentially asserts that the other aspects of the WACC IM are "off limits" for the purpose of this consultation. It contends that the other aspects of the WACC IM were not found to be problematic by the High Court and that, because selecting the percentile is the "last thing it does" when setting the WACC, there are therefore no relevant interdependencies to consider.[19] In Orion's opinion, each of these propositions is incorrect.

28 As we explained in the previous section, the Court raised questions about a number of aspects of the Commission's WACC IM, but did not overturn any. The Commission should therefore, at a minimum, address *all* of the matters that the Court queried – as well as additional questions that are raised by the Draft Decision itself – or leave the current estimate unchanged. Otherwise, replacing "75th" with "67th" in the IMs could mean that the WACC actually reflects *something lower* than the 67th percentile.

29 It is also relevant to note that, although the Commission claims that it does not need to account for interdependencies with other aspects of the WACC IM because setting the percentile is "the last thing it does", its decision *does* take into account other aspects of the broader regulatory regime that are *not yet in place.* Most notably, it refers to its

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[18] *Ibid*, paragraphs 1282-1285.

[19] Draft Decision, p.10.

current consultations on quality of service and the incremental rolling incentive scheme (**IRIS**) for capital expenditure. This is inconsistent.

Methodological flaws in the calculation of the cost of debt

30 A clear example of a methodological flaw in the Commission's calculation of the WACC is the TCSD in the IM cost of debt calculation. The TCSD was introduced very late in the IM determination process and was an attempt to account for the fact that a regulated supplier may efficiently issue debt with a term exceeding the Commission's nominated five years to manage its refinancing risk. Because such debt tends to have a greater debt premium due to the longer term, the effect of the TCSD was to increase the WACC for those businesses.

31 In its appeal of the WACC IM, Vector (and its advisor CEG) claimed that it would be materially better to do away with the *ad-hoc* adjustment entailed by the TCSD. Vector and CEG suggested that the TCSD be replaced with an assumption that the term of debt should match the term of debt issued on average by similar businesses. In addition to reflecting more closely what businesses actually do, this approach has the added advantage of being more consistent with international precedent (including in the UK and Australia). Although the High Court did not agree that this would result in a "materially better IM",[20] it did question the efficacy of the TCSD.[21]

32 Subsequently, one of the Commission's chief WACC experts, Dr Martin Lally, was asked by it to review a report that CEG had prepared for Chorus. In that report, Dr Lally has stated that the term of debt should indeed be set so as to match the term of debt issued on average by similar businesses (which he puts at 7.4 years). Dr Lally concluded that:[22]

> *"The best policy is to invoke the risk free rate at the beginning of the regulatory cycle (with a term matching the regulatory cycle) coupled with a DRP at the beginning of the regulatory cycle* ***(with a term matching the average term for which firms borrow), plus the transactions costs of interest rate swap contracts*** *to align the risk-free rate component of the firm's staggered debt with the regulatory cycle."* [Emphasis added]

33 Correcting the acknowledged flaw in the TCSD, which the High Court specifically queried, would raise the mid-point WACC. Specifically, replacing the TCSD with a 7.4 year debt term assumption would result in a higher cost of debt and, in turn, increase the mid-point estimate of the IM WACC. In Orion's opinion, it is quite likely that addressing this shortcoming would increase the overall IM WACC by more than

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[20] Note that the High Court also did not conclude that the 50th percentile would be "materially better than the 75th percentile. It simply questioned why the Commission had not sought to gather and consider more empirical evidence.

[21] *See: Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC, [11 December 2013], paragraphs 1282-1285

[22] Lally, M., *Review of Submissions on the Cost of Debt and the TAMRP for UCLL and UBA Services*, 13 June 2014, p.17.

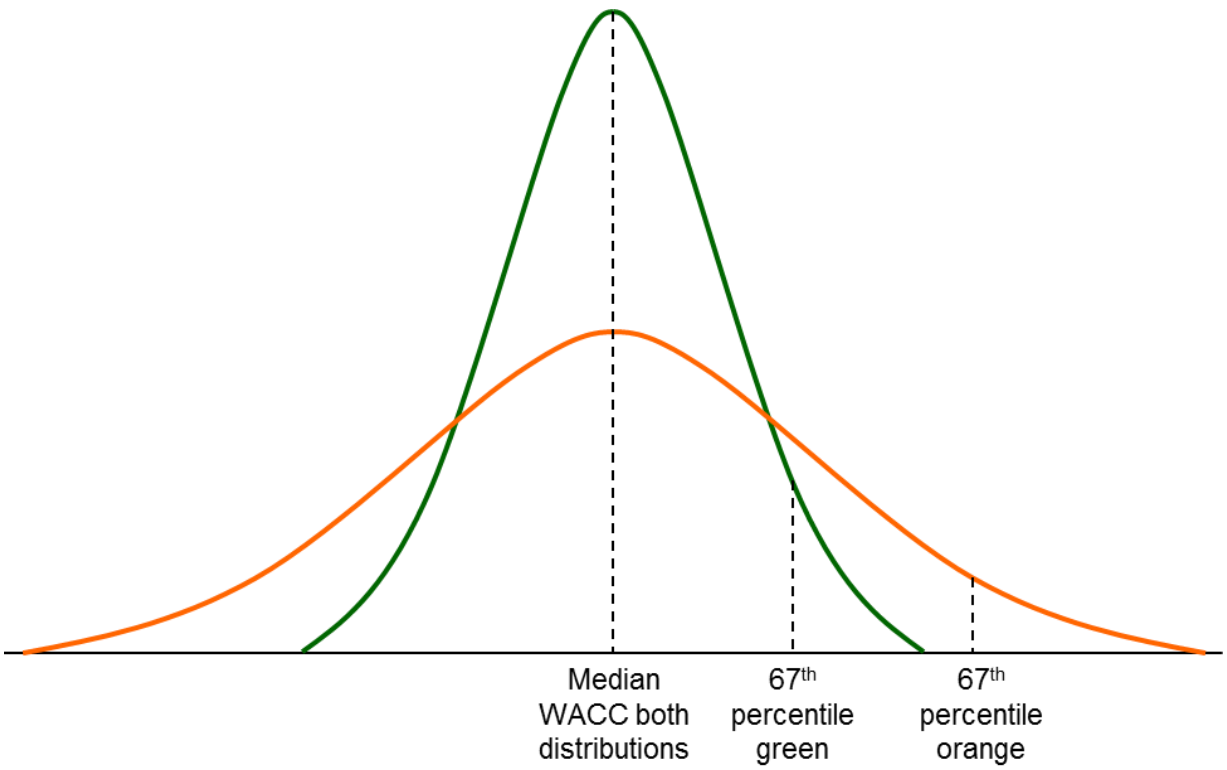
adopting the 67th percentile would reduce it (holding the distribution of uncertainty around the true WACC – which we discuss below – constant).

34 This now widely acknowledged shortcoming in the Commission's calculation of the cost of debt means that if it believes that the 67th percentile is "the right answer",it needs to revisit this other aspect of its IM in order to ensure that it is *actually establishing the WACC at that level*, rather than something lower. This conclusion is reinforced by the Commission's "reasonableness tests" and CEG's previous benchmarking of international WACC estimates, both of which indicate the Commission's cost of debt is too low, as we discuss subsequently.

Unsound assumptions about the distribution of the WACC around the mid-point

35 On a reasonable interpretation of the High Court's judgment, it was the magnitude of the uplift above the mid-point that was questioned – not simply the percentile adopted. Any review of the WACC percentile must therefore also encompass a review of the *distribution* around the mid-point. This is because the 67th percentile of a "wider" distribution (i.e., one with more uncertainty) will produce a higher WACC than the 67th percentile of a "narrower" distribution, as Figure 1 illustrates.

Figure 1 The distribution around the mid-point matters



36 In this context, we note that the Commission accepts that there is the potential for model error in the determination of the WACC. For example, as we noted earlier, several parties have argued there is a tendency for the CAPM to understate the returns on low beta stocks. Although the Commission acknowledges that the potential

for such errors exists, it argues that this does not introduce any "downwards bias" into its model (i.e., it claims that it does not negatively affect the midpoint estimate):[23]

> *"While there is uncertainty around the true WACC, we do not agree that the mid-point is biased downwards. There is uncertainty as to whether the mid-point is biased or not. The evidence regarding the existence (and direction) of bias is hard to interpret and sometimes conflicting."*

37 Even if one assumes that model error is not biased downwards (which it arguably is[24]), that *does not mean it can be ignored*. If the possibility exists – which the Commission concedes that it does – this leads to uncertainty. Even if this does not systematically bias the mid-point in one direction (which, again, it arguably does) it clearly affects the *distribution* around the mid-point. Specifically, the distribution around the mid-point *becomes wider*, i.e., more like the "orange" distribution in Figure 1.

38 By its own admission, this uncertainty is *not captured* in the Commission's current approach. Therefore, even if the 67th percentile is "the right answer" (which we do not believe it is), in order for a business to hope to achieve a return equal to that level, *something more* than the 67th percentile of *the Commission's distribution* is needed because, as it concedes in the above passage (and elsewhere in the Draft Decision), that distribution is artificially narrow.

39 In other words, the Commission's assumed distribution might be said to resemble the "green" distribution in Figure 1, whereas the "true distribution" around the mid-point (i.e., one that incorporates the additional uncertainty that the Commission disregards) is represented by the "orange" curve. If the Commission's tries to set the WACC at the 67th percentile using its unduly narrow distribution it will, quite simply, not get the answer it is seeking. For that reason, this interdependency between the WACC distribution and the resulting uplift cannot be ignored.

40 Oxera also notes an important additional element of variability that is not captured in the Commission's standard error estimates, namely, variations in market conditions over time.[25] For example, the cost of debt, the risk free rate and the market risk premium will change over time within financial markets . As a result of these changes, the WACC that investors actually require will be different to that estimated at the start of a period (even if the latter was estimated perfectly). Oxera clearly notes that it is the Commission's view – not its own – that such risks do not need to be included in the distribution:[26]

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[23] Draft Decision, p.40.

[24] For example, as we noted above, in our view, there is little doubt that the CAPM does indeed understate the cost of capital for low beta stocks.

[25] Oxera, *Input methodologies, Review of the '75th percentile' approach, Prepared for the New Zealand Commerce Commission,* 23 June 2014, p.57.

[26] *Ibid*.

> *"…**in the view of the Commission**, the presence of risk such as that around the risk-free rate does not justify an uplift to the WACC estimate, as companies and investors are expected to manage risk themselves, as they would within a competitive market."* [Emphasis added]

41 In Orion's view, the Commission's reasoning for excluding variations in market conditions as a source of relevant uncertainty is untenable. It amounts to attempting to make a semantic distinction between:

41.1 "risk", which it defines as that associated with changing market conditions; and

41.2 "uncertainty", which it defines as relating solely to uncertainty in estimating the cost of capital at a point in time.

42 In our view, there is no meaningful distinction between these concepts. Both are sources of uncertainty as to whether the investors' WACC exceeds the regulatory WACC that directly influence the distribution around the mid-point, i.e., make it wider. This again means that if the Commission believes that the 67th percentile is "the right answer" (which, in our view, it is not) it needs to revisit the calculation of its distribution in order to ensure that it is actually establishing the WACC at that level – otherwise it will be setting something lower.

Other elements of the regulatory framework

43 We noted above that the Commission claims (wrongly, in our view) that it does not need to account for interdependencies with other aspects of the WACC IM because setting the percentile is "the last thing it does". Yet, its draft decision *does* take into account other aspects of the broader regulatory regime that are *not yet in place*. Specifically, one of the pieces of evidence the Commission points to as suggesting that the WACC can be reduced below the 75th percentile is the fact that:[27]

> *"There are **other tools** to help incentivise efficient investment from regulated suppliers, in addition to the WACC percentile."*

44 To this end, the Commission observes that:

> *"…as part of the current price-quality path resets for EDBs and Transpower we have **proposed** revenue-linked quality incentive schemes. These schemes provide improved incentives for suppliers to efficiently invest in service quality."* [Emphasis added]

45 It also notes that:[28]

> *"The IMs include an incremental rolling incentive scheme (IRIS), which provides a mechanism by which suppliers are able to retain the benefits of*

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[27] Draft Decision, footnote 218, p.81.

[28] Draft Decision, p.34.

efficiency gains beyond the end of a regulatory period. The IRIS increases the incentives on suppliers to economise on capital expenditure and operating expenditure. We have ***proposed*** *extending the IRIS to include capex."*
[Emphasis added]

46 The Commission also states that:[29]

"We are able to monitor the investment of regulated businesses and take action if we see evidence of under-investment"

47 In other words, the Commission identifies various other tools aside from the WACC that it claims it can use to incentivise efficient investment. It concludes that these mechanisms within the broader regulatory regime are one of the key reasons it can reduce the WACC percentile. In Orion's opinion, the basic problem with this proposition is that the three tools described in the passages above either **have not yet been created** or **have not been specified in any detail**; namely:

47.1 the Commission has *proposed* revenue-linked quality incentive schemes, but it is merely that – a *proposal* – there is no way of knowing how the consultation process will evolve and what changes, if any, will ultimately be made to the existing quality of service regime;

47.2 in a similar vein, the Commission has *proposed* to extend the IRIS to also encompass capital expenditure, but that also is merely a preliminary proposal that is yet to be subjected to proper consultation – there is again no way of knowing what the final IRIS will comprise, or if there will be one; and

47.3 the Commission's claim that it can "take action" if it "sees evidence of under-investment" is extremely vague – no details have been provided as to when it might contemplate acting upon perceived underinvestment of what the action might entail, and so it cannot be characterised as an additional tool.

48 Given that these key aspects of the broader regulatory framework are still being developed, the Commission cannot ascertain their effect – if any – on the appropriate WACC percentile. There is certainly no sound basis to suggest that these indeterminate tools mean that the current percentile estimate can be reduced. If setting the percentile estimate is, indeed, the "last thing" that the Commission does, it must address these matters first. At the moment, the Commission is:

48.1 taking into account supposedly relevant interdependencies with broader aspects of the regulatory framework that it cannot feasibly estimate since, in some cases, those aspects *do not yet exist*; while

[29] Draft Decision, p.73.

48.2 disregarding other highly relevant interdependences with other aspects of the WACC IM including, most notably, the distribution around the mid-point and the flaws in its calculation of the cost of debt (both described above).

49 In Orion's opinion, this approach is inconsistent. The Commission should not rely on the former as a basis for reducing the WACC percentile without also taking into account the latter which, as we explained above, will almost certainly require the current percentile uplift to be increased. The only robust approach is to take *all* of the relevant interdependences into account in the context of a full IM review and to leave the WACC at the 75th percentile in the meantime.

50 Finally, it is worth noting that if these other key parts of the broader regulatory framework are ultimately introduced, they cannot be used to "compensate" for a low WACC. For example, it would not be reasonable for the Commission to set the WACC at a level that would not enable a firm to cover its expected costs, unless it outperformed the benchmarks in the price path and obtained additional compensation through, say, an IRIS. That would be inappropriate and counter-productive.

Implications

51 On the basis of the analysis above, Orion continues to believe that it is not reasonable for the Commission to review the WACC percentile in isolation. It must also consider the WACC distribution and other related aspects of the IM – including, most notably, the acknowledged deficiencies in the TCSD (which bias the WACC downwards). The best place to do this is in the context of a full IM review, when all of the relevant interdependencies can be properly considered.

52 If the Commission does not review the WACC distribution or the TCSD then, even if it accepts that the 67th percentile is optimal (which we do not believe it is), it cannot know if simply replacing "75th" with "67th" in its IM will actually give effect to this. In fact, based on the evidence presented above (and below) there is good reason to believe that it will be reducing the quantum of the WACC uplift when it should be being *increased* to reach the "true" 67th percentile.

4. Asymmetric risks should not continue to be ignored

53 The Commission essentially ignores the effects of asymmetric cash-flow risks in its Draft Decision. In Orion's view the expected costs of such risks are material to regulated businesses, they are not "dealt with through cash-flows"[30] (the Commission's supposedly preferred treatment) and they cannot be "diversified away" by investors. This last "diversification" proposition – upon which the Commission has repeatedly relied – is simply wrong.

[30] Draft Decision, p.42.

Asymmetric cash-flow risks are significant

54 The report that CEG prepared for Orion in response to the previous *Process and Issues Paper* explained that,[31] if there are asymmetries in the distributions of cash-flows around elements of the Commission's financial model this means that, if median forecasts/estimates are used to set prices, a business' expected revenues will not equal its expected costs. This would be the case even if there was certainty about the level of the "true WACC" and that return was used to determine the price path. These sources of negative asymmetry include:[32]

54.1 The prospect of distribution infrastructure being stranded by new technologies before the costs of those investments have been recovered (the Commission's financial model applies straight-line depreciation over asset lives of 45-years, on average). The potential for this to occur in the next 10 to 20 years is a real concern for investors (let alone the longer run).[33]

54.2 The prospect for low frequency but high impact events (such as earthquakes, tsunamis, etc.) to occur. Natural disasters of this type are not currently compensated for in businesses' price paths and, as we note below, the Commission has made it clear that it will not allow lost revenues to be recovered in a customised price path (**CPP**).[34]

54.3 The cash-flow risks arising from the potential costs of insolvency. The prospect of these costs being incurred by a business is related to and may increase as a result of the other factors described above, e.g., a natural disaster may prompt customers to invest in substitutes for network supplied electricity, increasing the risk of asset stranding and heightening the risk of bankruptcy.[35]

54.4 The fact that higher than expected demand can be expected to increase profits by less than lower than expected demand reduces profits due to the asymmetric responses of costs to demand. That is, the amount by which costs go up when demand is higher than expected is more than the amount by which costs fall when demand is less than forecast.[36]

55 In other words **four** potential sources of asymmetric cash-flow risk were identified by CEG in its report. The consultation timeframe for responding to the *Process and Issues Paper* did not allow CEG sufficient time to complete a comprehensive quantitative analysis of all of these factors. It did, however, undertake some

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[31] CEG, Review of the use of the 75th WACC percentile, A Report for Orion, May 201 (hereafter: "CEG Report").

[32] CEG Report, section 3.1.2.

[33] CEG Report, section 4.3.

[34] Commerce Commission, *Setting the customised price-quality path for Orion New Zealand Limited, Final reasons paper*, 29 November 2013, paragraph C5.2. This position has also carried through to the Commission's proposed approach to reopening of the DPP.

[35] CEG Report, section 4.4.

[36] CEG Report, section 4.1.

preliminary empirical work in relation to some of these potential sources of asymmetry, which was presented in both its report and our own submission; namely:

55.1 Professor Bruce Grundy observed that, based on the empirical literature, compensating for the costs of insolvency requires around 70bp to be added to the WACC in perpetuity. This represents 97% of the 72bp increment currently provided by the 75th percentile under the default price path (DPP).[37]

55.2 CEG's preliminary modelling suggested that the expected cost of the asymmetric response of costs to divergences from forecast demand is between 6bp and 32bp. This represents between 8%-32% of the 72bp increment currently provided by the 75th percentile.[38]

55.3 CEG observed that Orion's own costs in relation to the Christchurch earthquake justifies a 0.66bp increment to the median WACC in perpetuity. This represents more than 90% of the 72bp increment currently provided by the 75th percentile under the DPP.[39]

56 In other words, the above factors alone appeared to more than justify the existing the 72bp increment currently provided by the 75th percentile under the DPP. In fact, they suggest that increment may not be enough to adequately compensate investors. This is before any consideration of the asymmetry in social costs of under versus over-estimating the WACC that is at the heart of the Commission's Draft Decision. These cash-flow risks are, therefore, plainly significant and have the potential to have a sizeable impact upon businesses' expected returns.

57 The Commission attempts to "assume away" these arguments around asymmetry of cash flows (including in relation to natural disasters and other risks such as competitive stranding risk) by stating that:[40]

> *"…catastrophic events and other asymmetric risks are* ***best dealt with in cash flows****, not WACC."* [Emphasis added]

58 It is not sufficient to say that these matters "should" be dealt with in the cash flows; they actually *do need to be dealt with there*. The Commission offers no explanation in its Draft Decision as to how it has dealt with the expected costs of asset stranding, insolvency and asymmetric responses to costs to divergences in demand in its financial models for price-quality paths. In our opinion, the Commission has not dealt with these important issues *at all* in cash flows.

59 The Draft Decision makes barely any reference at all to these important types of asymmetric cash-flow risks – and no reference whatsoever is made to CEG's

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[37] CEG Report, section 4.4.

[38] CEG Report, section 4.1.

[39] CEG Report, section 4.2.

[40] Draft Decision, p.42.

quantitative analysis. Instead, the Commission's sole focus seems to be on the expected costs of natural disasters. Indeed, upon reading the Draft Decision, one would be forgiven for thinking that the expected cost of natural disasters is the *only* source of asymmetric cash-flow risk that the Commission must address. That is not the case.

60 Furthermore, much of the Commission's analysis of the expected costs of natural disasters is devoted to setting out the various costs that it enabled Orion to recover in the wake of the Christchurch earthquakes. Orion does not for a moment dispute that the Commission enabled it to recover *many* of the additional costs it faced through its CPP. The key point is that we were not permitted to recover *all* of our additional costs including, most notably, significant lost revenues.[41]

61 We did not have insurance to cover this unexpected reduction in our returns and we had not received an explicit allowance in our prices under the previous Part 4A thresholds regime for self-insurance. Nonetheless, we were left to bear that cost. Moreover, the Commission made it clear in its final decision on our CPP application that that no compensation would be provided – either ex-ante or ex-post – for lower-than-forecast revenues due to *future* catastrophic events.[42]

62 In other words, the Commission has explicitly chosen *not* to deal with this source of asymmetric risk "through cash flows". This decision appears to be based entirely on its oft-repeated position that the expected cost of such risks is "not significant to a diversified investor". However, as we explain below, this proposition is wrong as a matter of finance theory.

Asymmetric cash flow risks cannot be "diversified away"

63 In its narrow assessment of asymmetric risk, the Commission continues to restate its belief that the impact of natural disasters (which, as we noted above, is the only source of asymmetric cash flow risk it specifically addresses) would not be significant for a "diversified investor". Specifically, it states that:[43]

> *"The impact of the Canterbury earthquakes would have only a minor impact on a diversified investor, and that such an investor would require minimal or no compensation for bearing such risks".*

64 This "fall-back" argument is simply wrong. In principle, it is true that a (hypothetical[44]) investor in Orion could diversify his or her portfolio of investments by procuring shares

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[41] The Commission's calculation took into account lower than forecast 2013 actual revenues, used the projection of Orion's 2010 DPP price path and used the DPP cost of debt to calculate the 2014 present value. *See:* Commerce Commission, *Setting the customised price-quality path for Orion New Zealand Limited, Final reasons paper*, 29 November 2013, footnote 329.

[42] Commerce Commission, *Setting the customised price-quality path for Orion New Zealand Limited, Final reasons paper*, 29 November 2013, p.136.

[43] Draft Decision, p.43.

[44] Note that the Christchurch City Council and the Selwyn District Council are Orion's only two shareholders.

in other businesses, e.g., other distributors, construction companies, etc. It is also true that the more an investor diversifies the less impact a single event such as an earthquake is likely to have on his or her overall share portfolio – reducing portfolio volatility. But the key point that the Commission continues to overlook is that **diversification does not make asymmetric costs disappear**.

65 To see why, one needs look no further than an insurance company. An insurer exists to diversify risk. It sells policies to large numbers of customers to insure them against adverse events such as their houses burning down, their motor vehicles being damaged in accidents and so on. An insurance company is the textbook example of the benefits of diversification.

66 At any time, there is a risk that an adverse event (e.g., a fire) will occur that will cause one of the insurer's customers to lodge a claim for, say, $200,000. But so long as for every one customer who does suffer from a fire each year, the company has, say, 999 other customers who do not, then it can still run profitably. For example, the insurance company could:

66.1 charge the 1,000 customers a premium equal to the expected cost of insurance payouts, i.e., $200,000 x [1 ÷ 1,000] = $200; *plus*

66.2 an increment for administration costs; and

66.3 its expected revenues would then equal its expected costs, i.e., the company would earn a "normal profit".

67 In other words, this diversification (i.e., spreading of risk) allows the insurer to take on the risks of a fire affecting each of its customers and, in return, charge each customer the expected (i.e., probability adjusted) cost of a fire per annum. However, it does not follow that the insurance company will *"require minimal or no compensation for bearing such risks"*, as the Commission contends.

68 Irrespective of its ability to diversify risk across a large pool of policies, the insurer must still set its premium to compensate it for the expected cost of a fire affecting each customer. More importantly, even in a hypothetical world in which all insurance companies could "perfectly diversify" (i.e., costly diversify away all cash-flow risk – which is impossible) and could not command any profit margin or administration cost margin whatsoever, **they would still not give away insurance policies for free**.

69 Customers in this strictly hypothetical world may not have to pay their insurance companies any "margins" for insuring their houses, etc., but their premiums would still necessarily reflect the **actuarial expected costs of the insurance risks**. Even perfect diversification does not make those costs disappear. For example, the insurance company from our earlier example would not be prepared to offer its 1,000 customers policies for anything less than $200 per annum, i.e., the expected annual cost of payouts ($200,000 x [1 ÷ 1,000]).

70 This conclusion is irrefutable and yet, as noted above, the Commission has clearly said that it will not provide either *ex-ante* or *ex-post* compensation for lower-than-

expected revenues arising from natural disasters. The expected cost of lower-than-expected revenues is **unambiguously greater than zero**. It is therefore incorrect for the Commission to contend that there is no need to compensate regulated businesses for those costs because a diversified investor would *"require minimal or no compensation for bearing such risks."*

71 This is no different from saying that an insurance company – the quintessential example of risk diversification – would not require compensation for all of the risks that it bears, i.e., that the insurer in the above example would accept a premium of, say, $100 per annum. That is illogical. Not only would the company demand a premium that covered the costs of the expected pay-outs under the policy ($200 in the above example), but also a margin for assuming those risks and for the administrative costs of processing claims.

72 In exactly the same way, regulated electricity distribution businesses must be provided with compensation that covers their forward-looking costs – including the expected costs of asymmetric cash-flow risks. The Commission has already made it clear that it will not be providing compensation for lower-than-expected revenues arising from catastrophic events through cash-flows. The only other way that it can provide the necessary compensation is through an additional up-lift to the WACC.

The ability of shareholders to diversify is not relevant in practice

73 In addition to being wrong as a matter of finance theory, the Commission's claims in relation to investor diversification ignore the basic realities of how businesses assess risk and make investment decisions in practice. Electricity distribution businesses have a statutory obligation to operate as successful businesses. In particular, management and boards of directors alike have a responsibility to their shareholders to make decisions that will maximise expected profits. This motive influences the way in which investment decisions are made and risks are assessed.

74 For example, sometimes a business might decide that the best way to address a cash flow risk posed to certain assets is to procure an insurance policy from an external provider. On other occasions, a business might decide that it is in the interests of its shareholders for it to self-insure assets (i.e., set funds aside) or to remain uninsured. This would be the expected course of action if, say, the premiums being offered by external insurers that included significant margins above the expected costs of the risk in question.[45]

75 The basic question is: what is the expected cost of the risk in question and will our shareholders' interests be best advanced by us procuring external insurance coverage or self-insuring?[46] The fact that shareholders might be able to diversify is not relevant

[45] Orion's decision not to pay the prohibitive cost of insuring our overhead lines and underground wires prior to the earthquakes is an example of the latter.

[46] An analogous decision is associated with investments in, say, earthquake proofing, e.g., is the cost of the investment justified by the expected cost of the cash flow risk?

to that question. All that means is that the greater volatility in a business' profits associated with remaining uninsured does not introduce equivalent volatility into a shareholder's portfolio. However, as we noted above, diversification does not make the expected costs to the business go away.

76 Put simply, investors cannot diversify away the expected costs of asymmetric cash flow risks. It would therefore be highly inappropriate for a business to assume that they can when making investment decisions and assessing risks. It might then conclude that there is no justification for procuring any external insurance or investing in things such as earthquake proofing, regardless of the costs. That would clearly be illogical, undesirable from a wider economic perspective and simply does not reflect how such decisions are made in practice.

Implications

77 The Commission cannot continue to ignore asymmetric cash-flow risks in its deliberations on the WACC percentile. The expected costs of such risks are material to regulated businesses[47] and extend well beyond those associated with natural disasters – the only category that the Commission directly addresses in its Draft Decision. These risks are not "dealt with through cash-flows"[48] (the Commission's supposedly preferred treatment) and the suggestion that they can be "diversified away" by investors is wrong in theory and in practice.

78 It follows that if the Commission wishes for businesses to expect to earn returns equal to *any* percentile (the 67th, 75th or anything else), then it needs to choose something higher, since asymmetric cash-flow risks will push average returns *below* that level. If anything, the weight of current evidence suggests that the WACC percentile needs to *increase* from the 75th percentile to account for these factors and there is almost certainly no sound basis for it to decrease.

5. The Commission's "reasonableness checks" are flawed

79 The Commission has undertaken various "reasonableness" checks of both its current WACC (the 75th percentile) and its proposed revision (the 67th percentile) to implicitly test whether the combined estimates of "midpoint" and "uplift" are high enough. It also dismisses the results of other analogous tests undertaken by CEG. In Orion's view, these reasonableness checks are analytically flawed and should therefore not have any bearing on the determination of the WACC percentile.

Shortcomings in the Commission's analysis of RAB multiples

80 The Commission points to recent enterprise values for Powerco and Vector, which it calculates as being significantly greater than their corresponding regulatory asset base

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[47] As we noted earlier, CEG preliminarily estimated that asymmetric cash flow risks more than justified the existing the 72bp increment currently provided by the 75th percentile under the DPP.

[48] Draft Decision, p.42.

(RAB) values. It calculates Powerco's RAB multiple as being 1.33 and Vector's as being between 1.09 and 1.16. The Commission contends that this indicates that the 75th percentile is more than sufficient to compensate investors. We disagree. There are numerous problems with the analysis.

81 First, there is the problem of a lack of data. The Commission is seeking to draw conclusions from two observations made at discrete points in time. In Orion's opinion, that simply is not enough – especially considering the conflicting nature of the RAB multiples themselves. As Professor Vogelsang quite rightly observes in his peer review of the Draft Decision, the Commission cannot be confident that Vector's RAB multiple is statistically significantly different from one:[49]

> *"…the resulting valuations are clearly subject to potential valuation errors. Because of such potential errors the comparatively low RAB multiples (compared to that of Powerco) are somewhat disturbing. It may be that from a statistical perspective they are not really larger than 1.0."*

82 We agree. Moreover, as the Commission itself acknowledges – Horizon Energy appears to be trading at an implied discount to the RAB, i.e., it has a RAB multiple of less than one.[50] In other words, even setting aside the many other problems with the Commission's analysis (which we broach below), the fact is that it has identified a business with a RAB multiple greater than one (Powerco), another with a multiple greater than one, but not statistically significantly so (Vector), and another with a multiple less than one (Horizon).

83 In Orion's view, this is fairly obviously at odds with the Commission's conclusion. If the consensus view of investors was that the 75th percentile was systematically overstating the true WACC, we would expect to observe a more consistent pattern than that described above. Specifically, we would expect to see *all* businesses with a RAB multiple materially in excess of one. A single observation (the Powerco estimate) is not a sufficient basis from which to draw any robust conclusions.

84 Second, there are a number of more specific problems with the way that the Commission has calculated Powerco's RAB multiple and the inferences that it has drawn from it. That calculation is based on is AMP's 2013 purchase of 42% equity and assumes that all it was buying was Powerco's RAB. The Commission justifies this assumption on the basis that Powerco's unregulated assets do not contribute significantly to its annual revenue.[51]

85 That may be so, but it does not follow that AMP was buying a 42% stake in Powerco's RAB – it was buying a 42% stake in its *balance sheet*. This included Powerco's unregulated assets (modest as they might be), but also some $31 million in

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[49] Vogelsang, I., *Review of New Zealand Commerce Commission "Proposed amendment to the WACC percentile for electricity lines services and gas pipeline services"*, July 22, 2014, p.5.

[50] Draft Decision, p.93.

[51] Draft Decision, p.89.

receivables. These assets were clearly of value to AMP and would have been factored into its purchase price, but they were not included in the RAB and are therefore overlooked by the Commission in its analysis.

86 If the value of Powerco's assets is based on its balance sheet at the time of the transaction and is included in the denominator instead of the RAB (which understates what AMP was buying),[52] the resulting multiple **falls from 1.33 to 1.22**. The Commission has also overlooked – or misconstrued – several factors that may well explain the remaining increment.

87 It is quite conceivable to us that AMP could have foreseen Powerco outperforming the cost and volume forecast assumptions in its price path so as to earn greater profits than that baseline. This might have been especially the case if AMP expected that Powerco might acquire other businesses to obtain cost synergies. We note that the Commission observes in its Draft Decision that "outperformance" would not contribute any more than 10% of a premium to the RAB. Specifically, it states that:[53]

> *"…expert advice to a UK regulator suggested it was highly unlikely outperformance on incentives and cost would contribute any more than 10% of a premium to RAB, and that a larger premium indicated a mispricing of the regulated rate of return."*

88 However, the "advice to a UK regulator" to which the Commission refers does not appear to be "expert advice". Although the 10% figure is taken from a report prepared by an economic consulting firm – Cambridge Economic Policy Associates (CEPA)[54] – it is not based on any empirical analysis. It is our understanding that it is an assertion that appears to have been informed in part by a statement made by the Chairman of Ofwat in a lecture in March 2013 that is similarly not grounded in any robust analysis.

89 In other words, the Commission's contention that the potential for outperformance can explain at most a 10% premium on the RAB does not have a sound basis. In our view, it is quite plausible that AMP – or future investors – might see a greater potential for outperformance in New Zealand's market circumstances. But even assuming that the Commission's 10% "cap" is correct, that would still explain 10 percentage points of the RAB multiple, leaving only 12 percentage points to be "explained" (i.e., 1.22 *less* 1.10).

90 In Orion's opinion, that remaining difference – which is very small in any event – could well be explained by:

90.1 divergences between the embedded debt risk premiums (DRP) on Powerco's debt (after historic hedges are taken into account) and the current and (AMP's forecast of) future regulatory costs of debt; or

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[52] For example, this introduces an additional $31m in receivables that the Commission ignores.

[53] Draft Decision, p.90.

[54] Cambridge Economic Policy Associates (2013), "ORR - Advice on Estimating Network Rail's Cost of Capital", Final Report, June 2013, p.46.

90.2 variations in market conditions during the regulatory period.

91 When AMP purchased its 42% stake, Powerco had 13 year debt raised in 2003 (it still does). It also has a range of other debt facilities that are "locked in" until up to 2028. Even if Powerco completely hedges the base rate using swaps there is no reason to believe that its interest costs will be the same as the Commission's "snapshot" allowance, which is based on the interest rates immediately preceding a regulatory period. Powerco's actual interest costs may be more, or they may be less.

92 If Powerco was lucky enough to finance at times when the cost of debt was *below* that the Commission measured in its one month window, a prospective purchaser could well be prepared to pay significantly more than the value implied by its RAB. This factor alone could quite conceivably result in a business' RAB multiple being well above one or, conversely, well below one if the fortunes of history are reversed and its interest costs are *above* those implied by the Commission's snapshot.

93 This factor alone may mean that, at any point in time, a regulated business may have a RAB multiple or a RAB fraction – and that number may change over time as it refinances and the Commission takes "new snapshots" of market conditions. We note that this is also perfectly consistent with the range of RAB multiples the Commission has actually observed, i.e., greater than one for Powerco, less than one for Horizon and not statistically significantly different from one for Vector.

94 In relation to movements in market circumstances, Orion notes that the risk free rate in mid-2013 was significantly lower than the risk free rate prevailing when the Commission set its WACC for the DPP. If one accepts the Commission's IM methodology as correct then investors' cost of equity will have been commensurately lower – elevating the present value of regulated revenues for the remainder of the DPP. This could also contribute to the emergence of a RAB multiple.

95 However, this effect could easily go in the other direction if risk free rates had risen. The Commission cannot reasonably point to a RAB multiple elevated by the fact that risk free rates had fallen since it set the DPP as a basis for reducing the WACC percentile. It would first have to be confident that that every subsequent application of the IM will also result in a RAB multiple for the same reason. That would require the Commission to believe that risk free rates will continue to fall forever.

96 For all of these reasons, in Orion's view, the Commission cannot draw any robust conclusions about the appropriate WACC percentile from its analysis of RAB multiples. It certainly does not support the conclusion that investors have a lower prospective WACC than the Commission currently allows for with its IM. It therefore cannot be used to as a justification for reducing the WACC from the 75th percentile to the 67th percentile in the manner proposed.

The comparisons with "adjusted" analysts' estimates are also flawed

97 The Commission also seeks to test to the reasonableness of its decision by comparing its WACC to those estimated by New Zealand analysts for comparable firms.

However, it does not simply compare the analysts' unadulterated WACC estimates with its own. Rather, it makes adjustments to those analysts' estimates that undermine the efficacy of the exercise. The IMs use estimates of the risk-free rate and debt premium prevailing at the time the WACC is being estimated, i.e., "spot rates".

98 In contrast, the Commission claims that analysts more typically use long-run average estimates for these parameters. It contends that applying these long-run averages results in WACC estimates that are materially higher than those produced by the IM, i.e., the analysts' unadjusted WACC estimates are higher that the Commission's. Rather than acknowledge that analysts adopt a different methodology that results in a higher WACC in current market conditions, the Commission instead changes their estimates. Specifically, it adjusts them downwards for the differences between long term averages and the spot rates that it has used to derive its own estimate of the WACC under its IM. It claims that:[55]

> *"This recognises that the use of the reasonableness tests is to assess our decision to move from use of the 75th percentile to the 67th percentile of the WACC distribution, and is not to highlight differences in the risk-free rates which are used by different analysts.* ***The approach to estimating the risk-free rate is outside the scope of this consultation****."* [Emphasis added]

99 In Orion's opinion, this is not an appropriate justification. It amounts to nothing more than saying:

> *If we adjust analysts' estimates to be consistent with the way that we have estimated things, then they are consistent with our estimates.*

100 This logic is circular, yet it is afforded substantial weight in the Draft Decision. In Orion's view, this serves to highlight the importance of calculating the cost of debt using an appropriate debt term, using the approach we described earlier. Indeed, any reasonable assessment of the "unadjusted" estimates would lead one to conclude that the Commission's use of spot rates – which is now at odds with regulatory practice in the UK and Australia – is inappropriate and currently producing a WACC that is too low.

The Commission is wrong to dismiss CEG's comparative benchmarking

101 The Commission's inappropriate treatment of WACC comparators also influences its interpretation of the international benchmarking analysis presented by CEG in a report for Wellington Electricity. CEG provided a comparison of:[56]

101.1 the implied premium on the Commission's IM WACC above the NZ Government bond rate; relative to

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[55] Draft Decision, p.103.

[56] CEG, *International precedent relevant to the 75th percentile, A Report for Wellington Electricity,* May 2014.

101.2 the implied premium above the government bond rate in regulatory decisions for EDBs in Australia, the UK and the USA.

102 That comparison revealed that the premiums provided to electricity distributors in these other jurisdictions exceeded that offered in New Zealand, even accounting for the application of the 75th percentile. That analysis did not seek to "normalise" for regulator's different approaches to, say, estimating the cost of debt. The Commission again relies on the unsound logic described above and claims that it does not find CEG's analysis persuasive, because:[57]

> *"CEG's analysis essentially compares estimates of WACC which incorporate long-term averages of the risk-free rate, with our estimate of the WACC which uses a spot rate for the risk-free rate. When interest rates are below long-term averages, as they currently are, it is unsurprising that our implied premia appears relatively small."*

103 In Orion's opinion, if there are methodological reasons why overseas regulators' WACC estimates are higher than the Commission's, those differences should not be ignored – particularly in the context of a "reasonableness" check. The Commission is essentially saying that:

> *International regulators (and domestic analysts) use long-term averages to calculate the risk free rate and the debt risk premium but we use volatile spot rates. That difference means that their WACC estimates are significantly higher than ours. But once you 'adjust' for those things that make our WACC estimate lower it no longer looks low.*

104 The most reasonable inference to draw from the CEG analysis is that the Commission needs to reconsider its assumptions pertaining to the risk free rate and the cost of debt. As we explained above, unless it does these things (and also reconsiders its WACC distribution and asymmetric cash-flow risks) it will be reducing the WACC when there is every reason to believe that it should in fact be *increasing* it from its current level.

Recent trends in capital expenditure and quality of service measures do not reveal anything meaningful

105 The Commission provides two charts (Figures 6.1 and 6.2) that show actual (for 2009-10 to 2012-13) and forecast (for the next 6 years) growth in businesses' regulatory asset values.[58] The charts show that regulated energy businesses have continued to undertake significant capital expenditure while the WACC has been at the 75th percentile. The Commission concludes that this indicates that the 75th percentile has been sufficient to cause continuing investment.

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[57] Draft Decision, p.108.

[58] Draft Decision, p.76.

106 It also provides a chart (Figure 6.3) tracking movements in quality of service measures for EDBs subject to price-quality regulation.[59] The Commission contends that, if regulated suppliers were undertaking insufficient levels of investment, this could be expected to lead to declining network reliability. However, it concludes that the data on the average duration and frequency of interruptions show no clear evidence of this.

107 In Orion' opinion, the data that the Commission presents in Figures 6.1 to 6.3 cannot form a basis for any robust conclusions about the appropriate WACC percentile. There is only 3 full years' worth of actual data from the period in which businesses have been subject to price price-quality regulation. This is not enough time to discern any robust trends and there are countless other factors that could have contributed to the observed movements.

108 To the extent that these data reveal anything, it is simply that the 75th percentile does not seem to have coincided with a reduction in the level of investment. However, that does not mean that the observed levels of investment are sufficient – it may be that something more was needed and that it was not forthcoming under the 75th percentile. And of course, the data reveal nothing about the about the adequacy of the 67th percentile. The charts therefore contain little information of relevance.

6. Concluding remarks

109 Orion is pleased that the Commission has accepted the overwhelming body of evidence that has been provided in submissions and expert reports and concluded that it is appropriate to use a WACC estimate that is significantly above the mid-point for price-quality regulation. We are particularly pleased to see the Commission's clear acknowledgement that there is a substantial asymmetry in the social costs associated with getting the WACC wrong that warrants such an increment.

110 However, Orion is concerned by several other aspects of the Draft Decision including, most notably, the proposal to reduce the WACC estimate for price-quality regulation from the 75th to the 67th percentile. In our opinion, that proposal is not well justified, because it is based on analysis that contains material errors and inconsistencies, is informed by a number of irrelevant considerations and omits consideration of factors that are highly germane to the selection of the appropriate percentile.

111 Once these errors and omissions are recognised, it is apparent that Commission does not have sufficient evidence to support its Draft Decision. Indeed, if the above matters were properly considered in the context of a full IM review (the only forum in which that is possible), it is likely that the Commission would conclude that the current WACC estimate is **too low** – even with the application of the 75th percentile. In the meantime, there is no basis to reduce the WACC percentile for price-quality regulation.

[59] Draft Decision, p.77.

112 Thank you for the opportunity to make this submission. Orion does not consider that any part of this submission is confidential. If you have any questions please contact David Freeman-Greene (GM Commercial), DDI 03 363 9848, email david.freeman-greene@oriongroup.co.nz.

Yours sincerely

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