



**Submission to Commerce Commission on  
whether the Commission should review  
or amend the cost of capital input  
methodologies**

**13 March 2014**

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## Executive Summary

1. The Commerce Commission (Commission) is proposing to review the 75<sup>th</sup> percentile WACC adjustment urgently due to concerns that uncertainty has been created by observations of the High Court.
2. Vector does not agree that the Commission should review the 75<sup>th</sup> percentile WACC adjustment in isolation or bring forward the review of the WACC input methodology (WACC IM).
3. In Vector's view, there is no clear case for an early review of the WACC IM, and no case at all for the Commission's preferred option of a "short-form" consultation on the appropriate level of the WACC percentile. Further, a short-form approach will increase rather than reduce uncertainty and risks poor quality regulatory decisions.

### *Assessment of the High Court's observations*

4. We consider that the Commission has placed undue weight on selected aspects of the Court's remarks. This is where:
  - a) The Court's "in principle" observations were *obiter dicta*. They were made by a Court operating on a closed record without the opportunity for experts for the parties to debate the issue before the Court (and where no party had presented compelling evidence in relation to the material issue of asymmetric cost).
  - b) The comments themselves were expressed as tentative and provide no indication of the likely outcome of a review of the WACC IM. As the Court acknowledged, further analysis and experience may support the Commission's original position.
  - c) The Commission's preferred position for consultation is contrary to the Court's remarks - where the Court simply expected these issues would be addressed in the 2017 IM review, would be subject to robust analysis and would include consideration of the two-tier option.
  - d) In addition, the legal and factual analysis underlying the Court's observations was, with respect, incorrect in key areas. As such, the observations are of limited persuasive value.

5. Set against the remarks of the High Court are at least 10 years of Commerce Commission regulatory practice under which the 75<sup>th</sup> percentile WACC has often been applied. Overseas regulators also often make adjustments to account for the asymmetric cost of WACC estimation error, although they use a variety of methods to do so. As recently as 2010 the Commission determined that the 75<sup>th</sup> percentile WACC adjustment was an integral part of an appropriate approach to setting the cost of capital in the long-term interest of consumers.

### *Uncertainty*

6. The *obiter* remarks by the High Court do not create more uncertainty than is inherent in the prospect of 7-yearly IM reviews. The regular IM reviews are part of the legislated Part 4 process and investors and suppliers expect them to occur and recognise that these reviews could lead to different outcomes.
7. The Commission says that the uncertainty caused by the percentile is greater than for any other aspect of the WACC IM because the risk is more likely to be a downside one. However, there is no basis for this view. The appropriate level of the percentile estimate that will be determined at the next review is at large. The High Court's comments were *obiter*, were not backed by evidence, and (as the Court noted) there was strong support for the Commission's original approach, including from the Commission's experts. In addition, the subsequent Northington Partners report referred to by the Commission falls well short of the High Court's emphasis on the need for evidence, not assertions. The Commission should not have a predetermined view that the 75<sup>th</sup> percentile adjustment will not be increased, before it has seen further evidence on this issue.
8. The Commission's preference for an immediate restricted "short-form" consultation on the appropriate level of the percentile would create, not reduce, uncertainty.
9. For the Commission to re-open fundamental aspects of the IMs in isolation in the middle of the 7-year IM review period sets a precedent that creates uncertainty for investors across all IMs (as demonstrated by investors' reactions to the Commission's position to date).
10. Under the Commission's proposed timeline, it is plausible that the 2014 review could (for example) decide to apply the 50<sup>th</sup> percentile while the later review of the full WACC IM could decide to apply a two-tier WACC. It

could also create significant implementation issues. Further, any uncertainty that may exist will continue until the Major Electricity Users Group's (MEUG) appeal is concluded, whatever the Commission does.

*The Commission's proposed "short-form" consultation process risks a poor quality decision*

11. In addition to creating uncertainty, the Commission's proposed "short-form" approach risks a poor quality decision because:
  - a) considering the WACC percentile in isolation ignores critical inter-dependencies (poor quality decisions also negatively impact on certainty and confidence in the regime); and
  - b) the time frame is too short to allow for a robust process where all relevant evidence is fully considered.
12. In relation to the first point, a separate and independent review of the WACC IM is undesirable as there are key inter-dependencies across the IMs. The Commission has also relied on the presence of the 75<sup>th</sup> percentile to justify decisions not to provide revenues to cover risks in other areas. To now re-open one element of the IMs without reviewing other connected previous decisions risks inequitable and undesirable outcomes.
13. In relation to the consultation time frames, even under the "short-form" process it would be necessary for the Commission to assess the uncertainty associated with the WACC estimates produced by the current IM as well as estimate the asymmetric effects of any consequent error in setting the WACC. In short, a proper consideration of the appropriate percentile raises significant issues in relation to other aspects of the WACC IM and would require a level of analysis not much short of a full review.
14. As a result, a robust consultation process would be required. In particular, ahead of the draft determination, the process would need to allow for responses to any initial expert evidence and a conference or workshop (so that any differences between the experts could be identified, explored and, if possible, resolved). The indicative timetable set out at paragraph 52 of the consultation paper is completely inadequate in this regard, resulting in a real risk of procedural unfairness and error.
15. Overall, there is no justification for a short and restricted consultation given the uncertainty it would create and the risk of a poor quality outcome. The

Commission's concern that the comments in the judgment create uncertainty are without basis. Nor is there any evidence that the Commission's original decision on the appropriate percentile is wrong.

## Introduction

16. Vector welcomes the opportunity to provide this submission to the Commission on the consultation paper *Invitation to have your say on whether the Commerce Commission should review or amend the cost of capital input methodologies* (Consultation paper), dated 20 February 2014.
17. Vector's contact person for this submission is:  
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18. In this submission we discuss the context for the proposal to review the cost of capital input methodology. We then respond to the questions the Commission asks in the consultation paper and comment on the Commission's proposed review process.
19. This submission does not cover the full range of issues relevant to this topic given the short timeframe provided for responses to the Consultation paper.

## Background

20. The Commission considers that comments in the High Court judgment on the cost of capital have created uncertainty and is seeking views on the appropriate response.
21. MEUG appealed various aspects of the input methodologies, including the use of the so-called 75<sup>th</sup> percentile estimate of WACC for setting prices under default price-quality path (DPP) and individual price-quality path (IPP) regulation. MEUG argued that the WACC for these purposes should be set at the mid-point (50<sup>th</sup> percentile) or alternatively that a two-tier approach should be adopted whereby the 75<sup>th</sup> percentile WACC is applied to new investment only.
22. The High Court rejected the appeal and upheld the WACC IMs. In summary the Court:
  - a) concluded that, in the absence of "positive evidence" it was unable to be satisfied that setting the WACC at the 50<sup>th</sup> percentile would be

materially better at meeting the purpose of Part 4, and that the "same difficulty" applied to MEUG's two-tier proposal;<sup>1</sup>

- b) noted that, although there had been extensive consultation on the issue and there was strong support from experts (including the Commission's experts) for selecting a percentile above the mid-point, there was no empirical evidence as to the appropriate percentile. Rather, the selection of the 75<sup>th</sup> percentile represented an exercise in judgement by the Commission;<sup>2</sup> and
  - c) ventured a number of "tentative in-principle arguments" counter to the Commission's reasoning,<sup>3</sup> but noted that these arguments suffered from the same lack of empirical support as the Commission's approach.<sup>4</sup>
23. The Court went on to note that it would expect these issues to be considered further by the Commission when the IMs are reviewed in 2017. Specifically the Court noted that:<sup>5</sup>
- In reaching this decision not to amend the IM in respect of the use of the 75<sup>th</sup> percentile for DPP/CPP regulation, we are mindful that the IMs will be reviewed. At that time, we would expect that our scepticism about using a WACC substantially higher than the mid-point, as expressed above, will be considered by the Commission. We would expect that consideration to include analysis – if practicable – of the type proposed by MEUG. We would also expect the Commission to consider MEUG's two-tier proposal in light of our observations. We acknowledge that further analysis and experience may support the Commission's original position. But they may not. ...
24. Following the merits review judgment, several consumer lobby groups have petitioned the Commission to undertake a review of the WACC IM on the basis of the views expressed in the High Court judgment and in order to prevent the extraction by regulated suppliers of "excessive profits".
25. The Commission has expressed the view that the comments in the High Court judgment create regulatory uncertainty and hence it is consulting on whether to review or amend the WACC IM. The Commission has outlined three options: (1) to consult on these issues when the IMs are next reviewed (as suggested by the High Court); (2) to bring forward the review of the WACC IM; or (3) consult only on the WACC percentile with the aim of

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<sup>1</sup> *Wellington International Airport Limited v Commerce Commission* [2013] NZHC 3289 (MR Judgment), at [1483-1485].

<sup>2</sup> MR Judgment, at [1462-1470].

<sup>3</sup> MR Judgment, at [1471].

<sup>4</sup> MR Judgment, at [1482].

<sup>5</sup> MR Judgment, at [1486].



completing the work prior to November 2014. The Commission has stated it currently favours option (3).

### **Assessment of the High Court's remarks**

26. We believe that the Commission has placed undue weight on the Court's remarks, creating the very uncertainty it seeks to avoid. This (incorrect) approach informs the Commission's views on uncertainty and its expressed concern that suppliers may be earning excess profits under the current WACC IM.
27. In particular, an analysis of the Court's remarks demonstrates that:
  - a) The Court's "in principle" observations were *obiter dicta*. They were made by a Court operating on a closed record without the opportunity for experts for the parties to debate the issues before the Court and where no party had presented compelling evidence in relation to the material issue of asymmetric cost. As such, they are of limited persuasive value.
  - b) The Court framed its concerns as "tentative" and "in-principle", and referred to its "scepticism" about the 75<sup>th</sup> percentile approach rather than reaching any firm conclusion. The Court clearly expected further robust examination of evidence to be undertaken before any changes were made. As the Court acknowledged, further analysis and experience may support the Commission's original position. The comments in themselves give no indication of the likely outcome of a review of the WACC IM.
  - c) The Commission has also been selective in its reliance on the Court's remarks. For example, the Court: expected that the 75<sup>th</sup> percentile adjustment be considered at the next regular IM review; was clear that the two-tier approach should be part of any future consideration; and emphasised the need for a robust and comprehensive assessment of empirical evidence and theory. As will be expanded on below, the Commission's preferred option is in direct contrast to these comments.
28. In addition, the analysis underlying the Court's *obiter* comments was, with respect, incorrect (noting that the Court accepted that its own comments were not supported by empirical evidence). In particular:

- a) The Court stated that "the expectation of earning (only) a normal return on new investment ought to be an attractive proposition for a regulated supplier."<sup>6</sup> However, arguments for why regulatory WACC should be set above the best estimate of WACC have been recognised by regulators in comparable jurisdictions to New Zealand for a number of years; this range is much wider than the two UK airport decisions that were before the Court.
  - b) Similarly, the Court's remark that "Future investment choices by suppliers must rationally be influenced by expected earnings on those future investments, not by earnings on past investments"<sup>7</sup> implies that investors assume past decisions made by regulators have no predictive value for future decisions to be made by regulators. Such an assumption is simply not plausible.
  - c) The Court also suggested that any returns over the mid-point would be inconsistent with Part 4. This does not reflect the statutory wording in section 52A(1)(d) which requires that the ability to extract excessive profits are limited (not eliminated).
  - d) Finally, the Court's comments that "the outputs of regulated suppliers are inputs to numerous – probably all – other sectors of the economy, as well as being used by final consumers. ... At the least, the inter-sectoral effects ought to be considered, and if possible estimated"<sup>8</sup> are contrary to accepted academic theory. They also stand in contrast to the Court's comments earlier in the judgment that "... it is to be noted that the overall purpose of Part 4 is to promote the long-term benefit of consumers of regulated goods and services, and not the interests, for example, of consumers of unregulated services or to provide more general incentivising effects which may be considered to be in the interests of the wider New Zealand economy."<sup>9</sup>
29. Set against the remarks of the High Court are at least 10 years of Commerce Commission decisions and regulatory practice under which the 75<sup>th</sup> percentile WACC has often been applied. Overseas regulators also often make adjustments to account for the asymmetric cost of WACC estimation error, although they use a variety of methods to do so (**Appendix 1** discusses relevant precedent in this regard). As recently as

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<sup>6</sup> MR Judgment, at [1472].

<sup>7</sup> MR Judgment, at [1479].

<sup>8</sup> MR Judgment, at [1475].

<sup>9</sup> MR Judgment, at [686].

2010, the Commission determined that the 75<sup>th</sup> percentile WACC adjustment was an appropriate approach to setting the cost of capital in the long-term interest of consumers. Vector does not believe the Commission should hastily set aside its previous decisions and the basis for them on the grounds of *obiter* remarks that are, as discussed above, not necessarily well grounded in fact and/or law.

30. In conclusion, in Vector's view, in these circumstances the Court's *obiter* comments should not be accorded undue weight, particularly before the Court of Appeal has had an opportunity to consider them in the context of MEUG's appeal of the High Court decision.

### **Uncertainty**

31. In this section, Vector considers the following question posed by the Commission:

*Are the positive incentives provided by using the 75<sup>th</sup> percentile WACC significantly weakened until the Commission addresses the concerns raised by the court?*

### **Overview**

32. A key reason for the Commission's preferred option - an immediate and restricted consultation on the appropriate WACC percentile only - is the Commission's view that the High Court's comments on the 75<sup>th</sup> percentile have created uncertainty. In particular, the Commission:
- a) Agrees with MEUG / EMA / Consumer NZ that "a material uncertainty will remain until investors know whether the [Commission's] consideration of the concerns raised by the High Court about the uplift from the mid-point to the 75<sup>th</sup> percentile will result in [the Commission] retaining, reducing or removing that uplift"; and
  - b) Considers the uncertainty concerning the uplift may be having an effect on investment incentives already.
33. For the reasons set out below, the Commission's view that the comments in the High Court judgment have created "material uncertainty" and / or weakened incentives provided by the 75<sup>th</sup> percentile is without sound basis. To the contrary, the Commission's preference for an immediate but limited

consultation on the appropriate percentile has increased uncertainty among investors.

***The obiter remarks of the Court have not created more uncertainty***

34. As noted above, the Court's remarks were *obiter dicta* and tentative and should not be afforded the weight apparently placed on them by the Commission.
35. Further, the *obiter* remarks by High Court do not create more uncertainty than is inherent in the prospect of 7-yearly IM reviews. In particular:
- a) The regular IM reviews are part of the legislated Part 4 process and investors and suppliers expect them to occur and recognise that these reviews could lead to different regulatory outcomes.
  - b) For example, any aspect of the WACC IM could be amended under the 7-yearly review, potentially resulting in changes to allowable revenue up or down (noting that any changes to the DPP price setting methodology will also have an impact).
  - c) With or without the High Court's comments, the 2017 IM review would have included a review of the 75<sup>th</sup> percentile, with MEUG likely raising the questions that led to the *obiter* comments by the Court. That is, the comments do not cause material uncertainty compared to what would otherwise have been the position.
  - d) The Commission says that the uncertainty caused by the percentile is greater than for any other aspect of the WACC IM because the risk is more likely to be a downside one. However, there is no basis for this view. As set out in the section above, the High Court's comments were *obiter* and tentative, were not backed by evidence, and (as the Court noted) there was strong support for the Commission's original approach, including from the Commission's experts.<sup>10</sup> The comments do not give an indication of, and were not intended to give an indication of, what the final outcome of a review will be. That is, the appropriate level of percentile to be determined at the next review is at large and will be determined following full consideration and analysis of the relevant evidence. In addition, the subsequent Northington Partners

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<sup>10</sup> MR Judgment, at [1470].

report referred to by the Commission falls well short of the High Court's emphasis on the need for evidence, not assertions.<sup>11</sup>

- e) In relation to the point above, when the Commission does consult, it is required to approach these issues with an open mind. We would not expect the Commission to reach a pre-determined view that the 75<sup>th</sup> percentile adjustment could not be increased before it has seen further evidence on this issue.
  - f) New theories and techniques, changing economic circumstances and comments from judges in the period leading up to the review will all be expected to influence the outcome, following a full and comprehensive review process.
36. We also note that the Commission's concerns regarding uncertainty (because of the risk that the 75<sup>th</sup> percentile may change) appears to be inconsistent with its previous positions on certainty, as accepted by the Supreme Court. For example, the Commission has previously successfully argued that:<sup>12</sup>
- a) Setting the DPP for a defined period provides the regulatory certainty envisaged under Part 4.
  - b) The prospect of change at the end of the defined period may create uncertainty for a supplier, but this represents the legislative balance between predictability and a level of regulatory flexibility.<sup>13</sup>
  - c) IMs do not provide certainty in relation to the regulatory control decisions (the DPP and the customised price-quality path (CPP)) as other factors must also be considered.<sup>14</sup>
37. That is, according to the Commission and Supreme Court position any uncertainty created by the prospect of consulting on an IM in the 2017 review (which would then apply for the next DPP reset) is appropriate and a feature of the Part 4 regime.<sup>15</sup>

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<sup>11</sup> See paras 88 - 91 below.

<sup>12</sup> See for example, the Commission's submission to the Supreme Court, in *Vector Limited v Commerce Commission* [2013] NZSC 99, paras 46, 50, and 51 - 52.

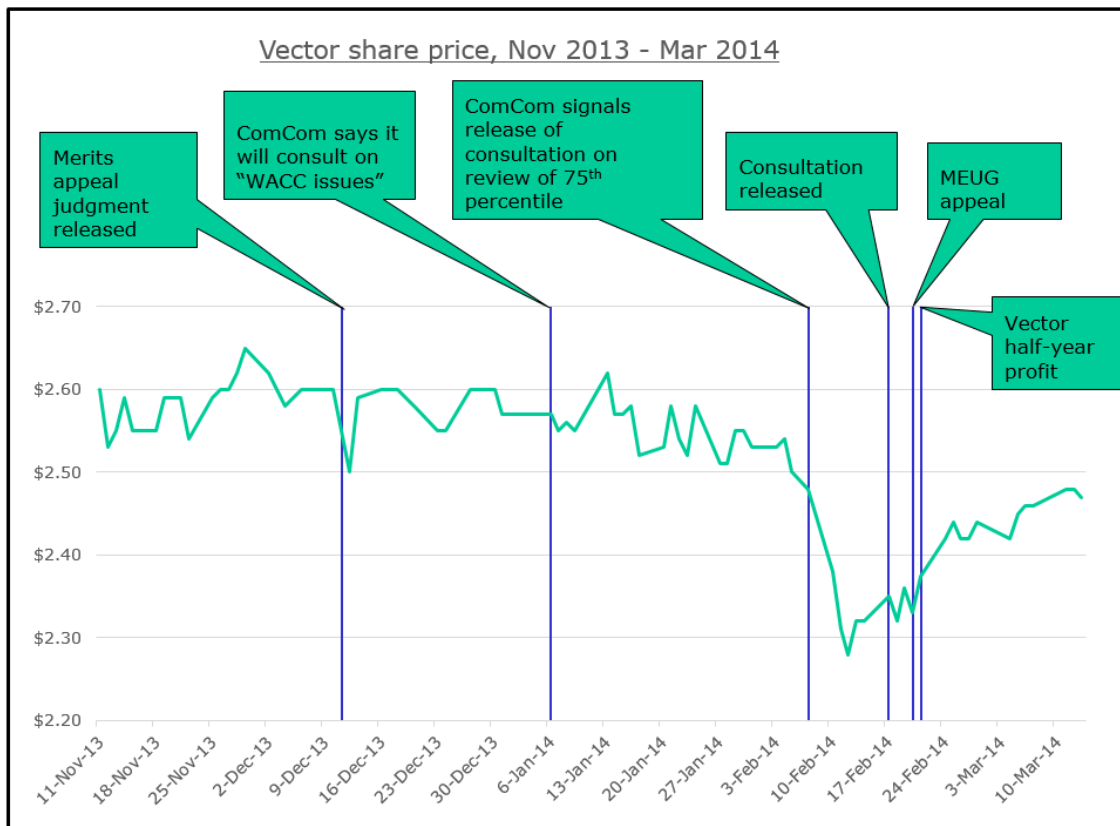
<sup>13</sup> Commission's submission to the Supreme Court, para 46.

<sup>14</sup> Commission's submissions to the Supreme Court, paras 51 - 52; Commission's submissions to the Court of Appeal in *Commerce Commission v Vector Limited* [2012] NZCA 220, paras 45 - 49.

<sup>15</sup> Commission's submissions to the Supreme Court, paras 50 - 51.

***The Commission's proposal has created uncertainty among investors***

38. Contrary to the Commission's position on uncertainty, the Commission's preference for a "short-form" process creates, rather than reduces, uncertainty:
- a) The Commission is proposing to re-open fundamental aspects of the IMs in isolation (i.e. separate from reviews of the rest of the IM or other IMs) in the middle of the 7-year IM review period and within a restricted time frame. This action creates a precedent and the perception that similar mid-period selective re-opening of IMs could become a feature of the regulatory regime, including in response to lobbying by particular stakeholder groups as has occurred in this case. Such a precedent creates uncertainty for investors as to the stability of the regulatory regime.
  - b) Under the Commission's proposed timeline, it is plausible that in its 2014 review the Commission could (for example) decide to apply the 50<sup>th</sup> percentile, while in its later review of the full WACC IM it could decide to apply a two-tier WACC. Under this scenario there would be two substantive shifts in position on a critical issue over a 3-year period, which would not promote certainty in any way. It could also create significant implementation issues.
39. Vector has assessed recent regulatory events against changes in its share price, illustrated in the chart below. The chart demonstrates that the share price remained relatively stable after the judgment was released. However, the share price fell sharply as the Commission's intent to urgently review the 75<sup>th</sup> percentile WACC adjustment became clear. This is likely to represent the impact on the market of the Commission giving strong consideration to re-opening a material part of an IM prior to the 7-yearly review (i.e. the market had already factored in a WACC IM review in 2017, including the 75<sup>th</sup> percentile adjustment, but the announcement that the 75<sup>th</sup> percentile adjustment could be reviewed earlier was a surprise and drove a substantial reduction in value). The recent, partial, rebound in the share price has been driven by a half-year company profits announcement.



### ***Impact of MEUG's appeal on uncertainty***

40. As the Commission is aware, MEUG has appealed against the High Court decision. The outcomes of this appeal are uncertain and we believe it is premature for the Commission to seek to address the 75<sup>th</sup> percentile issue while the appeal is progressing. There are three broad plausible outcomes from MEUG appeal:
- a) The Commission is instructed to implement a 50<sup>th</sup> percentile WACC;
  - b) The Commission is instructed to implement a two-tier WACC; or
  - c) The High Court decision that there was no evidence to support a materially better alternative to the 75<sup>th</sup> percentile is upheld.
41. The Commission's proposed review could deliver outcome (a) or outcome (c) but, as the two-tier WACC is excluded from its proposed process, outcome (b) is not available through the Commission's proposed review. In addition, there is of course no guarantee the Court of Appeal will reach the

same conclusion as the Commission. In particular, there is a significant risk that the Commission's decision following its review could in effect be overturned by the Court of Appeal, for example if the Court disagrees with the High Court's *obiter* comments. Undertaking a review in these circumstances risks wasting significant effort and resources. It also does nothing to reduce uncertainty as any uncertainty that may exist will continue until the appeal process is concluded.

### **The Commission's preferred position risks a poor quality decision**

42. In this section, Vector considers the following two questions posed by the Commission:

*Should the Commission bring forward a review of the cost of capital IMs?*

*Should the Commission consider an amendment to the cost of capital IMs solely of the 75<sup>th</sup> percentile WACC estimate used for setting price-quality paths?*

43. Vector strongly recommends the WACC IM is reviewed alongside other IMs as part of the normal IM review process. Bringing forward consultation on the WACC percentile risks a poor quality decision because:
- a) considering the WACC percentile in isolation ignores critical inter-dependences; and
  - b) the time frame is too short to allow for a robust process where all relevant evidence is fully considered.
44. Poor quality decisions also negatively impact on certainty and confidence in the regime.
45. In addition, there are no compelling reasons to review the WACC IM before the other IMs that would justify Commission's preferred approach. As explained above, the uncertainty concerns are unfounded. Nor is there any evidence that the current WACC is too high.<sup>16</sup>
46. Importantly, the Commission's position is also inconsistent with the remarks of the Court, where the Court did not express a view that the review of the WACC IM should be brought forward or that the 75<sup>th</sup> percentile adjustment

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<sup>16</sup> We set out at paras 88 - 91 below our view why the Northington report is not evidence that the current WACC is too high.



should be considered in isolation. Rather, and as noted above, the Court expected the review to take place as part of the normal IM review process and for the Commission to consider its remarks “at that time”. In addition, the Court was also clear that the two-tiered approach be considered, which the Commission is now suggesting be deferred and that there should be a robust assessment of empirical evidence and theory (which requires a robust consultation process).

***There are intra and inter-dependencies within the WACC IM and across IMs and other regulatory decisions***

47. A separate and independent review of the WACC IM is also undesirable in that there are key dependencies and interlinkages across the IMs. When the Commission set the IMs it exercised its judgment to make trade-offs between the different elements of the IMs. Had the Commission decided in 2010 not to include the 75<sup>th</sup> percentile adjustment, it is by no means clear the rest of the IM decisions would have been the same. As the Commission submitted to the High Court in the IM appeals:<sup>17</sup>

In setting the IMs the Commission was designing the key parameters for the new regulatory regime. This involved the exercise of broad judgements, implementing broad economic and legislative policy objectives. The Commission undertook this process as a single exercise, considering all the IMs as a package, and inseparable from the new regulatory regime. Judgements made in that context are not readily susceptible to a 'right/wrong' analysis, and the close focus on individual aspects of the IMs in isolation from the broader sweep of the implementation decisions raises the risk that the critically important overall economic and policy objectives will be overlooked.

48. The Commission notes that the Court believed the question of using the 75<sup>th</sup> percentile WACC was separable from the question of whether the rest of the WACC calculations were right.<sup>18</sup> However, that does not mean that the choice of percentile is separate from the other features of the WACC (and potentially other) IMs - rather, these remain relevant to any assessment of the risk of estimation error and its consequences.
49. In this respect, it is relevant that the Commission has relied on the presence of the 75<sup>th</sup> percentile to justify decisions not to provide revenues to cover risks in other areas. As the Commission stated in the Final Reasons Paper:<sup>19</sup>

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<sup>17</sup> Commission's written submissions in *Wellington International Airport Limited v Commerce Commission* [2013] NZHC 3289, 6 August 2012, Volume 1 at [157].

<sup>18</sup> Consultation paper, para 32.

<sup>19</sup> Commerce Commission, *Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper*, 22 December 2010 (Final Reasons Paper), at [H11.54].

The Commission's choice over the precise percentile estimate of the cost of capital that is used for each regulatory instrument is informed by a number of factors, including considering:

- That the purpose of Part 4 is to promote the long term benefit of consumers, including:
  - i. ensuring suppliers of regulated services have incentives to invest and
  - ii. innovate, which will benefit consumers over time (s 52A(1)(a)); ensuring suppliers of regulated services are limited in their ability to extract excessive profits (s 52A(1)(d));
- that in workably competitive markets the risks are borne by the party that is best equipped to manage these risks. That is, not all risks can be passed on to the consumer and that firms will have to manage some of the risks themselves;
- the risk that the true (but unobservable) cost of capital is above the estimated mid-point WACC;
- the risk that CAPM and the simplified Brennan-Lally CAPM may under-estimate the returns on low beta stocks;
- the risk that the use of a domestic CAPM (simplified Brennan-Lally) may lead to higher estimates of the cost of capital than the international CAPM and that international investors can be viewed as the key marginal investors;
- the impact on potential subsequent investment by service users and the potential impacts on dynamic efficiency; and
- considering the risk of error in estimating individual parameters of the simplified Brennan-Lally CAPM including beta and the TAMRP. For example, the Commission has considered the risk that the values for some parameters may be above their true (but unobservable) level including, for example, the estimated asset beta, debt issuance costs.

50. The Commission has also relied on the 75<sup>th</sup> percentile approach in other contexts. For example, in the Orion CPP determination, the Commission stated that the 75<sup>th</sup> percentile had the practical effect of acting as a buffer against the financial impact of catastrophic events.<sup>20</sup> In relation to the DPP reset, the Commission has referred to the 75<sup>th</sup> percentile in support of its position that the DPP reset would enable a normal return.<sup>21</sup> These factors reflect the degree of complexity associated with these issues and the wide

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<sup>20</sup> Commerce Commission *Setting the customised price-quality path for Orion New Zealand Limited- Final reasons paper* [2013] NZCC 21, 29 November 2013, at paras C5.2 and C24-C32.

<sup>21</sup> See for example, Commerce Commission, *Revised Draft Reset of the 2010-15 Default Price-Quality Paths*, 21 August 2012, at para 110.

range of issues that would need to be considered if and when the 75<sup>th</sup> percentile is reviewed.

51. As a result, there are key linkages between the choice of the 75<sup>th</sup> percentile and other features of the regulatory regime. In Vector's view, to now re-open one element of the IMs without reviewing other connected previous decisions risks inequitable and undesirable outcomes. It also contributes to uncertainty by creating perceptions that the Commission will review parts of the regulatory regime without considering how those parts relate to the overall framework.
52. The Commission acknowledges that a review of the 75<sup>th</sup> percentile on its own may make it more difficult for inter-dependencies with other aspects of the WACC IM (or other IMs) to be taken into account. The Commission suggests that one way of addressing such concerns may be to undertake reasonableness checks of the WACC estimate produced by any change to the WACC percentile.<sup>22</sup>
53. While reasonableness checks can be useful in the context of a full WACC review, Vector does not believe they are a robust means of assessing the validity of any particular WACC percentile within a reasonable range. Both the 50<sup>th</sup> and 75<sup>th</sup> percentile WACCs were within the range of the Commission's reasonableness checks. Figure 6.6 of the Commission's IM Reasons Paper showed a range from 5.9% for Airways ANS to 8.5% for the NZ historical average return over 1900-2009; i.e. a range of 2.6%. As the 75<sup>th</sup> percentile adjustment for electricity distribution businesses (EDBs) is only around 0.8%, the reasonableness checks are clearly too imprecise a tool for the Commission to rely on to identify whether a 75<sup>th</sup> percentile (or other) adjustment is warranted.
54. Any comparison with estimates by other regulators would also need to have regard to the extent to which alternative estimates are derived from alternative approaches or differences in estimation approach. Comparisons would also need to consider the extent to which estimates from other regulators reflect prevailing market conditions, as it may have been some time since those corresponding decisions were made. As was demonstrated before the High Court in the IM appeals, this is an exceedingly complex issue on which there is no generally agreed approach.

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<sup>22</sup> Consultation paper, paragraph 36.

***There is no basis for considering the 75<sup>th</sup> percentile adjustment differently to other issues raised by the High Court***

55. The 75<sup>th</sup> percentile adjustment was not the only aspect of the WACC IMs the Court considered the Commission should review. The Court stated its expectation that the Commission would review the 75<sup>th</sup> percentile WACC adjustment, the two-tier WACC option, the use of the Brennan-Lally CAPM, and the term credit spread differential. The Commission is proposing to review only the first of these four items and there does not appear to be any principled reason for that approach. The use of a different CAPM, in particular, may also lead to a different regulated WACC which could, on the Commission's logic, mean suppliers are earning "too much" or "too little" until any new CAPM is implemented. However, the Commission does not propose to address this issue before the 2017 IM review or to consider whether there is a way of reopening prices to address this point.
56. In proposing not to review any issue raised by the Court other than the 75<sup>th</sup> percentile, the Commission is being selective about what issues need to be addressed quickly. In Vector's view, this position is not sustainable. In the context of an IM that needs to be determined as being materially better, it is not appropriate for timeframe constraints to prevent potentially materially better alternatives from being considered.
57. Overall, considering the appropriate percentile in isolation is unrealistic and carries a high risk of poor quality outcomes and decisions.

***Robust process required for a full cost of capital IM review***

58. In order to ensure a good quality decision, a robust and proper consultation process is required.
59. The Commission has sought views on how long a review of the WACC IMs should take.
60. It is helpful to consider the process the Commission followed when it set the WACC IM in December 2010. The Commission started the process to determine its cost of capital with the release of WACC guidelines in October 2005 (and this work was subsequently treated as part of the WACC IM process). The WACC IM process itself commenced in December 2008, the IMs were determined in December 2010 and were upheld by the High Court in December 2013. The process involved, in order, discussion papers, revised draft WACC guidelines, a straw man worked example, workshops,

expert reports, draft reasons and determinations, and revised draft determinations (a technical consultation stage).

61. The length of the process and the Reasons Paper is an indication of the complexity of the issues regarding cost of capital and the number of factors the Commission had to consider. It is also notable that expert reports and workshops (among other things) were undertaken prior to the release of a draft decision. This enabled the Commission to consider the issues and evidence before reaching a (draft) position.
62. We do not believe that a review of the WACC IMs would need to be as lengthy as the previous process as not all of the initial analysis and deliberation would need to be reviewed. However, the Commission's timeframes would nevertheless need to allow for consideration of all relevant issues and key consultation steps. Specifically, a review of the WACC IMs would need to at least include:
  - a) a review of any new international theory and practice related to the cost of capital since the IMs were set;
  - b) updates to parameters based on changed market conditions and any new evidence or information that has become available (e.g. whether to adopt a different CAPM);
  - c) consideration of whether the original WACC IMs have in fact delivered outcomes consistent with those produced in workably competitive markets;
  - d) sufficient time for a full consultation process including a conference or workshops, expert reports and reviews of those expert reports (importantly, prior to the release of a draft determination); and
  - e) a review of the *obiter* remarks of the High Court and an assessment of their validity.

63. In our view, this process would take approximately 18 months.

***Time frame for short-form consultation insufficient***

64. In Vector's view, even the restricted "short-form" consultation on the WACC percentile (with which Vector strongly disagrees) could not be completed within the compressed time-frame contemplated by the Commission.

65. The analysis required would be a significant task, even for the short-form consultation. In particular, it would be necessary for the Commission to assess the uncertainty associated with the WACC estimates produced by the current IM as well as estimate the asymmetric effects of any consequent error in setting the WACC. The former issue turns, among other things, on the Commission's choice of CAPM variant; itself an area that the Court stated the Commission should review, and one that has other implications for the WACC IM (such as the appropriate level of the TAMRP, for example if an international CAPM was selected).<sup>23</sup> In short, a proper consideration of the appropriate percentile raises significant issues in relation to other aspects of the WACC IM and would require a volume of analysis not much short of a full review of the WACC IM.
66. Complexity would also be increased to the extent that any additional issues (for example, in relation to compensation for the risk of catastrophic events) were sought to be captured within the adjustment.<sup>24</sup>
67. As a result, and in light of the extensive expert evidence that would likely be prepared by the various parties, a robust consultation process would be required. In particular, the process would need to allow for appropriate cross-submissions on any initial expert evidence (including the evidence from the Commission's experts) ahead of a draft determination. As occurred in the determination of the current IMs, in Vector's view a workshop or conference would also be required ahead of the draft determination so that any differences between the experts could be identified, explored and, if possible, resolved.
68. Vector notes that the indicative timetable set out at paragraph 52 of the Consultation paper is completely inadequate in this regard. There is no timetable for the provision of expert evidence in advance of the draft determination, nor provision for cross-submissions or a conference, resulting in a real risk of procedural unfairness and perception of pre-determination.
69. In the absence of a proper process, the risks of poor quality decisions are significantly increased. In Vector's view, the minimum timeframe for this consultation is as follows:

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<sup>23</sup> As noted at para 49 above, the Commission stated in the Final Reasons Paper that its choice of the 75<sup>th</sup> percentile was in part due to the risk that the CAPM variant it had employed mis-estimated the required returns on equity.

<sup>24</sup> Commerce Commission *Setting the customised price-quality path for Orion New Zealand Limited - Final reasons paper* [2013] NZCC 21, paras C5.2 and C24 - C32.

| <b>Notice of intention to amend the cost of capital IMs</b>  | <b>End of March</b>                   |
|--|---------------------------------------|
| Commission discussion paper (and expert evidence) covering issues to be considered, including for example: <ul style="list-style-type: none"> <li>• <i>International theory and practice since IMs were set;</i></li> <li>• <i>Any new evidence / changed market conditions relevant to parameters;</i></li> <li>• <i>Any evidence relevant to whether WACC IMs meeting Part 4 purpose;</i></li> <li>• <i>Commission's preliminary view based on the above.</i></li> </ul> | Late May                              |
| Submissions on discussion paper (including submitters' expert reports)<br>Commission experts to provide review of submissions  | Early July                            |
| Cross-submissions  | Mid-July                              |
| Workshop (ideally to include experts to discuss points of difference)  | Early August                          |
| Post-Workshop Submissions  | Early September                       |
| Draft amendments to the WACC IMs   | Mid November                          |
| Submissions due on draft amendments  | Late December                         |
| Cross-submissions due on draft amendments  | Late January (allowing for Christmas) |
| Final amendments to IM determinations  | Early April 2015                      |

### ***Other process issues***

70. The Commission's proposed 75<sup>th</sup> percentile WACC review would overlap with the EDB DPP and Transpower IPP reset processes. Vector considers that reviewing key IMs and determining DPP resets at the same time is not desirable. The IMs should be set first and DPPs (and IPPs) then determined on the basis of the IMs, with no uncertainty as to what the IM will be. There is insufficient time to review the WACC IM before the 2015 reset. But it may also be undesirable to review the WACC IM and other IMs at the same time as the gas DPP resets in 2017. We suggest a sensible approach would be to reset the electricity DPP and IPP in 2014, review the IMs (not just the WACC IM) by the end of 2016 and review the gas DPPs in 2017.
71. The Commission should also be mindful of the workloads already faced by itself and all other stakeholders this year. To also review the WACC IM will

necessarily reduce the focus available on other issues and risks limiting the scope for improvements to be made to the DPP and IPP regimes.

## **Conclusion**

72. In these circumstances and as discussed above, Vector's view is that there is no clear case for an early review of the WACC IM, and no case at all for the Commission's preferred option of a "short-form" consultation on the appropriate level of the WACC percentile.

## **Options for back-dating the outcome of a future IM review**

73. This section responds to the following question:

*Is there any other option that avoids the risk of locking in higher prices for electricity consumers, if the Commission were to later conclude that the uplift should be reduced or is not warranted?*

74. Vector considers that the basis of this question is wrong:
- a) The prices that apply are based on input methodologies that the Commission determined in 2010 as being in the long-term interest of consumers and which were upheld by the High Court.
  - b) Under the Part 4 regime, these IMs are intended to apply unless and until the IMs are changed following a full consultation process.
  - c) If the Commission changes an IM in the future, the previous versions of that IM should not then be seen as "wrong" or enabling excessive profits. This would be contrary to the forward looking nature of the regime.
  - d) Under Part 4, certainty is provided for by setting the DPP for a defined period. While the Commerce Act 1986 allows IMs to be amended during this period, (where the amended IM could mean lower or higher prices) the IMs cannot be applied until the following DPP reset, nor can claw-back be applied. That is, Parliament has prioritised the certainty provided by the DPP. The Commission's concerns about "locking in" higher (or lower) prices does not reflect the intended operation of the Act.



75. Overall, we consider the Commission is wrong to seek to address concerns about higher or lower prices being locked in prior to full consultation on the IM. Nor do we consider such concerns (raised before all the evidence has been considered) can justify a short and limited consultation process - given the increased risk of a poor quality decision.
76. For these reasons, we have not fully considered further options. Our preliminary view is that seeking to find a mechanism that enables the Commission to re-open the DPP would arguably circumvent the intended process for amending IMs under Part 4 (where a DPP is only to be re-opened in limited circumstance and not on the basis of an amended IM).

### **Evidence regarding the 75<sup>th</sup> percentile and alternatives**

77. This section responds to the following question:

*What evidence is there in support of either the 75th percentile or credible alternatives?*

78. The Commission's consultation on whether to review the WACC IMs is not purely a process consultation. It contains questions on substantive issues, in particular regarding the existence of evidence in support of the 75<sup>th</sup> percentile or credible alternatives. It is simply not feasible to answer such wide ranging and substantive questions in a three-week consultation period.
79. Also, we do not believe it is appropriate for the Commission to place these questions within what should be a process consultation and expect responses on them within such a short timeframe. The Commission should address the question of whether the WACC IMs should be reviewed before it considers the appropriate WACC percentile estimate.
80. Vector considers that a WACC IM with a 75<sup>th</sup> percentile adjustment was and remains a materially better approach to meeting the Part 4 Purpose statement than a 50<sup>th</sup> percentile WACC estimate. There has been insufficient time in this consultation period to provide evidence of this but we are working towards compiling this evidence and expect the Commission to consider the evidence we provide prior to the preparation of any draft decision.
81. As noted above, the impression seemingly gained by the Court that the approach adopted by the Commission has found only narrow favour

elsewhere is wrong. Arguments for why regulatory WACC should be set above the best estimate of WACC have been recognised in a broad range of international regulatory practice (although methodologies vary); this range is much larger than the two UK airports decisions referred to by the High Court. As also noted above, some illustrative examples are presented in Appendix 1.

82. We also offer a reminder that the Commission's own experts supported the use of the 75<sup>th</sup> percentile adjustment. For example, Dr Lally stated "the 75<sup>th</sup> percentile is is probably the lower bound on what you might choose. And you could easily choose something well above that".<sup>25</sup> Vector recommends the Commission seeks further evidence from its experts in support of their views.
83. More broadly, in considering this issue it is necessary to take a top-down approach. The Commission's 75<sup>th</sup> percentile estimate is an attempt to allow for error in the estimation of the parameters entering the calculation of WACC. However, that does not allow for the other source of error, model error, which arises from inadequacy of the CAPM as a description of the real investment world that it attempts to describe. The CAPM is an abstraction from reality that is intended to be analytically tractable and yet capture the key features of the real world. While the CAPM is commonly accepted as being the best available model for estimating the cost of equity, there is growing evidence in the finance literature that the CAPM does not fully capture the true costs facing a company when making investment decisions. That is, in the real world there are significant factors operating that depart from the assumptions of the CAPM and with the result that the estimate of WACC obtained by use of the CAPM is likely to understate the true cost of capital.
84. These factors include optimisation and stranding risk, market frictions, timing flexibilities, and firm resource constraints. The Commission has considered these factors but, largely because of the difficulty of precise estimation of the impact of these factors, it has decided not to include an additional margin in the estimation of WACC. The size of the margin is indeed uncertain but regulation that assumes it is zero is likely to result in underinvestment in the regulated business as firms will direct their investment expenditure to other areas where anticipated returns reflect a margin over the CAPM-based estimate of WACC.

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<sup>25</sup> Transcript of Cost of Capital Workshop, 13 November 2009, p 225.

85. There is a strong body of evidence from surveys of capital expenditure practice that indicates that the return that firms regard (at least ex ante) as commercially realistic is in excess of the CAPM-based estimate of WACC. This is consistent with the outcomes produced in workably competitive markets, and we would expect evidence of this nature to be relevant to any consultation.

***Northington Partners report***

86. On page 15 of the Consultation paper, the Commission suggests that the observations of Northington Partners regarding the valuation of Transpower and the recent acquisition of a 42% equity stake in Powerco imply the 75<sup>th</sup> percentile WACC is higher than needed to promote efficient investment. In particular, the Commission notes that Northington Partners:
- a) assesses the return required by potential investors in Transpower at 7.00%, lower than the Commission's 75<sup>th</sup> percentile WACC of 7.19%; and
  - b) states that its analysis indicates that the enterprise value for Powerco implied by the transaction is "well in excess" of book value, implying that the new investor's required rate of return is lower than Powerco's regulated rate of return.
87. Vector is in the process of commissioning an expert review of the Northington analysis, which will be provided to the Commission when available.
88. However, Vector's initial view is that the Northington report is not persuasive evidence that the 75<sup>th</sup> percentile WACC is higher than needed to promote efficient investment.
89. In relation to Transpower, the Northington report notes that, because almost all of the inputs are measured with considerable error, the "reasonable" range of WACC estimates is usually quite wide.<sup>26</sup> The report then goes on to estimate a WACC for Transpower of 7.00% assuming a leverage of 62.5% and an allowance for regulatory risk of a 15% premium to the return on equity. However:

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<sup>26</sup> Northington Partners, *Transpower New Zealand Limited, Valuation Assessment*, 15 November 2013, at p 4.

- a) The other assumptions underlying the calculation - the choice of the risk-free rate (4.75%), debt premium (1.625%) and asset beta (0.325) - are not explained. Each one of these estimates of the parameters has a significant impact on the resulting WACC.
  - b) The adjustment made by the Commission to WACC is to allow for error in estimation. It is not, as the Northington report describes it, an allowance for regulatory risk. It is also not clear how the Northington 15% adjustment to the cost of equity to allow for estimation error has been arrived at, or what considerations were taken into account in deciding on that approach.
90. As a result, it is difficult to assess the basis for the difference between the estimate of WACC adopted in the Northington report and the Commission's estimate. Certainly, as expressed, the report's methodology appears to fall well short of the High Court's emphasis on the need for "evidence, as opposed to assertion".<sup>27</sup>
91. In these circumstances, it is not clear what, if any, significance can be attached to the Northington WACC estimate.
92. In relation to Powerco, the conclusion to be drawn from the report is even less clear: the basis on which Northington Partners has reached its conclusion that the implied EV for Powerco is "well in excess" of book value (or, for that matter, the report's conclusion that Vector's EV is less than book value) is not set out in the report at all.
93. More fundamentally, however, in Vector's view the conclusion that a purchase of a regulated business at a price that is greater than  $1 \times \text{RAB}$  means the cost of capital is too high is flawed. There are a number of other factors that can affect the purchase price of a regulated business. McKenzie and Partington (2011) note that:<sup>28</sup>

The source of this value premium could arise from economies of scale and synergies in general, from the opportunities for efficiency gains, from opportunities for growth, from the potential to exploit tax shields, or because the allowed regulated return is above the return really required. It is difficult to attribute the value premium across these components.

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<sup>27</sup> MR Judgment, at [1469].

<sup>28</sup> McKenzie and Partington, *Report to Corrs Chambers Westgarth: Equity Risk Premium*, December 2011, p 34.

94. The Australian Energy Regulator (AER) has considered this issue and similarly disregarded the idea of using RAB multiples as a check on the regulated rate of return, stating that "while a trading multiple above one may imply that the market discount rate is below the regulated rate of return, factors other than the rate of return may have caused this."<sup>29</sup>
95. More generally and in addition to the factors listed by McKenzie and Partington, the price paid in, and therefore the RAB multiple implied by, a particular transaction can be influenced by a range of factors, including, for an offshore investor:
- a) the cost of debt available to the investor, which could be significantly different to that available domestically;
  - b) the net tax effects of the investment in New Zealand and the relevant offshore jurisdiction;
  - c) strategic considerations for the investor, such as the "fit" of the asset with existing investments and whether there is a strategic advantage in obtaining a cornerstone stake (for example to improve positioning if a larger stake is expected to become available later); and/or
  - d) access to the intellectual property, technology and expertise of the target.
96. Absent an analysis of the effects of these factors, no firm conclusion in relation to the cost of capital required by investors can be drawn from the reported purchase price for the Powerco stake.

### **Relevance of effects of regulatory decisions on other sectors of the economy**

97. This section responds to the following question:

*In selecting an appropriate WACC percentile, how significant is it that regulated outputs are inputs to other sectors of the economy?*

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<sup>29</sup> AER, *Explanatory Statement, Rate of Return Guideline*, December 2013, p 77, at [http://www.aer.gov.au/sites/default/files/AER%20Explanatory%20statement%20-%20appendices%20-%20rate%20of%20return%20guideline%20-%20December%202013\\_0.pdf](http://www.aer.gov.au/sites/default/files/AER%20Explanatory%20statement%20-%20appendices%20-%20rate%20of%20return%20guideline%20-%20December%202013_0.pdf).

98. One 'in-principle argument' that the Court presented against the use of the 75<sup>th</sup> percentile was that the outputs of regulated suppliers are inputs to numerous other sectors of the economy. If the prices paid by user industries are higher than the resource cost of producing the regulated outputs, then inefficiency is promulgated throughout the economy.
99. The Commission has previously taken the view that it need only consider the costs and benefits of using the 75<sup>th</sup> percentile WACC in the relevant regulated market because the flow on effects in other markets are fully reflected in that market. Vector fully endorses the Commission's previous view and does not believe there is a need to depart from that position. In an open, competitive market economy such as New Zealand, the prices paid in particular markets can be taken as good indicators of the costs of producing goods, on the supply side, and the value of consuming them on the demand side. Hence, if a policy or action is viewed as in the long term interests of consumers within a market in terms of these prices (and allowing for changes in the prices as a result of the policy or action), then it will also be beneficial for the economy as a whole.
100. Also, even if the Commission did consider the flow on effect on other markets of the prices it sets, it seems unlikely that the Commission would make different decisions. Consumers in the other markets, we expect, want the utilities that supply services to them to:
- a) have incentives to innovate and invest;
  - b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands;
  - c) share with consumers the benefits of efficiency gains; and
  - d) be limited in their ability to extract excessive profits.
101. It is therefore not clear why the High Court considers that this consideration is relevant or why it would lead to the Commission making different decisions.

**Concluding comment: how to manage uncertainty through IM reviews**

102. As stated above, we believe that if the Commission were to decide to undertake a review of cost of capital input methodology hastily, outside of

the expected (seven year) review cycle and in respect of an isolated aspect of the input methodology, regulatory uncertainty will be greatly increased (and without any clear justification). The Commission would much more effectively manage regulatory uncertainty if it were to emphatically determine that all aspects of input methodologies will be reviewed in accordance with:

- a) a timeframe that reflects the implications of cost of capital and other IMs for price resets;
- b) adequate time to consider and analyse highly complex and technical issues;
- c) adequate advanced notice of the likely timing of the review for all stakeholders;
- d) a clearly defined standard of evidence that is required both from the Commission and from other interested parties in order to demonstrate a materially better proposal; and
- e) regard to the legislative intent that input methodologies provide for the stability and predictability of the regulatory regime.

## **Appendix 1: International Regulatory Practice**

103. In its judgment, the Court criticised the lack of empirical evidence offered to support the view that the costs of under and over estimating WACC are asymmetric. The Court commented:<sup>30</sup>

In the absence of empirical evidence before us, some tentative in-principle arguments counter to the Commission's reasoning may be ventured.

104. The Court listed four such 'in-principle arguments', the fourth of which was expressed as follows:<sup>31</sup>

Nor is overseas practice suggestive that such an approach has found more than narrow favour, since the only examples from the numerous regulatory decisions made every year were two relating to United Kingdom airports.

105. The impression gained by the Court that the approach adopted by the Commission has found only narrow favour elsewhere is wrong. Arguments for why regulatory WACC should be set above the best estimate of WACC have been recognised by regulators in comparable jurisdictions to New Zealand for a number of years. Some illustrative examples are presented below.

### **United Kingdom**

106. In the United Kingdom, recognizing the asymmetries in setting WACC is generally referred to as "aiming up"; that is, in regulatory determinations, regulators aim up on the best-estimate, with the degree of aiming up reflecting the potential impacts of the degree of uncertainty.
107. The "aiming up" of WACC above the midpoint of the estimated range has been an explicit policy of the UK regulators in the telecommunications, water and airport areas. In justifying higher cost of equity calculations, or above midpoint WACC estimates in their decisions, regulators explicitly cite or refer to concerns around the asymmetries between the risks to innovation and investment compared with the impacts of higher prices.
108. For example, "aiming up" is reflected in both the UK Civil Aviation Authority and UK Competition Commission's WACC regulatory decisions as they relate

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<sup>30</sup> MR Judgment, at [1471].

<sup>31</sup> MR Judgment, at [1477].



to Heathrow, Gatwick and Stansted airports.<sup>32</sup> In 2007, the Competition Commission chose WACC point estimates of 6.2% and 6.5% for Heathrow and Gatwick, from ranges of 4.77%-6.39% and 4.91%-6.77% respectively.

109. The Office of Water (Ofwat), the economic regulator for water and sewerage utilities in the UK, “aimed up” in its water utility regulatory price cap WACC calculations.<sup>33</sup> In its final determinations for 10 water and sewage companies and 12 water only companies in England and Wales for the 5 year period from 2010 to 2015, Ofwat commented that:

We have also considered carefully the balance of risk within our final determinations. In light of this, the weighted average post-tax cost of capital for the final determinations remains at 4.5%. This is below the level set at the 2004 price review (5.1%), but is towards the high end of the range supported by our advisers (Europe Economics).

110. Similarly, a degree of aiming up has been applied to regulatory price cap WACC calculations for telecommunication utilities under the regulatory responsibility of the Office of Communications (Ofcom):<sup>34</sup>

Ofcom considers that the downside risk associated with taking too low a value for the ERP (discouraging discretionary investment) is more detrimental to the interests of consumers than taking too high a value (leading to higher prices to customers) and has tended to the higher end of the possible range. But, given the need to protect consumers, it would not be appropriate for Ofcom to err too strongly in this direction.

111. Explicit evidence or endorsement of aiming up is less readily apparent with decisions by the Office of Gas and Electricity Markets (Ofgem). Evidence of aiming up does not appear to be a feature of recent decisions by Ofgem.

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<sup>32</sup> UK Civil Aviation Authority (2014), *CAP 1155: Estimating the cost of capital: technical appendix for the economic regulation of Heathrow and Gatwick from April 2014: Notices granting the licences*, para 7.6, at p 45 , <https://www.caa.co.uk/docs/33/CAP1155.pdf>; UK Competition Commission (2007), *BAA Ltd—A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)*, Appendix F, Table 13, p 48, <https://www.caa.co.uk/docs/5/ergdocs/ccreport.pdf>; UK Competition Commission (2008), *Review of Stansted Airport: Q5 Price Control: Report for the Civil Aviation Authority*, Cost of Capital Appendix L, from para 115 at p 227.

<sup>33</sup> Ofwat, *Future water and sewerage charges 2010-15: Final determinations, Future water and sewerage charges 2010-15*, para 5.4.2, at p 125, [http://www.ofwat.gov.uk/pricereview/pr09phase3/det\\_pr09\\_finalfull.pdf](http://www.ofwat.gov.uk/pricereview/pr09phase3/det_pr09_finalfull.pdf).

<sup>34</sup> Ofcom (2005), *Ofcom's approach to risk in the assessment of the cost of capital. Final statement*. Para 1.10, at p 2, [http://stakeholders.ofcom.org.uk/binaries/consultations/cost\\_capital2/statement/final.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/cost_capital2/statement/final.pdf).

## **Ireland**

112. In Ireland, the Commission for Energy Regulation has had an explicit policy of “aiming up” in its decisions on electricity transmission and distribution assets.<sup>35</sup> In its most recent decision, it “aimed up” the WACC to the 70th percentile of the range of uncertainty (and then rounded up the result to the nearest 0.1%).

113. The Commission considered that adopting this was appropriate:<sup>36</sup>

given the possibility of under recovery having occurred in the 2011 to 12 period, the decreased, though not eliminated, level of macroeconomic uncertainty for the 2014-15 period and the Opex efficiencies sought for the 2011-2013 period.

## **Philippines**

114. In the Philippines, the Energy Regulatory Commission has explicitly adopted a policy of “aiming up” in its decisions on price/revenue caps for investor owned distribution utilities. It chose WACC point estimates at the 75<sup>th</sup> percentile for the second regulatory period for investor owned distribution utilities for the period from 2007 to 2011.<sup>37</sup> The Commission has since reaffirmed use of the 75<sup>th</sup> percentile WACC estimate for the regulatory period from 2012 to 2015.<sup>38</sup>

## **Australia**

115. The Independent Pricing and Regulatory Tribunal (IPART) of New South Wales, in its decision on NSW Electricity Distribution Pricing 2004/05 to 2008/09, adopted an above midpoint WACC estimate (the range was 6.1-7.5%, with a mid-point of 6.8%, and the rate chosen was 7%). In choosing the WACC estimate from the range, IPART undertook further analysis to compare the impact of different rates of return on customers’ final nominal

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<sup>35</sup> Commission for Energy Regulation, *Mid-Term review of WACC applying to the Electricity TSO and TAO and ESB Networks Ltd for 2014 to 2015, Decision Paper*, 31 January 2014, at p 26, <http://www.cer.ie/docs/000801/CER14026%20WACC%20Review%20Decision%20Paper%20Final.pdf>.

<sup>36</sup> Ibid.

<sup>37</sup> Energy Regulatory Commission - Philippines, *Final Calculation of the Regulatory Weighted Average Cost of Capital that Shall Apply during the Second Regulatory Period-First Entry Group*, 9 November 2007.

<sup>38</sup> Energy Regulatory Commission – Philippines, *WACC for Final Determination Third Regulatory Period Group 1 Distribution Utilities (MERALCO, CEPALCO & DECORP)*, 19 May 2011.

electricity bills, and on the Distribution Network Service Providers' (DNSP) financial position. This analysis indicated that increasing the rate of return from 6.8 per cent to 7.0 per cent would have little impact on customers' final nominal bills, but would go some way, albeit modestly, towards addressing some of the DNSPs' concerns (regarding their financial position).<sup>39</sup>

116. In IPART's decision on Access Arrangement for AGL Gas Networks Limited (AGLGN) Natural Gas System in 2000, it similarly adopted a WACC above the midpoint – at 7.75% from a range of 5.4-8.2%.<sup>40</sup>

This decision was made after examining: CAPM and WACC, the risks faced by AGLGN, evidence on market expectations of the rate of return, the regulatory return allowed by local and overseas regulators, and other matters including the objectives of the Code.

117. IPART has recently undertaken a review of WACC, releasing its final report in December 2013. Its default position is to use the midpoint of the WACC estimate range. However, it will consider whether it is appropriate to choose a point other than the midpoint having regard to the level of economic uncertainty.<sup>41</sup>
118. The Victoria Essential Services Commission has adopted an above midpoint WACC in several 2013 price review decisions in the water sector:
  - a) Greater Metropolitan Water Businesses: the Commission chose 4.5% WACC from a range of 3.8 - 4.9% as it considered *“that adopting a WACC below 4.5 per cent would create an undue risk that the water*

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<sup>39</sup> IPART, *Final Report – NSW Electricity Distribution Pricing 2004/05 to 2008/09*, June 2004, at p 57 - 58, [http://www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Network\\_Pricing/Review\\_of\\_Capital\\_Expenditure\\_and\\_Operating\\_Expenditure\\_of\\_NSW\\_DNSPs/10\\_Jun\\_2004\\_-\\_Final\\_Report/Final\\_Report\\_-\\_NSW\\_Electricity\\_Distribution\\_Pricing\\_200405\\_to\\_200809\\_-\\_June\\_2004](http://www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Network_Pricing/Review_of_Capital_Expenditure_and_Operating_Expenditure_of_NSW_DNSPs/10_Jun_2004_-_Final_Report/Final_Report_-_NSW_Electricity_Distribution_Pricing_200405_to_200809_-_June_2004).

<sup>40</sup> IPART, *Final Decision – Access Arrangements for AGL Gas Networks Limited Natural Gas System in NSW*, July 2000, at p 7, [http://www.ipart.nsw.gov.au/Home/Industries/Gas/Reviews/Network\\_Access/AGL\\_Gas\\_Networks\\_Access\\_Arrangements\\_to\\_2000/21\\_Jul\\_2000\\_-\\_Final\\_Decision/Final\\_decision\\_-\\_Access\\_Arrangement\\_for\\_AGL\\_Gas\\_Networks\\_Limited\\_Natural\\_Gas\\_System\\_in\\_NSW](http://www.ipart.nsw.gov.au/Home/Industries/Gas/Reviews/Network_Access/AGL_Gas_Networks_Access_Arrangements_to_2000/21_Jul_2000_-_Final_Decision/Final_decision_-_Access_Arrangement_for_AGL_Gas_Networks_Limited_Natural_Gas_System_in_NSW).

<sup>41</sup> IPART, *Review of WACC, Final report*, December 2013, [http://www.ipart.nsw.gov.au/Home/Industries/Research/Reviews/WACC/Review\\_of\\_method\\_for\\_determining\\_the\\_WACC/Dec\\_2013\\_-\\_Release\\_Final\\_Report/Final\\_Report\\_-\\_Review\\_of\\_WACC\\_Methodology\\_-\\_December\\_2013](http://www.ipart.nsw.gov.au/Home/Industries/Research/Reviews/WACC/Review_of_method_for_determining_the_WACC/Dec_2013_-_Release_Final_Report/Final_Report_-_Review_of_WACC_Methodology_-_December_2013).

*businesses would not be able to recover the costs of finance over the next regulatory period.*<sup>42</sup>

- b) Regional Urban Water Businesses: the Commission chose 4.5% WACC from a range of 3.8 - 4.9%, on the basis that: *"that adopting a WACC below 4.5 per cent would create an undue risk that the water businesses would not be able to recover the costs of finance over the next regulatory period."*<sup>43</sup>
- c) Rural Water Businesses:<sup>44</sup>
  - (i) For Southern Rural Water the Commission chose 4.5% WACC, from a range of 3.8 - 4.9%, as *"a lower WACC would create an undue risk that Southern Rural Water will not be able to cover borrowing costs should interest rates increase."*
  - (ii) For Goulburn-Murray Water and Lower Murray Water the Commission chose a rate of 4.5% from a range of 3.9 - 4.5% for *"regulatory consistency"*.

119. The Australian Productivity Commission recognized the asymmetric costs of using a too-low WACC in its Review of the National Access Regime (2002):<sup>45</sup>

The Commission accepts that there is a potential asymmetry in effects:

Over-compensation may sometimes result in inefficiencies in the timing of new investment in essential infrastructure (with flow-ons to investment in related markets), and occasionally lead to inefficient investment to by-pass parts of a network. However, it will never preclude socially worthwhile investments from proceeding.

On the other hand, if the truncation of balancing upside profits is expected to be substantial, major investments of considerable benefit to the community could be forgone, again with flow-on effects for investment in related markets.

In the Commission's view, the latter is likely to be a worse outcome. Accordingly, it concurs with the argument that access regulators should be circumspect in their attempts to remove monopoly rents perceived to attach to successful infrastructure projects.

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<sup>42</sup> Victoria Essential Services Commission, *Price Review 2013: Greater Metropolitan Water Businesses – Final decision*, June 2013, at p 110, <http://www.esc.vic.gov.au/getattachment/653684bc-1058-4cc9-a62b-c31053e7762a/Metropolitan-water-price-review-2013-18-final-deci.pdf>.

<sup>43</sup> Victoria Essential Services Commission, *Price Review 2013: Regional Urban Water Businesses – Final decision*, June 2013, at p 84, <http://www.esc.vic.gov.au/getattachment/6c40fc91-32b2-4143-a29e-77e735e707f4/Final-decision.pdf>.

<sup>44</sup> Victoria Essential Services Commission, *Price Review 2013: Rural Water Businesses – Final decision*, June 2013, at pp 45 - 47, <http://www.esc.vic.gov.au/getattachment/318948ed-1c0f-4849-b81f-7ae4809f154d/Final-decision.pdf>.

<sup>45</sup> Australian Productivity Commission, *Inquiry Report – Review of the National Access Regime*, 28 September 2001, at p 83, <http://www.pc.gov.au/projects/inquiry/access/docs/finalreport>.

120. The Australian Productivity Commission repeated this sentiment in the 2013 Inquiry Report on Electricity Network Regulatory Frameworks:<sup>46</sup>

the determination process should ... recognise that, over the longer term, under-compensation of network businesses resulting from regulatory errors is likely to have greater costs for customers and the wider community than 'symmetric' overcompensation.

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<sup>46</sup> Australian Productivity Commission, *Inquiry Report – Electricity Network Regulatory Frameworks*, April 2013, at p 223, [http://www.pc.gov.au/\\_\\_data/assets/pdf\\_file/0016/123037/electricity-volume1.pdf](http://www.pc.gov.au/__data/assets/pdf_file/0016/123037/electricity-volume1.pdf).