

## **Input methodologies review**

### **Invitation to contribute to problem definition**

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## Associated documents

Publication date	Reference	Title
27 February 2015	Open letter	<a href="#">Open letter on our proposed scope, timing and focus for the review of input methodologies</a>
27 February 2015	ISBN 978-1-869454-31-9	<a href="#">Further work on the cost of capital input methodologies for airports: Proposal to consider the WACC percentile for airports as part of the input methodologies review</a>
9 June 2015	ISSN 1778-2560	<a href="#">Gas pipeline services (incremental rolling incentive scheme) input methodology amendments determination 2015 [2015] NZCC 15</a>
10 June 2015	ISSN 1778-2560	<a href="#">Airport Services (Weighted Average Cost of Capital percentile) Input Methodology Amendments Determination 2015 [2015] NZCC 16</a>
10 June 2015	Notice of intention	<a href="#">Notice of intention: Input methodologies review</a>
10 June 2015	Cover letter	<a href="#">Cover letter for the Notice of Intention to commence a review of input methodologies</a>

Commerce Commission  
Wellington, New Zealand

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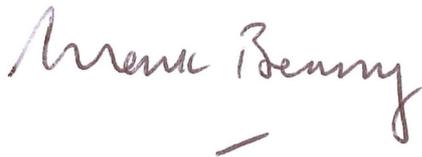
## Foreword

Thank you to those of you that submitted on our open letter of 27 February 2015. Having considered those submissions, we consider that a phase of problem definition is required before we can further develop the process for the remainder of the input methodologies review, and begin to consider potential solutions.

We want the issues to drive the process. As such, we see an effective problem definition phase as crucial to informing how we focus the process and timeline for the remainder of the review. Your input is vital to shaping the problem definitions and, ultimately, the review.

To promote the sharing of ideas and get the best outcome from the review, we are setting out our preliminary view on the issues that have been identified to date as requiring consideration in the review. The amount we currently know about the issues presented in this paper varies. For some, such as issues concerning the profitability assessment of airports, we feel we are well placed to define the problems to be addressed in the review. For others, such as the impact of emerging technologies, we do not yet have a clear understanding of the specific problems as they relate to the input methodologies.

There may also be issues that interested parties are aware of, and would like to see addressed in the review, but on which we have limited or no information. We welcome input from interested parties identifying these issues, and defining the problems they pose for the input methodologies.

A handwritten signature in dark ink, reading "Mark Berry". The signature is written in a cursive style with a horizontal line underneath the name.

Dr Mark Berry  
Chairman, Commerce Commission

## Executive summary

### Purpose of this paper

- X1. This paper seeks your input in identifying the key topics and defining the specific problems to be addressed by our review of input methodologies (**IMs**).

### IMs are the upfront rules, processes and requirements of regulation

- X2. IMs are the upfront rules, processes and requirements of regulation. IMs currently apply to:
- X2.1 All suppliers of electricity lines services, gas pipeline services and specified airport services subject to information disclosure regulation; and
  - X2.2 All suppliers of gas pipeline services, Transpower and 17 suppliers of electricity distribution services subject to price-quality regulation.
- X3. The purpose of IMs, set out in s 52R of the Commerce Act 1986,<sup>1</sup> is to promote certainty for suppliers and consumers in relation to the rules, requirements and processes applying to regulation.
- X4. The original IMs were determined on 22 December 2010 and published on 20 January 2011.<sup>2</sup> A number of these were re-determined in 2012, and other amendments have been made from time to time.

### Reviewing the IMs

- X5. Section 52Y of the Act requires us to review each IM no later than 7 years after its date of publication.
- X6. On 10 June 2015, we issued a notice of intention to commence the review of all IMs, except the Transpower Capex IM, under s 52Y of the Act (the **IM review**).<sup>3</sup>
- X7. For the purposes of the IM review, we consider that we are required to turn our minds to all IMs within the scope of the notice of intention and consider their effectiveness.

### Considering the topics in this paper only constitutes part of the IM review

- X8. While we must review all IMs within the scope of the notice of intention, this paper primarily focuses on those topics that have been identified to date as requiring consideration during the IM review. This includes issues raised in submissions to date, and issues that were raised by the High Court's December 2013 IM appeals judgment.

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<sup>1</sup> All statutory references in this paper are references to the Commerce Act 1986 unless otherwise indicated.

<sup>2</sup> Except the Transpower Capital Expenditure Input Methodology Determination (**Transpower Capex IM**), which was determined on 31 January 2012 and published on 9 February 2012.

<sup>3</sup> Commerce Commission "Notice of intention: Input methodologies review" (10 June 2015) (**notice of intention**).

### **The issues should drive the process for the IM review**

- X9. We consider that the issues the IM review will address should drive the process and timeframes we adopt for the IM review. As such, we see this problem definition phase of the IM review being crucial for shaping the remainder of the IM review. After reviewing your submissions on this paper, we expect to be well placed to further develop the process and timeline for the IM review.

### **This phase of the IM review is focused on problem definition**

- X10. We want you to play a key role in identifying and defining the topics and problems to be addressed by the IM review. You will have the opportunity to do so at a forum we are holding on 29 and 30 July 2015, and afterwards in written submissions.
- X11. This paper sets out the key topics that have been identified to date for the IM review and briefly explains our understanding of each. Our intention is to convey to you our existing level of understanding about each of these topic areas, and highlight where we need the most input from you to help shape each topic. You may identify other issues which you consider should be addressed in the IM review and we would encourage you to do so at as early a stage as possible.

### **Decision-making framework and objectives for the IM review**

- X12. A number of submissions on the open letter requested that we develop a decision-making framework for the IM review. We see merit in doing so, and anticipate that this will be a topic for discussion at the forum.
- X13. At this stage, consistent with our open letter, we can indicate that any decision-making framework that we develop for IM review is likely to be guided by a focus on only changing those aspects of the current IMs that would:
- X13.1 Promote the s 52A purpose more effectively;
  - X13.2 Promote the purpose of IMs in s 52R more effectively, without detrimentally affecting the promotion of the s 52A purpose; and
  - X13.3 Significantly reduce compliance costs, other regulatory costs or complexity, again without detrimentally affecting the promotion of the s 52A purpose.

### **We have identified nine key topics for the IM review**

- X14. After considering your submissions on our open letter of 27 February 2015,<sup>4</sup> and our proposal of the same date to consider the WACC percentile for airports as part of the IM review,<sup>5</sup> we have recast the topics that were presented in that letter.

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<sup>4</sup> Commerce Commission “Open letter on our proposed scope, timing and focus for the review of input methodologies” (27 February 2015) (**open letter**).

<sup>5</sup> Commerce Commission “Further work on the cost of capital input methodologies for airports: Proposal to consider the WACC percentile for airports as part of the input methodologies review” (27 February 2015) (**WACC percentile for airports paper**).

- X15. The nine topics presented in this paper align with the three themes for the IM review that came through in submissions on our open letter, as illustrated by Table X1.

**Table X1: How the topics for this paper align with the themes from submissions**

Theme	Topic
<b>Theme 1:</b> for price-quality regulation, improve the IMs that underpin risk allocation, incentives and CPP applications	<b>Topic 1:</b> risk allocation mechanisms under price-quality paths
	<b>Topic 2:</b> the form of control for price-quality regulated sectors
	<b>Topic 3:</b> interactions between the DPP and CPP
	<b>Topic 4:</b> the future impact of emerging technologies in the energy sector
	<b>Topic 5:</b> issues raised by the High Court on cost of capital
<b>Theme 2:</b> for airports ID regulation, improve IMs to better enable profitability assessment over time	<b>Topic 6:</b> airports profitability assessment
	<b>Topic 7:</b> reconsidering the WACC percentile range for airports
	<b>Topic 8:</b> cost-effectiveness of the rules and processes for CPP applications
<b>Theme 3:</b> for all types of regulation, reduce complexity and compliance costs	<b>Topic 9:</b> reducing complexity and compliance costs

**We are at different stages of thinking across the topics**

- X16. We are at different stages of thinking across the nine topics presented in this paper. For some topics, such as emerging technologies, we have yet to define specific problems that emerging technologies present in relation to the IMs. For other topics, such as airports profitability assessment, we are in a position to put forward tentative problem definitions and some potential solutions for your feedback.
- X17. These examples illustrate that the input we are looking for from you varies from topic to topic, depending on how much we know about the topic. Our level of understanding about each topic is no indication of priority; rather, it is a function of our prior experience in these topic areas and submissions on our open letter and WACC percentile for airports paper.

**Next steps – forum and submissions**

- X18. On 29 and 30 July 2015, we will hold a forum for you to discuss the topics described in this paper. This will provide an opportunity for you to share and test your views with us and other stakeholders prior to making written submissions.
- X19. We will develop a draft agenda in the coming weeks. In doing so we will be liaising with a range of stakeholders to encourage them to participate in or lead various sessions.
- X20. The success of the forum depends on attendees being well-prepared and willing to engage on the issues as they relate to IMs. To facilitate this, we will finalise and circulate the proposed agenda well before the forum.
- X21. Further details on the forum, including how to indicate your interest in attending or participating in sessions, are included in the Next Steps chapter.
- X22. Following the forum, we invite your written submissions on this paper by 5pm on 21 August 2015, and cross-submissions by 5pm on 4 September 2015.
- X23. Your written submissions should be comprehensive, and will constitute your formal submissions. We encourage you to focus your submissions on developing specific problem definitions, and only getting into potential solutions where a clear problem definition is also put forward. The topic chapters of this paper highlight particular areas where we would appreciate your input. We would also like to know if you consider there are any significant topics that should be addressed as part of the IM review that are not covered in this paper.

## Introduction

### Purpose of this paper

1. The purpose of this paper is to:
  - 1.1 Invite submissions from stakeholders that help us to:
    - 1.1.1 Identify all of the topics that stakeholders see as being relevant to the IM review;
    - 1.1.2 Define the specific problems that flow from the topics identified, and understand whether/how the IMs are relevant to those problems;
    - 1.1.3 Further develop the process and timing for the next phase of the IM review; and
    - 1.1.4 Develop our decision-making framework for the IM review;
  - 1.2 Set out the key topics for the IM review that we have identified to date and briefly explain our current level of understanding of each; and
  - 1.3 Assist interested parties in:
    - 1.3.1 Preparing for, and participating in, the forum; and
    - 1.3.2 Making effective written submissions following the forum.
2. While we must review all IMs within the scope of the notice of intention, this paper focuses on the issues that have been identified to date as requiring consideration in the IM review.

### Objectives for this phase of the IM review

3. We want stakeholders to play a key role in defining the topics and problems to be addressed by the IM review. In many cases, suppliers, consumers, and other interested parties are better placed than us to do so. Regulated suppliers have a rich understanding of businesses and the environments in which they operate. Likewise, some consumers of regulated services may be well placed to describe how the topics and problems for the IM review impact them.
4. We consider that this IM review will be most effective and efficient if the issues drive the process. We are keen to develop a tailored, fit for purpose process. In particular, we seek to adopt a process and timing that properly addresses the issues and our review requirements, while managing costs and time commitments for all parties.
5. We expect that the further development of the process and timing for the IM review will be influenced by the number, size, and interdependencies of the problems to be addressed by the IM review. As such, it is difficult to further refine the process for the IM review until we have a better understanding of the topic areas and specific problems to be considered by the IM review.

6. The focus of this phase of the IM review is therefore on identifying the key topics for the IM review, clearly defining the problems relating to those topics that the IM review should address, and identifying how potential changes to the IMs might address these problems. A number of submitters on our open letter called for an environmental scan or landscape review to commence the IM review.<sup>6</sup> This phase is consistent with that concept. It is about an upfront, collective attempt to identify and define problems that the IM review should address, prior to considering what IM-related solutions might exist to those problems.
7. At the end of this phase (ie, after the forum and stakeholder submissions on this paper), we expect to have a much clearer picture of the problems that the IM review should address as they relate to the IMs. That will allow us to further develop the process and timing for the remainder of the IM review.
8. Having a clear and common understanding of the problems to be addressed by the IM review should also put all parties in a much better position to begin to identify and evaluate potential solutions to those problems as we move into the next phase of the IM review.

### **The process for this stage of the IM review**

#### *This paper*

9. This paper describes our understanding of the key topics we have identified for the IM review and calls for submissions. We are doing so in order to meet the purpose set out in paragraph 1 of this paper.

#### *Forum*

10. We plan to hold a forum for stakeholders on 29 and 30 July 2015. The forum will give interested parties an opportunity to present on the issues for the IM review, as they see them, to us and to other interested parties at an early stage. In our view, such a forum will have benefits for all parties:
  - 10.1 It will allow as many significant issues as possible to be identified and shared with all interested parties being involved early in the process;
  - 10.2 It will assist in more quickly defining specific problems that changes to the IMs could potentially address;

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<sup>6</sup> See, for example: Unison “Unison response to open letter on scope, timing, focus of review of input methodologies” (31 March 2015), para 12; ENA “Response to the Commerce Commission’s open letter” (31 March 2015), p. 8, 29, 32; AECT (untitled response to our open letter of 27 February 2017) (23 March 2015), p. 1-2; Transpower “Input Methodologies: scoping the statutory review” (31 March 2015), p. 5-7; NZIER (on behalf of MEUG) “Input Methodologies review – Commission scope letter” (20 March 2015), para 35.

- 10.3 It will allow parties and their expert advisers to explore these issues with other parties and Commission staff before making formal written submissions. This should help parties develop their submissions, by allowing them to test the clarity of expression and to anticipate possible questions and counter-perspectives. All parties will eventually benefit from later receiving well-developed written submissions; and
- 10.4 It will allow us to further develop a process and timeline for the IM review that is appropriate for the issues to be considered as part of the IM review.

11. The forum is discussed further in the Next Steps chapter of this paper.

*Written submissions on this paper*

12. Ultimately, this paper seeks your written submissions that help to define the topics and specific problems that the IM review should consider. As noted above, these submissions should be informed by discussions at the forum; although, the forum is unlikely to be cover all issues and points that parties may want to raise.
13. While you will have the opportunity to put forward your views at the forum, it is important that you follow that up by articulating your views in full in written submissions.
14. We have allowed three weeks following the forum for you to prepare your written submissions, and then a further two weeks for cross-submissions. The time we are dedicating to this problem definition phase reflects the importance we see this phase playing in shaping the IM review.
15. More detailed instructions to submitters are set out in the Next Steps chapter in this paper. The topic chapters also provide guidance to submitters on the areas of each topic where we would particularly appreciate your input.

*We will then refine the process and timing for next phase of the IM review*

16. After considering submissions, and cross-submissions, on this paper, we expect to have a much clearer picture of the topics and specific problems to be considered by the IM review. Following cross-submissions, we expect to be in a good position to further develop the process and timing for the next phase of the IM review.<sup>7</sup>

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<sup>7</sup> Thank you to those submitters on our open letter that provided suggestions regarding the process for the IM review. We received a number of suggestions regarding process matters such as the use of experts during the IM review and time allowed for consultation. We will take these suggestions into consideration when developing the process and timing for the IM review following this problem definition phase.

*Cross-sector approach and timing for the IM review*

17. As noted in our open letter of 27 February 2015, as a starting proposition we considered it would be desirable to take a cross-sector approach to the IM review. A number of submitters on the open letter supported a cross-sector approach,<sup>8</sup> while other submitters noted that it is not always necessary, or indeed helpful, to take a cross-sector approach.<sup>9</sup>
18. Submitters from different sectors had different views on timing. For instance, most submitters interested in the airport sector preferred an end date of December 2016 or earlier for the IM review,<sup>10</sup> while submitters from the energy sector generally preferred a later end date.<sup>11</sup>
19. Having considered those submissions, we put forward the following view in the covering letter to our notice of intention:<sup>12</sup>

Our aim is to complete the review of the IMs within the scope of the review by December 2016. We have engaged with stakeholders on this indicative end date. At this stage we think this timeframe is realistic, and preferable to a longer process extending into 2017. However, once we have conducted the initial stages of the review process we will reassess this indicative end date and provide further updates on our process. One option we will consider is whether IMs for electricity distribution services (and possibly gas pipeline services) may require a later end date for the review.

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<sup>8</sup> See, for example: Aurora "Submission in response to the Commerce Commission's open letter on our proposed scope, timing and focus for the review of input methodologies" (31 March 2015), p. 2; PWC "Response to the Commerce Commission on the IM Letter on the proposed scope, timing and focus for the review of input methodologies" (31 March 2015), para 24; ENA "Response to the Commerce Commission's open letter" (31 March 2015), para 39.

<sup>9</sup> In particular, NZ Airports argued that it may actually be unhelpful to take a cross sector approach because changes to the IMs for sectors subject to price control may not be appropriate for airports information disclosure regulation (see NZ Airports "Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports" (20 March 2015), para 26-27, 31).

<sup>10</sup> See, for example: Air New Zealand "Comments on proposed review of input methodologies" (20 March 2015), p. 1; NZ Airports "Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports" (20 March 2015), para 8, 15; BARNZ "Review of input methodologies" (23 March 2015), p. 1; CIAL "Input methodologies review" (20 March 2015), para 3-4.

<sup>11</sup> See, for example: Powerco "Review of input methodologies: response to Commerce Commission's open letter" (31 March 2015), p. 1-2; PWC "Response to the Commerce Commission on the IM Letter on the proposed scope, timing and focus for the review of input methodologies" (31 March 2015), para 9, 23-29; Aurora "Submission in response to the Commerce Commission's open letter on our proposed scope, timing and focus for the review of input methodologies" (31 March 2015), p. 1. However, other energy sector participants supported a December 2016 deadline, such as: Wellington Electricity "Scope, timing and focus of input methodologies review" (31 March 2015), p. 1; MEUG "Comments on scope, timing and focus for the review of input methodologies" (20 March 2015), para 4-5.

<sup>12</sup> Cover letter to the notice of intention, para 6.

20. Given the prospect of extending the end date for the review of the energy sector IMs, we are interested in your views on whether extending the end date for the energy sector work (and therefore separating it from the airports work) would cause any complications? Are there any IMs that should not be considered separately along sector lines? If so, why?

*Our proposal to fast-track specific amendments within the IM review process*

21. In response to our open letter and our WACC percentile for airports paper, some parties submitted that it would be useful to make amendments to specific Airport IMs,<sup>13</sup> such as those covering the land valuation rules, earlier than December 2016.<sup>14</sup> Those submitters explained that this will be necessary if Christchurch and Auckland airports are to apply any resulting amendments to their 2017 price setting events.
22. In response to these submissions, the cover letter to the notice of intention calls for submissions on whether specific amendments (related to airport and CPP IMs) should be fast-tracked as part of the IM review.<sup>15</sup> If we adopt this proposal, these amendments would be made before the draft decision for the main IM review.

**The structure of this paper**

23. The next chapter describes how this paper sits within the wider IM review.
24. The subsequent chapter sets out our approach to this paper, and covers:
- 24.1 What we are trying to achieve with this paper and this phase of the IM review;
- 24.2 The topics for this paper and how we came up with them; and
- 24.3 The development process we want to go through for each topic.
25. We then have a short chapter that outlines the next steps, which covers:
- 25.1 Details of the forum;
- 25.2 The submission process; and
- 25.3 Our proposed next steps.
26. Finally, we discuss each of the nine key topics identified to date. We briefly outline our level of understanding on each of the topics, and indicate the particular areas where we would particularly value your input.

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<sup>13</sup> The IMs for specified airport services are set out in the Commerce Act (Specified Airport Services Input Methodologies) Determination 2010 (**Airports IMs**).

<sup>14</sup> Cover letter to the notice of intention, para 14.

<sup>15</sup> Ibid.

## Situating this paper within the IM review

27. This chapter provides context for this paper. In particular, it describes how this phase fits within the IM review.

## Background to the IM review

28. IMs are the upfront rules, processes and requirements of regulation. IMs currently apply to:
- 28.1 All suppliers of electricity lines services, gas pipeline services and specified airport services subject to information disclosure regulation; and
  - 28.2 All suppliers of gas pipeline services, Transpower and 17 suppliers of electricity distribution services subject to price-quality regulation.
29. The purpose of IMs, set out in s 52R of the Act, is to promote certainty for suppliers and consumers in relation to the rules, requirements and processes applying to regulation.
30. The original IMs were determined on 22 December 2010 under s 52T of the Act and published on 20 January 2011.<sup>16</sup> A number of these were re-determined in 2012, and other amendments have been made from time to time.

## Our obligation to review the IMs

31. Section 52Y of the Act requires us to review each IM no later than 7 years after its date of publication.
32. Section 52Y allows us to review an IM earlier than 7 years after its publication.<sup>17</sup>

## We have an obligation to review all IMs within the scope of the notice of intention

33. On 10 June 2015, we issued a notice of intention to commence the review of all IMs, except the Transpower Capex IM, under s 52Y of the Act.<sup>18</sup> As noted in the cover letter to the notice of intention, we plan to review the Transpower Capex IM at a later date.<sup>19</sup>

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<sup>16</sup> Except the Transpower Capex IM, which was determined on 31 January 2012 under s 54S of the Act and published on 9 February 2012.

<sup>17</sup> As noted in para 4 of the cover letter to the notice of intention.

<sup>18</sup> As noted in the cover letter to the notice of intention paragraph 18, the IMs for the incremental rolling incentive scheme (**IRIS**) for electricity distributors will continue to be considered as a s 52X amendment. The intention is to reach a final decision on these potential amendments for IRIS for electricity distributors by the end of 2015. When these potential IRIS amendments have been completed, the IRIS IMs for electricity distributors will be added to this IM review. We also note that submitters raised a number of concerns about the existing IRIS provisions. While these are within the scope of the IM review, we intend to hold our consideration of all IRIS issues until the existing 52X amendments are completed.

<sup>19</sup> As noted in paragraph 5 of the cover letter to the notice of intention, we consider it appropriate to defer the review of the Transpower Capex IM.

34. For the purposes of the IM review, we consider that we are required to turn our minds to all IMs within the scope of the notice of intention and consider their effectiveness.

### **Where this phase fits in – focusing the IM review**

35. While we must review each IM within the scope of the notice of intention for effectiveness, this paper focuses on the issues that have been identified to date. We want to start engaging with these issues now because:
- 35.1 They have already been identified and we want to allow sufficient time for us and you to engage with them;
  - 35.2 We need to gather more information on them in order to understand how they impact on the IMs and how the IMs might be amended to address them; and/or
  - 35.3 They may be relevant to multiple IMs.
36. This paper aims to identify those issues early, and develop them into problem definitions that we can seek to address as we move through the IM review process. The intent of this paper is to identify the topics that are likely to play a significant role in the IM review, and to help to clearly define the specific problems within those topics as they relate to the IMs.

### **Decision-making framework for the IM review**

37. A number of submitters on our open letter requested that we develop a decision-making framework for the IM review.<sup>20</sup> The New Zealand Airports Association put forward an example of how such a framework might look.<sup>21</sup>
38. In addition to a decision-making framework for the IM review, Transpower suggested that we should consider developing a framework for making IM changes more generally.<sup>22</sup> This could also be described as a policy on when, why and how we will make IM amendments (both under s 52X and 52Y).<sup>23</sup>
39. We do see merit in establishing a decision-making framework for the IM review, and for making IM changes more generally. At this stage, we anticipate that this will be a topic for discussion at the forum.

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<sup>20</sup> For example, see: ENA “Response to the Commerce Commission’s open letter” (31 March 2015), p. 6-7; Unison “Unison response to open letter on scope, timing, focus of review of input methodologies” (31 March 2015), para 8(b); NZ Airports “Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports” (20 March 2015), p. 4-6.

<sup>21</sup> NZ Airports “Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports” (20 March 2015), page 6.

<sup>22</sup> Transpower “Input methodologies: scoping the statutory review” (31 March 2015), p. 3-4.

<sup>23</sup> Transpower suggested that we might have different categories of amendments, such as business-as-usual-amendments, amendments prior to regulatory resets, and strategic/fundamental amendments, which would each have their own criteria, processes and timing.

40. We welcome your views on a decision-making framework for the IM review (including on the principles set out at paragraph 41) and/or for making IM changes more generally. We are also interested in your views on where correcting any drafting errors and ambiguity in the current IMs fits into this framework: should these sorts of minor amendments be addressed by the IM review or separately?

*Some principles likely to be part of our decision-making framework for the IM review*

41. At this stage, consistent with our open letter, we can indicate that any decision-making framework that we develop for the IM review is likely to be guided by:
- 41.1 A focus on only changing those aspects of the current IMs that would:<sup>24</sup>
- 41.1.1 Promote the s 52A purpose more effectively;
- 41.1.2 Promote the purpose of IMs in s 52R more effectively, without detrimentally affecting the promotion of the s 52A purpose; and
- 41.1.3 Significantly reduce compliance costs, other regulatory costs or complexity, again without detrimentally affecting the promotion of the s 52A purpose;
- 41.2 Our preliminary view that there is no specific *statutory* threshold for changing the IMs as part of the IM review, which we discuss further below at paragraph 42; and
- 41.3 Our preliminary view that we cannot create IMs on a matter not covered by an existing published IM as part of the IM review process, which we discuss further below at paragraphs 44 to 48.

*Our preliminary view is that there is no specific statutory threshold for changing the IMs as part of the IM review*

42. Our preliminary view is that there is no specific *statutory* threshold for changing the IMs as part of the IM review. No specific threshold or standard of proof is referred to in s 52Y or the s 52V process that the IM review will follow. Some submissions on our open letter referenced the s 52Z(4) ‘materially better’ standard that applies in IM appeals.<sup>25</sup> Our view is that the materially better threshold does not apply in respect of changes to IMs as a result of the s 52Y review. That threshold is specifically for the IM appeals regime. The s52Y process, which the Commission is following in reviewing the IMs, does not contain a materiality threshold.
43. We invite written legal submissions on this point at paragraph 49 below.

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<sup>24</sup> As described in our open letter of 27 February 2015, para 30.

<sup>25</sup> See, for example: PWC “Response to the Commerce Commission on the IM Letter on the proposed scope, timing and focus for the review of input methodologies” (31 March 2015), para 39.

*Our preliminary view is that we cannot create an IM on a matter not covered by a published IM as part of the IM review*

44. Our preliminary view is that we cannot create an IM on a matter not covered by an existing published IM for a particular type of regulated service as part of the IM review process. The review is of each IM after its date of publication.
45. We acknowledge that it can be unclear as to what would constitute creation of an IM on a matter not covered by an existing published IM as opposed to an amendment to improve an existing IM. While it is possible to amend an existing published IM to address an issue where the IM is currently ineffective, we need to consider carefully in each circumstance whether this constitutes an IM on a matter not covered by an existing published IM.
46. One example is whether the introduction of pricing methodologies in respect of electricity lines services would constitute an IM on a matter not covered by an existing IM.<sup>26</sup> When we set IMs for electricity distributors for the first time under s 52U, it was optional for us to set pricing methodologies under s 52T(1)(b), given the Electricity Authority's powers in this area. Because we set no input methodologies relating to pricing methodologies for electricity distributors at that time, in our view, adding such rules now would constitute an IM on a matter not covered by an existing IM and therefore could not be introduced through the IM review.
47. Similarly to pricing methodologies, we made specific decisions regarding which matters would be included within regulatory processes and rules IMs (s 52T(1)(c)) in addition to those listed in the legislation (these include IRIS and amalgamations).
48. In both of these cases we made a discretionary decision as to what IMs we would and would not set in 2010. This is a review of existing published IMs. Our preliminary view is therefore that we are not able to remake that decision now to include new matters in the IMs.

*We invite written legal submissions prior to the forum on two points above*

49. We invite written legal submissions in advance of the forum on our preliminary views at paragraphs 42 and 44 above, so that we have time to consider your views before the forum.

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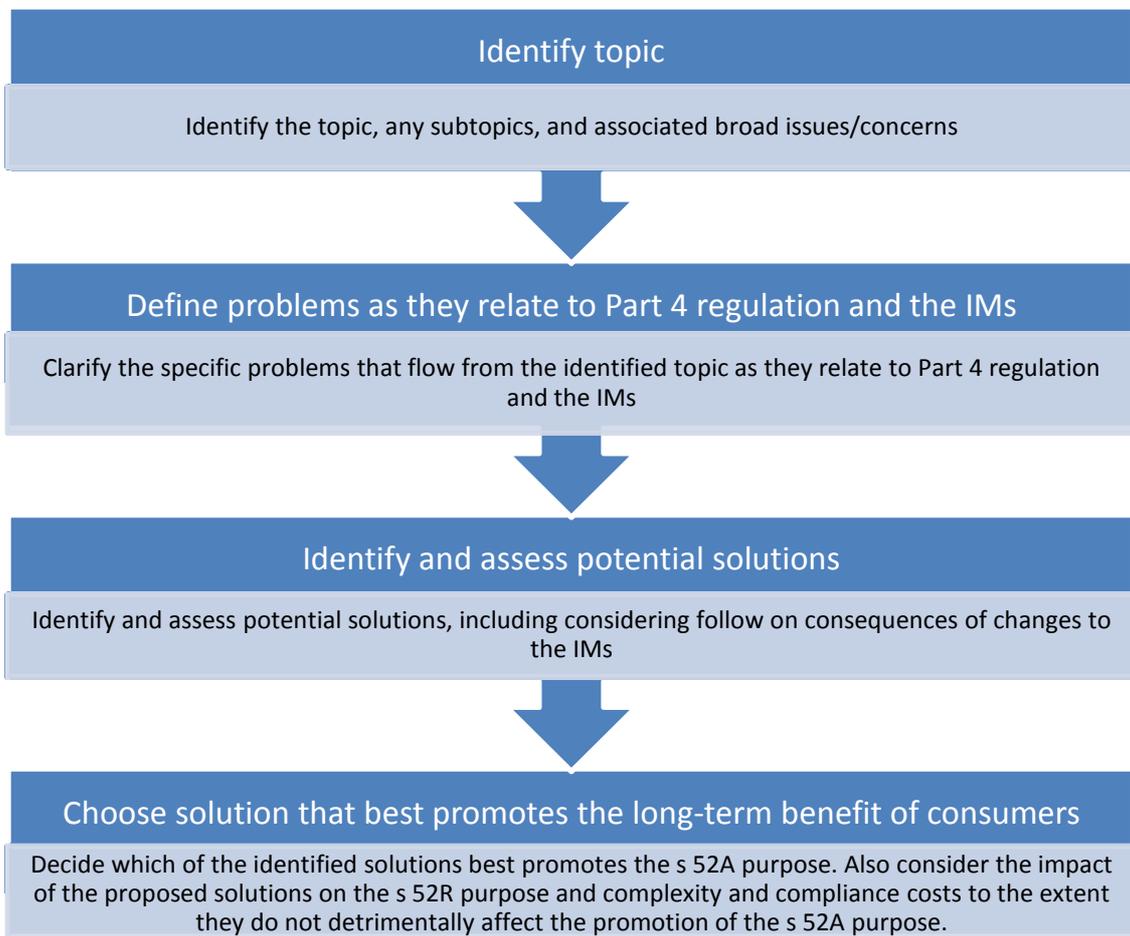
<sup>26</sup> MEUG submitted that the review should consider the pricing practices of electricity networks (see MEUG "Comments on scope, timing and focus for the review of input methodologies" (20 March 2015), para 2).

## Our approach to this paper and this phase of the IM review

### What we are trying to achieve through this paper and this phase of the IM review

50. As highlighted above, this phase of the IM review is focused on identifying the topics and problems to be addressed by the IM review in order to inform the process and timing for the remainder of the IM review.
51. This paper sets out the key topics that we have identified for the IM review and briefly explains our understanding of each. Our intention is to convey to you our existing level of understanding about each of these topic areas, and highlight where we need the most input from you to help shape each topic.
52. Figure 1 illustrates the development process that we ultimately need to go through for each topic.

**Figure 1: Development process for each topic**



53. For each topic, over the course of the IM review, we expect to progress from the first box in Figure 1 to the fourth. The focus of this phase of the IM review is on completing the first two boxes for each topic. However, you are welcome to describe potential solutions (box 3 in Figure 1) where you clearly define the problem the potential solution is intended to address.

54. We are currently at different stages of this development process for each of the topics we have identified. By the end of this phase of the IM review, we aim to reach the end of the problem definition phase (box 2 in Figure 1) for each topic. This will allow us to effectively plan for the next phase of the IM review.

**The topics presented in this paper and how we identified them**

55. This paper presents nine key topics:
- 55.1 Topic 1: risk allocation mechanisms under price-quality paths;
  - 55.2 Topic 2: the form of control for price-quality regulated sectors;
  - 55.3 Topic 3: interactions between the DPP and CPP;
  - 55.4 Topic 4: the future impact of emerging technologies in the energy sector;
  - 55.5 Topic 5: issues raised by the High Court on cost of capital;
  - 55.6 Topic 6: airports profitability assessment;
  - 55.7 Topic 7: reconsidering the WACC percentile range for airports;
  - 55.8 Topic 8: cost-effectiveness of the rules and processes for CPP applications;  
and
  - 55.9 Topic 9: reducing complexity and compliance costs.

*How we developed the list of topics*

56. In our open letter of 27 February 2015, we proposed a number of key topic areas for the IM review, based on our experience with the IMs to date. Having considered submissions on the open letter, and in light of the development process described by Figure 1, we consider that the nine topics from the open letter are best recast as the nine key topics presented in paragraph 55 above.
57. The topics presented in this paper better align with the development process described in Figure 1, in that each of the topics in this paper can be developed into problem definitions, rather than being framed as solutions in and of themselves (eg, the indexation of the cost of debt).
58. This is consistent with our view that this IM review should seek to develop solutions only in light of clearly defined problems, rather than considering potential solutions before clearly defining the problem those potential solutions might seek to address.

59. The topics we present in this paper are also consistent with the three broad themes for the IM review that we identified through the submissions received on our open letter, being:<sup>27</sup>
- 59.1 Theme 1: for price-quality regulation, improve the IMs that underpin risk allocation, incentives, and CPP applications;<sup>28</sup>
- 59.2 Theme 2: for airports information disclosure (ID) regulation, improve IMs to better enable profitability assessment over time; and
- 59.3 Theme 3: for all types of regulation, reduce complexity and compliance costs.
60. Table 1 illustrates how the topics presented in this paper align with these three broad themes.

**Table 1: How the topics for this paper align with the themes from submissions**

Theme	Topic
<b>Theme 1:</b> for price-quality regulation, improve the IMs that underpin risk allocation, incentives and CPP applications	<b>Topic 1:</b> risk allocation mechanisms under price-quality paths
	<b>Topic 2:</b> the form of control for price-quality regulated sectors
	<b>Topic 3:</b> interactions between the DPP and CPP
	<b>Topic 4:</b> the future impact of emerging technologies in the energy sector
	<b>Topic 5:</b> issues raised by the High Court on cost of capital
<b>Theme 2:</b> for airports ID regulation, improve IMs to better enable profitability assessment over time	<b>Topic 6:</b> airports profitability assessment
	<b>Topic 7:</b> reconsidering the WACC percentile range for airports
	<b>Topic 8:</b> cost-effectiveness of the rules and processes for CPP applications
<b>Theme 3:</b> for all types of regulation, reduce complexity and compliance costs	<b>Topic 9:</b> reducing complexity and compliance costs

<sup>27</sup> These themes are also consistent with our view on what the focus of the IM review should be, as set out at paragraph 41.1 of this paper.

<sup>28</sup> And make any consequential amendments to the relevant IMs for energy information disclosure regulation.

*How the topics fit together*

61. Although we have presented this paper by topic, we recognise that there are linkages between topics. Below we provide some examples of how the topics inter-relate.
62. Topic 1 on risk allocation mechanisms under price-quality paths, in addition to being a topic in its own right, serves as an introduction to:
  - 62.1 Topic 2: the form of control for price-quality regulated sectors;
  - 62.2 Topic 3: interactions between the DPP and CPP; and
  - 62.3 Topic 4: the future impact of emerging technologies in the energy sector.
63. We have split issues relating to airports into two topics, which focus on the two elements to assessing the profitability of airports:
  - 63.1 the mechanics of how profitability is assessed, which is the focus of Topic 6; and
  - 63.2 the benchmark against which that profitability is then assessed, which is the focus of Topic 7.
64. There are also two topics concerning CPPs. However, they both have a different focus:
  - 64.1 Topic 3 is focused on interactions and differences between the DPP and CPP and how these impact suppliers' incentives to seek a CPP; whereas
  - 64.2 Topic 8 is focused on the cost and complexity of the CPP application *process*.
65. Ultimately, while there are a number of interrelationships between the topics, for practical reasons, it is useful to split them into separate topics for the purposes of engaging with the problems they each pose as they relate to Part 4 of the Commerce Act 1986 (**Part 4**) and the IMs.

*Topic on reducing unwarranted complexity and compliance costs*

66. Consistent with the principles we proposed at the outset of this IM review (and noted at para 41.1), we seek opportunities to significantly reduce unwarranted complexity and compliance costs in the IMs (see Topic 9).
67. Our comments on that Topic have been collated from our own observations, submissions on the open letter, and prior processes and consultations.
68. Matters about ambiguity, drafting errors or unintended consequences are not specifically addressed in that chapter. However, reference is made to these matters where we feel it might be an indication of unwarranted complexity or compliance costs.

### **Our level of understanding varies across the topics**

- 69. We are at different stages of thinking across the nine topics.
- 70. Our level of understanding for each topic is based on the amount of work we have previously done in that area and on stakeholders' submissions on our open letter (or on previous work); it is not necessarily an indication of relative importance or priority.

### *Illustration of our differing levels of understanding across topics*

- 71. To illustrate our differing level of understanding between topics, 'the future impact of emerging technologies' could be contrasted against 'airports profitability assessment'.
- 72. Stakeholders have identified emerging technologies as an important topic for the IM review. We agree that it should be considered. However, at this stage, we are unclear on the specific problems emerging technologies create in relation to Part 4 regulation and the IMs.
- 73. Without a problem definition, we are not yet able to consider how the IMs could or should be amended for this topic. It is clear that technology and consumer preferences are evolving, but it is unclear how this will impact on electricity networks, investment requirements, and when or whether the IMs need to change to respond to this, and how.
- 74. Therefore, on this topic we are not in a position to offer any tentative problem definitions. Instead we are heavily reliant on you to help shape the problem definitions in this area.
- 75. By contrast, with the 'airports profitability assessment' topic, we are starting from a position that is further along the issue development process. Through previous consultation processes, our s 56G reports, and submissions on our open letter, we have a much clearer picture of what the problem definition is. Therefore, in this topic area we have offered a number of proposed problem definitions, which we invite you to submit on.

### **We want you to help us fill in the gaps and define the problems**

- 76. The input we are seeking from you on each topic therefore varies depending on our level of understanding on that topic.
- 77. In outlining our existing level of understanding, we aim to indicate to you the types of further input we are looking for. In the topic chapters we raise some specific questions, and put forward tentative propositions for comment.

78. At this stage of the IM review, please focus your contributions on problem definition, rather than solutions. To the extent that potential solutions are discussed in forum presentations and submissions, such solutions should relate to a clear problem definition. Discussion on potential solutions should therefore be kept at a high level, rather than entering into detailed solutions, except to the extent that specific topic chapters request otherwise.
79. We are also interested to know whether you consider we have missed any topics entirely or, in the case of reducing complexity and compliance costs for example, you consider we have not given sufficient prominence to any issue addressed in the context of the IMs as a whole. If proposing new topics, we encourage you to consider how they fit with the existing topics. For example, consider whether they might be sub-topics of already identified topics, or whether current topics can be broadened to include the proposed new topic.
80. You will have the opportunity to discuss your views at the forum prior to making written submissions in response to this paper.<sup>29</sup>

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<sup>29</sup> See the following chapter for more details on the forum and written submissions.

## Next steps: forum and written submissions

81. This chapter details the next steps for this phase of the IM review. It describes the upcoming forum, and invites your submissions on this paper. Following submissions on this paper, we intend to further develop the process and timing for the next phase of the IM review.

### Invitation to prepare for and attend our initial forum

82. We intend to hold a forum on 29 and 30 July 2015 at Te Papa, Wellington. The forum will give interested parties an opportunity to present on the issues for the IM review as they see them at an early stage, and for others to engage on those issues.
83. Stakeholder engagement and participation at the forum will be crucial. In particular, we would like to encourage stakeholders to lead and participate in a variety of sessions at the forum. We anticipate that the format of the sessions may vary between agenda topics. For some sessions, we envisage either Commission staff or another party presenting its views to the forum, possibly followed by comments from a panel, and then a short period of time for questions from other attendees. For other topics it may be more appropriate to have a panel discussion on a topic area, followed by a short period for comments and questions.
84. We will liaise with a range of stakeholders (including representative bodies such as ENA, NZAA, BARNZ, MEUG, MGUG) over the coming weeks to determine:
- 84.1 The appropriate mix of topics for discussion, as we anticipate that the forum would not necessarily cover all of the topics discussed in this paper; and
- 84.2 Who should lead, present and/or comment on each of the topics at the forum.
85. If you would like to be involved in presenting or commenting on certain topics at the forum, please contact us at [im.review@comcom.govt.nz](mailto:im.review@comcom.govt.nz) **by 5.00pm on Friday 19 June 2015** or by calling Karen Smith on 04 942 3863 to discuss your interest.
86. The success of the forum depends on attendees being well-prepared and willing to engage on the issues as they relate to IMs. We encourage parties to continue considering and developing their thinking on the issues, as well as engaging expert advisers (if appropriate) to assist in your preparation for the forum.<sup>30</sup>
87. To facilitate adequate preparation by attendees, we will circulate the agenda well before the forum. We intend to publish a draft agenda by the end of June. We will then publish a finalised agenda prior to the forum.

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<sup>30</sup> It may also be appropriate for experts to participate in certain sessions at the forum as well. We will update interested parties on this when we release our draft agenda.

88. If you would like to attend the forum, please RSVP to [im.review@comcom.govt.nz](mailto:im.review@comcom.govt.nz) by **5.00pm on Monday 6 July 2015**. Depending on the number of people who express interest in attending the forum, we may need to limit the numbers attending per organisation. If this is necessary we will try to give priority to people providing early expressions of interest in attending.

#### Invitation to make submissions

89. We invite your submissions on this paper by **5pm on Friday 21 August 2015**. We then invite cross-submissions by **5pm on Friday 4 September 2015**.
90. At paragraph 49, we invite written legal submissions in advance of the forum on the points raised in paragraphs 42 (our preliminary view that there is no specific statutory threshold for changing the IMs as part of the IM review) and 44 (our preliminary view that we cannot create an IM on a matter not covered by a published IM as part of the IM review), so that we have time to consider your views before the forum.
91. The covering letter to the notice of intention invited early submissions on whether specific amendments relating to the CPP application process and the Airports IMs should be fast-tracked. If you are interested in submitting on this, please see the covering letter to the notice of intention for details. These submissions are due by **5pm on Tuesday 23 June 2015**.<sup>31</sup>
92. Please address submissions and cross-submissions to:
- Keston Ruxton  
Manager, Market Assessment and Dairy  
Regulation Branch  
[im.review@comcom.govt.nz](mailto:im.review@comcom.govt.nz)
93. The input we are looking for varies by topic, and according to our level of understanding of each topic. In each of the above topic chapters, we provide specific guidance on the types of stakeholder input we are looking for on that topic.
94. Please focus your submissions on problem definition, before turning to solutions. Without first developing clear problem definitions in this phase of the IM review, it will be harder for us to jointly move on to the next phase and consider any potential solutions.
95. In addition to the specific areas identified in the topic chapters, we are also interested in your views on:
- 95.1 Whether there are any IMs that should not be considered separately along sector lines? If so, why?<sup>32</sup>

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<sup>31</sup> Cover letter to the notice of intention, Attachment, paras 11 and 27.

<sup>32</sup> As discussed at paragraphs 17-20 of this paper.

- 95.2 The extent to which there are interrelationships between defined problems across topic areas.<sup>33</sup>
- 95.3 Any topics you consider we may have missed entirely.<sup>34</sup>
96. If there are any topics or issues that you consider to be significant for the IM review that we have not covered in this paper, please let us know as early as possible by email to Keston Ruxton at [im.review@comcom.govt.nz](mailto:im.review@comcom.govt.nz). Where possible we will endeavour to cover any new topics or issues at the forum, however, this may not be possible in all cases.
97. If there is any material that you submitted prior to our notice of intention on 10 June 2015 that you wish to be on the record for the IM review, please incorporate it by reference into your submissions on this paper. We note our intention is to formally include on the record for this IM review submissions from parties interested in specified airport services that were made to us as part of the work undertaken during 2014 on the WACC percentile<sup>35</sup> and in relation to proposed amendments to the IMs for IRIS for gas pipeline services. You can also specifically refer to material submitted in proceedings prior to the IM review, and to the extent that material is so referenced it too would form part of the record for this IM review.<sup>36</sup>
98. While the forum will be on the record, any points that submitters wish to make in response to this paper should be formalised in written submissions following the forum, incorporating your forum presentations where appropriate.

### **Process and timing for the next phase of the IM review**

99. Following submissions on this paper, we expect to have a much clearer picture of the topics and problems for the IM review. Accordingly, following submissions on this paper, we intend to further develop the process and timing for the next phase of the IM review.

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<sup>33</sup> Interrelationships between topic areas are discussed at paragraphs 61-65, as well as throughout the topic chapters.

<sup>34</sup> As discussed at paragraph 79 of this paper.

<sup>35</sup> As discussed at paragraph 379 of this paper.

<sup>36</sup> There is no requirement to consult on information provided on IMs prior to the IM review commencing. Information and documentation originating prior to the IM review just needs to be referred to in order to introduce it to the record for the IM review. The ENA raised (in its submission on the open letter) a need for clarification of our intent with regard to s 52V(3). When s 52V(3) is read with s52V(4) it requires us to consult on treating work (including consultation) done on IMs 'before the commencement of this section' as 'work done under this section'. Our view is that s 52V(3) does not apply to the IM review because it was intended to address work prior to s 52V taking effect legally (prior to the current Part 4 legislative framework).

## Topic 1: Risk allocation mechanisms under price-quality paths

### TOPIC SUMMARY

100. This chapter sets out how we deal with risks in our regulatory context. We also describe mechanisms we use to allocate risk between suppliers and consumers. The purpose of this chapter is to provide context to assist you to frame your points for the forum or later submission on this paper. We invite submissions on how the package of regulatory mechanisms allocates and compensates risk between consumers and suppliers. We also welcome submissions on the detail of these mechanisms.

### TOPIC

101. Questions about how to deal with risk in our regulatory framework are central to many of the topics we discuss in this paper.
102. Risks are inherent features of any market. In competitive markets, the costs or benefits associated with risks are generally shared, to some extent, between consumers and suppliers.
103. In our context, the overall regulatory framework and the specific regulatory rules influence both the level of risk, and how it is distributed between suppliers and consumers.
104. Against this background, one of our tasks as regulator is to avoid creating unnecessary risks when designing and implementing rules in the markets we regulate. We allocate and compensate risks in a way that promotes the long-term benefit of consumers, consistent with the purpose of Part 4 of the Act.

### Risk allocation

105. We allocate risks through a range of regulatory mechanisms. In doing so, we seek to allocate risks to those best placed to manage them.<sup>37</sup> This will include:
- 105.1 Actions to influence the probability of occurrence where possible;
  - 105.2 Actions to mitigate the costs of occurrence; and
  - 105.3 The ability to absorb the impact where it cannot be mitigated.
106. Regulated suppliers have various risk management tools at their disposal, including insurance, investment in network strengthening/resilience, hedging, contracting arrangements and delaying certain decisions, like when to make large investments. Some of these tools may have associated costs to suppliers.

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<sup>37</sup> See: Commerce Commission “Setting the customised price-quality path for Orion New Zealand Limited Final Reasons Paper” (29 November 2013), para. B20-B37.

### **Risk compensation**

107. We seek to compensate suppliers either ex-ante and/or ex-post for the prudent and efficiently incurred material costs of managing risks, consistent with it expecting to earn normal returns, and where it is in the long-term benefit of consumers that we do so.<sup>38</sup>

### **Approaching risk as a package**

108. It is important to consider risk allocation and compensation in a holistic way, especially when considering potential changes to the IMs.<sup>39</sup>
109. There are a number of different regulatory mechanisms for allocating and compensating risk-bearing. However, decisions on a specific risk allocation mechanism can impact other mechanisms. Therefore, these decisions should not be taken in isolation.
110. For example, decisions on the form of control may reduce suppliers' exposure to the risk that forecast electricity demand differs from actual demand.<sup>40</sup> To the extent that electricity demand is driven by overall economic growth, then shielding suppliers from demand risk may also reduce their exposure to broader systematic risks, which may have knock-on effects on the appropriate regulatory cost of capital.<sup>41</sup>

### **Regulatory mechanisms to allocate risks under the current framework**

111. There are a number of ways in which a price-quality path and the rules governing its operation can be specified, and the exact mechanics can have an impact on how risk is allocated.
112. Below we briefly discuss elements of a price-quality path that can potentially affect risk allocations.

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<sup>38</sup> Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited Final Reasons Paper" (29 November 2013), p. 135-145.

<sup>39</sup> This was raised by submitters. See, for example: ENA "Response to the Commerce Commission's open letter" (31 March 2015), para 55-57; Powerco "Review of Input Methodologies: Response to the Commerce Commission's Open Letter" (31 March 2015), p. 2.

<sup>40</sup> The form of control for price-quality regulated sectors is discussed in the following chapter.

<sup>41</sup> In the past, we have not found any robust evidence that demonstrates that the choice of revenue caps versus price cap affect the level of systematic risk in any material way. See initial IMs reasons paper, p. 540.

### *The recoverability of the regulatory asset base*

113. One of the features of the current regulatory framework for electricity and gas is that price setting assumes that suppliers fully recover the costs of the assets in the regulatory asset base (**RAB**), plus a return. We do not conduct ex-post assessments of what assets should be, or should remain, in the RAB, and at what value. The full cost incurred in building each asset is included in the RAB and is recovered from consumers. Therefore, consumers largely bear the risk of inefficient expenditure and asset stranding. This assumption of full RAB recovery is practicable, and has worked well up to now, when the risk of asset stranding is limited. The views from some commentators on ongoing technological developments suggest we should consider whether to reassess if this assumption is still appropriate for regulatory price setting.<sup>42</sup> We discuss this point in the emerging technologies chapter.

### *The form of control*

114. In broad terms, the price-quality path can be specified as a maximum price or maximum revenue.
115. Under a price cap, a forecast of demand over the price control period is needed to determine the price path. This is generally not needed under a revenue cap. Therefore, suppliers are exposed to the risk of demand forecasting error under a price cap.
116. The existing IMs specify a weighted-average price cap (**WAPC**)<sup>43</sup> and gas distribution business,<sup>44</sup> the option of a WAPC or revenue cap for gas transmission businesses<sup>45</sup> and a revenue cap for Transpower.<sup>46</sup> We discuss the form of control in the following chapter.

### *The provisions for reconsidering the price-quality path*

117. A reconsideration of a price path (sometimes referred to as a re-opener) is one of the mechanisms, currently only open to suppliers, not consumers, used to reduce a wide range of risks to suppliers.
118. Following an amendment ordered by the High Court,<sup>47</sup> the IMs for electricity distribution and gas pipeline services now allow the default price-quality path to be reconsidered under four circumstances:
- 118.1 A catastrophic event;
- 118.2 A change event;<sup>48</sup>

<sup>42</sup> Other regulatory approaches exist for environments characterised by faster technological change, like in telecommunications regulation.

<sup>43</sup> Electricity Distribution Services Input Methodologies Determination 2012, clause 3.1.1 (1).

<sup>44</sup> Gas Distribution Services Input Methodologies Determination 2012, clause 3.1.1 (1).

<sup>45</sup> Gas Transmission Services Input Methodologies Determination 2012, clause 3.1.1 (1).

<sup>46</sup> Transpower Input Methodologies Determination, clause 3.1.1.

<sup>47</sup> *Wellington International Airport Ltd and others v Commerce Commission* [2013] NZHC 3289. The amended determinations were notified in the Gazette on 27 November 2014.

118.3 An error; and

118.4 The provision of false and misleading information.

119. A reconsideration of a price-quality path due to a catastrophic event, change event, or an error can only happen if costs or allowed revenue change by at least 1% of allowed revenue under the existing price path for the affected years.

*The allowance of pass-through costs and recoverable costs*

120. This allowance ensures suppliers fully recover costs they are exposed to, but which they generally have little or no control over.
121. In the last electricity distribution price-quality path reset,<sup>49</sup> we introduced a new approach for the treatment of pass-through and recoverable costs. The approach is intended to mitigate the risk of price path breaches due to variations between forecast and actual pass-through costs and recoverable costs.

*The indexation of the RAB and the price path*

122. Under the current approach, the value of the RAB is indexed by forecast inflation (ie, it is revalued) for electricity and gas distribution and gas transmission (not for electricity transmission). In addition, the price path is indexed by a lagged measure of inflation.
123. Some regulated suppliers have argued that this exposes them to the uncontrollable risk that forecast and actual inflation differ, and have proposed a wash-up mechanism (for RAB indexation).<sup>50</sup> The existence and magnitude of this risk results from the specific construct of the RAB indexation rules, which are subject to the IM review. We note that the fact that a risk is uncontrollable to suppliers does not necessarily imply that consumers have to bear it. As part of allocating risks to those best placed to manage them, we should consider who is best placed to absorb the impact of the risk materialising. As mentioned in paragraph 107, when a supplier bears a risk, we seek to compensate it for the prudent and efficiently incurred cost of managing it,<sup>51</sup> consistent with it expecting to earn normal returns and with outcomes produced in competitive markets.

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<sup>48</sup> A change event is a new legislative or regulatory requirement implemented during the regulatory period and not explicitly provided for in the default price-quality path

<sup>49</sup> Commerce Commission “Default price-quality paths for electricity distributors from 1 April 2015 to 31 March 2020: Compliance requirements” (28 November 2014)

<sup>50</sup> PwC “A wash-up mechanism for the DPP revaluation rate, a report prepared for Vector” (April 2014).

<sup>51</sup> We generally compensate for systematic and non-systematic risks through the cost of capital and cash flows respectively.

124. We note that, in its submission to our open letter of 27 February 2015, Vector questioned the principle of indexing the RAB in general,<sup>52</sup> which is also relevant in the changing technological environment, as mentioned in the emerging technologies chapter. We therefore welcome views on the merits of RAB indexation in general, and the specific rules for doing so in particular, as part of the IM review.
125. However, we consider it is important to point out to interested parties the natural hedge inherent in the current approach. For example, if forecast inflation is higher than actual, then the RAB revaluation (based on forecast inflation) will be higher than if actual inflation was used, which would depress allowed revenue (since we subtract revaluation amounts from allowed revenue). Conversely, the return *on* capital will be higher (since a higher nominal WACC based on forecast inflation is applied to the RAB), which increases allowed revenue. Since these effects go in opposite directions, the disparity between forecast and actual inflation should not have a major impact, and suppliers are arguably left largely whole.

*Option to apply for a customised price-quality path*

126. The purpose of default/customised price-quality regulation is to provide a relatively low-cost way of setting price-quality paths for suppliers of regulated goods and services.<sup>53</sup>
127. This allows the opportunity for individual suppliers to apply for alternative price-quality paths that better meet their particular circumstances. For example, after the Canterbury earthquakes Orion sought a customised price-quality path. The CPP we set Orion included an allowance for certain additional net costs it incurred in responding to those earthquakes, but we did not provide compensation for the reduction in demand from the earthquakes until the price-quality path was reset.
128. The option of a CPP, which is only open to suppliers, not consumers, can reduce a wide range of risks and provides an option value to suppliers. However, there is a risk that the WACC set under a CPP differs from that set under the DPP. We discuss the interactions between the DPP and CPP separately as topic 3.<sup>54</sup>

**Conclusion**

129. As the above mechanisms show, there are a number of ways in which risk allocation and compensation can be altered.<sup>55</sup> The above list is not necessarily exhaustive of all risks and related regulatory mechanisms.

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<sup>52</sup> Vector “Proposed scope, timing and focus for the review of input methodologies” (31 March 2015), para 3-5.

<sup>53</sup> Section 53K of the Act.

<sup>54</sup> From a commercial point of view for an applicant, the attractiveness of a CPP application depends on the costs and benefits of making an application for a CPP. We discuss known issues on the cost-effectiveness of the CPP option separately as topic 8.

<sup>55</sup> As noted, some of these mechanisms may also create some risks.

130. Some stakeholders have identified the form of control as a key area of focus.<sup>56</sup> We consider that the form of control topic is a good starting point for discussion. It relates to the mechanics of a price-quality path and is one important mechanism for allocating risk between suppliers who are subject to the price path and consumers.
131. It is important to consider that a change in the form of control does not in itself provide the full picture, as there are many variants of both price caps and revenue caps. Instead, it is the full specification of the rules, incorporating the issues listed above (and that are addressed in some of the topics in this paper) that provide a more complete picture.
132. We set out some initial thinking on that topic in the following chapter.

#### **INVITATION TO MAKE SUBMISSIONS**

133. We invite submissions on how the package of mechanisms used in the current regulatory framework allocate and compensate risks between consumers and suppliers.

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<sup>56</sup> Wellington Electricity “Scope, timing and focus of Input Methodologies review” (31 March 2015), p. 1.

## Topic 2: The form of control for price-quality regulated sectors

### TOPIC SUMMARY

134. This topic area covers the form of control for price-quality regulated suppliers (ie, price and revenue caps). Submissions to our open letter generally suggested that the form of control should be reassessed as part of the IM review. We invite submissions on whether a different form of control would more effectively promote the long-term benefit of consumers in light of the current environment, and how the different options link to the wider approach to risk allocation under the Part 4 regime.

### TOPIC

#### What is the topic area?

135. The form of control applied to a price-quality path is the criteria by which that path is regulated. The Act requires that we must specify either or both the maximum price or prices that can be charged by suppliers or the maximum revenues that can be recovered by suppliers.<sup>57</sup>
136. The choice of the form of control is often characterised as a choice between a ‘price cap’ and a ‘revenue cap’. However, in reality there are a number of different ways a control can be specified (eg, specification of price for particular services, extent to which revenue can be ‘washed up’ in subsequent periods).<sup>58</sup> Therefore the impact on a supplier will depend on the specific rules and any associated decision.
137. The existing IMs specify a WAPC approach for electricity and gas distribution businesses,<sup>59</sup> the option of a WAPC or revenue cap for gas transmission businesses,<sup>60</sup> and a revenue cap for Transpower.<sup>61</sup>
138. The revenue caps we have set for Transpower and gas transmission businesses operate in a different manner. A key difference is that the revenue cap applied to Transpower includes an economic value account (**EV account**) which is the mechanism used to transfer positive or negative revenue adjustment balances from one year to the next.<sup>62</sup>

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<sup>57</sup> Commerce Act 1986, s 53M(1)(a).

<sup>58</sup> For example, the National Electricity Market rules in Australia allow for 5 types of control mechanism, which are all variants of price or revenue caps, and the opportunity to implement a hybrid option. See: Australian Energy Market Commission “National Electricity Rules Version 71”, para 6.2.5 (b).

<sup>59</sup> Initial IMs reasons paper, para 8.3.7-8.3.12; Commerce Commission “Setting Default Price-Quality Paths for Suppliers of Gas Pipeline Services” (28 February 2013).

<sup>60</sup> Initial IMs reasons paper, para 8.3.14-8.3.19; Commerce Commission “Setting Default Price-Quality Paths for Suppliers of Gas Pipeline Services” (28 February 2013).

<sup>61</sup> Commerce Commission “Input Methodologies (Transpower) Reasons paper” (December 2010), para 7.3.7.

<sup>62</sup> Commerce Commission “Setting Transpower’s individual price-quality path for 2015—2020” (29 August 2014), para C45–C49.

139. The revenue cap applied to gas transmission businesses operates differently because there is no wash-up mechanism in the event that the gas transmission business does not achieve the allowable revenue which has been set.<sup>63</sup> Allowed revenues for the regulatory period are determined using a building blocks methodology.<sup>64</sup> This revenue is fixed and does not vary with changes in out-turn demand.
140. We therefore see a clear distinction between a revenue cap which guarantees allowable revenues<sup>65</sup> and a revenue cap which does not.<sup>66</sup> In between these two extremes could also be the option to allow recovery of foregone allowable revenue for a limited number of years but not for an indefinite period.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

141. Submissions to the open letter generally suggested that the form of control should be looked at as part of the IM review. Wellington Electricity expressed the view that a default price-quality path is not compatible with a WAPC.<sup>67</sup>

*Exposure to demand risk*

142. Concerns raised about the form of control applied under the IMs have generally related to the exposure of suppliers to demand risk under our WAPC approach.
143. The demand risk under a WAPC only relates to the period subject to the price-quality path. At the time of a future reset the new price-quality path will be set on the basis of updated information taking into account any demand changes since the previous reset. An updated demand forecast is implicit in the updated forecast of constant price revenue required for a price-quality path under a WAPC.<sup>68</sup>

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<sup>63</sup> Ie, differences between allowable revenues and actual revenues cannot be recovered at a later date. Under-recovered amounts cannot be subsequently claimed by suppliers and over-recovered amounts cannot subsequently be recouped by consumers.

<sup>64</sup> The methodology is similar to the approach to calculating the maximum allowable revenue for businesses subject to a WAPC; however, the maximum allowable revenue is not indexed to a forecast of constant price revenue growth over the regulatory period. A further point is that under the revenue cap we make an adjustment using a forecast of constant price revenue growth to account for the difference between known historical quantities at the time of the setting the path and the forecast quantities first year of the price path.

<sup>65</sup> For example, through an EV or 'unders and overs' account.

<sup>66</sup> For example, the revenue cap applied to gas transmission businesses in which revenue not achieved in one particular year cannot be recovered in future years.

<sup>67</sup> Wellington Electricity "Scope, timing and focus of Input Methodologies review" (31 March 2015).

<sup>68</sup> Demand risk beyond the time-horizon of the regulatory period is a separate issue and is considered in the chapter on the impact of emerging technology in the energy sector.

144. The ‘demand risk’ to which a supplier is exposed to under the WAPC is that actual demand will be different from our (implicit) forecast made at the time of the reset. Therefore a higher probability that out-turn values will diverge from forecast values will result in a higher exposure of the supplier to this demand risk.<sup>69</sup>
145. Reasons for divergence in out-turn values from forecast values include:
- 145.1 Inherent uncertainty in future demand over the time horizon of the price-quality path;<sup>70</sup> and
- 145.2 The extent to which our forecast diverges from a ‘perfect’ forecast.<sup>71</sup>
146. Of these two reasons the inherent uncertainty element is out of our control and is a feature of any WAPC in which prices are based on a pricing quantity that is uncertain in the future.
147. Divergence of our forecast from a ‘perfect forecast’ is within our control to a certain extent (eg, we could spend more time and resource improving forecasting techniques). However, because we cannot identify a perfect forecast we are unable to objectively measure the consistency of our own forecasts (or alternatives) with such a perfect forecast. This creates issues in terms of understanding the benefits that come from any increased focus on improving our forecasting capability.
148. A review of the IMs outlining the suitability of a WAPC or revenue cap needs to take into account the demand risk to suppliers due to both of the reasons identified. All other things being equal, we would expect that an increase in demand risk due to increased volatility and/or increased forecasting challenges would make it less likely for a WAPC to be appropriate under a particular price path compared to a revenue cap.
149. We have previously outlined how we consider that a WAPC is more appropriate when the supplier is able to control future demand to some extent, while a revenue cap is more appropriate when demand is generally not controllable by the supplier.<sup>72</sup>

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<sup>69</sup> For this reason, suppliers with a greater percentage of volume-based charging will be exposed to a greater amount of demand risk. The uncertainty of future volumes results in a higher likelihood of an error in forecasting constant price revenue growth.

<sup>70</sup> Ie, even a ‘perfect forecast’ taking into account all available information will still be subject to uncertainty of future outcomes.

<sup>71</sup> There could be a number of reasons why our forecast may diverge from a perfect forecast. For example, not having all available information, or not using the most appropriate forecasting techniques.

<sup>72</sup> Initial IMs reasons paper, para 8.3.5.

150. The extent to which the demand risks can be reduced under a revenue cap depends on how a revenue cap is formulated. This depends on both the specification in the IMs and the detailed implementation in the determination of a price-quality path.
151. For example, under the revenue cap applied to gas transmission businesses in the current default price-quality path, we do not apply a wash-up for any revenue that is under- or over-recovered compared to allowable revenue. Under this type of approach some revenue risks are still retained by the supplier. Examples of these risks include:
- 151.1 Gas transmission businesses are required to use historical (or lagged) quantities to determine their notional revenue,<sup>73</sup> which is then used to demonstrate compliance with their allowable revenue. However, because their actual revenue is based on out-turn quantities, any decrease (or increase) compared to the historical value used in the compliance formula will result in a revenue shortfall (excess). The absence of any wash-up mechanism means the supplier bears the risk of this under or over recovery.
- 151.2 Over time decreasing quantities can be compensated for under a revenue cap by an increase in prices. However, suppliers could potentially be constrained in their ability to significantly increase prices in individual years, even in the absence of a regulatory compliance requirement (eg, because of consumer pressure against large price rises). This could lead to a revenue shortfall that cannot be recovered in subsequent years.
- 151.3 In setting allowable revenue we require an (implicit) forecast of demand changes between the most recent year for which we have historical demand data and the first year of the regulatory period. This is needed to forecast the constant price revenue growth over that time. Any error in this forecast compared to out-turn demand has an impact on the allowable revenue of a gas transmission business.
152. Alternative examples of a revenue cap approach would make use of ex-post wash-ups or “unders and overs accounts” which use out-turn quantities to adjust allowable revenue. These types of revenue caps completely remove the demand forecasting risk to suppliers.<sup>74</sup>

#### *Energy Efficiency and Demand-Side Management incentives*

153. A second concern that has been raised in relation to WAPCs is that energy efficiency and demand-side initiatives could be better incentivised under a revenue cap.<sup>75</sup>

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<sup>73</sup> These are t-2 quantities – ie, quantities from two years prior to the pricing year in question.

<sup>74</sup> For example, these types of approaches are applied for Transpower and a number of Australian electricity lines businesses.

<sup>75</sup> Section 54Q of the Act requires that: “The Commission must promote incentives, and must avoid imposing disincentives, for suppliers of electricity lines services to invest in energy efficiency and demand side management, and to reduce energy losses, when applying this Part in relation to electricity lines services.”

154. A supplier with a volume-based charging regime and subject to a WAPC might lose revenue as a result of investment in energy efficiency or demand-side management initiatives that reduce overall electricity volumes through its network.
155. We have mitigated the issue to some extent through the introduction of the energy efficiency/demand-side management scheme under the default price-quality path for electricity distributors for initiatives which are not tariff-based.<sup>76</sup>
156. However, some concerns have previously been raised over the fact the scheme excludes tariff-based measures, the administrative costs of the scheme, and the extent to which a principles-based approach can provide the certainty required for energy efficiency/demand-side management investment.<sup>77</sup>
157. The exclusion of tariff-based measures means that suppliers continue to bear a potential risk to revenues when they restructure prices and the related demand reduces significantly.
158. Under a revenue cap approach there would be no need for the energy efficiency and demand-side management incentive scheme applied in the current default price-quality path. This is because the decreases in network throughput quantities due to energy efficiency and demand-side measures, including tariff measures, or for any other reason would no longer lead to a direct decrease in allowable revenues.
159. There is a separate but related issue regarding the current compliance formula in the default price-quality path. It currently uses historical lagged quantities from two years prior (or estimates of those quantities). Short-term incentives for energy efficiency and demand-side management initiatives can be affected by the use of these lagged quantities.
160. In particular, the extent to which historical or estimated quantities used for the purposes of compliance are higher than out-turn quantities (for example when introducing a new ToU tariff) can result in a revenue risk to suppliers.<sup>78</sup>

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<sup>76</sup> Further details on the scheme can be found in our November 2014 decision for the 2015–2020 default price-quality path for electricity distributors. See: Commerce Commission “Default price-quality paths for electricity distributors from 1 April 2015 to 31 March 2020” (28 November 2014), para 7.10–7.27 and E1–E37; Commerce Commission “Default price-quality paths for electricity distributors from 1 April 2015 to 31 March 2020: Compliance requirements” (28 November 2014), Chapter 7.

<sup>77</sup> Submissions on the introduction of the scheme to the DPP outline some of these concerns. For example see: Electricity Networks Association “Submission on proposed default price-quality paths for electricity distributors from 1 April 2015” (15 August 2014), p. 26–27.

<sup>78</sup> This was raised by Unison in the context of the default price-quality path for electricity distributors. See: Unison Networks Limited “Submission on Proposed Compliance Requirements for the 2015–2020 DPP for Electricity Distributors” (29 August 2014); and Unison Networks Limited “Submission on DPP draft determination, IM amendments and associated companion papers” (31 October 2014).

161. Depending on the specific mechanics of any revenue cap, there may be some advantages in being able to simplify the compliance formula which could potentially have an impact on energy efficiency and demand-side management incentives. Any such impact would depend on the specific details of any future compliance approach and the form of control applied.

**Have we previously looked at this topic or these issues?**

162. When setting the original IMs we chose to implement a WAPC for electricity and gas distribution businesses because we considered it:<sup>79</sup>

generally provides incentives to price efficiently, subject to the overall revenue constraint being met, as regulated suppliers can utilise their knowledge of consumers' price responsiveness when pricing to maximise profits and manage demand risk – potentially reducing allocative inefficiency;

allocates the demand risk to regulated suppliers – which is appropriate as they are generally better placed than their consumers to manage this risk;

provides incentives to invest in new infrastructure and to connect new consumers to the network, as it provides the regulated suppliers with additional revenue for new consumers and new volume immediately;

is suitable for situations where the (multiple) services supplied are relatively small in number and do not change regularly – meaning the 'tariff basket' of services is reasonably stable; and

is familiar to electricity and most gas distribution businesses.

163. Submissions under the original IM process generally supported the use of a WAPC for electricity and gas distribution services.<sup>80</sup>

164. The IMs provide an option of either a revenue cap or WAPC for gas transmission businesses, with the decision to be based on our judgement at the time of setting a price-quality path.<sup>81</sup>

165. When we set the IMs we noted that a WAPC is less suitable for businesses in which demand was unpredictable and not controllable to a great extent by a supplier. More specifically we suggested that a gas transmission business is better suited to a revenue cap if the business has:<sup>82</sup>

capacity reservation arrangements managed through common carriage rather than contract carriage; and

a lack of contractual flexibility to tailor non-standard pricing arrangements for individual customers.

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<sup>79</sup> Initial IMs reasons paper, para 8.3.8.

<sup>80</sup> Ibid, Paragraph 8.3.10-8.3.12.

<sup>81</sup> See Gas Transmission Services Input Methodologies Determination 2012, clause 3.1.1(1).

<sup>82</sup> Ibid, Paragraph 8.3.15.

166. Subsequently, when setting the 2013–2017 default price-quality path for gas transmission businesses we made the decision to apply a revenue cap to both Maui (because it fitted the criteria outlined in the IMs) and Vector (because of the difficulties of forecasting changes in revenue).<sup>83</sup>
167. As previously noted, when we set a revenue cap for gas transmission businesses it was included without a wash-up approach based on out-turn demand.
168. Consideration of how we should deal with reductions in demand after the Canterbury earthquakes was a central issue in our consideration of Orion’s claim for clawback as part of its CPP. We noted in that decision that suppliers under a price cap were exposed to greater demand risk than suppliers under a revenue cap, until the price-quality path could be reset.

### Is there other experience that could help deal with these concerns?

169. All jurisdictions using incentive regulation require some mechanism to implement regulatory control.
170. An Australian Energy Regulator (**AER**) discussion paper provides useful background on the various control mechanisms allowable under the Australian National Electricity Rules (**NER**).<sup>84</sup>
171. Recent determinations by the AER, for distributors in New South Wales, apply a revenue cap for the 2014–2019 regulatory period. This was a move away from the WAPC applied in the previous period because it was felt that the theoretical benefits of a WAPC to make more efficient pricing decisions were not being seen in practice.<sup>85</sup>
172. Instead the AER considered that greater benefits would be seen under a revenue cap due to improved individual tariff price stability, efficient cost recovery and incentives for demand-side management. The AER also thought that more efficient pricing could be encouraged under a revenue cap by applying more prescriptive pricing principles.
173. In recent years the UK Office of Gas and Electricity Markets (**Ofgem**) has applied a revenue allowance to electricity transmission and distribution businesses. The revenue allowance can be updated during the regulatory period as a result of revenue drivers that automatically change the allowance based on various output measures<sup>86</sup> or due to re-opener triggers.<sup>87</sup>

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<sup>83</sup> Commerce Commission, “Setting Default Price-Quality Paths for Suppliers of Gas Pipeline Services”, 28 February 2013, Attachment F.

<sup>84</sup> AER “Discussion Paper: Matters relevant to the framework and approach, ACT and NSW DNSPs 2014–2019: Control mechanisms for standard control electricity distribution services in the ACT and NSW” (April 2012).

<sup>85</sup> AER “Stage 1 Framework and approach paper Ausgrid, Endeavour Energy and Essential Energy” (March 2013), section 2.4.

<sup>86</sup> For example, the allowable revenue for a transmission business may increase in line with any new capacity requirements from transmission customers. See: Ofgem “RIIO-T1: Final Proposals for National Grid Electricity Transmission and National Grid Gas Final decision – Overview document” (17 December

## DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS

### What are the specific problems within this topic?

174. The current IMs specify that the form of control for electricity distributors<sup>88</sup> and gas distributors<sup>89</sup> must be a WAPC.
175. As highlighted above, there have been suggestions that this results in:
- 175.1 the within-period demand risk (and the corresponding risk to supplier revenue) being unnecessarily high and largely uncontrollable by suppliers; and
- 175.2 impacts on incentives to invest in energy efficiency and demand side management initiatives.
176. We welcome your views on whether you consider these to be problems to be addressed by the IM review.

### What could possible solutions be?

177. The next step after confirming that there is a problem with the current form of control is to identify the relative merits of alternative forms of control.
178. We would need to consider whether the long-term interests of consumer is best promoted by:
- 178.1 Maintaining form of control currently specified by the IMs;
- 178.2 Changing the IMs to specify a different form of control; or
- 178.3 Changing the IMs to provide for more than one option of form of control, from which the form of control to apply to a given regulatory period would be specified by a s 52P determination at the time we determine the price-quality path for that period.<sup>90</sup>
179. This would require an evaluation of the advantages and disadvantages of different approaches. Some of the areas to consider would include:
- 179.1 Whether the demand risk under the current WAPC is unnecessarily high and whether it warrants significant attention in the IM review;

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2012), Table 3.6, available at <https://www.ofgem.gov.uk/publications-and-updates/riio-t1-final-proposals-national-grid-electricity-transmission-and-national-grid-gas-%E2%80%93-overview>.

<sup>87</sup> For a list of reopener triggers applicable to electricity distribution businesses under RIIO-ED1, see: Ofgem, "RIIO-ED1: Final determinations for the slow-track electricity distribution companies: Overview, Final decision" (28 November 2014), Table 6.1, available at <https://www.ofgem.gov.uk/publications-and-updates/riio-ed1-final-determinations-slow-track-electricity-distribution-companies>.

<sup>88</sup> Electricity Distribution Services Input Methodologies Determination 2012, clause 3.1.1(1).

<sup>89</sup> See Gas Distribution Services Input Methodologies Determination 2012, clause 3.1.1(1).

<sup>90</sup> As is currently the case for gas transmission businesses – see paragraph 164 above.

- 179.2 Whether the reasons given for applying a WAPC in the original IMs still hold. For instance, have there been any changes in the operating environment that mean the WAPC no longer provides the greatest long-term benefits to consumers;
- 179.3 The extent to which alternative issues may arise as a result of moving to a different form of control. For example a move to a revenue cap might have an impact on incentives for suppliers to invest in new customer connections or invest in preparations for a catastrophic event;<sup>91</sup>
- 179.4 Whether the issues raised could be solved by alternative solutions. For example, the introduction of wash-ups, improved forecasting approaches or changes to compliance formulas;
- 179.5 How much of the detailed rules around risk allocation (including the form of control) should be specified in the IMs and how much should be determined at the time of setting a price-quality path;
- 179.6 How would a change to the form of control impact the exposure of the supplier to systematic risk and how would this be taken into account when selecting an appropriate asset beta to be used in the estimation of WACC for regulated businesses;<sup>92</sup> and
- 179.7 The extent to which complexity and compliance costs could be reduced by changing the form of control.
180. A further consideration may be whether a hybrid approach (ie, containing elements of both a price cap and a revenue cap) would provide a better outcome. For example, Vector previously made a submission following the default price-quality path process and issues paper outlining that one option could be a “cap and collar” approach. Under this approach the forecasts that are proven to be substantially different from actuals (ie, above a cap or below a collar) are subject to a wash-up.<sup>93</sup>

### **What further information is needed to advance our thinking?**

181. We require more detail on how different options for the form of control would operate in practice. We are also interested in how the choice of the form of control links to the wider approach to risk allocation under the Part 4 regime.

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<sup>91</sup> For example, the current exposure to demand risk within the period provides some incentives for electricity distributors to prepare appropriately for catastrophic events or other risks to demand in order to minimise demand losses and the associated revenue impact where such risks eventuate. This would be removed under a revenue cap.

<sup>92</sup> We note that the IMs do not currently distinguish between different forms of control when selecting asset beta. The asset beta for both Transpower and the electricity distributors is 0.34.

<sup>93</sup> Vector “Submission to Commerce Commission on the Default Price-Quality Paths from 1 April 2015: Process and issues paper” (30 April 2014), para 35.

**INVITATION TO MAKE SUBMISSIONS**

182. We invite submissions on:

- 182.1 whether you agree with the issues raised or if there are other issues with the current specification of the form of control in the IMs;
- 182.2 changes to the operating environment relative to when the original IMs were set, which means it is appropriate to consider whether the current form of control remains effective;
- 182.3 any relevant experience that can help in addressing these or any other issues relevant to this topic;
- 182.4 whether you consider that the issues raised concerning the form of control translate to specific problems that should be addressed by the IM review; and
- 182.5 any potential solutions to specific problems identified. Solution suggestions should be expressed in terms of how they better promote the long-term benefit of consumers relative to the current form of control. They should also discuss how the proposed solution links with the wider approach to risk allocation under the Part 4 regime.

### Topic 3: Interactions between the DPP and CPP

#### TOPIC SUMMARY

183. This topic area discusses how changes in the value of some parameters may affect the incentives on suppliers to seek a CPP, and the extent to which those incentives may not be in the long-term benefit of consumers. We invite submissions on any problems that arise in the interaction between the DPP and CPP and the potential advantages and disadvantages to any solutions identified.

#### TOPIC

##### What is the topic area?

184. The Part 4 regulatory framework allows suppliers to apply for a customised price-quality path in the event that they do not consider their DPP is sufficiently tailored to the supplier's specific circumstances. For example, a supplier may seek more revenue to cover their efficient expenditure, or different quality targets.
185. There may be differences in the value of certain parameters used in the determination of the default and customised paths because the periods for the DPP and CPP can be different and some parameters are set based on prevailing rates and estimates at the start of each regulatory period. For example there may be differences in the value of the estimate of WACC, forecasts of input prices and forecasts of demand.
186. The changes in parameter values could be material. For example, prevailing rates of interest on government stock (our proxy for the risk-free rate) can vary significantly over time and these movements will alter the values of WACC for the CPP compared to what was originally determined under the DPP. Depending on the size of the change, the impact on WACC could be significant and have a material impact on allowable revenue.
187. The incentive to apply for a CPP may be affected by how these parameters have changed over time and the consequential change in allowable revenue. This is unrelated to any changes in expenditure assumptions.
188. The exact impact on suppliers will depend on the changes in various parameters and the interaction between them in setting the allowable revenue under a price path. For example, as previously discussed, changes in the nominal WACC that are purely due to changes in inflation expectations would be broadly offset by changes in the forecast of asset revaluations.<sup>94</sup>
189. This topic covers how the incentives to apply for a CPP may change as a result of changes in parameter values, and the extent to which the incentives may not be in the long-term benefit of consumers. The discussion below focuses on changes to WACC as it has been identified as having a potentially material impact.

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<sup>94</sup> See paragraph 125.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

190. The differential in the WACCs can potentially cause problems depending on whether it has increased over time or decreased over time. Two key concerns are the potential for a supplier to:

190.1 *Not apply for a CPP when it is in the long-term benefit of consumers to do so.* If the WACC that will apply to a CPP is lower than the WACC used for the DPP, then a supplier may choose not to seek a CPP, even if there is a good case for customising the expenditure assumptions and/or quality standards for that supplier. This disincentive to apply is readily apparent when a supplier has entered swap contracts at the start of the DPP period to lock in the prevailing swap rate, but would receive a lower allowance for the risk-free rate component of the WACC in the CPP (due to the fall in interest rates since the DPP was set). In that context, a CPP offers lower revenues to the supplier but without any offsetting reduction in costs.

190.2 *Apply for a CPP when it is not in the long-term benefit of consumers to do so.* If the WACC that will apply to a CPP is higher than the WACC used for the DPP, then a supplier has an incentive to seek a CPP even when the expenditure assumptions and quality standards used in the DPP remain appropriate for the supplier. It is not apparent that consumers would benefit from a supplier seeking a CPP in those circumstances.

**Have we previously looked at this topic or these issues?**

191. The potential for changes in the value of parameters, such as WACC, to affect a supplier's incentives to seek a CPP, did not receive much attention when we originally determined the IMs. Our initial IMs reasons paper only briefly noted the option value to suppliers created by the CPP option allowing the supplier to choose its own regulatory period (with full knowledge over the value of the risk-free rate that would be used for each period).<sup>95</sup>

192. Subsequently, in responding to submissions during our consideration of the first DPP reset, we described how the risk to suppliers of a lower WACC under a CPP was not necessarily unmanageable and it should be evaluated in the context of the CPP having considerable option value:<sup>96</sup>

Some EDBs are of the view that the possibility of a lower WACC applying under a CPP represents an "unmanageable" risk. We do not consider this to be correct in analytical terms. Rather than representing an unmanageable risk to suppliers, the CPP should be viewed as a valuable option. If the risk-free rate—or the WACC more generally—falls from the date at which the DPP is determined, then consumers will be paying more to suppliers than is required to finance investment. By contrast, if the cost of financing investment rises during the period, then suppliers have the option of applying for a CPP.

<sup>95</sup> Initial IMs reasons paper, para 6.8.16.

<sup>96</sup> Commerce Commission "2010-15 default price-quality path for electricity distribution: Draft decisions paper" (July 2011), para 2.46.

### Is there other experience that could help deal with these issues?

193. The relatively unique nature of the CPP option in New Zealand means that there is limited international experience of dealing with this specific issue.
194. However a number of overseas regulators have also looked at how changes in the value of parameters, especially the risk-free rate, should be reflected in the price paths they set. In particular, other regulators have considered requiring annual updates to allowed prices for changes in the cost of debt. Such an approach, if adopted under our IMs, could help reduce the differences between the DPP and CPP in relation to the cost of debt. Regulators who have considered annual updating include:
- 194.1 Ofgem, which requires the cost of debt assumed in the WACC to be updated annually within a price control.<sup>97</sup> (Ofgem also based the cost of debt on a long-term trailing average.)
- 194.2 AER, which also now requires annual updating of the return on debt. This was done to better match the financing costs of its benchmark efficient entity and to reduce cash flow volatility over time.<sup>98</sup> (The AER introduced this requirement alongside its move from an on-the-day approach to determining the cost of debt to a trailing average.)
- 194.3 The Queensland Competition Authority, which considered but rejected the use of a trailing average approach, coupled with annual updating, because it was not convinced that the advantages of that approach were sufficient to merit a change to its methodology at that time.<sup>99</sup>
195. We briefly considered indexation when setting the original IMs to deal with the potential distortions in the incentives for investment during the regulatory period.<sup>100</sup> In particular we considered that incentives to over or under invest could occur in the event that market interest rates diverged too far from those used to set the regulatory WACC at the start of the price path. However we rejected the indexing approach in the revised draft guidelines on the basis that the condition of an ex-ante expectation of NPV=0 would not be satisfied:<sup>101</sup>

Whenever the Commission resets the risk-free rate part way through the regulatory cycle, the maturity of the risk-free rate will not match the horizon over which those rates will apply (namely, the remaining duration of the regulatory cycle), thus violating the NPV = 0 principle.

<sup>97</sup> Ofgem “Handbook for implementing the RIIO model” (4 October 2010), para 12.13–12.16, available at <https://www.ofgem.gov.uk/publications-and-updates/handbook-implementing-riio-model>.

<sup>98</sup> AER “Better Regulation: Explanatory Statement Rate of Return Guideline” (December 2013), Chapter 7, <http://www.aer.gov.au/node/18859>.

<sup>99</sup> QCA “Final decision Trailing average cost of debt” (24 April 2015), available at <http://www.qca.org.au/Other-Sectors/Research/Cost-of-Capital/Cost-of-Debt/Final-Report/Cost-of-Debt#finalpos>.

<sup>100</sup> Commerce Commission “Revised Draft Guidelines: The Commerce Commission’s Approach to Estimating the Cost of Capital” (19 June 2009), para 125.

<sup>101</sup> Ibid, para 127.

## DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS

### What are the specific problems within this topic?

196. The key issue in this area, as described above in paragraph 190, is that changes in the value of parameters may affect the incentives on suppliers to seek a CPP, and it is not clear that such effects are to the long-term benefit of consumers.

### What could possible solutions be?

197. In the open letter we also outlined that the option to index the cost of debt could be a potential area of focus. As noted above at paragraph 194, indexing of prices to changes in the cost of debt could reduce the difference in value between the WACCs set for a DPP and CPP.
198. An alternative option would be to amend the methodology for setting the risk-free rate (and potentially the debt premium). In particular, to abandon the rate at the start of the period approach used to determine the risk-free rate used in the IMs, in favour of adopting a long-term average of the risk-free rate as the AER has done (with or without annual updating). This is a more radical approach in that it would require specifying a new methodology for estimating the debt premium in relation to the DPP and probably information disclosure as well.
199. The choice of approach between using long-term averages and prevailing rates was considered when we set the IMs originally. At the time we were of the view that prevailing rates better achieved the purpose of Part 4.<sup>102</sup> We may wish to revisit this in light of additional information or submissions on the relative merits of the different approaches.
200. A third alternative approach might be to ‘carry-over’ existing parameter values used when setting the DPP onto the CPP. That is, the existing WACC for the DPP would apply to that part of the CPP which overlaps the DPP period, with a new WACC set for the balance of the CPP period. This option was identified during a previous DPP reset:<sup>103</sup>
- ... One way to prevent movements in the WACC from affecting the probability of a customised price-quality path proposal would be to apply the WACC from the current [DPP] regulatory period for the opening years of the term of the customised price-quality path, before using a forward starting rate to estimate the WACC applying during the next regulatory period.
201. An analogous approach could potentially be applied to parameters other than the WACC which also vary over time (and therefore between a DPP and a CPP).

<sup>102</sup> Initial IMs reasons paper, H4.10-4.13.

<sup>103</sup> Commerce Commission “Resetting the 2010-15 Default Price-Quality Paths for 16 Electricity Distributors” (30 November 2012), footnote 88.

**INVITATION TO MAKE SUBMISSIONS**

202. We invite submissions:

202.1 Further defining any problems that arise in the interaction between a DPP and CPP when the value of parameters used in the DPP and CPP varies over time; and

202.2 Explaining the advantages and disadvantages of the potential solutions to this issue.

## Topic 4: The future impact of emerging technologies in the energy sector

### TOPIC SUMMARY

203. This chapter compiles, synthesises and communicates key aspects of ongoing technological, commercial and social developments in the energy sector, and possible implications for its economic regulation. We do not provide a Commission view. Rather, we attempt to bring together the views we have heard from stakeholders, and relevant information we have found. We hope this will help you prepare your submissions on the impact of emerging technologies. We invite views that help us and others better understand what is going on, and what it means for the management of electricity (and where relevant gas) transmission and distribution businesses, and regulation under Part 4, in particular the IMs.

### TOPIC

#### What is the topic area?

204. Many stakeholders have identified emerging technologies and their impacts as a relevant topic for the IM review. This topic area is about the evolving nature of the energy system, especially as it relates to electricity, and the potential impacts on electricity and gas networks.
205. The combination of new technologies, business models and consumer behaviours may lead to significant changes in how the electricity system is managed.<sup>104</sup> This may in turn suggest that changes are required in how it (or parts thereof) is regulated. We are keen to understand better how the electricity (and gas, where relevant) networks of the future will differ from the present, and whether this requires us to amend the IMs now.
206. We recognise stakeholders' views that the potential scale of some of the issues that flow from this topic could be significant. While this potential exists, there appears to be no consensus on the extent or timing of change.
207. We would like to understand the views of all interested parties on how developing technologies, business models and changing consumer behaviours affect how the electricity and gas networks are managed, and what this means for the IMs that we use to regulate under Part 4 of the Act.
208. We do not yet have a good understanding of the specific problems that may result from the changing environment, and how they relate to Part 4 regulation in general, and the IMs in particular.
209. Suppliers understand their business better than we do. Consumers and other third parties are directly driving change and shaping parts of the evolving electricity system. We need them all to help articulate these potential problems as they relate to Part 4 and the IMs, if at all.

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<sup>104</sup> While the focus of this chapter relates to electricity-related developments, there may be knock-on effects on, or learnings from, the gas sector.

### *What is changing?*

210. Growing evidence suggests that the environment in which the IMs were originally set is evolving, especially as it relates to the electricity system. Possible changes to the management and use of the electricity system may mean that we need to amend the IMs.
211. These changes, commonly described as fundamental and potentially disruptive in nature, relate mainly to technological advances coupled with commercial innovations and changing consumer behaviour. As a result, some commentators consider that the electricity system is “starting to migrate from traditional centrally managed and largely passive operation, to a highly distributed and more complex architecture, involving new third parties, actively engaged consumers, and advanced automation”.<sup>105</sup>
212. We understand the main emerging technological developments to include:
- 212.1 *Distributed generation* – accelerating deployment of distributed generation, mainly of solar photovoltaic (**solar PV**) electricity, largely as a result of steep falls in costs.
- 212.2 *Electricity storage* – increasing attractiveness of storage in a range of applications, as either a complement or substitute to more traditional solutions. Storage can be potentially valuable to a range of players along the electricity value chain, from generators and the system operator, to electricity distributors and consumers. Different players will derive different value from storage depending on their specific needs and circumstances. The drivers here include increasing value of storing electricity as supply and demand become more variable, especially in specific applications,<sup>106</sup> coupled with cost falls.
- 212.3 *Electric vehicles (EVs)* – we understand that to date, there has been a low adoption of purely electric vehicles in New Zealand, but penetration is increasing (hybrid electric vehicles are more widely deployed), driven by a number of factors, from falling battery costs and improved performance, to greater availability of charging stations.

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<sup>105</sup> NZ Smart Grid Forum “The Challenge of Disruptive Technologies: GB experiences viewed in an NZ context” (25 April 2015). Prepared by John Scott of Chiltern Power Ltd. Available here: <http://www.med.govt.nz/sectors-industries/energy/electricity/new-zealand-smart-grid-forum/meeting-6/updated-issues-paper.pdf>.

<sup>106</sup> At a national level, the New Zealand electricity system appears relatively resilient to demand fluctuations mainly due to the high proportion of hydro generation. Therefore, electricity storage is probably less valuable to balance the system as a whole than in localised applications, such as deferring specific distribution network capacity upgrades, or improving the reliability of supply at lower voltages.

212.4 *Smart grid* – commonly defined as an electricity network that can intelligently integrate the actions of all users connected to it in order to efficiently deliver sustainable, economic and secure electricity supplies.<sup>107</sup> It encompasses innovative technologies, products and services. In addition to the above technologies, smart grid-related technologies include smart meters (the deployment of which is relatively advanced in New Zealand), smart phones, sensors, smart consumer appliances, and in-home displays. The performance, cost and availability of these technologies has also improved, which has supported deployment. As a result, some desirable characteristics of the smart grid include:

212.4.1 Observability – wide range of real time operational indicators;

212.4.2 Controllability – ability to manage and optimise the power system to a far greater extent than today;

212.4.3 Automation – ability of the network to make certain automatic reconfigurations and demand response decisions; and

212.4.4 Full integration – compatible with existing systems and new devices such as smart consumer appliances.<sup>108</sup>

213. These trends have happened largely in parallel to related innovations in business models (eg, installation of solar PV with zero upfront cost) and improvements in energy efficiency in homes and work places.

214. We understand that consumer behaviour also has the potential to change, either enabled or encouraged by these trends. On the one hand, they will likely have more choice to satisfy existing needs and expectations, and the ability to exercise it. On the other hand, their needs and expectations may themselves change, encouraged by the increased choice that comes with emerging technologies. Overall, consumers may become more engaged with the energy market.

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<sup>107</sup> New Zealand Smart Grid Forum “Architecting a future electricity system for all New Zealanders” (15 April 2014), p. 1. Available here: <http://www.med.govt.nz/sectors-industries/energy/electricity/new-zealand-smart-grid-forum/meeting-1/final-tor-scope-definition.pdf/view>.

<sup>108</sup> Department of Energy and Climate Change “Smarter Grids: the Opportunity” (December 2009). Available here: [http://www.techuk-e.net/Portals/0/Cache/\(DECC\)smart%20grid\\_web.pdf](http://www.techuk-e.net/Portals/0/Cache/(DECC)smart%20grid_web.pdf).

215. Some commentators have pointed to the prospect of tipping points.<sup>109</sup> These commentators note that while these changes may seem incremental and starting from a very small base, there is a real prospect that some or all of the above trends may reach tipping points, after which new technology materially affects the grid, and change happens very rapidly.<sup>110</sup> They point out that these tipping points can happen without massive deployment, driven by clustering effects and common-mode behaviour (eg neighbours installing solar PV due to favourable solar irradiation, or charging EVs simultaneously in response to the same time-of-use tariff). Understanding the concept of tipping points better will help characterise them and get a view of how far away they may be.

*What are the effects of these changes?*

216. Some potential effects of the above trends include:
- 216.1 *Demand level* – possible changes to grid-sourced electricity demand growth. Some stakeholders have pointed out that overall residential grid-sourced electricity demand growth has flattened in recent years; others point to a continued future growth despite deployment of distributed generation (eg, solar PV). The link to some traditional demand drivers like GDP growth, population growth and number of connections appears to have weakened, but probably remains relevant. Modelling done as part of the draft Electricity Demand and Generation Scenarios (**EDGS**) suggests that total demand (ie, annual throughput) is unlikely to increase much as a result of EV deployment, even with high uptake levels.<sup>111</sup>
- 216.2 *Demand profile* – at the same time, both overall and peak residential electricity demand may actually increase in specific areas of the grid, or at specific times as a result of EV penetration. Demand may also become more variable as engaged and technology-enabled consumers become active players in the market, consuming, storing and producing electricity in response to changing prices.
- 216.3 These effects all add up to a more uncertain outlook for both overall and peak demand.

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<sup>109</sup> See for example Chiltern Power's paper to the NZ Smart Grid Forum: <http://www.med.govt.nz/sectors-industries/energy/electricity/new-zealand-smart-grid-forum/meeting-6/updated-issues-paper.pdf> or Tony Seba's book Clean Disruption of Energy & Transportation: <http://tonyseba.com/portfolio-item/clean-disruption-of-energy-transportation/>.

<sup>110</sup> We understand that the 'Transform' model that the ENA and some electricity distributors have been working on is expected to provide information on tipping points at the feeder level.

<sup>111</sup> We note that the EDGS are in draft form at the time of publication, and some submissions have expressed some degree of challenge to the modelling results. Available at: <http://www.med.govt.nz/sectors-industries/energy/energy-modelling/modelling/electricity-demand-and-generation-scenarios/draft-edgs-2015>.

216.4 *Network reliability* – as demand and supply become more volatile, maintaining a reliable network where supply meets demand can become more challenging at the electricity distribution level. Distributed generation creates reverse power flows; clusters of EVs charging simultaneously can create network overloads. Distributed electricity storage and active consumers may alleviate or exacerbate these effects depending on whether there is coordination between their behaviour and the technical needs of the network.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

217. There are a number of potential issues that flow from this topic. They can be grouped in two categories:
- 217.1 Issues more closely related to economic regulation of network monopolies; and
- 217.2 Issues more closely related to network stability and interoperability mainly at the electricity distribution level, including governance arrangements, commercial frameworks and settlement mechanisms.
218. For the IM review, we are primarily interested in the former category of issues.
219. We have preliminarily identified the following issues related to economic regulation.
220. *Expenditure efficiency* – do regulated firms have the right incentives to make expenditure decisions (capex or opex) that are for the long-term benefit of consumers? The increasing availability of alternative technologies means that regulated companies could increasingly have a larger set of technological choices to deliver specific grid outcomes.<sup>112</sup> This means that business as usual investment may not be efficient. At the same time, technological change may mean that investing in a long-lived asset may not be optimal.
221. *Scope of regulated services* – it is not always clear whether investments in some of the new technological solutions should form part of the RAB, earning a regulated return, or not. It is possible that monopoly network services will face increasing competition, raising questions of whether certain services should continue to be regulated. For example, should a grid-scale battery storage investment by an EDB that defers a network reinforcement fall within the RAB? What if it is a new energy services company that makes this investment on a merchant basis?

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<sup>112</sup> For example, in order to address a network overload, an EDB could invest in a storage asset instead of more traditional network solutions.

222. *Network pricing efficiency* – prices are an important driver of behaviour. As new technologies enable consumers and third parties to more actively engage with the energy market, including by becoming generators, it is increasingly important that prices reflect the underlying costs, sending the right signals to allow consumers and others to react efficiently. Price signals should encourage the efficient adoption and use of emerging technologies (eg, avoiding inefficient bypass of electricity networks) and not pose barriers to competition. Consumers should receive the signals from network prices.
223. As mentioned in paragraph 46, there is no IM for pricing methodologies for electricity distributors set by us given the Electricity Authority’s powers and lead in this area. Therefore, the IMs do not set out how regulated suppliers should set prices for individual consumers. Furthermore, our preliminary view is that we cannot create an IM on a matter not covered by an existing published IM as part of the IM review process.<sup>113</sup>
224. *Risk of asset stranding* – stakeholders and commentators have raised the possibility that emerging technologies increase the risk of stranding of electricity lines assets. Instances of asset stranding could happen where enough consumers decide to disconnect from the grid. This would probably require sufficiently reliable and low-cost distributed generation (eg, solar PV) and electricity storage.
225. Overall, residential solar PV does not appear likely to reduce peak electricity demand in New Zealand. Our electricity demand peaks during the early evening in winter, while solar PV peak generation probably happens around noon in the summer. Furthermore, the potential growth of EV deployment could make the grid more valuable to consumers, possibly reducing stranding risk.
226. Furthermore, the value of grid-scale storage to the system is likely to be low compared to current costs. This is because our electricity system appears relatively flexible and robust to demand and supply fluctuations given the high proportions of hydro generation (ie, a form of grid-scale electricity storage).<sup>114</sup>
227. Given the above, how significant is the risk of asset stranding in the New Zealand context? In the event that emerging technologies do change the risk of asset stranding, how are regulated suppliers reflecting this risk into their asset management plans? Who should bear this risk? How should the risk bearer be compensated? The changing environment could raise questions on whether the existing risk allocation between consumers and suppliers is appropriate. It is important to get an appropriate risk and return balance in order to incentivise efficient investment, both in traditional and innovative solutions.

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<sup>113</sup> See paragraphs 44 to 48 above.

<sup>114</sup> See for example Meridian’s research: <https://www.meridianenergy.co.nz/assets/Investors/Reports-and-presentations/Investor-presentations/Investor-day-presentation-April-30-2015.pdf>.

228. *Uncertain scale and timing* – uncertainty seems to be a key attribute of this topic area. Therefore, it may be important to consider approaches like scenario analysis to uncover short-term no-regret options, or the relevance of path dependence (ie, how choices made in the short term may affect choices in the longer term). Similarly, it may be useful to reflect on the option value and risks of waiting until there is more certainty on the shape of these developments in New Zealand.
229. Another way of thinking about these issues is in the shorter vs longer term:
- 229.1 *Shorter term* – we want to ensure that there are no regulatory barriers obstructing the efficient adoption of emerging technologies and innovative business models. This relates more directly to the first three issues above.
- 229.2 *Longer term* – challenges around asset management given the changing environment (including risk of asset stranding) due to potential widespread adoption of emerging technologies.
230. However, that longer term prospect of asset stranding may impact pricing and investment decisions today. This suggests these issues should probably be considered together.

#### **Have we previously looked at this topic or these issues?**

231. We have not looked into the topic of emerging technologies and its relation to Part 4 or the IMs in detail before. This is the first formal review of the IMs we have undertaken since they were set in 2010. The technological developments that form the core of this chapter were not salient features of the environment at the time the Part 4 regime and the IMs were developed.
232. However, we have considered aspects of some of the issues that flow from this broad topic as part of our price-quality regulation work. The following examples may provide some reference and learning for dealing with some of the issues:
- 232.1 *Energy efficiency and demand-side management incentives for electricity distributors* – as part of the 2015–2020 default price-quality paths reset for electricity distributors,<sup>115</sup> we introduced measures to reduce barriers to energy efficiency and demand-side management. This is related to the *shorter term* dimension mentioned above (ie, ensuring there are no regulatory barriers obstructing the efficient adoption of emerging technologies and innovative business models).

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<sup>115</sup> Commerce Commission “Default price-quality paths for electricity distributors from 1 April 2015 to 31 March 2020: Main policy paper” (28 November 2014).

232.2 *Aligning expenditure incentives* – in the same price reset, we also reduced the maximum difference in the strength of the incentive to economise on opex and capex. This is part of providing balanced incentives to regulated suppliers to consider non-network solutions along with more traditional network investments, and helps ensure suppliers have incentives to spend efficiently, be it capex or opex. We also ensured distributors are not penalised for investing in short-life assets if that is a more efficient outcome than investing in longer life assets. These measures are directly relevant to the issue of *expenditure efficiency* identified above.

### **Is there other experience that could help deal with these issues?**

233. A number of relevant overseas electricity sectors are confronting similar issues, although the drivers, levels of deployment and resulting impacts vary. Regulatory frameworks have also started to respond to these issues in some jurisdictions.<sup>116</sup> This suggests that there is likely to be valuable learning to be had from their experiences which can inform the IM review, and your engagement. However, it is important that the findings are appropriately adapted to the New Zealand context.
234. There has been significant and important work done in New Zealand too. This work has contributed to raising awareness on the topic and some of the issues that flow from it. Notable examples include the Smart Grid Forum,<sup>117</sup> various ENA working groups or the Green Grid project.<sup>118</sup>
235. Our initial view is that this work has perhaps focused predominantly on the technical challenges of integrating emerging technologies to the system (eg, balancing, reliability, governance issues), and less on the implications on the economic regulation of the sector.

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<sup>116</sup> See for example: AEMC “Rule determination: National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014” (27 November 2014), available at <http://www.aemc.gov.au/getattachment/de5cc69f-e850-48e0-9277-b3db79dd25c8/Final-determination.aspx>; State of New York Public Service Commission “Order adopting regulatory policy framework and implementation plan” (26 February 2015), p. 13, available at <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b0B599D87-445B-4197-9815-24C27623A6A0%7d>.

<sup>117</sup> See Smart Grid Forum’s website at: <http://www.med.govt.nz/sectors-industries/energy/electricity/new-zealand-smart-grid-forum>.

<sup>118</sup> See Green Grid project’s website at: <http://www.epecentre.ac.nz/greengrid/>.

236. Other work that has probably more closely related to some of the relevant issues includes the Electricity Authority's work on transmission<sup>119</sup> and distribution<sup>120</sup> pricing, and distributed generation.<sup>121</sup> In addition, the ENA recently published a discussion paper on distribution pricing which is highly relevant.<sup>122</sup> We welcome this as it shows industry is taking proactive steps to address some of these issues.

## DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS

### What are the specific problems within this topic?

237. We do not yet have a good understanding of the potential specific problems that result from the changing environment, as they relate to Part 4 regulation in general, and the IMs in particular, if at all. Regulated suppliers, consumer representatives and others<sup>123</sup> are among those best placed to help articulate these potential problems.
238. We ask interested parties to identify and define the potential specific problem(s) they see may impact their interests, resulting from the issues posed by emerging technologies, and relate the problem back to the IMs, or the wider Part 4 regime. We need this stage to be clear before we can consider whether amending the IMs addresses these potential problems.
239. To help with this task, we note below some points raised in submissions to our open letter of 27 February 2015.<sup>124</sup> These points may relate to potential problems, but the problems have not been sufficiently articulated, especially as they relate to the IMs or wider Part 4:
- 239.1 *Expenditure efficiency* – is the current framework biased in favour of business as usual expenditure?
- 239.2 *Scope of regulated services* – some investment in emerging technologies could form part of the RAB, but others may not. Under the current framework, is there potential for confusion or distortion depending on where investment occurs?
- 239.3 *Network pricing efficiency* – are the IMs affecting EDB's ability to price appropriately? Are consumers receiving electricity distributors' price signals?

<sup>119</sup> See Electricity Authority's website at: <https://www.ea.govt.nz/operations/transmission/transmission-pricing/>.

<sup>120</sup> See Electricity Authority's website at: <https://www.ea.govt.nz/operations/distribution/pricing/>.

<sup>121</sup> See Electricity Authority's website at: <https://www.ea.govt.nz/operations/distribution/distributed-generation/>.

<sup>122</sup> ENA "Distribution Pricing: a discussion paper" (11 May 2015), available at: <http://www.electricity.org.nz/includes/download.aspx?ID=139097>.

<sup>123</sup> Other stakeholders include retailers, generators, aggregators, technology suppliers and metering businesses.

<sup>124</sup> See for example: NZIER (on behalf of MEUG) "Input Methodologies review – Commission scope letter" (20 March 2015).

239.4 *Risk of asset stranding* – is the current balance of risk allocation still appropriate? Under the current framework, ex-ante we limit the upside in returns on investments regulated companies can make (ie the WACC<sup>125</sup>), but the risk of inefficient expenditure and asset stranding falls predominantly on consumers. This is because, under the current price-setting approach used in electricity and gas regulation (but not in telecommunications<sup>126</sup>), we do not conduct ex-post assessments of what assets should be, or should remain, in the RAB, and at what value. The full cost incurred in building each asset is included in the RAB and is recovered from consumers, plus a return. This assumption of full RAB recovery is practicable, and has worked well up to now, when the risk of asset stranding is limited. Do interested parties consider the risk of asset stranding has materially altered? What evidence supports this view? In the case that it is demonstrated that the risk of asset stranding in the New Zealand context is materially different from now, is the current pricing approach appropriate, or even sustainable?

#### **What could possible solutions be?**

240. Identifying solutions is not the main focus of this stage of the IM review. A problem will need to be well articulated and sufficiently demonstrated before we can consider solutions. However, we welcome stakeholder views on potential solutions, or elements thereof, if it helps with problem definition.
241. To the extent that the problems identified relate to the IMs, we will want to establish whether:
- 241.1 Changes to the IMs resolve this problem(s) to better promote the long-term benefit of consumers;
- 241.2 Changes to the IMs are the appropriate regulatory response for resolving this problem(s).
242. To help with this task, here are some concrete points that we are aware stakeholders have made that could help find solutions:
- 242.1 *Risk of asset stranding* – outline a set of principles and scenarios on how to consider the allocation of the costs and risks of disruptive change between monopolies and consumers and also a materiality threshold<sup>127</sup> for considering the effects of disruptive change;
- 242.2 *Scope of regulated services* – consider tests to determine if lines company investment in disruptive technologies would or would not be within the scope of the RAB;

<sup>125</sup> The WACC is an *ex-ante* cap on returns, but firms may outperform the cap through superior performance.

<sup>126</sup> Telecommunications regulation in New Zealand uses a forward-looking pricing principle.

<sup>127</sup> See for example: NZIER (on behalf of MEUG) “Input Methodologies review – Commission scope letter” (20 March 2015), para 25. As mentioned in paragraph 41.2, our preliminary view is that there is no *statutory* threshold for changing the IMs as part of the IM review.

242.3 *Asset valuation* – re-examine the length of asset lives for regulatory purposes, and the principle of indexing the RAB in the light of the changing environment;

242.4 *Regulatory pricing approach* – consider the use a notionally efficient distributor as benchmark to set price/revenue caps.<sup>128</sup> This includes the concept that network prices track emerging technologies’ falling cost (for a given performance and quality).

### **What further information is needed to advance our thinking?**

243. Uncertainty appears to be pervasive in this topic area. We need more information to help us consider the option value and risks of waiting until there is more certainty on the shape of these developments in New Zealand.

244. We also need more information to help us determine whether there are any no-regret measures we could take now.

245. We need stakeholder input in identifying and articulating specific problems resulting from the issues, and relate these problems to the IMs or Part 4. This external input is particularly important because this topic is in the early stages of the problem definition process (see Figure 1) and suppliers, consumers and other stakeholders are probably best placed to help define and potential problems.

### **INVITATION TO MAKE SUBMISSIONS**

246. We invite submissions on:

246.1 Our description and scoping of the topic. In particular, we would find it helpful to know your view on the following:

246.1.1 What do you think are the prospects for change in electricity systems in New Zealand from these developments? How imminent and material is this change in New Zealand?

246.1.2 What changes (if any) have you implemented (or seen) in anticipation or in response to these developments in New Zealand?

246.1.3 Given the current level of uncertainty, how does the value of waiting to get more certainty compare with the risks of maintaining the status quo?

246.1.4 Are there any no-regret measures we could take now?

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<sup>128</sup> See for example: NZIER (on behalf of MEUG) “Input Methodologies review – Commission scope letter” (20 March 2015). We note, however, that in determining default price-quality paths, the Commission may not use comparative benchmarking on efficiency in order to set starting prices, rates of change, quality standards, or incentives to improve quality of supply (s 53P(10)).

- 246.2 How this topic translates to specific issues for electricity (and where relevant gas) lines businesses, including on our understanding of the issues that flow from the potential increasing deployment of emerging technologies;
- 246.3 Any other experience (domestic or international) you think would be relevant in addressing any issues relevant to this topic. We ask that submitters are specific on what aspects of the experience they find relevant to the NZ context;
- 246.4 The problem definition(s) There are a number of issues that may result from increasing deployment of emerging technologies, which we have attempted to describe in this chapter. However, it is not yet clear how this results in specific problems as they relate to Part 4 regulations and the IMs; and
- 246.5 Potential solutions. While the focus at this stage is on problem definition, we welcome any potential solutions to the specific problems identified. Solution suggestions should be expressed in terms of how they promote the long-term benefit of consumers.

## Topic 5: Issues raised by the High Court on cost of capital

### TOPIC SUMMARY

247. This chapter addresses issues relating to the cost of capital raised by the High Court in December 2013 in its judgment on the merits review. We consider it is important to discuss them as part of the IM review as the Court suggested they could potentially benefit from further analysis. We are open to submissions suggesting ways in which previous decisions can be improved, but at this stage it is not clear that substantive changes to IMs in response to these issues would provide long-term benefits to consumers.
248. We welcome submissions on the particular issues raised by the Court, and any other potential issues related to the methodological approach to estimating the WACC. We will turn our mind to determining the specific values of key WACC parameters later in the IM review process.

### TOPIC

#### What is the topic area?

249. The cost of capital is an important input into both price-quality regulation and information disclosure. Our cost of capital IMs set out how we estimate the WACC.
250. Issues raised on this topic generally stem from the High Court's December 2013 judgment on appeals made to our original IMs decisions.<sup>129</sup>
251. As part of the judgment the Court made a number of comments on our estimation of the cost of capital. In particular the Court noted certain aspects of the methodologies that it might expect to be reconsidered during any review of the IMs.
252. The breadth of the WACC topic means that for this phase of the IM review we intend to focus on 'high level' conceptual issues associated with estimating the WACC (eg, the use of the Simplified Brennan–Lally Capital Asset Pricing Model (**SBL CAPM**)).
253. Once the high level approach has been considered, we will then determine the specific values of the key parameters of the WACC calculation.<sup>130</sup> The intention will be to ensure that the parameters remain fit for purpose given changes in the overall environment faced by suppliers since the IMs were originally set. The availability of more recent data could also potentially help provide a better estimate for these key parameters.

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<sup>129</sup> *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC [11 December 2013].

<sup>130</sup> The parameters that need to be evaluated are: asset beta; debt beta; TAMRP; notional leverage; debt issuance costs; and the standard errors. The starting point for any review is likely to use the same approach/ methodology that we applied when setting the original IMs. Our approaches to setting the WACC parameters were outlined in our IM reasons papers. See for example: Initial IMs reasons paper, Chapter 6 and Appendix H.

254. The areas in which the IMs specify our determination of the cost of capital include:<sup>131</sup>
- 254.1 The overall approach to estimating the cost of equity (ie, the choice of model used);
  - 254.2 The overall approach to estimating the cost of debt;
  - 254.3 The assumed leverage;
  - 254.4 Estimation of the risk-free rate;
  - 254.5 Estimation of the debt premium, debt issuance costs and term credit spread differential (**TCSD**);
  - 254.6 Estimation of the tax-adjusted market risk premium (**TAMRP**); and
  - 254.7 Estimation of asset and equity betas.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers or suppliers?**

255. The High Court considered that the following aspects of the cost of capital IMs could be part of any future IM review:
- 255.1 The appropriateness of using the 75<sup>th</sup> percentile of the WACC in price-quality regulation;<sup>132</sup>
  - 255.2 The suitability of using the SBL CAPM to estimate the cost of capital given the ‘leverage anomaly’, and whether alternative approaches could be considered;<sup>133</sup>
  - 255.3 Whether a TCSD is required;<sup>134</sup> and
  - 255.4 To consider the MEUG’s suggestion of a split cost of capital approach whereby a higher WACC is applied to new investment.<sup>135</sup>

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<sup>131</sup> See for example: Initial IMs reasons paper, Chapter 6 and Appendix H.

<sup>132</sup> Ibid para 1486.

<sup>133</sup> The ‘leverage anomaly’ is the inherent characteristic of the SBL CAPM that results in the WACC increasing with the level of leverage. This is contrary to what is observed in the real world whereby firms typically borrow to some extent. See: Ibid, paragraph 1584, 1646.

<sup>134</sup> Ibid, paragraph 1285

<sup>135</sup> This was described in the Court judgment as the ‘two-tier proposal’. See: Ibid, paragraph 1486.

256. We considered the Court’s scepticism about the rationale for 75<sup>th</sup> percentile to be the most significant comment. We considered that the judgment led to uncertainty over the future WACC percentile to be used in setting price-quality paths. In our view, the uncertainty it created undermined the rationale for using a percentile higher than the mid-point, although prices were set to reflect use of the 75<sup>th</sup> percentile.<sup>136</sup>
257. Given this uncertainty, we examined this particular matter urgently under s 52X, rather than waiting for the current s 52Y review.
258. The completion of that amendment for gas and electricity businesses in October 2014 (**the WACC percentile amendment**) resulted in a reduction in the percentile used for price-quality regulation in these two sectors from the 75<sup>th</sup> to 67<sup>th</sup> percentile. The rationale for the amendment and the reasons for the change in the percentile value were provided in the final reasons paper for that amendment.<sup>137</sup>
259. The WACC percentile amendment work did not look at other issues outlined by the Court and so we now plan to consider them as part of the IM review.
260. As well the issues raised by the High Court there are likely to be other matters related to the cost of capital that submitters consider should be included in the IM review.
261. Other potential issues related to cost of capital that have been identified include:
- 261.1 The extent to which the form of control should impact our assessment of the asset beta;<sup>138</sup> and
- 261.2 The benefits of indexing the cost of debt used to estimate the WACC to improve suppliers’ incentives to seek a CPP, when for example the risk-free rate is changing.<sup>139</sup>

#### **Have we previously looked at this topic or these issues?**

262. We previously looked at the issues raised by the Court when setting the initial IMs. Our approach in each these areas is summarised below with further information available in our reasons papers that were published as part of that process.<sup>140</sup>

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<sup>136</sup> Further details on why we undertook this work early are provided in: Commerce Commission “Notice of Intention: Potential Amendments to Input Methodologies for Electricity Distribution Services, Gas Pipeline Services, Airports, and Transpower” (31 March 2014).

<sup>137</sup> Commerce Commission, “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014).

<sup>138</sup> See paragraph 179.6.

<sup>139</sup> See paragraph 194.

<sup>140</sup> For example, see: Initial IMs reasons paper.

*Choice of model and the leverage anomaly*

263. The Court had voiced concern with the existence of the ‘leverage anomaly’ and by extension the suitability of the SBL CAPM that we use to estimate the cost of equity of a regulated business.
264. We outlined how our reasons for using the SBL CAPM as part of the our original IM reasons paper, including that it:<sup>141</sup>
- 264.1 Takes into account the effect of the New Zealand tax system;
- 264.2 Has been adopted in our previous regulatory determinations and endorsed by the NZ Treasury; and
- 264.3 Is the most widely used approach to estimate the cost of equity capital – by equity analysts, by suppliers of regulated and unregulated services, and practitioners.
265. We also noted the existence of the leverage anomaly illustrated by the High Court but after extensive consultation concluded:<sup>142</sup>
- ... that the advantages of using this framework outweigh the disadvantages as long as the effects of the counterintuitive relationship between the cost of capital and leverage is mitigated by adopting a level of leverage that is based on the comparative firm sample.
266. Since the original decision we are have not been made aware of any:
- 266.1 Alternative approaches that can reflect both the NZ tax regime and resolve the leverage anomaly; or
- 266.2 Decrease in the practical application of the SBL CAPM by New Zealand equity analysts and investors.
267. We also note that our recent draft decision on the WACC to be applied to unbundled copper local loop (UCLL)/unbundled bitstream access (UBA) in the telecommunications sector also proposes to use a SBL CAPM model. This has been generally supported by submissions on that process.<sup>143</sup>

*Term credit spread differential*

268. The TCSD allowance is calculated for qualifying suppliers to reflect the additional costs associated with holding a longer-term debt portfolio. Although it is conceptually a component of the cost of capital, we have treated it as an adjustment to cash-flows.<sup>144</sup>

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<sup>141</sup> Ibid, para H2.72.

<sup>142</sup> Ibid, para H2.75

<sup>143</sup> Commerce Commission “Cost of capital for the UCLL and UBA pricing reviews: Draft decision” (2 December 2014), para 124.

<sup>144</sup> For details of the TCSD, see: Initial IMs reasons paper, Appendix H6.

269. The High Court was not convinced by the need for the TCSD because it concluded that the term of the debt premium should be matched to the regulatory period. It therefore questioned the need to compensate suppliers who had issued longer-term debt at a higher cost.<sup>145</sup>
270. After considering the comments of the Court, our initial view is that the reasons we have previously given for including a TCSD remain convincing. These reasons were outlined in the original IMs reasons paper and were that:
- 270.1 Suppliers who have prudently issued long-term debt to manage refinancing risk should be adequately compensated;
- 270.2 This compensation should cover the higher debt premium associated with longer-term debt and the execution costs of interest rate swaps, used to match the supplier's re-pricing period to the length of the regulatory period;<sup>146</sup>
- 270.3 We should not provide an industry-wide allowance as we consider that would result in compensation to some suppliers, who have not prudently issued longer-term debt, for costs that they have not incurred; and
- 270.4 The most practical method by which to achieve this outcome is to include a TCSD allowance.
271. We have not specified a TCSD in the UCLL/UBA draft decision because in that process we are estimating WACC for a single, hypothetical, network operator, which we assume has debt with a tenor exceeding the length of the regulatory period. The TCSD was designed specifically to cater for the situation where we have multiple firms that provide regulated services and where some of these suppliers issue debt with a term exceeding the length of the regulatory period but most do not (at least they did not in 2010 when we set the IMs).<sup>147</sup>
272. In the UCLL/UBA context we have estimated the debt premium using an average borrowing term (for the single hypothetical operator) in excess of the length of the regulatory period, and included allowances for debt issuance and swap costs corresponding to a debt portfolio of seven years. The net result is broadly consistent with that which would be achieved using a debt premium matching the regulatory period and a TCSD.

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<sup>145</sup> *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC [11 December 2013], para [1285].

<sup>146</sup> Initial IMs reasons paper, para H6.3

<sup>147</sup> Commerce Commission "Cost of capital for the UCLL and UBA pricing reviews: Draft decision" (2 December 2014), para 13–14.

### *Split cost of capital approach*

273. The split cost of capital (or two tier approach) was suggested by MEUG in 2010 and in its appeal of the original IM decisions. It involves separately applying a different WACC to invested capital and new capital.<sup>148</sup>
274. We have previously not favoured this option due to its potential to distort investment, increase the risk of under-investment, and increase the administrative burden.<sup>149</sup>
275. Any split cost of capital approach needs to be evaluated as part of the wider consideration on the balance between the incentives for suppliers to undertake adequate investment and the long-term costs to consumers. We considered these issues in detail as part of our work last year on the choice of the WACC percentile used in price-quality regulation.<sup>150</sup> Our final decision reduced the WACC percentile from the 75<sup>th</sup> to 67<sup>th</sup> percentile.
276. Although we did not consider the split cost of capital approach as part of the WACC percentile work, our decision to reduce the percentile last year provides a slightly different context to the circumstances in which the split cost of capital approach was considered by the High Court.
277. The introduction of a split cost of capital approach would also make it necessary to reconsider the appropriate WACC percentiles for the two values of WACC that would be required under a split cost of capital approach.

### **Is there other experience that could help deal with these issues?**

278. There is significant information available internationally on both theoretical methods and practical approaches for estimating a WACC. However, given New Zealand is a relatively small market and has specific tax rules that affect the cost of capital, any international evidence needs to be understood in this context.
279. We are not aware of any substantive analysis from another regulator or analyst in New Zealand addressing the leverage anomaly since our 2010 decision. We would welcome interested parties identifying any such analysis.
280. The most recent experience we have with regard to the TCSD and the appropriate term of the risk-free rate and debt premium is the recent draft decision on UBA/UCLL services. As part of that work we received independent expert advice from Dr Martin Lally on the appropriate cost of debt.<sup>151</sup> We consider our approach in that context to be broadly consistent with that set out in the IMs.

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<sup>148</sup> This basic concept can be applied in a number of different ways.

<sup>149</sup> We made brief comments on a split cost of capital approach in submissions to the High Court in relation to *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC [11 December 2013].

<sup>150</sup> Commerce Commission “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014).

<sup>151</sup> Dr Martin Lally, Capital Financial Consultants Ltd “Review of submissions on the cost of debt and the TAMRP for UCLL and UBA services” (13 June 2014).

281. The split cost of capital has been recently considered by the Queensland Competition Authority. It published a report last year outlining its evaluation of the split cost of capital approach and the experience of previous international regulators.<sup>152</sup>

## DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS

### What are the specific problems within this topic? What could possible solutions be?

282. The High Court suggested that a number of issues related to the cost of capital could potentially benefit from further analysis. At this stage, with the exception of the Court's comments on the use of the 75<sup>th</sup> percentile, we do not consider the issues raised by the High Court have identified any specific new problems that were not considered during the consultation undertaken in developing the original IMs.
283. However, we are open to submissions which suggest ways in which previous decisions can be improved.
284. Some submissions on the open letter did not indicate a strong preference for significant further work in this area. For example:
- 284.1 Transpower suggested that we should pay 'short shrift' to the Court's comments and there should be a higher threshold for changes to the WACC IMs than in other areas;<sup>153</sup> and
- 284.2 Unison suggested that we should not spend too much time considering the split cost of capital approach.<sup>154</sup>
285. MEUG appeared to be an exception and suggested:
- 285.1 new evidence on the leverage anomaly (when using the SBL CAPM) could ultimately lead to changes that provide significant benefits to consumers;<sup>155</sup> and
- 285.2 that we should undertake further analysis on the value of an 'uplift' in meeting the purpose of Part 4, including whether the split cost of capital approach could be a potential solution.<sup>156</sup>
286. Other issues related to the cost of capital suggested by submissions, but not specifically related to the comments raised by the Court, included:
- 286.1 MEUG suggesting that we should develop further cross-checking analysis as a complement to the CAPM;<sup>157</sup>

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<sup>152</sup> QCA "Information Paper: The Split Cost of Capital Concept" (February 2014).

<sup>153</sup> Transpower "Input Methodologies: scoping the statutory review" (31 March 2015), p. 6.

<sup>154</sup> Unison "Unison response to open letter on scope, timing, focus of review of input methodologies" (31 March 2015), para 12.

<sup>155</sup> MEUG "Comments on scope, timing and focus for the review of input methodologies" (20 March 2015), p. 3.

<sup>156</sup> Ibid, p. 5.

<sup>157</sup> Ibid, p. 5.

286.2 Powerco submitting that the use of WACC spot rates that were fixed at the point of setting a price-quality path causes undue volatility;<sup>158</sup> and

286.3 Transpower suggesting that the most important area to focus on was the calculation of debt costs.<sup>159</sup>

287. We will consider these submissions further during the IM review.

**What further information is needed to advance our thinking?**

288. At this stage we are interested in submissions on the areas related to cost of capital that could most usefully be focused on during the IM review.

**What could possible solutions be?**

289. Identifying solutions is not the main focus of this stage of the IM review. A problem will need to be well articulated and sufficiently demonstrated before we can consider solutions. However, we welcome stakeholder views on potential solutions, or elements thereof, if it helps with problem definition.

**INVITATION TO MAKE SUBMISSIONS**

290. We invite submissions on:

290.1 Any of the issues raised by the High Court, and our initial response to the Court's comments as set out above; and

290.2 Any problems that suppliers see in us retaining substantially the same IMs, and retaining the same approach to determining the values for parameters in those IMs, as used in the existing IMs, for estimating the cost of capital.

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<sup>158</sup> Powerco "Review of input methodologies: Response to the Commerce Commission's open letter" (31 March 2015), p. 3. "The current use of 5 year spot rates exposes the regulatory regime and the regulated entities to avoidable volatility and is driving inefficient commercial responses. Australia has recently changed its approach, to better align with the position in the UK and the US."

<sup>159</sup> Transpower "Input Methodologies: scoping the statutory review" (31 March 2015), p. 6.

## Topic 6: Airports profitability assessment

### TOPIC SUMMARY

291. This chapter is about the airports profitability assessment and its application where airports can set prices as they see fit. At this stage we are of the view that we have a good problem definition, some possible solutions for the issues and a view that the final solutions can be accommodated through changes to either the IMs or information disclosure determinations. Our invitation for submissions is focused on the completeness of the issues identified and discussion of possible solutions.

### TOPIC

#### What is the topic area?

292. This topic area is about our assessment of airports' profitability under information disclosure regulation and, in particular, how changes to the IMs would support the assessment.<sup>160</sup>
293. An assessment of airport profits is required for interested persons to be able to assess whether airports:
- 293.1 Are limited in their ability to extract excessive profits;<sup>161</sup> and
  - 293.2 Have incentives to innovate and to invest.<sup>162</sup>
294. The discussion on profitability assessment comprises two matters:
- 294.1 The indicator by which we assess profitability, which we address in this chapter; and
  - 294.2 The benchmark against which we assess profitability, which we address in the next chapter.
295. Our discussion on the assessment indicator covers both the forward-looking profitability assessment required to assess airports' decisions at price-setting events and the ex-post profitability assessment required to assess actual profitability.
296. This topic area covers all of the airport profitability assessment irrespective of whether the matter is covered in the Airport IMs or information disclosure. This allows an analysis of the profitability assessment currently in use.<sup>163</sup>

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<sup>160</sup> References to airports in this paper are to those airports regulated under Part 4 of the Commerce Act 1986, being Auckland International Airport Limited, Christchurch International Airport Limited, and Wellington International Airport Limited.

<sup>161</sup> As per s 52A(1)(d) of the Act.

<sup>162</sup> As per s 52A(1)(a) of the Act.

<sup>163</sup> The current airports profitability assessment is included in the information disclosure requirements which is required to reflect the matters covered in the Airport IMs. The relevant matters covered in the Airport IMs relate to asset valuation, cost allocation, treatment of taxation and cost of capital.

297. This topic area includes the land valuation issues proposed to be considered as part of an airports fast-track process. We included in our cover letter to the notice of intention a proposal to fast-track certain amendments to specific IMs for airport services, so that the outcomes applying to those rules are available in time to be used for the 2017 price-setting events.<sup>164</sup> The cover letter invited submissions on the scope and process for fast-tracking airport amendments. Any items included in the fast-track process would be consulted on outside the main IM review forum and submission process.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

298. This section summarises our understanding of the issues with the profitability assessment currently being used to assess airports profitability. We also note the Ministry of Business, Innovation, and Employment (**MBIE**) and Ministry of Transport (**MOT**) reviews of the statutes that are currently under way.
299. The issues with the profitability assessment have been informed by the work we have already done for our s 56G reports. Under s 56G of the Act we were required to report on regulated airport services provided by the Auckland, Christchurch and Wellington airports.
300. We have identified two main issues and a number of secondary issues in the assessment of airports profitability.

*Other reviews currently under way*

301. MBIE and MOT are currently undertaking reviews of the regulations related to major airports:
- 301.1 The MBIE review of the effectiveness of the current regulatory regime for major international airports seeks to determine whether the regulatory regime for major international airports is working effectively to achieve the objective of Part 4 of the Act or whether further policy work is required, and whether the provisions of the Airport Authorities Act 1966 (**AAA**) and its interface with information disclosure under Part 4 of the Act are efficient and effective to provide for regulation of major international airports;
- 301.2 The MOT review of the AAA and the Civil Aviation Act 1990 is considering which companies should be regulated under the AAA, what the threshold for consultation on capex projects should be and the possible removal of s 4A of the AAA, which provides that every airport company may “...set such charges as it from time to time thinks fit”.<sup>165</sup>
302. At this stage it is not clear what if any impact these reviews will have on the IM review process.

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<sup>164</sup> See the attachment to the covering letter to our notice of intention, para 14.2.

<sup>165</sup> Section 4A(1) of the AAA.

*Main issues regarding assessing the profitability assessment of airports*

303. We see the two main issues for airports being:
- 303.1 There is no forward-looking profitability assessment indicator to assist interested persons to assess if airports are targeting excessive returns when setting prices; and
  - 303.2 The ex-post profitability assessment indicator as currently used in information disclosure has proven to be ineffective when airports use alternative approaches to setting prices from a standard IM-consistent building blocks approach.
304. The secondary issues with the Airports IMs, which contribute to the information disclosure ex-post profitability assessment issue and also have an implication for any specification of a forward-looking profitability assessment indicator, include:
- 304.1 Land valuations;
  - 304.2 Implications of airports using different approaches in setting prices;<sup>166</sup>
  - 304.3 Depreciation profiles;
  - 304.4 Revaluation approach;
  - 304.5 Leased assets;
  - 304.6 Land held for future use;
  - 304.7 Wash-ups;
  - 304.8 Unforecast revaluations;
  - 304.9 Discounting; and
  - 304.10 Intra-period cash flow timing assumptions.
305. As we identified in our s 56G reviews, these secondary issues can result in incorrect conclusions on whether airports are limited in their ability to make excessive profits. Each of the secondary issues is discussed briefly below.

*Land valuations*

306. There are four key issues on airport land valuations:
- 306.1 The range of airport land values derived under the requirements by valuers who may be called upon by interested parties;

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<sup>166</sup> We note that similar issues might occur for exempt electricity distributors that are only subject to information disclosure.

- 306.2 Compliance ambiguities that may give rise to materially differing values under the requirements;
- 306.3 Alignment of the airports land valuation requirements with current valuation standards and valuation industry practices applying in New Zealand; and
- 306.4 Setting the initial RAB date and value following on from the High Court merits appeal judgment.<sup>167</sup>
307. Observations on the variations in valuations are:
- 307.1 We have seen up to a 43% variation in airport land values for different valuers, which we consider an unacceptably wide range.<sup>168</sup> These variations appear to be because our rules are not sufficiently prescriptive and therefore give rise to scope for different interpretations. Such wide variations in values affect the sensitivity of the expected returns and we do not regard this spread as acceptable for information disclosure purposes;
- 307.2 Our objective is to review the requirements so that there is a narrowing of the resulting range of airport land values derived under the requirements by valuers called upon by interested parties to apply the requirements; and
- 307.3 We have been advised that a 10% variation in valuations would be a more acceptable range for this purpose.<sup>169</sup>
308. Points on updating the references to the ‘valuation and property standards’, as defined in the IMs, include:
- 308.1 removing compliance ambiguities that may give rise to materially differing values under the requirements; and
- 308.2 updating the practical implementation of the airports land valuation requirements in Schedule A of the Airport IMs to align them to the current valuation standards and valuation industry practices applying in New Zealand.

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<sup>167</sup> The first three issues noted are proposed to be included in the airports fast-tracked process outlined in the cover letter to the notice of intention.

<sup>168</sup> See the letter from our expert valuer in respect of the Wellington Airport land valuations: Darroch Corporate Advisory “Request for advice WIAL land valuation issues” (1 February 2013).

<sup>169</sup> Ibid. See also our discussion on an acceptable range of valuations in: Commerce Commission “Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986” (31 July 2013), para F41-F44.

309. Points to note on the setting of the initial RAB are:

309.1 On 12 December 2013, the High Court issued its judgment on the merits appeal on the IMs, which had the effect of creating a timing misalignment between the land valuations and fixed asset valuations in the initial RAB.<sup>170</sup> The High Court decision set 1 April 2010 and 1 July 2010 as the respective dates for the value of the initial RAB rather than in 2009 and this means there is no longer a combined fixed asset and land value for the initial RAB as at a single date.

309.2 As a result of the judgment, the IMs therefore now require the airports to have a land valuation for the RAB for 2010. However, airports have informally advised us they wish to avoid the complexity and expense of doing new land valuations for the 2010 RAB, and have been suggesting other ways of arriving at an appropriate value.

*Implications of airports using different approaches in setting prices*

310. Airports are not required to use the IMs or our approach to assessing profits when they set their prices. When airports use alternative approaches, this makes the assessment of profitability difficult, because we (and other interested parties) cannot tell whether airports are setting prices that are targeting excessive returns or, in respect of ex-post assessments of actual profitability, are earning excess returns.

311. As discussed in our s 56G reports, divergences from the IMs and the information disclosure profitability assessment indicator have in the past resulted in different values from those used by airports in their price setting. These are discussed later in the chapter.

312. A problem then arises because, although different approaches used by airports may provide for a level of return that is appropriate for this type of business over the life of an asset, the return profiles during any shorter period of an asset's life may be different. This in itself may not be a concern, but it does make the assessment and comparison of returns during a set period problematic.

313. The s 56G reviews identified alternative depreciation profiles, asset revaluations and leased assets as areas where there have been divergence, from the IMs when setting prices. There is also the potential for land held for future use to be problematic in the future. We also note that wash-ups including unforecast revaluations, discounting and intra-period cash flow timing assumptions are matters covered in the ID requirements that have and could continue to make the profitability assessment problematic. The remainder of this chapter addresses each of the issues identified above.

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<sup>170</sup> *Wellington International Airport Ltd & Others v Commerce Commission* [2013] NZHC 3289 (December 2013).

### *Depreciation profiles*

314. The IMs include a mechanism that provides for an alternative ‘non-standard’ depreciation approach other than straight line depreciation. The issue of whether or not to apply such an approach arose in our analysis of Christchurch Airport. It had applied a ‘levelised’ price path, but it did not derive and disclose forecast depreciated values of its RAB consistent with that price path. If it had done so, we consider this would have allowed interested parties to better assess the impact of that ‘levelised’ pricing on expected returns in the future.<sup>171</sup>
315. Following the release of our s 56G report, Christchurch Airport voluntarily published a revised price setting disclosure relating to its levelised price path. We recently released a draft report analysing this revised disclosure.<sup>172</sup>

### *Revaluation approaches*

316. Airports may also use different asset values in their pricing asset base or use different revaluation approaches relative to the IMs. For example, the RAB under the IMs is indexed to the CPI, but the Auckland Airport pricing asset base is not. This makes the regulatory assessment of profits different to the price-setting event assumptions.
317. Auckland Airport has stated that it has no intention of revaluing its asset base for pricing in PSE3 and that continuing the moratorium is a distinctly possible outcome, if customers support that approach.<sup>173</sup> We noted in our s 56G report on Auckland Airport:

Our conclusion has been reached based on the assumption that Auckland Airport will continue its current pricing behaviour after PSE2, consistent with guidance Auckland Airport has provided during this review.<sup>174</sup>

and

We have tested the impact if Auckland Airport does not continue its current pricing behaviour into PSE3 and beyond. This is in response to submissions from BARNZ and Air New Zealand that the approach taken by Auckland Airport with respect to asset valuations in PSE3 and beyond may lead to Auckland Airport earning excessive profits at that time.<sup>175</sup>

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<sup>171</sup> Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986” (13 February 2013), Attachment E, p.77, para E24.

<sup>172</sup> Commerce Commission “Review of Christchurch Airport’s revised information disclosure for its second price setting event, Draft report for consultation” (22 May 2015).

<sup>173</sup> Commerce Commission “Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986” (31 July 2013), p.97 para F33.

<sup>174</sup> Ibid, p.25, para 3.12.

<sup>175</sup> Ibid, p.25, Attachment E, p.74, para E29-30.

*Leased assets*

318. Airports have excluded finance lease assets from the pricing asset base, whereas they are included in the RAB for information disclosure profitability assessment purposes.
319. For example, Wellington Airport excludes the asset values and revenues from leased assets from its pricing disclosures, whereas the definition of specified airport services for the purposes of information disclosure regulation includes these items and we therefore included them in the profitability assessment in our s 56G analysis.<sup>176</sup>
320. Christchurch Airport<sup>177</sup> and Auckland Airport<sup>178</sup> similarly exclude leased assets from their pricing disclosures.

*Land held for future use*

321. Auckland Airport changed its approach to pricing from PSE1 to PSE2 to be more consistent with the (then) new information disclosure requirements, including removing the land held for future use from its pricing asset base.
322. Our assessment of Auckland Airport's expected performance is based on the expectation that its behaviour with regards to the asset values (including the exclusion of land held for future use from the asset base used to set prices) will continue. Notwithstanding the approach adopted for PSE2, we note that it continues to reserve its future position on this matter and this causes potential uncertainty on the assessment of profitability.

*Wash-ups*

323. Wash-ups occur when adjustments are made in the airports' price setting to take account of differences between actual values and earlier forecast values, or the difference between the forecast and actual timing of values. For example, in the case of Wellington Airport there were two types of wash-ups:

323.1 A wash-up for the delay in capex in PSE1 (referred to as 'the terminal wash-up'). This arises from a direct saving of cash expenditure; and

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<sup>176</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act 1986" (8 February 2014), Attachment F, para F68.3.

<sup>177</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2013), Attachment E, p.93, para E78.

<sup>178</sup> Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986" (31 July 2013), Attachment F, p.105, para F84.

- 323.2 A wash-up due to the revaluation of assets at the end of PSE1 being higher than forecast. We referred to this as a non-cash wash-up, because Wellington Airport does not receive the benefit of the revaluation gain, achieved through higher revenues, until PSE2 and beyond.<sup>179</sup>
324. In our analysis of Wellington Airport's profitability we reduced the revenues recognised in PSE1 by the value of the terminal wash-up. The revenues in PSE2, which were used to estimate our preferred assessment of returns, were similarly increased. We considered that adjusting for the terminal wash-up, so its effect on reducing revenue was accounted for in PSE1, represented the most appropriate matching of cash-flows to investment.
325. Wellington Airport did not recognise the liability for the terminal wash-up in PSE1 on the basis that the amount would not be offset against charges until PSE2.
326. This difference in treatment creates a disparity that currently needs to be identified and reconciled when assessing and comparing profitability over shorter time periods.

#### *Unforecast revaluations*

327. The connected issues of unforecast revaluations and the effect of revaluation wash-ups on our assessment of airport profitability were noted in our s 56G report on Wellington Airport:<sup>180</sup>

Under the IMs, revaluation gains are treated as income to reflect the expectation that a higher asset valuation would result in higher future cash-flows. The revaluation wash-up was created by Wellington Airport recognising that the revaluation realised during PSE1 on its pricing asset base were significantly higher than those forecast. The revaluation wash-up serves to offset some of the associated revaluation gains to consumers through a reduction in charges in PSE2.

328. The complexity of dealing with these matters in our assessment is reflected in the following comment in our report:<sup>181</sup>

Wellington Airport has argued in its submission to the draft report that the Commission included unforecast revaluation gains in PSE1 and apportioned these to 2011 and 2012 without appropriately evaluating the contribution of the unforecast gains to the Commission's assessment of the returns for these years. Neither the five-year nor the seven year IRR analysis apportions any revaluation gains to PSE1.

<sup>179</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport. Section 56G of the Commerce Act 1986" (8 February 2013), Attachment F, para F52.

<sup>180</sup> Ibid, p.25, Attachment F, p.104, para F63.

<sup>181</sup> Ibid, p.25, Attachment F, p.104, para F63.

329. Also, in its submission on our analysis of the PSE3 price setting by Wellington Airport, BARNZ reiterated its concerns with the treatment unforecast revaluations by Wellington Airport:<sup>182</sup>

WIAL has forecast land revaluation movements using forecast CPI, which the Commission has indicated seems reasonable as it is consistent with the input methodologies. However, the Commission has noted that *'to the extent that the value of land changes at a different rate to this forecast, careful scrutiny will be required on the way in which those revaluations are treated at future price-setting events'*.

BARNZ takes some limited degree of comfort in the fact the Commission recognises that careful scrutiny will be required of the treatment of any differences in actual valuation movements from this forecast.

...

This issue directly affects the charges which were reset in 2014. The reasonableness of the forecast revaluation rate for land incorporated in the pricing calculations needs to be reviewed in the light of the fact there is no committed wash-up to reflect actual land valuation movements at the end of the pricing period. BARNZ members can only take comfort in the fact that the Commission has recognised that *'careful scrutiny will be required on the way in which [actual] revaluations are treated at future price-setting events'*.

### *Discounting*

330. Airports, for commercial reasons, can set a price path that targets a lower return from a standard IM-consistent building blocks approach. Such discounting complicates the profitability assessment process. This issue and the complications it creates are reflected in our s 56G report on Christchurch Airport:<sup>183</sup>

Christchurch Airport's use of commercial decisions to set a price path which under-recovers during PSE2, as compared to the levelised price path adds a further layer of complexity in accurately reflecting the Airport's returns. This is because the under-recovery created by the actual price path for PSE2 is intended to be a concession and is not required to be recovered in future periods. Therefore, not only do the asset values need to be established based on the expectation of future cash-flows excluding the impact of any concessions that are not to be recovered, but the regime would also need to keep track of any of these concessions so as to ensure that any long-term returns estimated under information disclosure reflect such concessions and do not allow these to be recaptured at a later date.

<sup>182</sup> BARNZ "Feedback on Commerce Commission analysis of Wellington Airport's third price setting event" (8 May 2015), p. 7.

<sup>183</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport. Section 56G of the Commerce Act 1986" 13 February 2013, paragraph F172.

### *Intra-period cash flow timing assumptions*

331. The cash flow timing assumptions specified in the airport services information disclosure determination do not reflect our latest cross-sector thinking on this matter. We have applied updated intra-period cash flow timing assumptions in the regulation of electricity distributors, gas pipeline businesses and Transpower (ie, both in the setting of price-quality determinations and in their information disclosure requirements).<sup>184</sup>
332. We have used revised intra-period cash flow timing assumptions in some of the profitability performance assessments in our s 56G reviews of the airports. Further, in the case of Auckland Airport we stated:<sup>185</sup>

Changes to this assumption would likely better promote the purpose of Part 4, and would be consistent with our approach to cash flow timing for the electricity distribution businesses and gas pipeline businesses regulated under Part 4.

333. We note that BARNZ has recently expressed its support for this approach for the following reasons:<sup>186</sup>

The use of end of year cash-flows significantly under-states the returns being targeted by the airport because it does not reflect the time value of money in relation to the revenues being received throughout the year. While the Commission used end of year cash-flows as its base scenario in the s56G reviews undertaken in 2013, it noted that this was only because that was the approach it used at the time airports set prices for PSE2. Subsequently, the Commission has moved to using a mid-year approach for information disclosure for EDBs and GDBs and it signalled in its s 56G reports that it intended making the same change for information disclosure requirements for airports (see for example page 96 of the s56G report relating to Auckland Airport).

### **Have we previously looked at this topic or these issues?**

334. The land values, land held for future use, asset revaluations and, to a lesser extent, lease asset issues were looked at when we established the IMs.<sup>187</sup> This resulted in the establishment of the asset valuation IM.
335. When establishing the information disclosure requirements in 2010 we also included a return on investment (ROI) calculation that assumed year end cash flow timing.<sup>188</sup> Consideration was not given, at the time, to intra-period cash flow timing assumptions.

<sup>184</sup> See, for example, our reasons paper on the IM amendments for intra-period cash flow timing for electricity distributors and gas pipeline businesses: Commerce Commission “Electricity and Gas Input Methodologies Determination Amendments (No.2) 2012, Reasons Paper” (15 November 2012).

<sup>185</sup> Commerce Commission “Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986” (31 July 2013), Attachment F, p.108, para F91.

<sup>186</sup> BARNZ “Feedback on Commerce Commission analysis of Wellington Airport’s third price setting event” (8 May 2015), p. 4.

<sup>187</sup> Commerce Commission “Input Methodologies (Airport Services) Reasons Paper” 22 December 2010.

<sup>188</sup> Commerce Commission “Information Disclosure (Airport Services) Reasons Paper” 22 December 2010.

336. Since establishing the IMs and our initial ROI approach to assessing historic profitability we have applied profitability assessments in our s 56G reviews.<sup>189</sup> These reviews acknowledged the issues identified above.
337. The s 56G reviews and other profitability assessments as well as our price-quality determinations for other sectors have applied assumptions on intra-period cash flow timings. Although these were refined for other regulated services we are yet to apply specific intra-period cash flow timing assumptions to information disclosure for airport services.
338. As described above, consideration was given to the initial asset valuation for airports as part of the merits review process. The High Court decision of 12 December 2013 was for land assets to be valued as at 1 April 2010 (Wellington) and 1 July 2010 (Auckland and Christchurch). We amended the relevant IMs to implement that decision but, after consulting with interested persons, concluded for the purposes of our s 56G reports that the decision did not change our findings on the effectiveness of information disclosure.<sup>190</sup>

#### **Is there other experience that could help deal with these issues?**

339. We have experience in assessing profitability in other regulated sectors where there is a combination of price-quality regulation and information disclosure regulation. However, in this case there is no price-quality regulation and the airports may currently “price as they see fit”. This creates a difference from our experience with the other sectors. However, our s 56G reports set out the approaches to the profitability analysis that we used to deal with some of these issues and we see them as possibly forming a basis for development of solutions in developing the necessary profitability assessment indicators.

#### **DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS**

340. At this stage we have a view that we have a good problem definition for this topic, some possible solutions for the issues and a view that the final solutions can be accommodated in either the Airport IMs or information disclosure determination.

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<sup>189</sup> Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport. Section 56G of the Commerce Act 1986” 13 February 2013; Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport. Section 56G of the Commerce Act 1986” 31 July 2013; Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport. Section 56G of the Commerce Act 1986” (8 February 2013).

<sup>190</sup> See: Commerce Commission email “Commerce Commission – Consultation on impact of IM judgment on s56G reports for airports regulated under Part 4 of the Commerce Act” (6 January 2014).

### **What are the specific problems within this topic?**

341. The main problems in this topic area are that:
- 341.1 There is no forward-looking profitability assessment indicator to assist interested persons to assess if airports are targeting excessive returns when setting prices; and
  - 341.2 The ex-post profitability assessment indicator as currently outlined in information disclosure has proven to be ineffective when airports use alternative approaches to setting prices.
342. As outlined in the previous section, there are also a number of secondary issues that contribute to the information disclosure ex-post profitability assessment issue and which will also have an implication for any specification of a forward-looking profitability assessment indicator.

#### *Changes to the IMs*

343. The ex-post profitability assessment is currently included in the information disclosure determination. It is our expectation that any forward-looking profitability assessment would also be included in the information disclosure determination. However, we note that some of the secondary issues are covered in the Airport IMs.
344. Where issues are addressed in the Airport IMs, any changes to the information disclosure regulatory decision would require amendment to the Airport IMs. Matters directly and indirectly addressed in the Airport IMs include:
- 344.1 Land valuation;
  - 344.2 Land held for future use;
  - 344.3 Depreciation and revaluations; and
  - 344.4 Leased assets.

### **What could possible solutions be?**

#### *Possible solutions for the main issues*

345. To address this issue and improve the assessment of profitability, the information disclosure determination could be modified and expanded to include a forward-looking profitability assessment indicator and an improved ex-post profitability indicator. In doing so thought would need to be given to the:
- 345.1 Ability for the information disclosure regulation to better reflect how individual airports set their prices; and
  - 345.2 Necessary amendments to the Airport IMs to facilitate those updated assessment indicators.

346. In our s 56G report on Wellington Airport we noted:<sup>191</sup>

Incentives for airports to price consistent with the Part 4 purpose could be strengthened if each airport were required to disclose an indicator of its expected returns comparable to its cost of capital, along with the other information disclosed following a price-setting event...This indicator could be derived in the same way we have estimated expected returns in this s 56G review (ie, an IRR calculation that uses the IM compliant asset value as the opening asset value, and for the closing asset value uses an estimate of the asset base expected to provide the basis for setting prices in the subsequent pricing period).

347. In our s 56G report on Christchurch Airport we noted that its approach to price setting is significantly different from Wellington and Auckland. We also described the challenges in undertaking our analysis of Christchurch Airport.<sup>192</sup>

348. Our view is that the forward-looking profitability assessment for information disclosure should use an internal rate of return (**IRR**) approach, which would be applied over longer time horizons than the ex-post profitability assessment. As we noted in our s 56G report on Auckland Airport, an IRR approach:

348.1 Estimates a return relative to the value of an airport's assets;

348.2 Avoids some of the problems associated with the short term variability in returns; and

348.3 Potentially allows the use of an earlier start date than 1 July 2012 to take into account pricing decisions made prior to the introduction of information disclosure.<sup>193</sup>

349. It is also our view that we could use the same IRR calculation for the ex-post assessment of profitability, albeit for a single year, as we have for other regulated services.

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<sup>191</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act" (8 February 2013), Attachment E, p.87, para E50.

<sup>192</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2014), Attachment E, p.82 and Attachment F, p.121.

<sup>193</sup> Commerce Commission "Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986" (31 July 2013), Attachment F, p.83-85.

*Possible solutions to the secondary issues*

350. A possible solution to the revaluation approach and depreciation profile issues is to provide flexibility in the Airport IMs that allow the approach adopted in the price setting events. This solution was proposed in our s 56G report on Auckland Airport.<sup>194</sup>

Likewise, it would be appropriate that any indicator reflecting past returns also be consistent with the indexation, revaluation and depreciation decisions made by airports when they set their prices for the current pricing period, to ensure that incorrect conclusions about excess returns are not made.

351. It is less clear to us at this stage what the solutions are for different treatments for leased assets, land held for future use, wash-ups, forecast revaluations and discounting.

352. In the s 56G report on Auckland Airport we proposed that the opening asset base used in a forward-looking profitability indicator could reflect appropriate departures from the Airport IMs.<sup>195</sup> We are interested on your views as to whether an approach of disclosing differences would be sufficient for an accurate assessment of profitability to occur.

353. With regards to cash flow timing assumptions, our current thinking is that these should be applied in the proposed IRR calculation on a basis consistent with the approach applied in the s 56G reports but with refined assumptions specific for airport services.

354. We see the valuation variation, compliance ambiguity and alignment with valuations standards and valuation industry practices issues as matters that will require further consultation at a detailed level. Our cover letter to the notice of intention outlines how we propose addressing these issues should they be considered for a fast-tracked process.<sup>196</sup>

355. With regards to the initial RAB values, airports have made informal suggestions on how an initial RAB value for 2010 could be determined without having to apply the full valuation rules to that year. We see merit in using an alternative approach given the availability of recent land valuations both before and after 2010 and we welcome submissions on this point.

**INVITATION TO MAKE SUBMISSIONS**

356. We invite submissions on:

356.1 Our description of the issues we have identified for this topic and whether there are any other associated issues that we should be thinking about;

<sup>194</sup> Ibid, Attachment F, p.107, para F90.

<sup>195</sup> Commerce Commission “Final report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986” (31 July 2013), Attachment F, page 107.

<sup>196</sup> Cover letter to the notice of intention.

- 356.2 Our proposal to develop an IRR calculation similar to that used in the s 56G reports that can be applied to forward-looking and ex-post assessments of profitability;
- 356.3 Whether greater flexibility on the options available should be provided in the Airport IMs to ensure the different approaches to revaluations and depreciation profiles applied by airports in the setting of prices are reflected in the way the RAB is updated;
- 356.4 How differences in treatment of leased assets, land held for future use, wash-ups, forecast revaluations and discounting could be treated in the assessment of profitability; and
- 356.5 How the value of the initial RAB value in 2010 could be determined other than preparing a full valuation at that point in time.
357. The cover letter to the notice of intention invited early submissions on the proposed fast-tracking of amendments to address specific issues with the Airport IMs. Submissions on the Airport IMs fast-track proposal are due by **5pm on Tuesday 23 June 2015**.<sup>197</sup> In particular the cover letter to the notice of intention requested submissions on:
- 357.1 What issues should be included in an airports fast-track process and the reasons for including them in a fast-tracked process;
- 357.2 What should be covered in the airports land valuation methodology amendments if it is a fast-tracked issue; and
- 357.3 The proposed dates and submission process for the fast-tracking.

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<sup>197</sup> Ibid, para 27.

## Topic 7: Reconsidering the WACC percentile range for airports

### TOPIC SUMMARY

359. This chapter is about the benchmark for measuring airport profitability, and the appropriateness of the WACC percentile range that we apply to airports for that purpose. We propose to look at whether our current airports WACC percentile range is appropriate and consider whether any additional or alternative WACC point estimate(s) should be published. We invite submissions on the role of a WACC percentile range and point estimates in the context of information disclosure regulation.

### TOPIC

#### What is the topic area?

360. Airports are subject to information disclosure regulation that is intended to readily provide sufficient information to interested persons to assess whether the purpose of Part 4 is being met, including whether suppliers of specified airport services are limited in their ability to extract excessive profits.<sup>198</sup>
361. As we noted in the preceding chapter on airport profitability assessment, the discussion on the topic area comprises two matters:
- 361.1 The mechanism by which we measure profitability, which we addressed in the previous chapter; and
- 361.2 The benchmark against which we measure profitability, which we address in this chapter.
362. The information provided to interested parties includes our estimate of the WACC for providing specified airport services. This is intended to be a benchmark for profitability assessment.
363. This chapter focuses on one element of the cost of capital IMs, the appropriateness of the WACC percentile range that we apply to airports. Other issues related to estimating WACC for all of the regulated services subject to the IMs are covered elsewhere.<sup>199</sup>
364. Under the current IMs, we estimate both a value for the WACC and the associated standard error.<sup>200</sup> The standard error is then used to define a probability distribution of our WACC estimate. We currently publish estimates of the WACC consistent with the 25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup> percentiles of this distribution.<sup>201</sup>

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<sup>198</sup> As per s 52A(1)(d) of the Act.

<sup>199</sup> See the chapter on issues raised by the High Court on cost of capital.

<sup>200</sup> We are required to estimate the WACC because the required return from investors cannot be observed directly.

<sup>201</sup> For further information on our current WACC methodology for airports see: Commerce Commission “Input Methodologies (Airports) Reasons Paper” (December 2010), Appendix E.

365. This topic considers whether our current WACC percentile range (ie, the 25<sup>th</sup> to the 75<sup>th</sup> percentiles) is appropriate to meet the purpose of information disclosure regulation. It also considers which point estimates within an appropriate range should be published.
366. The nature of information disclosure regulation means that any change to the IMs would be to improve the information available to assess whether the purpose of Part 4 in being met, including for potential future profitability assessments.
367. It is useful to bear in mind that information disclosure provides incentives to achieve outcomes consistent with those found in workably competitive markets in two main ways:
- 367.1 By providing transparency about how well a supplier is performing over time and relative to other suppliers; and
- 367.2 Through the threat of further regulation, including the incentives created by airports recognising that we must undertake summary and analysis of disclosed information, and one-off reviews under s 56G.<sup>202</sup>

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

368. Issues related to the WACC percentile range for airports have a link to the more general concern of ensuring that we and other interested parties are able to appropriately assess airport profitability.
369. The current information disclosure requirements provide WACC estimates for the 25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup> percentiles. However, the IMs do not specify how the WACC should be used by interested parties when assessing profitability. In the IM reasons paper we stated that the appropriate starting point for any assessment of airport profitability is the 50th percentile.<sup>203</sup>
370. Since the initial publication of the IMs in 2010, we have assessed airports' profitability in our s 56G reviews.<sup>204</sup> As described in the final s 56G report for Christchurch Airport, during that process we concluded that the 50<sup>th</sup> percentile provides the best estimate of a normal return, but that normal returns are likely to fall within an acceptable range (namely, the 50th to 75th percentiles).<sup>205</sup>

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<sup>202</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2014), p.13.

<sup>203</sup> Ibid, Section E11.

<sup>204</sup> Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport, Section 56G of the Commerce Act 1986" (13 February 2014); Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Auckland Airport, Section 56G of the Commerce Act 1986" (31 July 2013); and Commerce Commission "Report to the Ministers of Commerce and Transport on how effectively information

371. Some submissions made to us as part of the s 56G review process felt that too much emphasis was placed on the higher end of the WACC percentile range and suggested that greater focus should be placed on the mid-point of the range following the comments of the High Court in its December 2013 IM appeals judgement.<sup>206</sup> For example BARNZ suggested:<sup>207</sup>

As the Commission is now finalising its 56G report for Christchurch Airport, BARNZ members ask that the Commission takes into account the observations of the High Court, and places greater emphasis on the results produced at the mid-point WACC estimate, which the High Court confirmed as the appropriate starting point for profitability analysis for regulated airports under Part 4.

372. On the other hand, the NZAA has pointed out that the “Court found that a range from the 25<sup>th</sup> to the 75<sup>th</sup> percentile was appropriate in light of the purpose of Part 4 and of information disclosure regulation”,<sup>208</sup> adding that:

when thinking about the appropriate percentile approach for information disclosure purposes, the Commission should consider (at least) both the indirect effect that its WACC range will have on pricing and the risk of under-investment in that context, *as well as* factoring in the risks and consequences of assessing excess profits to exist when that is not the case.

#### **Have we previously looked at this topic or these issues?**

373. Last year we commenced a process to consider amending the WACC percentile estimates for services regulated under Part 4 as a stand-alone process.<sup>209</sup> We completed that process in respect of electricity lines and gas pipeline services, but not for specified airport services.<sup>210</sup>

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disclosure regulation is promoting the purpose of Part 4 for Wellington Airport, Section 56G of the Commerce Act 1986” (8 February 2013).

<sup>205</sup> Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014), footnote 128.

<sup>206</sup> *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC [11 December 2013].

<sup>207</sup> BARNZ, *Letter to the Commission* (31 January 2014). Available here: <http://www.comcom.govt.nz/dmsdocument/11456>.

<sup>208</sup> NZ Airports Association “Submission on Commerce Commission’s proposed amendment to the WACC percentile for electricity lines services and gas pipeline services” (29 August 2014), p. 27.

<sup>209</sup> Commerce Commission, “Further work on the cost of capital input methodologies: Process update and invitation to provide evidence on the WACC percentile” (31 March 2014).

<sup>210</sup> Commerce Commission, “Electricity Lines Services and Gas Pipeline Services Input Methodologies Determination Amendment (WACC percentile for price quality regulation)” [2014] NZCC 27, 30 Oct 2014. Commerce Commission, “Electricity Lines Services and gas Pipeline Services Input Methodologies Determination Amendment (WACC percentile for information disclosure regulation)” [2014] NZCC 38, 11 Dec 2014.

374. Given the timing of this IM review, we proposed in February this year to discontinue the existing stand-alone amendment process on the WACC percentile for airports. Instead we proposed that the issue should be considered as part of the broader IM review and in doing so acknowledged a previous submission from NZAA which suggested that the High Court had endorsed our current approach to the WACC range.<sup>211</sup>
375. Following the receipt of submissions we have now confirmed the decision to incorporate the consideration of the airports WACC percentile range into the wider IM review.<sup>212</sup>
376. After considering the comments of the Court, our current view is that the WACC percentile range for airports is an important topic to examine as part of the IM review, especially with reference to improving the ability of interested parties to undertake effective assessments of airport profitability consistent with the Part 4 purpose.
377. We also previously noted in our final s 56G report on Christchurch Airport (in response to a letter from BARNZ requesting that we place “greater reliance on the results produced at the mid-point WACC estimate”) that we were proposing to consult with the interested parties on the cost of capital issues raised in the judgment.<sup>213</sup>
378. Prior to the decision to defer the airport component of last year’s WACC percentile amendment process, we received initial submissions following the notice of intention in March 2014.<sup>214</sup> These submissions outlined a number of issues that we need to consider when evaluating the WACC percentile for airports and are summarised in the following section.
379. We propose to formally include on the record for this IM review submissions from parties interested in specified airport services (ie, BARNZ, NZAA, Air NZ, AIAL, CIAL, WIAL and Infratil) that were made to us as part of the work undertaken during 2014 on the WACC percentile. We expect that we, and other parties, will also explicitly refer to material submitted from the other parties on that proceeding, and to the extent that material is so referenced it too would form part of the record for this IM review.

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<sup>211</sup> Commerce Commission “Further work on the cost of capital input methodologies for airports” (27 February 2015), para 13.

<sup>212</sup> Airport Services (Weighted Average Cost of Capital percentile) Input Methodology Amendments Determination 2015 [2015] NZCC 16.

<sup>213</sup> Commerce Commission “Report to the Ministers of Commerce and Transport on how effectively information disclosure regulation is promoting the purpose of Part 4 for Christchurch Airport” (13 February 2014), footnote 180.

<sup>214</sup> Commerce Commission, “Notice of Intention: Potential Amendments to Input Methodologies for Electricity Distribution Services, Gas Pipeline Services, Airports, and Transpower” (31 March 2014).

### Other experience that could help deal with these issues

380. Last year's WACC percentile amendment for electricity and gas businesses may be relevant when considering how to review the WACC to be applied to airports' information disclosure. That work considered both the appropriate WACC percentile to be used in price-quality regulation and the appropriate WACC percentile range to be used in information disclosure regulation.<sup>215</sup>
381. After collecting a significant amount of evidence during last year's WACC percentile amendment work, we concluded that for electricity and gas businesses:
- 381.1 It is appropriate to use a WACC significantly above the mid-point estimate for price-quality path regulation;<sup>216</sup>
- 381.2 The evidence we collected suggested that the WACC for price-quality path regulation should sit somewhere between the 60th percentile and 75th percentile;
- 381.3 A percentile around the middle of this range appropriately balances the relative costs to consumers of under- and over-investment, in light of the overall purpose of Part 4, which is to promote the long-term benefit of consumers of regulated services;
- 381.4 The 67<sup>th</sup> percentile estimate was the most appropriate percentile for use in price-quality regulation; and
- 381.5 The 67<sup>th</sup> percentile estimate should also be published under information disclosure in addition to the existing estimates of the 25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup> percentiles.
382. In the initial stages of last year's WACC percentile amendment process (ie, prior to the deferral of the decision related to airports), we received a number of submissions specifically related to the airport sector. Although they were not subsequently considered fully as part of that process, they provide a useful starting point for this topic in the context of the IM review. In particular, submissions suggested that:
- 382.1 Service reliability may not be as dominant a concern for airport services, in terms of consumer preferences, as in network utilities. Other issues may be equally or more important. Examples might be service availability and convenience, as well as the airport environment;<sup>217</sup>

<sup>215</sup> Commerce Commission "Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper" (30 October 2014); Commerce Commission, "Amendments to the WACC percentile range for information disclosure regulation for electricity lines services and gas pipeline services: Reasons Paper" (12 December 2014).

<sup>216</sup> This is because the potential costs of under-investment from a WACC that is too low are likely to outweigh the harm to consumers (including any over-investment) arising from a WACC that is too high.

<sup>217</sup> NZ Airports Association "Response to invitation to comment on whether the Commerce Commission should review or amend the cost of capital input methodologies" (13 March 2014), para 47 (d).

- 382.2 The dual-till structure for airports, in which a significant proportion of unregulated revenue is driven by passenger numbers, reduces the need to provide additional incentives to invest through a higher WACC percentile;<sup>218</sup>
- 382.3 Any analysis for airports will need to include flow-on effects to the wider economy including benefits from increased airline competition resulting in lower prices and wider choices. There was also concern over the amount of resource this might require;<sup>219</sup>
- 382.4 A single WACC percentile estimate is not suitable to be used across all airports, as they operate in very different environments;<sup>220</sup>
- 382.5 Airlines are a very engaged group of customers which means airport consultations with airlines will ensure appropriate levels of investment are being undertaken. This would reduce the requirement for additional investment incentives;<sup>221</sup>
- 382.6 Using a high WACC percentile for profitability assessment to encourage investment by airports needs to be evaluated against the disincentive for investment that a high WACC percentile will impose on the airlines;<sup>222</sup> and
- 382.7 Previous evidence we have obtained in this area has been almost exclusively focused on electricity businesses and the same assumptions should not be automatically applied to the airport's businesses.<sup>223</sup>
383. We are currently considering whether an estimate of WACC above the mid-point is appropriate in the context of the final pricing principle (**FPP**) price review for the UCLL service and the UBA services, under the Telecommunications Act 2001. That matter was discussed at a conference in April 2015,<sup>224</sup> and the work is ongoing. We are due to release further UCLL and UBA draft determinations in early July 2015.

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<sup>218</sup> Covec (for BARNZ) "Estimating WACC for Airports in New Zealand" (30 April 2014), p. 16–17.

<sup>219</sup> NZ Airports Association "Response to invitation to comment on whether the Commerce Commission should review or amend the cost of capital input methodologies" (13 March 2014), para 47(a) and (e).

<sup>220</sup> NZ Airports Association "Further work on the cost of capital input methodologies: Response to invitation to provide evidence on the WACC percentile" (5 May 2014), para 35 (b) (v).

<sup>221</sup> Covec (for BARNZ), "Estimating WACC for Airports in New Zealand, 30 April 2014", p.17

<sup>222</sup> Professor Puliur (Sudi) Sudarsanam (On behalf of Air NZ) "An expert's report on the use of a 75th percentile from the WACC range for information disclosure requirements of airports in New Zealand for the purpose of profitability assessment by the Commerce Commission" (4 May 2014), para 5.12.

<sup>223</sup> NZ Airports Association "Submission on Commerce Commission's proposed amendment to the WACC percentile for electricity lines services and gas pipeline services" (29 August 2014), para 23.

<sup>224</sup> Commerce Commission "Agenda and topics for the conference on the UCLL and UBA pricing reviews" (2 April 2015), Attachment C.

### *International experience*

384. International experience could be particularly useful in understanding this topic for airports. For example:
- 384.1 There are a number of academic studies focussing on airport regulation and competition issues;<sup>225</sup>
- 384.2 Overseas regulators' experience in assessing airport investment incentives is also potentially useful. For example, as noted by Sudi Sudarsanam on behalf of Air New Zealand,<sup>226</sup> the British CAA examined the potential for an uplift to WACC applied to Gatwick and Heathrow;<sup>227</sup> and
- 384.3 An alternative approach was applied to the construction of Heathrow Airport's Terminal 5. An uplift to the WACC was permitted on the basis of the significant investment requirement, but there were also revenue penalties in the event that certain investment targets were not met.<sup>228</sup>

## **DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS**

### **What are the specific problems within this topic?**

#### *How does the WACC percentile range link to the profitability assessment*

385. The current IMs do not currently specify how the published WACC percentiles for airports might be used as a benchmark in the context of a profitability assessment.<sup>229</sup>
386. In practice we may need a range of point estimates within any percentile range. For summary and analysis the required WACC percentile estimate may vary depending on the firm, the time period, and whether profitability is assessed on an ex-ante or ex-post basis.
387. We are therefore interested in whether it would be useful for the IMs to contain further guidance on how the published WACC percentiles could be used in different types of analysis.

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<sup>225</sup> For example, see: Starkie, D. & Yarrow, G. "The single-till approach to the price regulation of airports", CAA Paper (2000); Arblaster, M. The design of light-handed regulation of airports: Lessons from experience in Australia and New Zealand, *Journal of Air Transport Management* 38 (2014) p. 27-35.

<sup>226</sup> Professor Puliur (Sudi) Sudarsanam (On behalf of Air NZ) "An expert's report on the use of a 75th percentile from the WACC range for information disclosure requirements of airports in New Zealand for the purpose of profitability assessment by the Commerce Commission" (4 May 2014), para 5.13.

<sup>227</sup> This was in the context of airport price control, rather than information disclosure regulation.

<sup>228</sup> BAA plc "A report on the economic regulation of the London airports companies (Heathrow Airport Ltd, Gatwick Airport Ltd and Stansted Airport Ltd)" (November 2002), para 4.71.

<sup>229</sup> For example, which part of the range should be used to evaluate whether excessive profits are being made.

*Which estimates should be published?*

388. Our final decision on the WACC percentiles for information disclosure for electricity lines services and gas pipeline services was to not to amend the range 25th to 75th percentile range set as part of the additional IMs. However we decided to publish an additional point estimate within that range which represents our estimate of the WACC that best takes into account the asymmetric risks to consumers from a mis-estimated WACC.<sup>230</sup>
389. Given our decision on what percentile estimates to publish in respect of information disclosure for electricity and gas businesses we would like to explore whether determining a WACC percentile estimate for airports that takes into account the potential asymmetric risks to airport consumers from a mis-estimation of the WACC could be useful. This could be used as an additional point estimate in both summary and analysis and also in our consideration of the appropriate percentile range that should be specified in IMs, particularly when assessing forward-looking pricing decisions.
390. For electricity and gas businesses subject to information disclosure, we had separately determined our best estimate of the WACC that takes into account the asymmetric risks of mis-estimation (the 67<sup>th</sup> percentile) because it was used for setting prices for those businesses subject to price-quality regulation.
391. However, airports are not subject to price-quality regulation. If we conclude that this additional WACC percentile estimate is useful, it would be determined solely for the purposes of information disclosure regulation.
392. If a WACC percentile of this type is required, then we could adopt a similar approach to that we took in the WACC percentile amendment process for electricity and gas businesses. In that case, we considered that there were two primary questions<sup>231</sup> that needed to be addressed when considering what an appropriate percentile might be:<sup>232</sup>
- 392.1 Is there any reason to depart from the mid-point WACC estimate (ie, the best parameter-based estimate we have of the cost of capital)?
- 392.2 If so, what is the most appropriate percentile?

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<sup>230</sup> Commerce Commission, “Amendments to the WACC percentile range for information disclosure regulation for electricity lines services and gas pipeline services: Reasons Paper” (12 December 2014).

<sup>231</sup> The appropriate welfare standard to be used, in light of the Part 4 purpose, was also considered in that amendment process. In particular there was debate as to whether we should use a consumer surplus or total welfare approach to our loss analysis. In making our decision, we focused on balancing the long-term interests of consumers due to under- or over-investment, rather than giving some numeric weight to quantitative estimates of consumer or producer surplus. We considered this was more consistent with the purpose of part 4 of the Act. This discussion is set out in Attachment A of our final decision. Commerce Commission “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014).

<sup>232</sup> Commerce Commission “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014), para 2.6.

*Are there asymmetric effects from mis-estimating the WACC?*

393. Answering the first of the above questions requires consideration of whether there is asymmetry in terms of the expected losses from under- and over-estimating the WACC (given that the actual WACC is not observable, so must be estimated).<sup>233</sup>
394. For electricity and gas businesses our primary concern was to mitigate against the risk of under-investment relating to service quality generally, and contributing to major supply outages in particular.<sup>234</sup> Does this concern hold for airports? Under-investment in airports is likely to be more related to delayed capital and quality investments in the wake of demand growth, rather than due to a major supply outage.
395. Additionally, if we consider that there are asymmetric impacts of over or under-investment, does it necessarily follow that we should depart from the mid-point estimate of the WACC to counteract these effects? The WACC estimate itself is likely to have a more limited impact on airport investment decisions than it would do for an electricity lines business subject to price-quality regulation. Reasons for this include:
- 395.1 Airports are only subject to information disclosure regulation and can therefore set their own prices. Our published regulated WACC percentile estimates are likely to have a more indirect impact on investment decisions compared to a price-quality regulated business for which the regulatory determined WACC has a stronger impact on achievable revenue;
- 395.2 Airports have a small number of engaged customers (airlines) that through consultation are likely to help ensure that appropriate levels of investment are taking place; and
- 395.3 The airport's dual-till structure, in which they earn significant amounts of revenue from unregulated activities (eg, retail and other property activities), that are complementary to their aeronautical activities, reduce the likelihood of under-investment in the regulated business.

**What could possible solutions be?**

*Determining the appropriate percentile*

396. If we do consider a departure from the WACC mid-point is required, we will need to determine an appropriate percentile. The estimate itself could be useful in two contexts:
- 396.1 Ensuring that the WACC percentile range specified in the IMs is appropriate; and

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<sup>233</sup> Ibid, paras 3.6-3.10. If the expected losses are broadly symmetric, then we should apply the mid-point WACC estimate. However, if the expected losses are asymmetric, there may be a case for selecting a WACC percentile estimate that reflects this asymmetry.

<sup>234</sup> Ibid, para 3.36.

- 396.2 As an additional estimate published under information disclosure, where it could be a useful guide for assessing whether airports have set prices at a level which promotes the long-term benefit of consumers.<sup>235</sup>
397. We consider that the experience obtained in the previous WACC percentile amendment process can help us if we are required to determine an appropriate WACC percentile for airports that takes into account these effects. The electricity and gas WACC percentile amendment process provides a template which may be useful when exploring similar issues for airports. As noted above, since the electricity and gas WACC percentile amendment, we have also considered whether a WACC uplift is appropriate in the context of UCLL and UBA. That work is ongoing.<sup>236</sup>
398. In the WACC percentile amendment process for electricity and gas businesses we made use of a quantitative framework developed by Oxera.<sup>237</sup> In that context, we were aiming to find the “optimal” WACC which balanced the:
- 398.1 Costs to consumers of an uplift, in terms of higher prices; and
- 398.2 Benefits to consumers from applying the uplift, though a reduced risk of under-investment.<sup>238</sup>
399. A similar approach could be considered in the airport context using alternative input assumptions which are tailored to the specific airport situation.<sup>239</sup> Is this the right approach for airports?
400. If we did conclude this type of framework is useful and appropriate to the airports context, we would need to determine some key assumptions, including the total net cost to consumers from under-investment in regulated airport services. What are these costs (eg, delays due to congestion)?
401. At this stage, we have no initial view as to what an appropriate WACC percentile of this type might be for airports. It is clear that there are different issues affecting the estimation of an appropriate WACC percentile for airports compared to the estimation of WACC for electricity and gas businesses.

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<sup>235</sup> This was one of the reasons we decided that the 67<sup>th</sup> percentile WACC should be published under information disclosure for electricity and gas businesses. See: Commerce Commission “Amendments to the WACC percentile range for information disclosure regulation for electricity lines services and gas pipeline services: Reasons Paper” (12 December 2014), para 2.8.3.3.

<sup>236</sup> See: Commerce Commission “Agenda and topics for the conference on the UCLL and UBA pricing reviews” (2 April 2015), Attachment C. As noted at para 92 of that paper, we have engaged Oxera to undertake an analysis to provide a basis for us to consider whether a WACC uplift should be applied for UCLL and UBA. We intend to publish Oxera’s findings prior to our further draft UBA and UCLL determinations in early July 2015.

<sup>237</sup> Oxera “Input methodologies, Review of the ‘75th percentile’ approach, Prepared for New Zealand Commerce Commission” (23 June 2014).

<sup>238</sup> Commerce Commission “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014).

<sup>239</sup> For details of the framework as it applied to UBA and UCLL, please refer to: Commerce Commission, “Agenda and topics for the conference on the UCLL and UBA pricing reviews” (2 April 2015), Attachment C.

### **What further information is needed to advance our thinking?**

- 402. We will require further evidence on whether it is a useful change to the IMs to require an estimate of WACC for airports, which best balances the asymmetry of loss.
- 403. If this is deemed appropriate, we will be looking for information of the potential quantitative impacts associated with any mis-estimation of the WACC. This should include the materiality of the direct impacts on airport customers.

### **INVITATION TO MAKE SUBMISSIONS**

- 404. We invite submissions on:
  - 404.1 The impact of the WACC estimate on incentives to invest given that airports are only subject to information disclosure regulation and that airports can also potentially earn returns from complementary but unregulated activities;
  - 404.2 The form and, if available, estimates of the magnitude of the costs to consumers from under-investment in regulated airport infrastructure;
  - 404.3 Whether there is any reason to depart from the mid-point WACC estimate when assessing airports' price setting and profitability (ie, the best parameter-based estimate we have of the cost of capital), and evidence in support of that reasoning. This should include discussion on the impacts on incentives to invest and any potential asymmetric impact to airport customers from a mis-estimation of the WACC;
  - 404.4 Whether us defining and publishing an additional percentile estimate of the WACC taking into account potential asymmetric effects of mis-estimating the WACC would be a useful addition to the IMs;
  - 404.5 Whether the quantitative framework applied to electricity and gas businesses, and proposed for UCLL/UBA services, can be adapted for use in the airport context, or whether there are alternative frameworks that can be used;
  - 404.6 Quantitative analysis that supports the use of a particular percentile to balance asymmetric impacts on consumers;
  - 404.7 How important consistency with other regulated sectors is; and
  - 404.8 Any previous analysis you feel would be relevant in addressing these or any other issues relevant to this topic.

## Topic 8: Cost-effectiveness of the rules and processes for CPP applications

### TOPIC SUMMARY

405. In this chapter we discuss how the rules and processes for making a CPP application might be improved in order to reduce complexity and make the CPP process more cost-effective. We summarise feedback received from regulated suppliers and others following the Orion CPP process in 2013 and invite submissions on whether the improvement areas identified in the feedback should remain as priorities for us. We also suggest some potential solutions for the overall problems identified, and invite submitters to provide feedback on these.

### TOPIC

#### What is the topic area?

406. This topic explores potential changes that could be considered for the rules and processes for making a CPP application without detrimentally affecting the promotion of the s 52A purpose. The rules and processes governing CPP applications are contained in the IMs for CPPs.<sup>240</sup>
407. We have been told by regulated suppliers and other interested persons that the CPP application process could be simplified to reduce the time and costs involved for suppliers and to avoid creating barriers for applicants. This has the potential to ensure that a supplier applies for a CPP when doing so would result in a greater long-term benefit to consumers than if the supplier were to remain on its existing DPP.
408. Section 53K of the Act states that the purpose of default/customised price-quality regulation is to:
- Provide a relatively low-cost way of setting price-quality paths for suppliers of regulated goods or services, while allowing the opportunity for individual regulated suppliers to have alternative price-quality paths that better meet their particular circumstances.
409. We should therefore consider CPP regulation as a complement to DPP regulation, and not consider it in isolation (see Topic 3 also). In particular, a CPP is not a simple direct substitute for a DPP, as it is designed to offer a more tailored approach to a particular supplier's situation: it is necessarily more information intensive.
410. The cost-effectiveness of the CPP as an option depends on striking an appropriate balance between the benefits of making a CPP determination and the costs of a supplier preparing information and the costs of us undertaking our evaluation. The Commission needs sufficient information available to determine a CPP however, and beyond a certain point it may not be possible to trade off the costs of the CPP process against outcomes desirable to achieve the long-term benefit of consumers.

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<sup>240</sup> Commerce Commission "Electricity Distribution Services Input Methodologies Determination 2012" (30 March 2015), Parts 3 and 5; Commerce Commission "Gas Distribution Services Input Methodologies Determination 2012" (30 March 2015), Parts 3 and 5; Commerce Commission "Gas Transmission Services Input Methodologies Determination 2012" (30 March 2015), Parts 3 and 5.

411. Key identified areas in which additional costs in excess of the setting of a DPP could arise under the CPP rules and processes, and which could therefore be examined for their cost-effectiveness, include the:
- 411.1 Costs of the applicant meeting the CPP information requirements;
  - 411.2 Engagement of external parties to advise and assist in the preparation of the CPP application, for example, advice on conducting consumer consultation, the use of a verifier, and the engagement of auditors or independent engineers; and
  - 411.3 Costs of us evaluating the CPP proposal (including our use of experts and the extent to which the views of interested persons are sought), which are then recharged to the CPP applicant as a fee.
412. Concerns about how the WACC rate is determined and used as an input for setting prices under a CPP are separately addressed under Topic 3 – Interactions between the DPP and CPP. In particular, that topic examines the issue of the timing of the CPP WACC estimates relative to the CPP application windows and the date of the CPP determination and CPP regulatory period relative to the DPP regulatory period.

*Possible fast-track of amendments to CPP rules and processes*

413. As discussed in the cover letter to the notice of intention,<sup>241</sup> we propose to undertake the review of the CPP rules and processes IM in two parts to allow some specific CPP changes to be ‘fast-tracked’ as part of the IM review. A fast-track could provide benefits for CPP applications anticipated to be received before the IM review is completed. For instance:
- 413.1 The first part (ie, the fast-track) could be completed by the end of October 2015, so that any changes made can be applied by suppliers who are preparing to submit a CPP application in 2016. The proposed improvements would be aimed at making a supplier’s preparation, and our evaluation, of a CPP proposal clearer and more cost-effective. For example, we may consider simplifications to the information requirements for submitting a CPP proposal, and consequent changes to how we will evaluate and determine a CPP.
  - 413.2 The second part (ie, part of the rest of the review) could address all other CPP-related IM issues that are not considered in the first part, and would be progressed as part of the wider IM review scheduled to be completed by December 2016.
414. We intend to confirm the scope and timing of this process by 3 July 2015 following consultation with interested parties, particularly any parties who may be considering making a CPP application in the February 2016 or May 2016 application windows.<sup>242</sup>

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<sup>241</sup> Cover letter to the notice of intention.

<sup>242</sup> See the attachment to the cover letter to the notice of intention, para 9.

415. A draft decision for the first part of the work can be expected on 27 July 2015.<sup>243</sup>

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

*Process issues*

416. After setting the CPP for Orion New Zealand Limited (**Orion**) in 2013, we asked for feedback on what worked well in the Orion CPP determination process, what could be improved and how any improvements could be made. We received seven written responses which we posted on our website.<sup>244</sup> We also met with Orion and its advisers to discuss in detail how the CPP process had operated for them.
417. The Orion CPP was set following the Canterbury earthquakes and is the only CPP that we have needed to set to date. The Orion CPP was distinctive because it was set in difficult circumstances – Orion submitted the CPP in response to a catastrophic event and experienced significant time and resource constraints.
418. The main issues raised by submitters in their feedback that appear relevant to this section of the IM review are briefly described below, and relate to:
- 418.1 Simplifying the CPP application process;
  - 418.2 Clarifying the role and expectations of the verifier and the independent engineer;
  - 418.3 Undertaking the CPP applicant’s consumer consultation process;
  - 418.4 Use of financial models;
  - 418.5 The treatment of a supplier’s CPP-related costs;
  - 418.6 CPP applications made in response to catastrophic events; and
  - 418.7 Other technical matters.
419. Two other issues have been raised recently by regulated suppliers:
- 419.1 Whether a simplified CPP process should be introduced to cater for suppliers who have an issue with only a single element of a DPP decision; and
  - 419.2 How IMs that are amended, including as a result of a review under s 52Y, during our evaluation of a CPP proposal should affect that proposal.
420. The two issues are described in further detail below as:
- 420.1 Determining a ‘single issue’ CPP; and
  - 420.2 The effect of IM amendments made during the evaluation of a CPP.

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<sup>243</sup> Ibid.

<sup>244</sup> The responses are available at: <http://comcom.govt.nz/regulated-industries/electricity/cpp/orion-cpp/>.

421. Our view at this stage is that a fast-track review of CPP IMs would focus mainly on simplifying the CPP application process and could be completed by the end of October 2015. The remaining issues would be progressed as part of the wider review of IMs scheduled to be completed by December 2016.

*Simplifying the application process*

422. Submitters identified that the application process could be simplified by reducing the volume of information required, both in scope and level of detail, for a CPP application. Further, the way the information is required to be provided should be better aligned to existing supplier practices. These improvements would reduce the time and costs involved for applicants.
423. It was also suggested that the audit requirements need to be better targeted to focus on areas where an audit can add most value for us and the applicant, such as confirmation of historical information and consistency with the price path IMs.

*Clarifying the roles and expectations of the verifier and independent engineer*

424. Some submitters suggested that we should reconsider the requirement to involve a formal verifier under a tripartite arrangement with us as it was perceived not to have been of value to the evaluation of the Orion CPP. If the verifier role were to be retained as a feature of the process, then:
- 424.1 The process for selecting and approving a verifier should be streamlined;
- 424.2 The verifier's involvement and intended use by us should be clarified (for example, with respect to the terms of reference and/or timing and other constraints); and
- 424.3 There should be a review of potential overlaps between the verifier and the independent engineer.

*Facilitating consumer consultation processes*

425. Some submitters thought that the timeframes for undertaking the consumer consultation process were challenging in Orion's case, especially with the post-catastrophe circumstances making it difficult to get adequate engagement with consumers on the critical investment and pricing issues. They suggested that the nature and extent of the required consumer consultation by a CPP applicant needs to be clarified, particularly in respect of presenting the impact for consumers of alternative price path options.

*Establishing financial models*

426. Some submitters suggested that we should consider the requirements for financial models that support the CPP application, and consider publishing a standard financial model which is comparable to the financial model used for setting default price-quality paths.

*Treatment of suppliers internal CPP costs*

427. Submitters suggested that some of the supplier costs of preparing a CPP application that are incurred with respect to internal business processes are significant and one-off in nature, such that they cannot be considered ‘business as usual’ costs. Submitters suggested that these costs could be included as recoverable costs rather than being expected to be absorbed as part of a general opex allowance under the price-quality path.

*Better response to a catastrophic event*

428. Some of the submitters suggested that the IM requirements were too detailed and rigid for a CPP application arising from a catastrophic event. They suggested it may be appropriate to relax some of the CPP requirements following a catastrophic event or consider a ‘DPP re-opener’ as an alternative.

*CPP technical matters*

429. Submitters on the Orion CPP process also suggested improvements to a number of technical matters concerning components of the CPP ‘building blocks’ in the IMs relating to the determination of a CPP. We have also become aware of a number of technical matters as a result of our experience with the Orion CPP process. These technical matters include:

- 429.1 Reducing the level of disaggregation required for forecasting RAB value and regulatory tax allowance components of the price path;
- 429.2 Clarifying the spreading of claw back amounts in the maximum allowable revenue for the CPP period;<sup>245</sup>
- 429.3 Netting of capital contributions against individual asset values in the forecast RAB;
- 429.4 The forecasting of related party asset transactions;
- 429.5 Non-standard depreciation proposals; and
- 429.6 Requirements to update the proposed price path specified in the CPP application for changes in the forecast financial outcomes that occur during the course of the CPP evaluation process, for example, updated forecast CPI.

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<sup>245</sup> We would expect claw back to be a potential issue for applicants in a catastrophic event or CPP deferral situation, but not in the course of other CPP applications.

### *Determining a 'single issue' CPP*

430. It has been suggested to us that the cost and complexity of applying for a full CPP means it is not a viable business option where the supplier has an issue with certain elements of a DPP decision.<sup>246</sup> It has been suggested that an amendment to the IMs to allow a CPP 'light' option or to consider 'single issue' CPPs in some circumstances may be an appropriate way to deal with this issue. Alternatively, a form of 'DPP re-opener' could be considered.
431. The CPP IMs currently provide for a variation to the existing DPP quality standards for electricity distributors, which recognises that not all suppliers may seek to increase their prices under a CPP, in which case only information relating to the proposed 'quality standard variation' needs to be included in the CPP proposal. There is, however, no current provision for 'single issue' CPPs which affects prices or revenues.
432. If an option to apply for a 'single issue' CPP affecting prices or revenues were to be introduced then one issue that would need to be considered is the risk of a supplier attempting to 'cherry pick' only certain aspects of the DPP price path to modify, to the detriment of the long-term benefit of consumers.

### *The effect of IM amendments during the evaluation of a CPP*

433. A supplier has recently raised the issue with us of how IMs that are reviewed and amended apply to CPP applications that are being prepared and/or are submitted prior to the IM review being completed.<sup>247</sup> We consider that Part 4 of the Act is not entirely clear on the rules that apply, but our preferred view is that in making a CPP determination we should apply the input methodologies in force at the time the application is made.
434. Any amendments to input methodologies that are made after we receive a CPP application, but before we make our determination, would therefore not apply. Under s53V(2)(c) of the Act we may consider varying the input methodologies to reflect amendments made after receiving an application; but both the applicant and the Commission would have to agree to such variations.
435. We are open to exploring options to address concerns raised about the potential uncertainty over which rules a CPP application must be prepared and submitted under during the IM review process.

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<sup>246</sup> ENA "Response to Commerce Commission's Open Letter" (31 March 2015), para 64.

<sup>247</sup> Aurora Energy Limited "Submission in response to the Commerce Commission's open letter on our proposed scope, timing and focus for the review of input methodologies" (31 March 2015), p. 2; PwC, "Response to the Commerce Commission on the IM Letter on the proposed scope, timing and focus for the review of input methodologies" (31 March 2015), para 26.

### **Have we previously looked at this topic or these issues?**

436. The CPP rules and processes have remained largely unchanged from when they were first set in 2010. Although the experience of the CPP application and evaluation process is limited to the one instance of the Orion CPP, we consider that we have received good feedback and depth of detail to be able to inform the IM review.

### **Is there other experience that could help deal with these issues?**

437. In addition to the feedback received on the Orion CPP process, there may be some aspects of our experience in setting Transpower's more recent individual price-quality path in late 2014 that we could draw on to help inform improvements to the CPP rules and processes.<sup>248</sup>

438. Apart from the specified processes in the Transpower Capex IM determination,<sup>249</sup> we also drew in that instance on our similar expenditure evaluation experience in the Orion CPP process and further refined the process of information collection and evaluation. For example, we and Transpower agreed the form of certain information that Transpower was required to submit with its regulatory expenditure and quality proposal. This process, which is described in our Transpower reasons for draft decision paper,<sup>250</sup> provides information that is fit for purpose for our price-quality path evaluation, and is intended to limit compliance costs where possible by linking information, where practical, to existing business practices.

439. We are yet to explore overseas experience in setting customised price-quality paths detail. Other jurisdictions that have business-specific building block approaches to setting price and quality may have information to inform our approach.

## **DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS**

### **What are the specific problems within this topic?**

440. Many of the problems identified in this topic relate to striking an appropriate balance between cost-effectiveness and having sufficient information available to the Commission to determine a CPP under s53V.<sup>251</sup> We also need to ensure that our approach to evaluating a CPP proposal effectively balances the promotion of certainty with the need for flexibility for both suppliers and us.

441. In setting the CPP IMs in 2010 we sought to get this balance right. However, our experience with the Orion CPP and the feedback from submitters suggests that further improvements could be made to CPP requirements without detracting materially from our ability to evaluate and determine a CPP for the long-term benefit of consumers.

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<sup>248</sup> Commerce Commission "Companion paper to final determination of Transpower's individual price-quality path for 2015-2020" (28 November 2014).

<sup>249</sup> Commerce Commission "Transpower Capital Expenditure Input Methodology Determination" (5 February 2015).

<sup>250</sup> Commerce Commission "Setting Transpower's individual price-quality path for 2015-2020 – Reasons for draft decision" (16 May 2014), para A25 to A33.

<sup>251</sup> This recognises that the Commission can always request further information from a supplier, if necessary, after the proposal has been submitted – see s 53S(2)(b) and s 53ZD.

## What could possible solutions be?

### *Greater data flexibility and alignment with the applicant's existing business practices*

442. We promoted a cost-effective approach to the CPP process in 2010 through the IMs relating to CPP applications by:

442.1 Building upon information that is, or expected to be, required under information disclosure regulations;

442.2 Targeting the provision of more detailed information on proposed expenditure to which is expected to be material to the proposal; and

442.3 With the exception of certain verification and audit requirements, only requiring information on proposed expenditure that is consistent with the level of detail that would be expected to already be held in a well-run and well-governed business.

443. However, feedback suggests that the process for preparing and submitting a CPP application includes some requirements which are not essential to our assessment and evaluation of a CPP application. This includes the level of detail required in some data-related areas and the added complexity of having to align existing business information with the formats necessary to meet the IM requirements.

444. A simpler and more flexible approach that is closer aligned to existing business information practices and the accounting practices of the applicant could reduce time and cost and make for a more cost-effective CPP process overall.

445. We sought in 2010 to include audit and verification requirements only where audit and verification would add value to the assessment process, including not requiring information that has already been audited for other purposes to be re-audited for the CPP proposal. Submitters have identified that further improvements could be made to the targeting of these requirements.

446. If a fast-track process were to be adopted for the review of CPP IMs then we could consider making a number of simple changes that give greater flexibility to applicants around process and content requirements. For example, we could consider allowing modification or exemptions for existing requirements, or the use of alternative requirements with a materially equivalent effect.

### *Clarification of our expectations of applicants of IM processes*

447. The Orion CPP process highlighted a number of areas that proved problematic due to a lack of clarity of expectations in the IMs.

448. Despite us having limited the pre-submission verification to key parts of the proposal in order to lower verification costs, some submitters considered that the verifier's role was not focussed on the areas that would deliver the greatest value to our assessment of the application. The role of the verifier, and the cost and value verification adds to the CPP process, was therefore questioned. Submitters believed that by clarifying the expectations of the verifier, we and applicants could gain more value from the verification process.
449. In the existing CPP IMs we allow some flexibility in how the applicant engages with its consumers prior to the proposal being submitted to us. This was intended to recognise that consumer consultation can be costly and that the appropriate and targeted consumer engagement strategy will depend on the characteristics of the supplier's own consumer base as well as the reasons for the proposal.
450. However, we expressed concerns with the consumer engagement element of Orion's CPP application because in our view Orion did not provide enough information to consumers on the investment alternatives.<sup>252</sup> It may be that the flexibility allowed to suppliers needs to be supplemented with clearer expectations and this is another area where we consider that both applicants and us could benefit from greater clarity of our expectations, for example in regard to presenting alternative options. On the other hand, our comments on the Orion proposal may assist other applicants for a CPP to design robust consumer consultation processes.
451. We had given applicants the flexibility to present the necessary calculations of the CPP in a format that suits them best. During the Orion evaluation process it became clear that financial modelling was an important part of our evaluation of the CPP proposal, including the ability to modify the model for changes in the proposal to updating forecast amounts and to reflect our draft and final decisions. It was suggested in the feedback that the financial models were too complex for interested persons to easily understand and needed to be more accessible. This is an area that could benefit from more clarification by us, including, if thought appropriate, by way of introducing IM requirements.

#### **What further information is needed to advance our thinking?**

452. The information we require at this stage relates to your views, which we invite below.

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<sup>252</sup> Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited Final reasons paper" (29 November 2013), para 2.37.

## INVITATION TO MAKE SUBMISSIONS

453. We invite submissions on:

453.1 Feedback on the Orion process published on our web site.<sup>253</sup> In particular, whether:

453.1.1 This feedback remains relevant / the identified areas are still priorities for future work; and

453.1.2 There are any additional matters you wish to raise in respect of either the CPP application process or the CPP technical issues;

453.2 Any other experience you feel would be relevant in addressing these or any other issues relevant to this topic;

453.3 The problem definitions within this topic area; and

453.4 Potential solutions to the specific problems identified. Submissions on solutions need only be at a high level at this stage, expressed in terms of how they promote the long-term benefit of consumers. However, where specific solutions are identified, we welcome more detailed submissions on those, especially where they relate to issues you consider should be fast-tracked.

454. If you would like to submit on whether any amendments relating to the CPP application process should be fast-tracked, please see the covering letter to the notice of intention for details on how to make submissions. These submissions are due by **5pm 23 June 2015**.<sup>254</sup>

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<sup>253</sup> The responses are available at: <http://comcom.govt.nz/regulated-industries/electricity/cpp/orion-cpp/>.

<sup>254</sup> Cover letter to the notice of intention, Attachment, para 11.

## Topic 9: Reducing complexity and compliance costs

### TOPIC SUMMARY

455. This topic area covers the opportunities to reduce unwarranted complexity and compliance costs in the IMs. Submissions in response to our open letter identified a desire for the IMs to be reviewed for unwarranted complexity and compliance costs but did not identify where in the IMs there may be a problem, except for CPP applications which are addressed in Topic 8. To help us focus any review for unwarranted complexity and compliance costs we invite submissions on where unwarranted complexity and compliance costs may exist and what should be considered when assessing whether there is a problem.

### TOPIC

#### What is the topic area?

456. This topic area covers opportunities to significantly reduce unwarranted complexity and compliance costs in the IMs.
457. As indicated in our discussion on a possible decision-making framework in paragraph 41.1, our focus will only be on changing those aspects of the current IMs that would significantly reduce compliance costs, other regulatory costs or complexity.
458. Matters about ambiguity, drafting errors or unintended consequences are not addressed in this chapter.<sup>255</sup> However, reference is made to these matters where we consider it might be an indication of unwarranted complexity or compliance costs.
459. When assessing complexity and compliance cost it is also important to consider why the complexity exists and whether the complexity and compliance costs are warranted. To do this, consideration needs to be given to the purpose of the requirement and how effective the current IMs or any alternative is in meeting that purpose. Accordingly, where we propose that an area may benefit from an assessment of whether there are significant unwarranted complexity and compliance costs, we also discuss the purpose of the area and whether issues of effectiveness have been identified.<sup>256</sup>
460. This chapter also discusses and requests submission on any other matters that should be considered when making assessments about unwarranted complexity and compliance costs.
461. In addition to the matters covered in this chapter, we are looking at other areas of unwarranted complexity and compliance costs including the effectiveness, complexity and cost to comply with CPP application requirements, which are addressed in the chapter on the cost-effectiveness of the rules and processes for CPP applications.

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<sup>255</sup> Paragraph 40 invites your views on where correcting any drafting errors and ambiguity in the current IMs would fit into a decision-making framework for making changes to IMs.

<sup>256</sup> This chapter is not a full review of the effectiveness of the IMs. As outlined in our notice of intention, we expect to complete our review of the IMs for effectiveness by December 2016.

462. Further, some topic areas of this document also touch on areas where we understand some suppliers consider there may be unwarranted complexity and compliance costs. These include:
- 462.1 Asset lives, which is touched on in the chapter on the future impact of emerging technology in the energy sector;
  - 462.2 Indexation of asset values, which is touched on in the chapters on the future impact of emerging technology in the energy sector and airports profitability assessment; and
  - 462.3 TCSD, which is addressed in the chapter on issues raised by the High Court on the cost of capital.

**What issues (ie, concerns or opportunities) have been raised on this topic for consumers and suppliers?**

463. This chapter first outlines our initial views on what should be considered when assessing the IMs for unwarranted complexity and compliance costs. The chapter then outlines our initial views on the parts of the IMs that may warrant specific review. We then invite submissions on the matters raised.
464. We have grouped issues into significant areas that we understand or are aware may be perceived as complex or creating unwarranted regulatory costs for suppliers.
465. The areas of the IMs that may benefit from a specific review for significant unwarranted complexity and compliance costs, and which are discussed in more detail below, are:
- 465.1 Related party transactions;
  - 465.2 Regulatory taxation;
  - 465.3 Cost allocation; and
  - 465.4 Cost definitions.

*Matters to be considered in assessing complexity and compliance costs*

466. This section explores the factors we should be considering when making assessments about unwarranted complexity and compliance costs.
467. As discussed above, in some instances a certain level of complexity and compliance costs will be unavoidable for the IMs to be effective. In determining whether the regime is being effective, we therefore need to look at the purpose of the specific requirement and whether the requirement in its current form or an alternative form is or will be effective in meeting the purpose.
468. Another factor that should be considered when assessing complexity and compliance costs is whether the complexity and cost of changing the requirements would outweigh the benefits of making the change.

469. For example, in some instances regulated suppliers have developed systems and processes to collect information and that a change in requirements could trigger a costly requirement to amend what has already been established.
470. In assessing the cost of making a change, consideration should also be given to any effect a change would have on the time series of information that has been established. The importance of this issue will be different for each proposed change and consideration should be given to the information affected and how that information is used. We note, however, that there may, in some instances, be process and systems that can be employed to mitigate the impact of any change.
471. The remainder of this section discusses our initial thoughts on the areas that could benefit from a specific review for unwarranted complexity and compliance costs.

#### *Related party transactions*

472. We note that suppliers and interested persons have had a number of issues and concerns with the related party valuation requirements included in the asset valuation IM, including that:
- 472.1 The related party rules in the IMs that apply to asset valuation are not consistent with the related party rules in information disclosure that apply to the valuation of opex;
- 472.2 There is ambiguity about when some options for valuing transactions are able to be used;
- 472.3 The related party arrangements act too rigidly;<sup>257</sup> and
- 472.4 The related party transactions could be improved to make sure that they meet the purpose of the Act.<sup>258</sup>
473. As outlined in the initial IMs reasons paper, requirements for the value of related party transactions were included in the IMs because the value at which the asset is transferred is open to manipulation.<sup>259</sup> This can create a transfer of wealth between the regulated supplier and consumers that would not occur in a workably competitive market.
474. Following consultation, in 2012 the related party transaction rules in IMs for electricity distribution and gas pipeline services were amended to provide additional methods to be used to provide assurance on the arm's-length value of related party transactions.<sup>260</sup>

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<sup>257</sup> Aurora Energy Limited "Submission in response to the Commerce Commission's open letter on our proposed scope, timing and focus for the review of input methodologies" (31 March 2015), p. 4.

<sup>258</sup> Mighty River Power "Proposed scope, timing and focus for the review of input methodologies" (20 March 2015).

<sup>259</sup> For example: Initial IMs reasons paper, paragraph E8.8.

<sup>260</sup> Commerce Commission "Electricity and Gas Input Methodology Determination Amendments (No. 1) 2012 Reasons Paper" (29 June 2012).

475. In assessing complexity and compliance costs for related party transactions it will be important to consider the effectiveness of the requirements in meeting the above purpose.
476. We have not looked at alternative approaches that would meet the purpose and we welcome submissions on this matter.
477. We also note we have not investigated the effectiveness of the related party IMs in meeting the purpose nor whether suppliers have adequately complied with the requirements. Such an investigation could identify needs for addressing this area on the basis of its effectiveness in meeting its purpose.

#### *Regulatory taxation*

478. There have been a number of issues raised and issues incurred in complying with the regulatory tax IMs that may indicate that there is unwarranted complexity and costs to comply with this area of the IMs.<sup>261</sup>
479. We see the following matters being key considerations when assessing the current regulatory tax IM, and its alternatives:
- 479.1 The IMs relating to regulated services must include the “treatment of taxation” (s 52T(1)(a)(iv));
- 479.2 Many regulated suppliers supply more than a single regulated service and therefore the tax costs associated with the supply of a particular regulated service cannot be determined directly;<sup>262</sup>
- 479.3 A change in approach could require significant investment by suppliers and us to implement.

#### *Cost allocation*

480. We note there have been issues raised with how the cost allocation IMs are to be applied<sup>263</sup> and we also note that some of the mechanisms provided for in the current IMs are not being used by suppliers. We, therefore, ask if this suggests the cost allocation IMs are unnecessarily complex.
481. We note that the optional variation to accounting-based allocation approach (OVABAA) provided for in the requirements was not used in the disclosure years ended 2012 or 2013. Does this indicate that the approach is unwarranted, so overly complex that suppliers have chosen not to apply it or something that is not necessary in the current environment but might be in the future?

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<sup>261</sup> The Electricity Networks Association and PwC identified in their letter to us on 14 February 2014 the inconsistencies, errors, ambiguities, unattended practices and potential improvements with the IMs. A number of these issues relate to the treatment of tax IM. See: ENA and PwC “Review of Input Methodologies” (14 February 2014).

<sup>262</sup> For example: Initial IMs reasons paper, Chapter 5.

<sup>263</sup> Commerce Commission “Issues register for electricity and gas information disclosure” (30 April 2015), issues 260 and 403.

482. We note the issues associated with the future impact of emerging technology topic may have an impact on the cost allocation IMs and those impacts should be a consideration in the assessment of unwarranted complexity and compliance costs in this area.
483. We note that Might River Power has also identified cost allocation as an area where there may be improvement required to ensure the regime is promoting the long-term benefit of consumers.<sup>264</sup>

#### *Cost definitions*

484. We note there is ambiguity and potentially issues with unattended consequences with how operating costs and pass-through and recoverable costs are defined in the IMs. Do regulated suppliers see this as an indication of unwarranted complexity and compliance costs?
485. We note that some of the issues arise where we have made departures from generally accepted accounting principles (**GAAP**) when defining capital, operational and pass-through and recoverable costs. If it is deemed appropriate to consider unwarranted complexity and compliance costs in this area we suggest that consideration will also need to be given to the reasons why the departure from GAAP was initially provided for.

#### **Have we previously looked at this topic or these issues?**

486. In determining the IMs consideration was given to complexity and compliance costs. It is, however, expected that experience has created some learning that we can apply to our decision-making process. Accordingly, we feel reference should be made to the factors applied in our earlier decision but equally consideration should be given to what has been learnt during the implementation of the requirements.
487. Related party transactions were also looked at when establishing the ID determinations<sup>265</sup> and when the IMs were updated in 2012.<sup>266</sup>

#### **Is there other experience that could help deal with these issues?**

488. We have not looked at whether there is other experience in assessing unwarranted complexity and compliance costs in regulation.

#### **DEFINE PROBLEM AND IDENTIFY POTENTIAL SOLUTIONS**

##### **What are the specific problems within this topic?**

489. It is yet to be identified whether there is a problem with unwarranted complexity and compliance costs in the IMs.<sup>267</sup>

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<sup>264</sup> Mighty River Power “Proposed scope, timing and focus for the review of input methodologies” (20 March 2015).

<sup>265</sup> For example: Commerce Commission “Information disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper” (1 October 2012), para 3.46-3.60.

<sup>266</sup> For example: Commerce Commission “Electricity and Gas Input Methodology Determination Amendments (No. 1) 2012 Reasons Paper” (29 June 2012), p. 4-8.

490. In response to the open letter, submitters have, however, suggested that there would be value in reviewing the IMs to identify unwarranted complexity and compliance costs.<sup>268</sup>
491. The proposed next steps are to identify whether there are specific areas where this problem may exist. To make this initial assessment we need to identify with interested parties:
- 491.1 What should be considered when assessing whether there is a problem with unwarranted complexity and compliance costs in the IMs;
- 491.2 The areas where unwarranted complexity and compliance costs may exist; and
- 491.3 Potential solutions to areas where there might be a problem.

#### **What could possible solutions be?**

492. Part of the process of confirming that there is a problem with unwarranted complexity and compliance costs is confirming that there is a workable and credible alternative. As identified in paragraph 491, the proposed next steps include identifying such alternatives.

#### **What further information is needed to advance our thinking?**

493. The further information needed to advance our thinking in this area is identified in at paragraph 491 above.

#### **INVITATION TO MAKE SUBMISSIONS**

494. We invite submissions on:
- 494.1 The matters that should be considered when assessing unwarranted complexity and compliance costs;
- 494.2 In regard to potentially unwarranted complexity and compliance costs for related party transactions, regulatory taxation, cost allocation and cost definitions:
- 494.2.1 Whether the issues that suppliers are facing with regards to unwarranted complexity and compliance costs in each of the identified areas is adequately described;

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<sup>267</sup> The chapter on the cost-effectiveness of the rules and processes for CPP applications chapter explores in more detail the compliance costs associated with CPP application process.

<sup>268</sup> For example: NZ Airports Association "Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports" (20 March 2015), para 6c; PwC (on behalf of group of 20 EDBs) "Response to the Commerce Commission on the IM Letter on the proposed scope, timing and focus for the review of input methodologies" (31 March 2015), para 11b; Transpower New Zealand Limited "Input Methodologies: scoping the statutory review" (31 March 2015), p. 6.

- 494.2.2 Whether the other matters that should be considered when assessing unwarranted complexity and compliance costs in each of the identified areas are adequately described;
- 494.2.3 What the alternative approaches are that should be considered when assessing unwarranted complexity and compliance costs and how they can meet the purpose of the identified area; and
- 494.3 Whether there are other areas of the IMs where submitters feel there may be a problem with unwarranted complexity and compliance costs and if so responses to the questions outlined at paragraph 494.2; and
- 494.4 Any other experience submitters feel would be relevant in addressing unwarranted complexity and compliance costs in the IMs.

## Glossary

AAA	Airports Authorities Act 1966
Act	Commerce Act 1986
AECT	Auckland Energy Consumer Trust
AER	Australian Energy Regulator
AIAL	Auckland International Airport Limited
Airports	Those airports regulated under Part 4 of the Commerce Act 1986, being Auckland International Airport Limited, Christchurch International Airport Limited, and Wellington International Airport Limited
Airport IMs	The input methodologies for specified airport services, which are set out in the Commerce Act (Specified Airport Services Input Methodologies) Determination 2010
BARNZ	The Board of Airline Representatives New Zealand Inc
Capex	Capital expenditure
CIAL	Christchurch International Airport Limited
Cover letter to the notice of intention	Commerce Commission “Cover letter for the Notice of Intention to commence a review of input methodologies” (10 June 2015)
CPI	Consumer price index
CPP	Customised price-quality path
DPP	Default price-quality path
EDGS	Electricity Demand and Generation Scenarios
ENA	Electricity Networks Association
EV	Electric vehicle
EV account	Economic value account
FPP	Final pricing principle
GAAP	Generally accepted accounting principles
GDP	Gross domestic product

Gas pipeline businesses	A term that covers both gas distributors and gas transmission businesses
ID	Information disclosure
IM review	The current review of the input methodologies under s 52Y of the Commerce Act 1986
IMs	Input methodologies
Initial IMs reasons paper	Commerce Commission “Input methodologies (electricity distribution and gas pipeline services) reasons paper” (22 December 2010)
IRIS	Incremental rolling incentive scheme
IRR	Internal rate of return
MBIE	Ministry of Business, Innovation, and Employment
MEUG	Major Electricity Users' Group
MGUG	Major Gas Users Group
MOT	Ministry of Transport
NER	Australian National Electricity Rules
Notice of intention	The notice of intention we issued on 10 June 2015 to commence this review (Commerce Commission “Notice of intention: Input methodologies review” (10 June 2015))
NZAA	New Zealand Airports Association
NZIER	New Zealand Institute of Economic Research
Ofgem	Office of Gas and Electricity Markets (United Kingdom)
Open letter	Commerce Commission “open letter on our proposed scope, timing and focus for the review of input methodologies” (27 February 2015)
Opex	Operating expenditure
Orion	Orion New Zealand Limited
Part 4	Part 4 of the Commerce Act 1986
PWC	PricewaterhouseCoopers

QCA	Queensland Competition Authority
RAB	Regulatory asset base
ROI	Return on investment
SBL CAPM	Simplified Brennan–Lally Capital Asset Pricing Model
Solar PV	Solar photovoltaic electricity
TAMRP	Tax-adjusted Market Risk Premium
TCSD	Term credit spread differential
Transpower Capex IM	Transpower Capital Expenditure Input Methodology Determination
UBA	Unbundled bitstream access
UCLL	Unbundled copper local loop
WACC	Weighted average cost of capital
WACC percentile amendment	Commerce Commission, “Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper” (30 October 2014)
WACC percentile for airports paper	Commerce Commission “Further work on the cost of capital input methodologies for airports: Proposal to consider the WACC percentile for airports as part of the input methodologies review” (27 February 2015)
WAPC	Weighted-average price cap
WIAL	Wellington International Airport Limited