

Input methodologies review decisions

Framework for the IM review

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Associated documents

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20 December 2016	978-1-869455-44-6	Input methodologies review decisions: Introduction and process paper
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20 December 2016	978-1-869455-46-0	Input methodologies review decisions: Topic paper 2 – CPP requirements
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20 December 2016	1178-2560	<i>Electricity Distribution Services Input Methodologies Amendments Determination 2016</i> [2016] NZCC 24
20 December 2016	1178-2560	<i>Gas Distribution Services Input Methodologies Amendments Determination 2016</i> [2016] NZCC 25
20 December 2016	1178-2560	<i>Gas Transmission Services Input Methodologies Amendments Determination 2016</i> [2016] NZCC 26
20 December 2016	1178-2560	<i>Transpower Input Methodologies Amendments Determination 2016</i> [2016] NZCC 27
20 December 2016	1178-2560	<i>Airport Services Input Methodologies Amendments Determination 2016</i> [2016] NZCC 28
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CONTENTS

EXECUTIVE SUMMARY	2
PURPOSE OF THIS PAPER.....	2
CONTEXT FOR THE IM REVIEW.....	2
DECISION-MAKING FRAMEWORK	3
APPLICATION OF KEY ECONOMIC PRINCIPLES	5
WE PROPOSE TO REVISIT THE WIDER FRAMEWORK FOR MAKING IM CHANGES AT A LATER DATE	5
CHAPTER 1: INTRODUCTION	6
PURPOSE OF THIS PAPER.....	6
STRUCTURE OF THIS PAPER.....	6
CHAPTER 2: CONTEXT FOR THE IM REVIEW FRAMEWORK	7
PURPOSE OF THIS CHAPTER	7
THE PART 4 REGIME	7
HOW THE IM REVIEW FRAMEWORK HAS EVOLVED	16
NATURE OF THE FRAMEWORK.....	17
OUR PRELIMINARY VIEW THAT WE CANNOT CREATE AN IM ON A MATTER NOT COVERED BY EXISTING IMS.....	19
WE PROPOSE TO REVISIT THE WIDER FRAMEWORK AT A LATER DATE	19
CHAPTER 3: THE DECISION-MAKING FRAMEWORK FOR THE IM REVIEW	21
PURPOSE OF THIS CHAPTER	21
OVERVIEW OF THE DECISION-MAKING FRAMEWORK.....	21
REVIEW ELEMENT: WHICH IMS SHOULD WE CONSIDER CHANGING AND WHY?	25
CHANGE ELEMENT: SHOULD WE CHANGE THE IMS AND, IF SO, HOW?	29
CHAPTER 4: APPLICATION OF KEY ECONOMIC PRINCIPLES.....	38
PURPOSE OF THIS CHAPTER	38
INTRODUCTION TO THE KEY ECONOMIC PRINCIPLES.....	38
OVERVIEW OF THE KEY ECONOMIC PRINCIPLES.....	39
REAL FINANCIAL CAPITAL MAINTENANCE	40
ALLOCATION OF RISK.....	42
ASYMMETRIC CONSEQUENCES OF OVER-/UNDER-INVESTMENT.....	43
THE STATUS OF THE KEY ECONOMIC PRINCIPLES.....	47

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Executive summary

Purpose of this paper

- X1. The purpose of this paper is to explain the framework we have applied in reaching our decisions on the input methodologies review (**IM review**).

Context for the IM review

- X2. Part 4 of the Commerce Act 1986 (the **Act**) provides for the regulation of the price and quality of goods or services in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.¹
- X3. The central purpose of regulating the price and quality of goods or services in these markets is to promote the long-term benefit of consumers of these services.²
- X4. The following services are currently regulated by Part 4:
- X4.1 electricity lines services;
 - X4.2 gas pipeline services; and
 - X4.3 specified airport services.
- X5. Input methodologies (**IMs**) are the upfront rules, processes and requirements of Part 4 regulation. IMs are then used in setting information disclosure and price-quality regulatory determinations. 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. IMs apply to all suppliers of electricity lines services, gas pipeline services, specified airport services and Transpower.

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

² Section 52A of the Act.

- X6. We determined the original IMs on 22 December 2010.³ In 2012, following judicial review proceedings, we re-determined the IMs to extend our IM decisions on cost allocation, asset valuation and the treatment of taxation to also apply to default price-quality paths.⁴ In addition, following merits review of the original IMs, specific aspects of a small number of IMs were amended.⁵ Some of these IMs have also been subject to amendment pursuant to s 52X.
- X7. The Act requires us to review all IMs no later than 7 years after their publication.⁶
- X8. We commenced the current review of IMs (except Transpower's Capex IM) on 10 June 2015 by issuing a notice of intention.⁷ We must review all IMs within the scope of the notice of intention. We may decide to amend, replace, decide to amend or replace the IMs at a later point, or make no changes to the IMs we have reviewed.
- X9. This document describes the framework that we have applied in reaching our decisions. This consists of two main components:
- X9.1 decision-making framework – describes our approach to reaching decisions on the IM review, including how we decided whether and how to change the IMs; and
 - X9.2 application of key economic principles – we describe three key economic principles that can provide useful guidance as to how we might best promote the Part 4 purpose.

Decision-making framework

- X10. There are two major conceptual elements to the approach we have taken to reaching decisions on the IM review:
- X10.1 **Review element:** Reviewing the IMs and identifying which IMs we should consider changing and why; and
 - X10.2 **Change element:** Deciding whether, and if so how, to change an IM following the review element.
- X11. These two elements are conceptual steps, rather than temporal steps: consideration of the two elements is not a purely linear process.

³ The input methodologies for Transpower's capital expenditure proposals were determined on 31 January 2012 under s 54S of the Act and published on 9 February 2012.

⁴ Originally, our IM decisions for these matters were only specified as applicable to customised price-quality path proposals, and to information disclosure regulation. See Commerce Commission "Specification and Amendment of Input Methodologies as Applicable to Default Price-Quality Paths: Reasons paper" (28 September 2012), available at: <http://www.comcom.govt.nz/dmsdocument/9506>.

⁵ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289; *Vector Ltd v Commerce Commission* [2012] NZCA 220.

⁶ Section 52Y of the Act.

⁷ Commerce Commission "Notice of intention: Input methodologies review" (10 June 2015).

Review element: Which IMs should we consider changing and why?

- X12. In short, in reviewing each IM, this element of the framework asks: is the IM trying to achieve the right thing in the right way? That is, it is focussed on identifying whether there is a problem with the IM.
- X13. This can be expanded to a series of more specific questions which we have considered where relevant, including:
- X13.1 Is the policy intent behind the IM still relevant and appropriate?
- X13.2 Is the IM achieving that intent?
- X13.3 Could the IM achieve the policy intent better?⁸
- X13.4 Could the IM achieve the policy intent as effectively, but in a way that better promotes s 52R or reduces complexity or compliance costs?
- X13.5 Do changes to other IMs require any consequential changes to the IM in question for internal consistency or effectiveness reasons?

Change element: Should we change the IMs and, if so, how?

- X14. In addition to guiding us in identifying which IMs to consider changing, our decision-making framework guided us in reaching decisions on whether and how to change the IMs.
- X15. In reaching our decisions, we have only decided to change the IMs where this is likely to:
- X15.1 promote the Part 4 purpose in s 52A more effectively;
- X15.2 promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
- X15.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).
- X16. We have also considered, where relevant, whether there are alternative solutions to the identified problems with the IMs that do not involve changing the IMs as part of the review.

⁸ As discussed further below at para 89 and following, the s 52Z(4) 'materially better' standard that applies in IM appeals does not apply in respect of changes to IMs as a result of the current s 52Y review. That threshold is specifically for the IM appeals regime.

Application of key economic principles

- X17. In giving effect to the s 52A purpose statement, or considering whether an IM gives effect to s 52A, we recognise that certain key economic principles can provide useful guidance as to how we might best promote the Part 4 purpose.
- X18. We consider there are three key economic principles which are relevant to the Part 4 regime:
- X18.1 **Real financial capital maintenance (FCM):**⁹ we provide regulated suppliers the expectation *ex-ante* of earning their risk-adjusted cost of capital (ie, a 'normal return'), which provides suppliers with the opportunity to maintain their financial capital in real terms over time frames longer than a single regulatory period. However, price-quality regulation does not *guarantee* a normal return over the lifetimes of a regulated supplier's assets.
- X18.2 **Allocation of risk:** ideally, we allocate particular risks to suppliers or consumers depending on who is best placed to manage the risk, unless doing so would be inconsistent with s 52A.
- X18.3 **Asymmetric consequences of over-/under-investment:** we apply FCM recognising the asymmetric consequences to consumers of regulated energy services, over the long term, of under-investment vs over-investment.
- X19. We do not agree with submitters that these or any other economic principles amount to a regulatory compact. The key economic principles are subordinate to s 52A and we can only apply them in so far as they assist us to give effect to s 52A. The principles are not an outcome we seek to give effect to in and of themselves; rather, the application of the principles is a means to an outcome – that outcome being promotion of the long-term benefit of consumers in accordance with s 52A.

We propose to revisit the wider framework for making IM changes at a later date

- X20. We propose to progress the draft framework for making IM changes beyond the IM review, which was included in our discussion draft paper,¹⁰ at a later date.
- X21. The draft served its immediate purpose in the IM review by assisting us and submitters to contextualise the current IM review within the other avenues that exist for making IM changes beyond the IM review. It may be useful to further consider this framework following the current IM review, particularly in light of the continuing development of emerging technologies in the energy sector.

⁹ In the past, we have often used 'FCM' and 'NPV=0' interchangeably.

¹⁰ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft" (22 July 2015), Attachment B.

Chapter 1: Introduction

Purpose of this paper

1. The purpose of this paper is to explain:
 - 1.1 the decision-making framework that we applied in reaching our decisions on the input methodologies review (**IM review**);
 - 1.2 the key economic principles we applied in reaching our decisions on the IM review; and
 - 1.3 how we have taken submissions on our draft framework papers into account.¹¹

Structure of this paper

2. The following chapter of this paper, chapter 2, explains the context for the IM review framework. In particular it explains the purpose of Part 4 regulation (s 52A); the purpose and role of input methodologies (**IMs**); and the nature and evolution of the IM review framework.
3. Chapter 3 of this paper presents the decision-making framework that we have applied in reaching our decisions. This framework describes the types of questions we considered in reviewing the IMs and deciding whether and how to change the IMs.
4. The final chapter of this paper, Chapter 4, discusses three key economic principles that have guided us in giving effect to the Part 4 purpose.

¹¹ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft" (22 July 2015); and Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016).

Chapter 2: Context for the IM review framework

Purpose of this chapter

5. The purpose of this chapter is to set out the context for the IM review framework. In particular, it discusses:
 - 5.1 the operation of the Part 4 regime, with a focus on the s 52A and s 52R purpose statements; and
 - 5.2 how the IM review framework has evolved, and the nature of the framework.

The Part 4 regime

6. Part 4 of the Commerce Act 1986 (the **Act**) provides for the regulation of the price and quality of goods or services in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.¹²
7. The purpose of regulating the price and quality of goods or services in these markets is stated in s 52A of the Act as being:

... to promote the long-term benefit of consumers ... by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or service –

 - (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
 - (b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
 - (c) share with consumers the benefits of efficiency gains in the supply of the regulated good or services, including through lower prices; and
 - (d) are limited in their ability to extract excessive profits.

The Part 4 purpose

8. The central purpose of Part 4 of the Act is thus to promote the long-term benefit of consumers in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.¹³

¹² Section 52 of the Act.

¹³ Competition means "workable or effective competition": s 3(1) of the Act. Workable competition was explained by the High Court in *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 18-22.

9. The High Court has confirmed that the relevant consumers whose interests we must promote are the consumers of regulated services; and that it is their interests as consumers of the regulated service, rather than as participants in New Zealand's wider economy, that must be promoted.¹⁴ In our view, consumers may be direct or indirect acquirers of regulated services.¹⁵
10. We promote the interests of consumers of the regulated service by promoting the s 52A(1)(a)-(d) outcomes consistent with what would be produced in workably competitive markets.¹⁶ Our focus is not on replicating all the potential outcomes of workably competitive markets per se, but rather with specifically promoting the s 52(1)(a)-(d) outcomes for the long-term benefit of consumers consistent with the way those outcomes are promoted in workably competitive markets.
11. Our view is that the objectives in paragraphs (a) to (d) are integral to promoting the long-term benefit of consumers, and reflect key areas of supplier performance that characterise workable competition. None of the objectives are paramount and, further, the objectives are not separate and distinct from each other, or from s 52A(1) as a whole.¹⁷ Rather, we must balance the s 52A(1)(a)-(d) outcomes,¹⁸ and must exercise judgement in doing so. When exercising this judgement we are guided by what best promotes the long-term benefit of consumers,¹⁹ and must not treat any of the s 52A(1)(a)-(d) outcomes as paramount.²⁰
12. In giving effect to the s 52A purpose statement, or considering whether an IM gives effect to s 52A, we have recognised that certain key economic principles can be useful analytical tools when determining how we might best promote the Part 4 purpose. These principles are considered further in chapter 4.

¹⁴ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 222.

¹⁵ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.4.9.

¹⁶ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 25-27.

¹⁷ Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para A7.

¹⁸ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 684.

¹⁹ See the discussion of our decision to adopt of the 75th percentile for WACC in *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 1391-1492.

²⁰ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 684.

Who is subject to Part 4 regulation?

13. Suppliers of the following services are subject to Part 4 regulation on the basis that they face little or no competition and little or no likelihood of a substantial increase in competition:²¹
- 13.1 *Electricity lines services:*²² Electricity lines services are defined in s 54C of the Act as meaning the conveyance of electricity by line in New Zealand and as including services performed by Transpower as system operator.²³ Electricity lines services are provided by three groups of suppliers:
- 13.1.1 Transpower – which is subject to information disclosure (**ID**) regulation and individual price-quality (**IPP**) regulation;
- 13.1.2 seventeen non-exempt electricity distributors – which are subject to ID regulation and default/customised price-quality regulation (**DPP/CPP regulation**);²⁴ and
- 13.1.3 twelve exempt electricity distributors – which are subject to ID regulation only.²⁵
- 13.2 *Gas pipeline services:*²⁶ Gas pipeline services means the conveyance of natural gas by pipeline and includes the assumption of responsibility for losses of natural gas.²⁷ Small scale conveyance is excluded from the definition (and Part 4 regulation). There are currently four regulated gas distribution businesses and one gas transmission business,²⁸ which provide gas pipeline services as defined in s 55A and are accordingly subject to Part 4 regulation. All are subject to ID and DPP/CPP regulation.

²¹ These suppliers are also subject to a range of other statutory and regulatory controls pursuant to, for instance, the Gas Act 1992 and the Electricity Industry Act 2010, which may interact with Part 4 regulation. Sections 55I and 54V of the Act specifically deal with these interactions and we work with other agencies where our regulatory responsibilities interact.

²² Section 54E of the Act.

²³ Section 54C of the Act. The definition of electricity lines services is further discussed in the Emerging technology topic paper: See Commerce Commission "Input methodologies decisions: Topic paper 3 – The future impact of emerging technologies in the energy sector" (20 December 2016).

²⁴ Sections 54F and 54G of the Act.

²⁵ Twelve of the 29 electricity distributors in New Zealand are currently exempt from price-quality regulation on the basis that they meet the Act's definition of 'consumer-owned'. See sections 54D, 54F and 54G of the Act.

²⁶ Section 55B of the Act.

²⁷ Section 55A of the Act.

²⁸ Following First Gas' recent purchase of Maui Development Limited's gas transmission assets.

- 13.3 *Specified airport services:*²⁹ Specified airport services are defined in s 56A as meaning all the services supplied by Auckland International Airport Ltd, Wellington International Airport Ltd and Christchurch International Airport Ltd in markets relating to airfield, aircraft, freight and specified passenger terminal activities. There are thus currently three airports that provide specified airport services as defined in s 56A and are subject to Part 4 regulation. These airports are subject to ID regulation only.
14. Other suppliers can become subject to Part 4 regulation following a Commission inquiry and a decision by the Government that Part 4 regulation should be imposed.³⁰

How are these suppliers regulated?

15. Part 4 regulatory control involves a two-step process which requires us:
- 15.1 first, to determine, pursuant to s 52T, IMs that will be of general application to the supply of particular services; and
- 15.2 secondly, utilising those IMs, to determine pursuant to s 52P the actual regulatory controls to which each regulated supplier will be subject.

The role of IMs in Part 4 regulation

16. IMs are the upfront rules, processes and requirements of Part 4 regulation.³¹ Section 52C defines 'input methodology' as:

a description of any methodology, process, rule or matter that includes any of the matters listed in section 52T and that is published by the Commission under section 52W; and in relation to particular goods and services, means any input methodology, or all input methodologies, that relate to the supply, or to suppliers, of those goods or services.

²⁹ Section 56B of the Act.

³⁰ Sections 52H-52Q of the Act.

³¹ Sections 52R and 52C of the Act.

17. Section 52T specifies the IMs we must determine, and provides us with a discretion to specify other IMs:

52T Matters covered by input methodologies

(1) The input methodologies relating to particular goods or services must include, to the extent applicable to the type of regulation under consideration,—

- (a) methodologies for evaluating or determining the following matters in respect of the supply of the goods or services:
 - (i) cost of capital:
 - (ii) valuation of assets, including depreciation, and treatment of revaluations:
 - (iii) allocation of common costs, including between activities, businesses, consumer classes, and geographic areas:
 - (iv) treatment of taxation; and
- (b) pricing methodologies, except where another industry regulator (such as the Electricity Authority) has the power to set pricing methodologies in relation to particular goods or services; and
- (c) regulatory processes and rules, such as—
 - (i) the specification and definition of prices, including identifying any costs that can be passed through to prices (which may not include the legal costs of any appeals against input methodology determinations under this Part or of any appeals under section 91 or section 97); and
 - (ii) identifying circumstances in which price-quality paths may be reconsidered within a regulatory period; and
- (d) matters relating to proposals by a regulated supplier for a customised price-quality path, including—
 - (i) requirements that must be met by the regulated supplier, including the scope and specificity of information required, the extent of independent verification and audit, and the extent of consultation and agreement with consumers; and
 - (ii) the criteria that the Commission will use to evaluate any proposal.

- (2) Every input methodology must, as far as is reasonably practicable,—
- (a) set out the matters listed in subsection (1) in sufficient detail so that each affected supplier is reasonably able to estimate the material effects of the methodology on the supplier; and
 - (b) set out how the Commission intends to apply the input methodology to particular types of goods or services; and
 - (c) be consistent with the other input methodologies that relate to the same type of goods or services.
- (3) Any methodologies referred to in subsection (1)(a)(iii) must not unduly deter investment by a supplier of regulated goods or services in the provision of other goods or services.
18. We determined the original IMs required by s 52T(1) on 22 December 2010.³² These IMs applied, and IMs continue to apply, to all suppliers of electricity lines services, gas pipeline services, specified airport services and Transpower. In 2012, following judicial review proceedings, we re-determined the IMs to extend our IM decisions on cost allocation, asset valuation and the treatment of taxation to also apply to default price-quality paths (**DPPs**).³³ In addition, following merits review of the original IMs, specific aspects of a small number of IMs were amended.³⁴ Some of these IMs have also been subject to amendment pursuant to s 52X. A list of all IM determinations and their accompanying reasons papers can be found in the Introduction and process paper.³⁵
19. 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. To that end, IMs as far as is reasonably practical, set out relevant matters in sufficient detail so that each affected supplier is reasonably able to estimate the material effects of the methodology on the supplier. In that way, IMs constrain our evaluative judgements in subsequent regulatory decisions and enhance predictability.³⁶

³² We also determined an IRIS IM not required by s 52T for EDBs, GPBs and Transpower. The input methodologies for Transpower's capital expenditure proposals were determined on 31 January 2012 under s 54S of the Act and published on 9 February 2012.

³³ Originally, our IM decisions for these matters were only specified as applicable to customised price-quality path proposals, and to information disclosure regulation. We extended the application of those IM decisions to apply to DPPs by taking the existing IMs as a starting point and simplifying the components where necessary. See Commerce Commission "Specification and Amendment of Input Methodologies as Applicable to Default Price-Quality Paths: Reasons paper" (28 September 2012), available at: <http://www.comcom.govt.nz/dmsdocument/9506>.

³⁴ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289; *Vector Ltd v Commerce Commission* [2012] NZCA 220.

³⁵ Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016), Attachment B.

³⁶ *Vector Ltd v Commerce Commission* [2012] NZSC 99, [2013] 2 NZLR 445, para 2, 64.

20. However, some uncertainty remains inevitable.³⁷ As the Court of Appeal observed in *Commerce Commission v Vector Ltd* "certainty is a relative rather than an absolute value",³⁸ and:³⁹

... there is a continuum between complete certainty at one end and complete flexibility at the other. The question is where Parliament has drawn the line. Clearly Parliament did not accord the Commission absolute flexibility, nor did it require absolute certainty in the regulatory regime. The requirement for the publication of input methodologies was intended to promote certainty in relation to the matters dealt with in s 52T(1). Against that framework, however, the Commission still has to make regulatory decisions, including as to price setting under s 53P(3)(b). Parliament must have considered that, as the Commission does so, further certainty will emerge. Moreover, the Commission's extensive consultation obligations under Part 4 are also likely to produce further certainty over time.

21. The s 52R purpose is thus primarily promoted by having the rules, processes and requirements set upfront (prior to being applied by suppliers or ourselves). However, as recognised in s 52Y, these rules, processes and requirements may change. Where the promotion of s 52A requires amendment to an IM, s 52R does not constrain this. This is because s 52A is the central purpose of the Part 4 regime and other purpose statements within Part 4 are conceptually subordinate.⁴⁰ We must only give effect to these subordinate purposes to the extent that doing so does not detract from our overriding obligation to give effect to the s 52A purpose.⁴¹ Giving effect to the s 52A purpose may, however, require recognition of the role that predictability plays in providing suppliers with incentives to invest in accordance with s 52A(1).
22. Similarly, while s 52R concerns certainty of rules rather than certainty of outcomes, we consider that conditional predictability of outcomes is nevertheless good regulatory practice. As noted by Professor Yarrow, regulators:⁴²

should change and adapt in ways that are predictable to market participants conditional on available information about the changes in the economic environment to which the regulator is responding.

³⁷ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 214.

³⁸ *Commerce Commission v Vector Ltd* [2012] NZCA 220, para 34.

³⁹ *Commerce Commission v Vector Ltd* [2012] NZCA 220, para 60.

⁴⁰ *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289, para 165.

⁴¹ *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289.

⁴² George Yarrow in George Yarrow et al "Review of Submissions on Asset Valuation in Workably Competitive Markets a Report to the New Zealand Commerce Commission" (November 2010), Annex 2, para 2.6.

23. This concept of conditional regulatory predictability may be particularly relevant under s 52A(1)(a) when considering the impact of making a change to the IMs on incentives to invest to the extent that this affects the long-term benefit of consumers.⁴³ Accordingly, the effect on incentives to invest, to the extent it impacts on the long-term benefit of consumers, is a factor we weigh, alongside the impact on other s 52A outcomes, when considering the pros and cons of changing an IM.⁴⁴

IMs must be reviewed every seven years

24. Section 52Y(1) of the Act requires us to review all IMs no later than seven years after their date of publication. The maximum period of certainty an IM can provide is thus seven years. However, within that period, IMs can be amended pursuant to s 52X, and we can conduct a s 52Y review earlier within the seven-year period (as long as it is completed for each IM no later than seven years after publication).
25. Once we decide to conduct an IM review, the process in s 52V of the Act, with its requirements for the publication of drafts and engagement with stakeholders, applies to the review.
26. We commenced the current review of IMs (except Transpower's Capex IM) on 10 June 2015 by issuing a notice of intention.⁴⁵ We must review all IMs within the scope of the notice of intention. We may then amend, replace, decide to amend or replace the IMs at a later point, or make no changes to the IMs we have reviewed.

The role of s 52P determinations

27. Part 4 provides for four types of regulation: ID regulation;⁴⁶ negotiate/arbitrate regulation;⁴⁷ DPP/ CPP regulation;⁴⁸ and IPP regulation.⁴⁹

⁴³ Transpower submitted that regulatory predictability is not undermined by changes that reflect mainstream regulatory developments that benefit consumers and suppliers. See: Transpower "IM review: Submission on suite of draft decision papers" (4 August 2016), p. 2.

⁴⁴ We discuss this further in the next chapter, which sets out our decision-making framework for the IM review.

⁴⁵ Commerce Commission "Notice of intention: Input methodologies review" (10 June 2015).

⁴⁶ Subpart 4 of Part 4 of the Act.

⁴⁷ Subpart 5 of Part 4 of the Act.

⁴⁸ Subpart 6 of Part 4 of the Act.

⁴⁹ Subpart 7 of Part 4 of the Act.

28. How these various types of regulation are to be applied is determined by decisions we make under s 52P. Section 52P(3) provides that a s 52P determination must:
- (a) set out, for each type of regulation to which the goods or services are subject, the requirements that apply to each regulated supplier; and
 - (b) set out any time frames (including the regulatory periods) that must be met or that apply; and
 - (c) specify the input methodologies that apply; and
 - (d) be consistent with this Part.
29. We have made s 52P determinations relating to all suppliers regulated under Part 4:
- 29.1 All suppliers of electricity lines services, gas pipeline services and the specified airports are subject to ID regulation.
 - 29.2 All suppliers of gas pipeline services, Transpower and 17 suppliers of electricity distribution services are subject to price-quality regulation. For all suppliers of gas pipeline services and 16 suppliers of electricity lines services, that regulation is a DPP. Orion is currently subject to a customised price-quality path (**CPP**). Transpower is subject to an IPP.
30. ID regulation requires a supplier of a regulated service to disclose information specified by us relating to prices and quality of the regulated service as well as other areas of performance referred to in the s 52A purpose. The disclosure of information is intended to exert pressure on suppliers to move their prices and quality closer to ones which would promote the outcomes in s 52A(1)(a)-(d) of the Part 4 purpose.
31. DPP/ CPP and IPP regulation require a supplier to comply with a price-quality path we determine which specifies either, or both, the maximum price (or revenue) that a supplier may charge and recover; and the quality standards that must be met.⁵⁰ We use a CPI minus X (**CPI-X**) price-quality path for DPP/ CPP regulation which allows a supplier to increase its average prices over the regulatory period by the CPI minus an X factor that reflects our assessment of anticipated productivity gains over the regulatory period. Suppliers who improve their efficiency at a rate greater than expected make profitability gains. The quality aspect of the price-quality path ensures that efficiency gains do not come at the expense of the service meeting minimum quality standards. By determining the maximum prices suppliers can charge and quality standards suppliers must meet, we promote the s 52A(1)(a)-(d) outcomes.

⁵⁰ Section 53M of the Act.

32. The purpose of DPP/ CPP regulation, as set out in s 53K of the Act 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."⁵¹
33. Given the intention that DPP/ CPP regulation be relatively low-cost, much of a DPP uses generic approaches with business-specific inputs. We must apply the IMs and comply with the s 53P requirements for setting starting prices, rates of change and quality standards.⁵² We have set DPPs on the expectation that regulated suppliers on the DPP will earn at least a normal return based on the information used in setting the path.
34. CPP regulation is addressed to a supplier's particular circumstances and is available where a supplier does not expect to earn a normal return on the DPP and its particular circumstances are not able to be dealt with through a DPP 'reopener'.⁵³ In setting a CPP, we must apply relevant IMs,⁵⁴ may set any path we consider appropriate,⁵⁵ and the requirements in s 53P do not apply.
35. IPP regulation is similar to CPP regulation. We may set an IPP using any process, and in any way, we consider fit, but must use the IMs that apply to the supply of those goods or services.⁵⁶
36. The regulatory period of a DPP, CPP or IPP is generally five years. Although, where we consider it would better meet the purposes of Part 4, we can set a DPP or IPP for four to five years and a CPP for three to five years.⁵⁷
37. Utilising our published IMs, we make s 52P determinations setting regulation for these suppliers.

How the IM review framework has evolved

38. Given the obligation to review IMs every seven years, we indicated our intention to begin the current review in our open letter of 27 February 2015.⁵⁸

⁵¹ Section 53K of the Act.

⁵² Sections 53O and 53P of the Act.

⁵³ We use the term 'reopener' to refer to the reconsideration of a price-quality path under s 52T(1)(c)(ii) of the Act.

⁵⁴ Sections 53Q and 53V of the Act. With the agreement of the supplier, we can vary an IM that would otherwise apply: s 53V(2)(c) of the Act.

⁵⁵ Section 53V of the Act.

⁵⁶ Section 53ZC of the Act.

⁵⁷ Sections 53M(4)-(5), 53W and s 53ZC of the Act.

⁵⁸ Commerce Commission "Open letter on our proposed scope, timing and focus for the review of input methodologies" (27 February 2015).

39. A number of submitters on our open letter requested that we develop a decision-making framework for the IM review.⁵⁹ Some submitters suggested that it would be useful to also consider where the IM review fits in within the wider context of different avenues through which we can make changes to the IMs.⁶⁰
40. We saw, and continue to see, merit in establishing a decision-making framework for the IM review, and a wider framework for making IM changes beyond the IM review. Accordingly, we published our initial thinking on these frameworks in a discussion draft paper published 22 July 2015 and sought submissions on that paper.⁶¹ We also presented on the draft frameworks at the IM review forum on 29 July 2015.⁶² We then published a further draft framework paper for consultation with our draft decisions on 16 June 2016.⁶³
41. Submitters on our discussion draft paper identified certain 'core economic principles' which, they submitted, underpinned our IM decisions. It was also submitted that these principles should constrain our decisions as to whether or not to amend an IM in this review.⁶⁴
42. We agree that certain key economic principles have played an important role in our past and current decisions, and we explain in the fourth chapter of this paper how we consider the economic principles can provide a useful guide for our decision-making in so far as they are consistent with s 52A.

Nature of the framework

43. Any framework for the IM review is bound by the statutory criteria in Part 4. When considering whether to make a change to the IMs, we must consider the purpose of Part 4 of the Act (s 52A) and the purpose of IMs (s 52R). We must give effect to these purposes and can only develop a decision-making framework or commit to key economic principles in so far as they assist us in giving effect to these purposes.

⁵⁹ 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.

⁶⁰ Transpower "Input methodologies: scoping the statutory review" (31 March 2015), p. 3-4.

⁶¹ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft (22 July 2015).

⁶² The presentation is available at: <http://comcom.govt.nz/regulated-industries/input-methodologies-2/input-methodologies-review/input-methodologies-review-forum-2/>.

⁶³ Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016).

⁶⁴ For example, see: ENA "Submission on problem definition" (21 August 2015), p. 3-4, 8-9, 26; NZAA "Submission on problem definition" (21 August 2015), para 39; Russell McVeagh on behalf of ENA and NZAA "Advice on legal questions and decision making framework" (21 August 2015), p. 2-3, 5, 9-11.

44. We must also follow the process and publishing requirements prescribed by the Act.⁶⁵ Changes to the IMs, like the initial IMs, are subject to merits appeals where the Court considers whether there is a materially better alternative than the IM we have determined in light of s 52A, s 52R, or both.⁶⁶
45. Within those bounds, however, we must exercise judgement about how best to create IMs that give effect to s 52A and s 52R; when we should change IMs under s 52X and s 52Y; and how we evaluate whether the change might better promote the s 52A and 52R purposes. It is in these areas where we must exercise judgement that a decision-making framework and key economic principles can assist us in giving effect to s 52A and 52R.
46. To this end, the decision-making framework for the IM review presented in the third chapter of this paper is not mechanistic. Rather, it is a conceptual framework to guide our decision-making. Submitters emphasised the need to balance prescription and flexibility when developing a framework,⁶⁷ and we agree. We consider that a conceptual framework which guides, rather than mechanically determines our decision-making strikes the right balance between prescription and flexibility. As we cannot foresee all situations and potential changes that might arise, we consider that the framework needs to be sufficiently general to provide guidance in as many situations as possible.

⁶⁵ Section 52V of the Act.

⁶⁶ Section 52Z of the Act.

⁶⁷ For example, see Transpower "Input methodologies review; Problem definition and decision-making frameworks" (21 August 2015), para 3.2; Russell McVeagh on behalf of ENA and NZAA "Advice on legal questions and decision making framework" (21 August 2015), para 18; Transpower "Input methodologies: threshold for changing IMs and the creation of new IMs" (25 June 2015), p. 2-3.

Our preliminary view that we cannot create an IM on a matter not covered by existing IMs

47. In our draft framework papers, we explained our preliminary view that we cannot create an IM on a matter not covered by an existing IM under s 52Y or s 52X.⁶⁸ We observed that no problem that would require an IM on a new matter had been identified and that we remained open to reconsidering our preliminary view if, as the review progressed, we considered that resolution of any identified problem would require an IM on a new matter.
48. We have not identified any problem that would require an IM on a new matter. As noted previously,⁶⁹ we remain open to reconsidering our view if the issue arises in the future.

We propose to revisit the wider framework at a later date

49. We propose to progress the draft framework for making IM changes beyond the IM review, which was included in our discussion draft paper, at a later date.⁷⁰
50. That draft framework for making changes beyond the IM review considers, over a longer time horizon (extending beyond the current review):
- 50.1 when we might make different types of changes to the IMs (and in doing so suggests different categories of IM changes); and
- 50.2 what factors we might take into account in deciding whether to make a change under each of those categories.
51. The draft served its immediate purpose in the IM review by assisting us and submitters to contextualise the current IM review within the other avenues that exist for making IM changes beyond the IM review. It may be useful to further consider this framework following the current IM review, particularly in light of the continuing development of emerging technologies in the energy sector.

⁶⁸ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft (22 July 2015), para 23-27; Commerce Commission "Input methodologies review invitation to contribute to problem definition" (16 June 2015), para 44-48; Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016), para 51-55.

⁶⁹ Commerce Commission "Input methodologies review: process update paper" (30 October 2015), p. 10-11; Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016), para 55.

⁷⁰ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft" (22 July 2015), Attachment B.

52. Powerco, the Electricity Retailers' Association of New Zealand and Progressive Enterprises have suggested that we engage in a mid-period review to consider the effect of emerging technology.⁷¹ Other submitters have emphasised that we should only make changes outside the IM review where those changes meet a "clear materiality threshold",⁷² or in "exceptional circumstances".⁷³
53. We note these submissions and reiterate that we intend to consider such issues at a later date. Given the still developing state of any response to emerging technology, we consider that significant changes outside the seven-year review cycle may be required at some stage and we are open to re-looking at the IMs if circumstances change.

⁷¹ Powerco "Submission on input methodologies review draft decisions" (4 August 2016), p. 48; ERANZ "Submission on IM review draft decision – emerging technologies" (4 August 2016), p. 42); Progressive Enterprises "IM review draft decisions cross submission" (18 August 2016), p. 2.

⁷² ENA "Input methodologies review – framework for the IM review" (4 August 2016), p. 6; Powerco "Submission on input methodologies review draft decisions" (4 August 2016), p. 12.

⁷³ PwC "Submission to the Commerce Commission on input methodologies review: draft decisions papers" (4 August 2016), p. 5.

Chapter 3: The decision-making framework for the IM review

Purpose of this chapter

54. The purpose of this chapter is to explain the decision-making framework that we have applied in reaching our decisions. In doing so, we:
- 54.1 respond to submissions on our draft framework papers;⁷⁴ and
 - 54.2 confirm that our decision-making framework remains largely unchanged from the framework paper we published with our draft decisions on 16 June 2016.⁷⁵
55. As appropriate, we have sought to apply this framework throughout our review. It has guided our consideration of, and approach to, our IM review decisions, which are explained in our other decisions papers released alongside this paper.

Overview of the decision-making framework

56. There are two major conceptual elements to the approach we have taken to reaching decisions on the IM review:
- 56.1 **Review element:** Reviewing the IMs and identifying which IMs we should consider changing and why. (This broadly equates to the question in box 2 of Figure 1: 'which IMs should we consider changing and why?')
 - 56.2 **Change element:** Deciding whether, and if so how, to change an IM following the review element. (This broadly equates to the question in box 4 of Figure 1: should we change the IMs and, if so, how?)
57. These two elements are conceptual steps, rather than temporal steps: consideration of the two elements is not a purely linear process.

⁷⁴ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft" (22 July 2015), Attachment A; Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016).

⁷⁵ Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016).

Figure 1: Conceptual steps in the IM review



We must review the existing IMs

58. Section 52Y specifies that this is a review of the existing published IMs. As such, we consider that the starting point when reviewing the IMs, and considering changes, is the existing IMs.⁷⁶ We consider this is implicit in s 52R given its direction that the purpose of IMs is to promote certainty for suppliers and consumers in relation to the rules, requirements and processes applying to regulation under Part 4 of the Act.⁷⁷

We have only made changes that promote the high-level objectives for the review

59. We have only decided to change the IMs where this is likely to:
- 59.1 promote the Part 4 purpose in s 52A more effectively;
 - 59.2 promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
 - 59.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).
60. These high-level objectives drive this framework for the IM review, and are relevant to both the review and change conceptual elements.

⁷⁶ In our 2014 WACC percentile amendment decision, we noted that an exception to the current IMs being the starting point is if the current IM has been substantially undermined (in that case due to a Court judgment) such that it has no evidential basis: 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 2.11.1). In that decision, we noted that ordinarily the starting point would be the current IM (para 2.14).

⁷⁷ Further, the majority of IMs have been reviewed by the Court under merits appeal.

61. Submitters identified a number of other statutory provisions (for example s 54Q and s 53A) which they submitted should ground additional high-level objectives.⁷⁸ We agree that statutory provisions other than s 52A and s 52R may be relevant to particular decisions and have set these provisions out below at paragraph 99. However, we do not consider that these other statutory provisions should be considered high-level factors in the way that s 52A and s 52R are.⁷⁹ This is a review of IMs. Accordingly the purpose of IMs (s 52R) has particular relevance, as does the overriding purpose of Part 4 contained in s 52A. Section 54Q (incentives for energy efficiency for electricity lines services) and s 53A (the purpose of ID regulation) are more limited in scope and do not have the same general applicability to the review as s 52A and s 52R. Nevertheless, we have, for example, considered s 53A when making our decisions on the airports profitability topic⁸⁰ and have considered s 54Q when determining to move from a weighted average price cap to a revenue cap for EDBs.⁸¹
62. Russell McVeagh, for the Electricity Networks Association (**ENA**) and the New Zealand Airports Association (**NZAA**), also submitted that we should replace the phrase "more effectively" in our high-level objectives with the word "better", as:⁸²
- "More effective" is open to a range of possible interpretations and does not necessarily mean the proposed change would be better at meeting the purpose statement.
63. We do not consider that using the phrase "better" in place of "more effectively" would provide additional clarity as both are open to interpretation. Accordingly, as in this context we cannot see any difference in effect, we have continued using the phrase "more effectively".
64. Our high-level objectives thus remain unchanged from those articulated in our draft framework papers.
65. We now move from these high-level objectives towards the types of questions we considered in reviewing the IMs and considering whether to change them.

⁷⁸ For example, Russell McVeagh identified s 54Q and 53A (Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 32) and ETNZ identified s 54Q (ETNZ "Submission on IM decision-making discussion draft" (21 August 2015)).

⁷⁹ NZAA disagrees with the Commission's view that s 53A does not have the same level of applicability as s 52A and 52R but directs this submission to ID regulation: NZAA "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 8.

⁸⁰ Commerce Commission "Input methodologies decisions: Topic paper 5 – Airports profitability assessment" (20 December 2016).

⁸¹ Commerce Commission "Input methodologies decisions: Topic paper 1 – Form of control and RAB indexation for EDBs, GPBs and Transpower" (20 December 2016).

⁸² Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 32(a).

Review element: Which IMs should we consider changing and why?

The types of questions we considered in reviewing the IMs

66. In short, in reviewing each IM, this element of the framework asks: is the IM trying to achieve the right thing in the right way? That is, it is focussed on identifying whether there is a problem with the IM.
67. This can be expanded to a series of more specific questions which can be asked of each IM, including:
- 67.1 Is the policy intent behind the IM still relevant and appropriate?
- 67.2 Is the IM achieving that intent?
- 67.3 Could the IM, if amended, achieve the policy intent better?
- 67.4 Could the IM achieve the policy intent as effectively, but in a way that better promotes s 52R or reduces complexity or compliance costs?
- 67.5 Do changes to other IMs require any consequential changes to the IM in question for internal consistency or effectiveness reasons?
68. We considered these questions, including the sub-questions which we elaborate on below, where relevant in reviewing the IMs.⁸³ We have not considered them in any particular order; nor have we ascribed any set weighting to each question. The questions provide practical tools, or lenses, that we have used to examine the IMs.
69. Submitters identified that s 52A and s 52R should underpin our consideration of the IMs during the review and change elements.⁸⁴ We agree and consider that this framework reflects this. For instance, our fourth question above focusses on s 52R and the first sub-question below considers whether the policy intent of the IM is still consistent with the s 52A purpose.

Is the policy intent behind the IM still relevant and appropriate?

70. Is the policy intent still consistent with the s 52A purpose?

⁸³ The process we have followed in reviewing the IMs and reaching our decisions is discussed in Commerce Commission "Input methodologies review decisions: Introduction and process paper" (20 December 2016), chapter 3.

⁸⁴ For example, see: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 42.

71. In considering this question, examples of the factors we took into account are:
- 71.1 What was the IM attempting to achieve, either on its own or as part of the IMs as a package?⁸⁵
 - 71.2 Is the objective of the IM still valid and consistent with s 52A, in light of the type of regulation where the IM is applied?
 - 71.3 Has the relevance of the policy intent been questioned (either by stakeholders, the Court or us)?
 - 71.4 Have external circumstances changed in a way that disrupts the assumptions underlying the original policy decision and therefore would cause a need for a change to the policy behind the IM? For example:
 - 71.4.1 Has the industry changed?
 - 71.4.2 Has relevant economic theory or practice developed?
 - 71.4.3 Have other external circumstances changed?
 - 71.5 Is the IM still required or could the policy intent be achieved without the IM?
 - 71.6 Is there other evidence that suggests that the original policy is no longer promoting s 52A?
72. The ENA and Russell McVeagh (for the ENA and the NZAA) submitted that we should define the policy intent as the 'core' economic principles underlying the IMs when they were determined, and the reasoning set out in applicable IM reasons papers.⁸⁶

⁸⁵ We consider this question to be consistent with the suggested additional question put forward by Russell McVeagh, 'what is the policy intent for the IM?' (See Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 9-10).

⁸⁶ ENA "Input methodologies review – framework for the IM review" (4 August 2016), p. 3; Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 9-10. Russell McVeagh also submitted we should ask "is the weight of the evidence sufficiently compelling to justify a change"; "What is the impact of change on certainty and confidence in the regime?"; and "Would the change be contrary to parties' expectations at the time the IM were determined?" (Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 42. As this submission is more relevant to the change element, we consider it below.

73. By 'policy intent' we mean 'what was the IM attempting to achieve, either on its own or as part of the IMs as a package?' (see first sub-question above at paragraph 71.1) In some instances, the IM in question may, consistent with s 52A, give effect to a particular economic principle, which would form part of the policy intent on those occasions. The key economic principles (discussed in chapter 4) are not likely to be promoted by any one IM in particular; rather it is the package of IMs, as applied through s 52P determinations, that promote the key economic principles (which we discuss further in chapter 4).
74. Some submitters sought that we clarify the status of our 2010 IM reasons papers and ensure that any decision we make which differs from those reasons is a considered and well-explained departure.⁸⁷ Our identification of the policy intent, and consideration of whether the IM still promotes that policy intent, is designed to ensure that we only depart from our previous reasons where the change is likely to better promote the factors set out at paragraph 59. We have identified in our accompanying decision papers where our reasoning marks a departure from our 2010, or subsequent, reasons papers.

Is the IM achieving that intent?

75. Is the IM, either alone or in combination with other IMs, achieving the policy intent behind the IM?
76. In considering this question, examples of the factors we took into account are:
- 76.1 Have external circumstances changed in a way that means the IM might no longer be achieving the policy intent behind it?
- 76.2 Has anything changed in the matters incorporated in the IMs by reference (such as accounting or valuation standards) that means the IM is no longer achieving its purpose?
- 76.3 Has the effectiveness of the IM in achieving its policy intent been questioned (either by stakeholders, the Court or us)?
- 76.4 Is there other evidence that suggests that the IM is no longer achieving its policy intent or has had unintended consequences?

Could the IM be improved to achieve the policy intent better?

77. Could the IM be changed to more effectively achieve the policy intent behind the IM?

⁸⁷ ENA "Input methodologies review – framework for the IM review" (4 August 2016), p. 6-7; Powerco "Submission on input methodologies review draft decisions" (4 August 2016), p. 12.

78. In considering this question, examples of the factors we took into account are:
- 78.1 Have any potential changes been identified (either by stakeholders, the Court or us) that might:
 - 78.1.1 Improve the effectiveness of the IM in achieving its policy intent? or
 - 78.1.2 Reduce any unintended consequences of the IM?
 - 78.2 Have external circumstances changed in a way that means the IM might no longer be the most effective way of achieving the policy intent behind it?
 - 78.3 Is there other evidence that suggests that a change might improve the effectiveness of the IM in achieving its policy intent?
 - 78.4 As a cross-check, could the policy intent be better achieved without changes to the IM but instead through changes to other aspects of the regulatory regime (including through guidance material)?

Could the IM be improved so that it achieves the policy intent as effectively, but in a way that better promotes s 52R or reduces complexity or compliance costs?

79. Could the IM be changed to more effectively promote the s 52R purpose, or reduce complexity or compliance costs, without reducing the effectiveness of the IM in meeting the policy intent behind it?

80. In considering this question, examples of the factors we took into account are:

- 80.1 Have any potential changes been identified (either by stakeholders, the Court or us) that would better promote s 52R or reduce unnecessary complexity or compliance costs?
- 80.2 Is there other evidence that suggests that the IM can be changed to more effectively promote the s 52R purpose, or reduce complexity or compliance costs, without reducing the effectiveness of the IM in meeting the policy intent behind it?

Do changes to other IMs require any consequential changes to the IM in question?

81. Do changes to other IMs require any consequential changes to the IM in question for internal consistency or effectiveness reasons?

82. In considering this question, examples of the factors we took into account are:

- 82.1 Where a change is made to a price-quality path IM, should a corresponding change be considered to the equivalent IM for ID to maintain alignment between ID and price-quality regulation?
- 82.2 Where a change is made to an IM for one sector, should a corresponding change be considered to the equivalent IM for other sectors to maintain cross-sector consistency?

- 82.3 Where a change is made to one IM, does it create a need to consider changing another IM in order to (mechanically or substantively) accommodate the change?
83. Russell McVeagh for the ENA and the NZAA submitted that the sub-questions here should incorporate recognition that consequential changes may be required in order to maintain consistency with 'core' economic principles.⁸⁸ As an example, Russell McVeagh submitted that an approach in the asset valuation IM may have been a reason for setting a lower weighted average cost of capital (**WACC**). Therefore, Russell McVeagh submitted, if the approach in the asset valuation is changed, there may need to be a consequential amendment to the WACC IM in order ensure consistency with the principle that suppliers can expect at least a normal return over the life of an asset.⁸⁹
84. Substantive consistency between IMs is an important consideration and one which our sub-questions address (see paragraph 67.5 above). Again, as noted at paragraph 73 above, it is the package of IMs as a whole, as applied through s 52P determinations, that promote the key economic principles discussed in chapter 4. Therefore, in deciding to change the IMs in our decisions, we have been mindful of the impact of the change on the overall balance of the package of IMs in terms of their consistency with s 52A and the key economic principles that guide our application of s 52A.⁹⁰

Change element: Should we change the IMs and, if so, how?

How we reached decisions on whether and how to change the IMs

85. In addition to guiding us in identifying which IMs to consider changing, our decision-making framework guided us in reaching decisions on whether and how to change the IMs. This involved considering proposed changes to the IMs, as well as considering solutions that might lie outside of the IMs.
86. In considering proposed changes to IMs, we applied the factors set out above at paragraph 59—ie, is the change likely to:
- 86.1 promote the Part 4 purpose in s 52A more effectively;
 - 86.2 promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
 - 86.3 significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).

⁸⁸ Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 44.

⁸⁹ Note that our view on FCM is articulated in chapter 4.

⁹⁰ These are discussed in chapter 4.

87. We expand on how we have applied the above factors in reaching decisions on whether to make a change to an IM below and in chapter 4 of this paper.
88. In reaching our decisions, we have also considered, where relevant, whether there are alternative solutions to identified problems with the IMs that do not involve changing the IMs as part of the review. Alternative solutions may include:
- 88.1 considering whether to change the IMs at a later date under s 52X or at the next s 52Y review;⁹¹ or
 - 88.2 options that do not involve changing the IMs, including:
 - 88.2.1 undertaking a separate process involving our summary and analysis or compliance functions;
 - 88.2.2 changing s 52P determinations;
 - 88.2.3 publishing guidance; and/or
 - 88.2.4 a combination of the above.

No specific statutory threshold – but we have only made changes that promote the high-level objectives for the review

89. In our draft framework papers, we noted our view that there is no specific statutory threshold for changing an IM as a result of the IM review.⁹²

⁹¹ Submitters agreed that we should consider whether it was appropriate to make changes to the IM as part of the IM review or whether alternative solutions or changing the IMs at a later date were more appropriate. See, for example: Powerco "Submission on input methodologies review: Invitation to contribute to problem definition" (21 August 2015), para 13.

⁹² As discussed in Commerce Commission "Input methodologies review invitation to contribute to problem definition" (16 June 2015), para 42 and Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016), para 94-97, no specific threshold or standard of proof is referred to in s 52Y or s 52V. The s 52Z(4) 'materially better' standard that applies in IM appeals 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.

90. That view received considerable attention in submissions. Most submitters agreed with our view in the narrow sense that there is no *specific* statutory threshold,⁹³ but a number of submitters suggested in response to this view that:
- 90.1 there is an *implicit* statutory threshold for making changes to the IMs as part of the review;⁹⁴ or
- 90.2 that even if there is no *statutory* threshold, we can and should adopt a threshold for making changes to the IMs as part of the review.⁹⁵
91. We remain of the view that there is no specific statutory threshold for making changes to the IMs as part of the review. We acknowledge that there are various statutory criteria for us to take into account when deciding whether to change an IM,⁹⁶ which could be labelled a threshold; however, we do not consider that these amount to a clear and explicit threshold.
92. Rather, our approach has been to make *only those changes* that are likely to promote the factors set out above at paragraph 59. Deciding whether or not to make a change to the IMs requires us to exercise judgement, in light of both the pros and the cons of making the change. The pros⁹⁷ of making a change must outweigh the cons⁹⁸ of making a change. While this approach, in practice, has some similarities with the thresholds suggested by submitters, we have not adopted a practical threshold for change beyond what we describe below.

⁹³ See, for example: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 12; ENA "Response to the Commerce Commission's input methodologies review paper" (21 August 2015), para 49-50; BARNZ "Submission by BARNZ on problem definition paper for the input methodologies review" (21 August 2015), p. 4.

⁹⁴ See, for example: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 4-5; and ETNZ "Submission on IM decision-making discussion draft" (21 August 2015), p. 1.

⁹⁵ See, for example: NZAA "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 43; Transpower "IM review: Submission on suite of draft decision papers" (4 August 2016), p. 2-3; Orion "Submission on input methodologies review – draft decisions" (4 August 2016), para 12; First Gas Limited "Submission on input methodologies review draft decisions: cost of capital issues" (4 August 2016), p. 2; and First State Investments "Input methodologies review: cost of capital" (4 August 2016), p. 9 refer to the "onus".

⁹⁶ These are discussed further later in this chapter, including at paragraph 99.

⁹⁷ ie, more effective promotion of the s 52A or s 52R purposes, or a significant reduction in compliance costs, other regulatory costs or complexity without detrimentally affecting the promotion of the s 52A purpose.

⁹⁸ ie, any negative impact the change has on the promotion of s 52A or s 52R purposes, compliance costs, other regulatory costs or complexity.

Response to submissions on the practical threshold for changing the IMs

93. A number of submitters suggested that we should recognise that stability or certainty in the regime is important and therefore adopt a threshold for making changes to the IMs which recognises the importance of stability.⁹⁹ Some suggested this threshold should differ according to the significance or materiality of the IM change being considered and whether a 'core' economic principle was at issue.¹⁰⁰ For instance, changes likely to have a material impact on revenue or likely to alter a 'core' economic principle should have a high threshold, while changes that are unlikely to impact 'regulatory certainty' or alter a 'core' economic principle should have a lower threshold. Some submitters also suggested that we should have a threshold for the amount or cogency of the evidence required before making a change.¹⁰¹
94. We consider that these ideas are broadly consistent with the framework for deciding whether to change the IMs described in this chapter. When weighing up the pros and cons of making changes to the IMs we:
- 94.1 Considered all relevant evidence before us. In considering a particular change, a number of different types of evidence relevant to the pros and cons of making the change might be available, such as empirical, theoretical, and expert advice. Cogent evidence from submitters that a potential change has particular pros or cons, including positive or negative impacts on incentives to invest, helps inform our weighing up of pros and cons.
- 94.2 Evaluated the relative strength and merit of each piece of evidence before us, and considered whether, on balance, in light of all relevant evidence, the pros of the change outweigh the cons. The nature of the evidence needed to make this assessment differs depending on the nature of the potential change. For instance, where there is evidence that the potential cons of a change are significant, there needed to be commensurate evidence of the pros to justify making a change. The more robust and compelling evidence that stakeholders provide in support of or against a change, therefore, the better.

⁹⁹ See, for example: Aurora "Cross-submission – Input methodologies review: Draft decision and determination papers" (18 August 2016), p. 3-4; Orion "Submission on input methodologies review – draft decisions" (4 August 2016), para 12; NZAA "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 43; Transpower "Input methodologies: threshold for changing IMs and the creation of new IMs" (25 June 2015), p. 2-3; NZAA "Submission on Commerce Commission's input methodologies review: Invitation to contribute to problem definition" (21 August 2015), p. 12; Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 3-9.

¹⁰⁰ See, for example: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 4; and Unison "Submission on input methodologies review invitation to contribute to problem definition" (24 August 2015), para 13-14; Transpower "Input methodologies review: Cross-submission on Problem definition and decision-making frameworks" (4 September 2015).

¹⁰¹ Powerco "Submission on input methodologies review: Invitation to contribute to problem definition" (21 August 2015), para 13.

95. We do not consider that s 52A or s 52R invariably direct against change.¹⁰² Rather, when weighing the pros and cons of a change any claim that:
- 95.1 a change will impact on predictability of outcomes should be supported by evidence of any positive or negative impact on s 52A (most likely s 52A(1)(a)); or
- 95.2 a change will impact on certainty about what the rules are should be supported by evidence of its positive or negative impact on s 52R or s 52A.¹⁰³

Factors relevant to the weighing up of pros and cons

96. Submitters requested that we elaborate on the factors we consider when determining whether to make a change.¹⁰⁴
97. When we talk about the pros and cons of change, we mean the positive and negative impacts, respectively, that the change is likely to have on promoting the long-term benefit of consumers in accordance with the central purpose of Part 4 (s 52A). As recognised in our high-level factors, evidence that a change will more effectively promote of the s 52A purpose is a pro which weighs in favour of change. Likewise, evidence that a change will detrimentally affect the promotion of s 52A weighs against change.
98. A proposed change might have no likely impact on some of the s 52A(1)(a)-(d) outcomes that we are required to promote for the long-term benefit of consumers, a positive impact on some, and a negative impact on others. In such cases we have weighed the positive and negative impacts to reach a decision on whether, overall, the pros outweigh the cons such that the change has an overall net long-term benefit to consumers.

¹⁰² Submitters submitted that there was inherent certainty value in the status quo and that we should consider the impact of change on certainty. See for instance Powerco "Submission on input methodologies review: Invitation to contribute to problem definition" (21 August 2015), para 13; Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 45.

¹⁰³ For instance, evidence that an IM is ambiguous or has been interpreted differently by different parties.

¹⁰⁴ For example, see Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 45; Transpower "Input methodologies review; Problem definition and decision-making frameworks" (21 August 2015), para 3.2-3.4.

99. Other statutory provisions, including s 52R, are also relevant to the weighing of the pros and cons of proposed changes. As recognised in our high-level factors, better promotion of the s 52R purpose is a pro which weighs in favour of change. The extent to which other statutory criteria are relevant depends on the nature of the change being considered. Such provisions include:
- 99.1 other requirements relating to input methodologies (s 52T);
 - 99.2 the purpose of ID (s 53A);
 - 99.3 the purpose of default/customised price-quality regulation (s 53K);
 - 99.4 requirements relating to energy efficiency (s 54Q);
 - 99.5 decisions made under the Electricity Industry Act 2010 (s 54V); and
 - 99.6 decisions under the Gas Act 1992 (s 55I).
100. We also weighed any reductions in compliance costs, other regulatory costs or complexity that do not detrimentally affect the promotion of the s 52A purpose as a pro. As noted in the Report on the review, as a result of our effectiveness review, we have made a number of minor changes that fall into this category.¹⁰⁵
101. As we go on to discuss below, we also consider that:
- 101.1 the weighing up of pros and cons of a change is a qualitative exercise, though some quantitative analysis might be informative in situations where doing so is practicable and meaningful;
 - 101.2 the type of regulation the IM affects is particularly relevant to the weighing up of pros and cons; and
 - 101.3 the pros and cons of a package of small changes might provide a different result than considering the pros and cons of each of the changes in that package individually.
102. As explained further in chapter 4, we also consider that certain key economic principles are relevant to the weighing exercise in some circumstances but are subordinate to s 52A and do not contain or create a threshold for change.

¹⁰⁵ Commerce Commission "Input methodologies review decisions: Report on the IM review" (20 December 2016).

The role of cost-benefit analysis

103. As noted in our draft framework papers, we see the weighing up of the pros and cons of a change as a qualitative exercise, though some quantitative analysis might be informative in situations where doing so is practicable and meaningful.¹⁰⁶ Therefore, while the Act does not require a formal cost-benefit analysis of proposed changes to the IMs, quantitative cost-benefit analysis may usefully support our qualitative assessment of the pros and cons of a proposed change in some situations.
104. A number of submitters suggested that we should incorporate a formal cost-benefit analysis into our framework.¹⁰⁷ We maintain our position of only undertaking a quantitative analysis where this would clearly add real value to our weighing of the pros and cons of a change.

The type of regulation that the IM affects is also relevant

105. In considering whether the pros of making a change to the IMs outweigh the cons, we also took into account the role of the IM in question in light of the type of regulation it affects.
106. As noted in the initial IMs reasons paper, the IMs that we have set for price-quality regulation have a different focus from those that we set for ID regulation:¹⁰⁸
- 106.1 The IMs we have determined for price-quality regulation cover:
- 106.1.1 matters particularly relevant to setting maximum allowable revenues (ie, set under s 52T(1)(a));
 - 106.1.2 regulatory processes and rules relating to the specification and definition of prices (ie, the 'form of control'), the reconsideration of price-quality paths (ie, 'reopeners'), the incremental rolling incentive scheme (**IRIS**), and supplier amalgamations (ie, set under s 52T(1)(c)); and
 - 106.1.3 matters relating to CPP proposals (ie, set under s 52T(1)(d)).¹⁰⁹

¹⁰⁶ Commerce Commission "Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally – discussion draft (22 July 2015), para 26; Commerce Commission "Input methodologies review draft decisions: Framework for the IM review" (16 June 2016).

¹⁰⁷ See, for example: ENA "Response to the Commerce Commission's input methodologies review paper" (21 August 2015), p. 10; Transpower "Input methodologies review – problem definition and decision-making frameworks" (21 August 2015), para 3.5' Transpower "Input methodologies review: Cross-submission on Problem definition and decision-making frameworks" (4 September 2015).

¹⁰⁸ See for example: Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.8.1–2.8.2.

¹⁰⁹ We have also set IMs relating to pricing methodologies for gas pipeline businesses which only potentially apply under a customised price-quality path (under s 52T(1)(b)).

- 106.2 The IMs we have determined for ID regulation cover matters particularly relevant to assessing profitability (ie, set under s 52T(1)(a)), which is a key aspect of ensuring that sufficient information is available to interested persons to assess whether the purpose of Part 4 is being met (s 53A).
107. As such, in reaching a decision on whether to change a given IM, we considered the significance of that IM in the context of the type of regulation to which it applies. For instance:
- 107.1 For an ID IM, we considered: how significant is the role of the IM in assessing the profitability of regulated suppliers?
- 107.2 For a price-quality path IM, we considered: how significant is the role of the IM in setting the revenue of regulated suppliers?
108. The more significant the IM is to the type of regulation in light of those questions, the more even a small change to an IM set under s 52T(1)(a) might have a significant impact on the promotion of either the s 52A or s 52R purposes.¹¹⁰ Therefore, the type of regulation affected by the IM is a key consideration when weighing up the pros and cons of changing an IM.
109. In the case of IMs relating to specific rules and processes, or to CPP proposals, small changes to an IM can have a significant impact on the promotion of the s 52R purpose, or on complexity and compliance costs.
110. Russell McVeagh for the ENA and the NZAA submitted that the form of regulation will also influence whether a change to an IM is necessary to more effectively promote the purpose statements:¹¹¹

For example, an IM for DPP regulation will have a direct impact on incentives, whereas an IM for information disclosure regulation has a more indirect impact, as it only establishes how information must be disclosed. This may mean that greater precision or specificity is required under a DPP (which may require change to an existing IM to be considered), compared to information disclosure where more generality and flexibility could be appropriate (and therefore less reason for change may exist).

¹¹⁰ Table X1 of the initial IM reasons paper presented the Commission's view on the key relevance of the various IMs to the regulatory objectives in s 52A at the time the IMs were first set: Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), p. iv.

¹¹¹ Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 32.

111. As noted above at paragraph 108, we agree that the more significant the IM in question (in terms of assessing profitability or setting revenue), the more likely it is that even a small change may have a large impact on the long-term benefit of consumers. However, we do not agree that price-quality path IMs will always require a greater level of precision than ID IMs. The role of a particular IM within the type of regulation it supports, rather than simply whether it is a price-quality path or ID IM, is more likely to be relevant to the level of precision required of that IM.

Considering minor changes as a package

112. When considering some minor changes, the pros of making a particular change in isolation might not outweigh the cons. However, when bundled together with other small changes, the pros of the package of changes might outweigh the cons of the package of changes. This can occur, for example, where a number of minor changes are proposed for one IM. The first change might have a relatively high 'cost' associated with it, but the marginal cost of the additional changes to the same IM might then be lower, while the benefits continue to accumulate.

Chapter 4: Application of key economic principles

Purpose of this chapter

113. The purpose of this chapter is to:
- 113.1 describe three key economic principles that have provided useful guidance to us in giving effect to s 52A when making decisions in the IM review; and
 - 113.2 respond to submissions on key economic principles and their status.

Introduction to the key economic principles

114. As noted above at paragraph 41, submitters emphasised the importance of "core economic principles" to the Part 4 regime, the IM review, and our decisions about whether we should amend an IM.¹¹² Some submitters suggested that these principles form a "regulatory compact" between us and regulated suppliers and that this compact means there should be a significant threshold before we can alter a core economic principle, or an IM that is based on a core economic principle.
115. Some of the core economic principles put forward by submitters included:¹¹³
- 115.1 we should err on the side of risking over compensation given the asymmetric social costs of under compensation;
 - 115.2 dynamic efficiency should be favoured over allocative efficiency where there is a trade-off; and
 - 115.3 suppliers should have the opportunity to earn normal returns.
116. We agree that there are certain key economic principles that we have applied in previous decisions to help us to give effect to the purpose of Part 4 (s 52A). Although, we differ somewhat from submitters in our articulation of these key economic principles, and in our view on the status that these principles have.

¹¹² See, for example: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 4-5, 9-11; Orion "Submission on the IM review" (21 August 2015), para 7.2; Unison "Submission on input methodologies review invitation to contribute to problem definition" (24 August 2015), para 13.

¹¹³ See, for example: Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 9.

Overview of the key economic principles

117. As indicated in our draft framework paper, we consider there are three key economic principles that are relevant to the Part 4 regime:¹¹⁴
- 117.1 **Real financial capital maintenance (FCM):** we provide regulated suppliers the expectation *ex-ante* of earning their risk-adjusted cost of capital (ie, a ‘normal return’), which provides suppliers with the opportunity to maintain their financial capital in real terms over time frames longer than a single regulatory period.¹¹⁵ However, price-quality regulation does not *guarantee* a normal return over the lifetime of a regulated supplier’s assets.¹¹⁶
- 117.2 **Allocation of risk:** ideally, we allocate particular risks to suppliers or consumers depending on who is best placed to manage the risk,¹¹⁷ unless doing so would be inconsistent with s 52A.
- 117.3 **Asymmetric consequences of over-/under-investment:** we apply FCM recognising the asymmetric consequences to consumers of regulated energy services, over the long term, of under-investment vs over-investment.¹¹⁸
118. We elaborate on each of these three key principles and our view of their status below. In reaching our decisions on the IM review, we have considered the effect of our changes on the overall consistency of the regime with these principles. However, as discussed below, we do not consider the status of these principles amounts to a regulatory compact such that a threshold is imposed for changing certain IMs.

¹¹⁴ There are also economic principles that underpin particular IMs, which could be described as part of the policy intent of those particular IMs. In this paper, we are just concerned with those economic principles that have broad application across the Part 4 regime. Also, in our topic paper on the CPP requirements, we describe and apply a ‘proportionate scrutiny principle’ (see Commerce Commission “Input methodologies review decisions: Topic paper 2: CPP requirements” (20 December 2016)). The proportionate scrutiny principle is derived from good regulatory practice, rather than being an economic principle. As such, it is not discussed here.

¹¹⁵ Commerce Commission “Input methodologies (electricity distribution and gas pipeline services): Reasons paper” (22 December 2010), para 2.6.28, 2.8.7.

¹¹⁶ Commerce Commission “Setting the customised price-quality path for Orion New Zealand Limited” (29 November 2013), para 2.54.4, A28 and A35; Commerce Commission “Input methodologies (electricity distribution and gas pipeline services): Reasons paper” (22 December 2010), para 2.6.28.

¹¹⁷ Commerce Commission “Input methodologies (electricity distribution and gas pipeline services): Reasons paper” (22 December 2010), para 2.6.4.

¹¹⁸ 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 2.39.

Real financial capital maintenance

119. The FCM principle is that regulated suppliers should have the expectation *ex-ante* of earning their risk-adjusted cost of capital (ie, a 'normal return'), which provides them with the opportunity to maintain their financial capital in real terms over time frames longer than a single regulatory period.¹¹⁹ However, price-quality regulation does not *guarantee* a normal return over the lifetimes of a regulated supplier's assets.¹²⁰
120. Given that a typically efficient firm would expect *ex-ante* to earn at least a normal rate of return over time, application of this principle can assist in promoting the s 52A(1) outcomes and purpose.¹²¹

Application of FCM in price-quality regulation

121. In practice, we apply this principle at the beginning of each regulatory period, based on current expectations of future circumstances at that time, by:
- 121.1 recognising the asymmetric consequences to consumers over the long term of under-investment vs over-investment;¹²²
 - 121.2 providing appropriate compensation to suppliers for the risks they are required to manage either:
 - 121.2.1 through an *ex-ante* allowance to suppliers for bearing the risk (through either the WACC and/or cash-flows), the cost of which ultimately falls on consumers;¹²³ or
 - 121.2.2 by providing for ex-post compensation of actual costs incurred when the risk eventuates – although ex-post regulatory assessments of business performance that affect subsequent prices should be minimised;¹²⁴ or

¹¹⁹ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.6.28, 2.8.7.

¹²⁰ Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para 2.54.4, A28 and A35; Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.6.28.

¹²¹ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.6.28.

¹²² 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 2.39.

¹²³ Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para A33.

¹²⁴ Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para A34.

121.2.3 through a combination of the above, provided there is no double counting, and where it is in the long-term benefit of consumers that we do so;¹²⁵ and

121.3 using estimates/forecasts of cost of capital, prudent capex, prudent opex, and demand that are free of systematic bias.¹²⁶

122. As a result of applying the FCM principle to each regulatory period when setting price-quality paths:¹²⁷

122.1 suppliers have the opportunity to earn a normal return on their efficient investments, consistent with s 52A(1)(a) and (d);

122.2 suppliers are rewarded for superior performance, consistent with s 52A(1)(b); and

122.3 efficiency gains are shared with consumers when the price path is reset (or via the IRIS mechanism), consistent with s 52A(1)(c).

Application of FCM in information disclosure regulation

123. We have also applied FCM when setting ID requirements.¹²⁸ The rationale for this application is that disclosures which are consistent with the concept of FCM enable interested persons to assess the extent to which regulated supplier's profitability levels are consistent with outcomes produced in a workably competitive market—meaning 'normal returns'. In the past, FCM has been applied to guide a number of specific decisions documented in the reasons papers for ID.¹²⁹

¹²⁵ Commerce Commission "Input methodologies review: Invitation to contribute to problem definition" (16 June 2015), para 107.

¹²⁶ Commerce Commission "How we propose to implement default price-quality paths for electricity distributors from 1 April 2015" (20 October 2014), para 4.4.1.

¹²⁷ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.8.18.

¹²⁸ For example: Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010), para 3.5; Commerce Commission "Information disclosure for electricity distribution businesses and gas pipeline businesses: Final reasons paper" (1 October 2012), para 3.8.

¹²⁹ For example: Commerce Commission "Information disclosure (Airport Services) reasons paper" (22 December 2010), para 3.5; Commerce Commission "Information disclosure for electricity distribution businesses and gas pipeline businesses: Final reasons paper" (1 October 2012), para 3.8.

Allocation of risk

124. Our risk allocation principle is that, ideally, particular risks should be allocated to suppliers or consumers depending on which are best placed to manage them.¹³⁰ Workably competitive markets tend to manage risks efficiently by allocating identified risks to the party considered best placed to manage them.¹³¹ Applying this principle in the context of Part 4 regulation tends to promote the s 52A(1)(a)-(d) outcomes for the long-term benefit of consumers in a manner similar to the way those outcomes are promoted in workably competitive markets.¹³² In particular, if suppliers are not compensated for risks that are outside their control, then this might have detrimental incentives on investment.
125. This principle was not originally identified by submitters but is a key economic principle that we have taken into account in making regulatory decisions.
126. As explained in the problem definition paper,¹³³ managing risks includes:
- 126.1 actions to influence the probability of occurrence where possible;
 - 126.2 actions to mitigate the costs of occurrence; and
 - 126.3 the ability to absorb the impact where it cannot be mitigated.
127. 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.

Application of the risk allocation principle to price-quality regulation

128. As noted above, FCM is applied to price-quality regulation on the basis of compensating suppliers for the risks they are required to manage.

¹³⁰ Commerce Commission "Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper" (22 December 2010), para 2.6.4, 5.29, 8.20; Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para B22.

¹³¹ As noted in paragraph 10 above, our focus is not on replicating all the potential outcomes of workably competitive markets per se but rather with specifically promoting the s 52(1)(a)-(d) outcomes for the long term benefit of consumers consistent with the way those outcomes are promoted in workably competitive markets.

¹³² Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para B31, B37.

¹³³ Commerce Commission "Input methodologies review: Invitation to contribute to problem definition" (16 June 2015), para 105-106.

129. In order to determine the regulatory settings necessary to give effect to the FCM principle, we need to consider the allocation of risk. We aim to allocate risks to the party best placed to manage them.¹³⁴ Once risks are allocated between suppliers and consumers, we compensate suppliers and consumers¹³⁵ accordingly through the price-quality path we set.¹³⁶
130. As such, the FCM principle has primacy over the risk allocation principle. Under Part 4, consumers ultimately bear most risks over the long term, but there is some scope for ensuring suppliers bear 'within-period' risks that they are better placed to manage where this is consistent with s 52A.

Application of the risk allocation principle to information disclosure regulation

131. We have also applied the principle that risks are allocated to the party best placed to manage them in ID regulation.¹³⁷ In the context of airports, we noted that, when considering how to allocate risks, it may be useful to consider any risk sharing arrangements that have already been agreed between airports and airlines.¹³⁸

Asymmetric consequences of over-/under-investment

132. The FCM principle is applied recognising the asymmetric consequences to consumers of regulated energy services, over the long term, of under-investment vs over-investment.¹³⁹ However, if suppliers are already at or past the optimal level of investment, there is no benefit to consumers in incentivising increased investment.

¹³⁴ We note that submitters expressed mixed views on whether we should expand on how we allocate risks. See, for example: MEUG "First cross-submission on Input methodologies draft review decisions" (18 August 2016), p. 4-5; MEUG "Submission on input methodologies review draft decisions" (4 August 2016), p. 3, 13; IWA (report prepared for MEUG) "Input methodologies review draft decisions – Risk allocation between suppliers and customers" (4 August 2016), para 4.1; Progressive Enterprises "IM review draft decisions cross submission" (18 August 2016), p. 2; Oji Fibre Solutions "IM review draft decisions cross submission" (18 August 2016), p. 2; ENA "Input methodologies review draft decisions – cross submission" (18 August 2016), para 57-60.

¹³⁵ Where consumers bear risks, they are, in effect, compensated through prices that are lower than they would have been had suppliers borne those risks.

¹³⁶ See Commerce Commission "Setting the customised price-quality path for Orion New Zealand Limited" (29 November 2013), para B20-B97, C5.2; and Commerce Commission "Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services: Reasons paper" (30 October 2014), chapter 3.

¹³⁷ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), para 2.6.4 and 5.2.11.

¹³⁸ Commerce Commission "Input methodologies (Airport Services) reasons paper" (22 December 2010), footnote 200.

¹³⁹ 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 2.39

133. This principle has developed from the following earlier principles (which submitters have suggested should form core economic principles¹⁴⁰):

133.1 when faced with a trade-off, we should err on the side of risking over-compensating suppliers given the asymmetric social costs to consumers of under compensation over the long-term; and

133.2 where there is a trade-off between dynamic efficiency and allocative efficiency we should always favour outcomes that promote dynamic efficiency.

134. We applied the principles described at paragraph 133 in our 2010 IMs reasons papers, observing there, in the context of our decision to adopt the 75th percentile WACC:¹⁴¹

The reason for the Commission adopting a cost of capital estimate that is above the mid-point for default/customised price-quality regulation, is that it considers the social costs associated with underestimation of the cost of capital in a regulatory setting involving constraining price to end users (as opposed to information disclosure applications and situations involving competition among suppliers), are likely to outweigh the short-term costs of overestimation (i.e. if the cost of capital is set too low, the incentives for suppliers to undertake efficient investments will be reduced, which would be inconsistent with the long-term benefit of consumers). That is, the Commission is acknowledging that where there is potentially a trade-off between dynamic efficiency (i.e. incentives to invest) and static allocative efficiency (i.e. higher short-term pricing), the Commission will always favour outcomes that promote dynamic efficiency. The reason is that dynamic efficiency promotes investment over time and ensures the longer term supply of the service, which thereby promotes the long-term benefit of consumers (consistent with outcomes in workably competitive markets).

135. We also observed that the:¹⁴²

most significant benefits of workably competitive markets to consumers over the long-term are often considered to be incentives for dynamic efficiency—the discovery and use of new information that leads to the development of new goods and services, and to new, more efficient techniques of production.

¹⁴⁰ Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), p. 9.

¹⁴¹ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para H1.31.

¹⁴² Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 2.6.28.

136. In a number of IM-setting contexts we therefore reasoned that greater weight should be given to dynamic efficiency than allocative efficiency.¹⁴³ As we linked placing greater weight on dynamic efficiency as being consistent with s 52A(1)(a)—ie, the promotion of incentives to innovate and invest—that may have suggested we proposed giving greater weight to limb (a) of the s 52A purpose over other limbs.¹⁴⁴
137. These ideas were extensively discussed in the IMs merits review judgment and underpinned the challenge to our use of 75th percentile WACC.¹⁴⁵ The Court's primary concern was not with whether the principles were correct in the abstract, but rather with its doubt at our rationale for adopting the principles (that rationale being that dynamic efficiency promotes investment over time and thus the long-term benefits of consumers)¹⁴⁶ and our application of that approach (favouring any higher level of investment irrespective of its nature).¹⁴⁷ The Court was doubtful that if "dynamic efficiencies are, as the Commission believes, most important" that higher expected returns will stimulate that outcome.¹⁴⁸ In respect of s 52A itself, the Court rejected any ranking of the (a)-(d) outcomes and stated that "the paragraph (a) and (d) outcomes need to be balanced."¹⁴⁹

¹⁴³ For example: Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 5.3.13 (tax IM) and para 6.7.12, H1.31 and H11.62 (cost of capital IM).

¹⁴⁴ In particular, in the context of setting the cost of capital IM, we explicitly said that preserving incentives to invest and innovate has been "given greater weight than limiting suppliers' ability to extract excessive profits": Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para 6.7.12.

¹⁴⁵ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, part 6.

¹⁴⁶ Commerce Commission "Input methodologies (electricity distribution and gas pipeline services): Reasons paper" (22 December 2010), para H1.31. Queried by the Court in *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 1462.

¹⁴⁷ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 1462.

¹⁴⁸ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 1474.

¹⁴⁹ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 684.

We developed the 'asymmetric consequences of over-/under-investment' principle in the context of the 2014 WACC percentile decision

138. Following the High Court judgment, we re-consulted on the appropriate WACC percentile for price-quality regulation, and considered evidence in support of using a WACC percentile above the mid-point. In our 2014 WACC percentile decision,¹⁵⁰ we reconfirmed that, in setting the WACC percentile, we should recognise the asymmetric consequences to consumers of regulated energy services over the long-term of under-investment vs over-investment when setting price-quality regulation.¹⁵¹
139. However, rather than suggesting that we would err on the side of over-compensating suppliers as a 'core' principle with general application, in the 2014 WACC percentile decision, we stated that:¹⁵²

... our decision on the appropriate WACC percentile involves the exercise of judgement in light of the s 52A purpose and the evidence available to us. In exercising our judgement, we consider some conservatism in selecting the percentile (ie, erring on the high side) remains appropriate. Doing so recognises there is fundamental uncertainty regarding the appropriate WACC percentile, and that the long-term costs to consumers of under- and over-estimating the WACC are asymmetric. Therefore, erring on the high side is likely to be in consumers' interests. Doing so reflects otherwise unquantified (or unquantifiable) factors that are likely to result in greater benefits to consumers in the long term, in terms of efficient investment and innovation that meets current and future consumers' demand at the quality that they want.

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

¹⁵¹ NZAA has submitted that a similar principle should apply in the context of airport ID regulation: NZAA "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), p. 33-34. However, as explained in Topic paper 6: WACC percentile for airports, the fact that airports are only subject to ID, plus a number of other airport-specific factors, suggests the risk of asymmetric consequences is lower for airports than for energy businesses. Airports can explain their reasons for estimating a higher WACC and a different target return at the time they disclose their price setting approaches.

¹⁵² 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 2.39, A50.

140. During consultation on the 2014 WACC percentile decision, our expert peer reviewer, Professor Ingo Vogelsang, had the following observation on the question of dynamic efficiency versus other dimensions of efficiency:¹⁵³

... the often-claimed superiority of dynamic over static efficiency only holds if (a) investment is significantly below the dynamic optimum and (b) the regulator uses total surplus instead of consumer welfare as the relevant criterion. I therefore suggest exploring the market failures that lead to under-investment and the policies in place for dealing with these failures. My conjecture is that these policies are generally better targeted and are likely to yield better outcomes. In contrast, a policy of using the WACC percentile is going to be better if the other policies are not in place, not effective or are viewed as too interventionist. Examples, where the WACC policy might be more effective are w.r.t. innovations.

141. Professor Vogelsang also observed that if suppliers are already at or past the optimal level of investment, there is no benefit to consumers in incentivising increased investment.
142. Consequently, in the 2014 WACC percentile decision, we did not reiterate our previously stated position that dynamic efficiency considerations would always be favoured over allocative efficiency, or solely link the promotion of dynamic efficiency with the promotion of investment.

The status of the key economic principles

143. A number of submitters suggested that the 'core' economic principles they identified formed a regulatory compact between regulated suppliers, us and/or consumers.¹⁵⁴
144. A regulatory compact could be understood as an (implicit) agreement between a regulator and regulated parties. Submissions imply that the agreement (or understanding) is that regulated suppliers will continue to invest in their networks on the understanding that we will hold true to certain economic principles, such as FCM. This, suppliers submitted, will promote certainty and provide investment incentives.¹⁵⁵

¹⁵³ Ingo Vogelsang "Review of Oxera's report, Input methodologies – Review of the '75th percentile' approach" (10 July 2014), para 24.

¹⁵⁴ See, for example: Unison "Submission on input methodologies review draft decisions" (4 August 2016), p. 4, 10-11; NZAA "Submission on Commerce Commission's input methodologies review draft decision" (4 August 2016), para 45; Russell McVeagh (on behalf of ENA and NZAA) "Input methodology review: Advice on legal questions and decision-making framework" (21 August 2015), para 6-7, 18; Unison "Submission on input methodologies review invitation to contribute to problem definition" (24 August 2015), para 14; Powerco "Submission on input methodologies review: Invitation to contribute to problem definition" (21 August 2015), para 24. Powerco has, however, submitted in response to our draft decision framework paper that "the extent that the IMs amount to a regulatory compact is, in our view, a moot point": Powerco "Submission on input methodologies review draft decisions" (4 August 2016), p. 13.

¹⁵⁵ See footnote 154.

145. Submitters suggested that the compact stemmed from our previous decisions, as described in the existing IMs and reasons papers.¹⁵⁶
146. In the context of the IM review, this ‘compact’ is said to create a threshold for changing IMs to which ‘core’ economic principles are relevant.

Our view of the status of the key economic principles

147. We do not agree with submitters that the economic principles discussed in this chapter (or any economic principles) amount to a regulatory compact. Rather, the three key economic principles listed at paragraph 117 provide useful guidance to us in giving effect to s 52A when making decisions in the IM review. These economic principles are subordinate to s 52A and we can only apply them in so far as they assist us to give effect to s 52A. That is, the principles are not an outcome we seek to give effect to in and of themselves; rather, they are a means to an outcome—that outcome being promotion of the long-term benefit of consumers in accordance with s 52A.¹⁵⁷
148. When applying these key economic principles in the past, we have done so because we considered the principles to be consistent with the s 52A purpose. FCM, for example, we have used as a way of promoting s 52A(1)(a)-(d) outcomes that would be achieved in competitive markets—ie, in competitive markets suppliers expect to make at least a normal return over the long term. However, we have also recognised that the FCM concept is not absolute—it does not guarantee that regulated suppliers earn a normal return over the life of the assets, as such a guarantee would be inconsistent with s 52A.¹⁵⁸
149. We have also applied FCM recognising the asymmetric consequences of over-investment and under-investment to the long-term benefit of consumers and sought, where practicable, to allocate risks between consumers and suppliers according to the party best placed to manage them, but only where this is consistent with s 52A.

¹⁵⁶ See footnote 154.

¹⁵⁷ This view was supported by MEUG. See MEUG "First cross-submission on Input methodologies draft review decisions" (18 August 2016), para 15.

¹⁵⁸ We note that some submitters have suggested we should express a stronger commitment to FCM. For example, see ENA "Submission on IM review draft decisions – Framework for the IM review" (4 August 2016), p. 5-6; ENA "Submission on IM review draft decisions – Impact of emerging technologies" (4 August 2016), p. 12; Powerco "Submission on input methodologies review draft decisions" (4 August 2016), p. 14.

150. The Court approved of this approach in *Wellington International Airport Ltd v Commerce Commission*, observing that:¹⁵⁹

[256] Central to the Commission's approach to Part 4 regulation and to regulatory control of natural monopolies more generally are the related concepts or principles of NPV (net present value) = 0 (NPV = 0) and financial capital maintenance (FCM). In terms of the Commission's determination of the IMs, these are first mentioned in the executive summary to the June 2009 IMs Discussion Paper. There the Commission, in what we think is a non-controversial way, explains the relationship between the s 52A(1) purpose and outcomes, and economic principles stemming from the three dimensions of economic efficiency – allocative, productive and dynamic – which the s 52A(1) outcomes both reflect and are designed to promote. The Commission comments:

The Commission considers that the application of the 'Net Present Value equals zero' approach ('NPV=0'), and the related concept of real financial capital maintenance (FCM), are consistent with these principles.

151. To the extent the key economic principles continue to assist us to give effect to the s 52A purpose and outcomes we would not depart from them lightly. The Part 4 regime was intended to provide greater certainty over time,¹⁶⁰ and we accept that wholesale rejection of principles we have consistently applied may affect this certainty. However, if the principles cease to be consistent with s 52A, or are not in a particular situation consistent with s 52A, we would be transparent with stakeholders about the fact that we could not continue to apply these principles.
152. Specifically, we acknowledge that there may come a time when, due to the development of emerging technologies or other circumstances, the key economic principles no longer assist us in promoting the s 52A purpose and application of these principles is no longer sustainable. Over the longer term, this could be one possible outcome (although not a probable outcome, under currently available information) of the continued uptake of some emerging technologies that may act as substitutes to the regulated service. The market risk, in that context, is that if enough consumers disconnect from the network, the remaining consumers will not be willing or able to pay the prices that would be required for suppliers to achieve FCM, even if our price path remains consistent with FCM. There may also be a political risk in that if circumstances change to a sufficient extent, the government may intervene and amend or repeal Part 4. If such a 'tipping point' occurs, regardless of any action we might take, suppliers may not be able to achieve FCM.
153. The application of FCM in a context of changing demand for regulated services is discussed further in Topic paper 3: The impact of emerging technologies in the energy sector.¹⁶¹

¹⁵⁹ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 256.

¹⁶⁰ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 135.

¹⁶¹ Commerce Commission "Input methodologies decisions: Topic paper 3 – The future impact of emerging technologies in the energy sector" (20 December 2016).