

Context and summary of Final decisions

Part 4 Input Methodologies Review 2023

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Associated documents

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13 December 2023	ISSN: 1178-2560	Gas Transmission Services Input Methodologies (IM Review 2023) Amendment Determination 2023 [2023] NZCC 36
13 December 2023	ISSN: 1178-2560	Transpower Input Methodologies (IM Review 2023) Amendment Determination 2023 [2023] NZCC 38
13 December 2023	ISSN: 1178-2560	Transpower Capital Expenditure Input Methodology (IM Review 2023) Amendment Determination 2023 [2023] NZCC 39

All above documents can be found on our [website](#).

Commerce Commission
Wellington, New Zealand

Glossary

Acronyms	Definition
CCRA	Climate Change Response Act
CPI	Consumer price index
DER	Distributed energy resources
DPP	Default price-quality paths
EA	Electricity Authority
EDB	Electricity distribution businesses
ERP	Emissions Reduction Plan
FCM	Financial capital maintenance
GAAP	Generally accepted accounting principles
GDB	Gas distribution business
GPB	Gas pipeline businesses
GTB	Gas transmission business
GTP	Gas Transition Plan
ID	Information disclosure
IM	Input Methodologies
IPA	Innovation Project Allowance
IPP	Individual price-quality path
IRIS	Incremental rolling incentive scheme
IST	Information systems technology
NAP	National Adaptation Plan
NZES	New Zealand Energy Strategy
PQ	Price-quality
RAB	Regulatory asset base
TIDR	Targeted ID Review
WACC	Weighted average cost of capital

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Foreword

On behalf of the Commerce Commission, I am pleased to present this Summary and Context paper following completion of the 2023 Input Methodologies Review.

The Input Methodologies (IMs) are the rules and processes that we set upfront to help provide certainty about how we will regulate specific services under Part 4 of the Commerce Act (Part 4) and promote the long-term benefit of consumers.

The IMs provide the foundation for the regulatory controls for infrastructure providers that face little or no competition. They are rules that apply to the Commission and suppliers and we use them when making decisions regarding price-quality paths and information disclosure requirements.

For the public, the practical application of the IMs can be hard to grasp as their effects are not often immediate. However, they are critical to ensuring our airports and energy sector can make a fair return on investments, while consumers are not overcharged for these services. They guide how assets are valued, costs are allocated, risks are shared between businesses and consumers, and how businesses are compensated for their investments.

The completion of this IM Review is a significant milestone. We have consulted extensively and received submissions from a wide range of stakeholders including the airport, electricity, and gas sectors, and consumer advocacy groups.

We appreciate the time, effort and detail that has gone into submissions. Feedback confirmed that there is increasing pressure on regulated businesses from our changing climate – both as we transition to net-zero carbon emissions by 2050, and the challenges of maintaining resilience arising from increasingly frequent and severe weather events.

We also heard about rapid technological advances and changes in consumer preferences, as well as challenges arising from high inflation and issues with supply chains.

We have reflected on this information carefully and taken account of the diversity of views raised in coming to our decisions.

Our review has found that the IMs are generally working well. We have made a few key changes to strengthen them and ensure they remain robust as the economic and climate context evolves. We have also made targeted improvements to fine-tune the regulatory settings to reduce unnecessary complexity and compliance costs. The amended IMs strike the right balance between certainty and flexibility, giving suppliers appropriate incentives to invest and innovate.

This document outlines the process we followed and presents our key decisions. I encourage you to read our topic papers and the report on the IM Review if you are interested in the details.

In undertaking our review, we recognised the importance of regulatory predictability for investment decisions and to support regulated infrastructure markets to work well.

We have started to consider the revenue caps and quality standards that will apply to electricity distribution and Transpower networks from 2025, under their new price-quality paths. Our amended IMs will apply to those decisions.

In most cases, IM amendments for suppliers subject to information disclosure regulation only will apply from the start of disclosure year 2026.

Thank you to everyone who has contributed to this review. We are grateful for your support in ensuring that our regulatory regime remains robust and relevant.

Vhari McWha

Chair, Part 4 Division

Chapter 1 Introduction

Purpose and structure of this paper

- 1.1 This paper presents a summary of the economic and sector context for this review of Part 4 Input Methodologies (IMs).
 - 1.1.1 Chapter 1 discusses the review process and key feedback we received. We then summarise our key decisions.
 - 1.1.2 Chapter 2 sets out some of the context for our decisions, focusing on impacts of decarbonisation on regulated businesses and the need for greater resilience due to climate change.
 - 1.1.3 Chapter 3 looks at factors driving change and uncertainty for regulated businesses and discusses the tools in the Part 4 regulatory regime that deal with such change and uncertainty.
 - 1.1.4 Chapter 4 discusses financing and incentivising efficient expenditure – ensuring the regulatory regime incentivises necessary investment.
 - 1.1.5 Chapter 5 discusses tools for managing cashflow and inflation risks.

Our decision package

- 1.2 This paper is part of a package of final decisions papers on the IM Review. Alongside this paper, we have published:
 - 1.2.1 our final EDB, GDB, GTB, Airports, Transpower and Transpower Capex IM amendment determinations, which give legal effect to our final decisions on the IM Review;¹
 - 1.2.2 a Report on the IM Review, which summarises for every IM policy decision:
 - 1.2.2.1 the changes we have made;
 - 1.2.2.2 where we have considered changes but not made them; and
 - 1.2.2.3 where we have not found reason to consider changes.

¹ Thirteen of the 29 EDBs regulated under Part 4 are exempt from price-quality regulation and are subject to information disclosure regulation. Where we refer to 'EDBs' in the context of EDB IMs that apply to price-quality regulation only, we mean 'non-exempt' EDBs.

1.2.3 our final topic papers, which explain our final IM policy decisions relevant to the following key topics:

1.2.3.1 Financing and incentivising efficient expenditure during the energy transition;

1.2.3.2 Cost of capital;

1.2.3.3 CPPs and in-period adjustments; and

1.2.3.4 Transpower investment.

1.3 Figure B1 in 0 illustrates our approach and the decision package.

About the Input Methodologies

1.4 The IMs are the underlying rules, requirements, and processes that must be applied under Part 4 of the Act to the regulation of electricity lines services, gas pipeline services, and specified airport services.

1.5 These services are regulated under Part 4 because they face little or no competition and are unlikely to experience a substantial increase in competition in the future.²

1.6 The Part 4 purpose requires us to promote the long-term benefit of consumers of these services. We do this by promoting the following outcomes that would be produced in workably competitive markets – namely, that the suppliers of these services:³

1.6.1 have incentives to innovate and invest;

1.6.2 have incentives to improve efficiency and provide services at a quality that reflects consumer demands;

1.6.3 share the benefits of efficiency gains with consumers, including through lower prices; and

1.6.4 are limited in their ability to extract excessive profits.

² Section 52 of the Act.

³ Section 52A of the Act.

- 1.7 The IMs underpin how we set and apply key aspects of price-quality and information disclosure regulation to help bring about these outcomes. The IMs' purpose is to provide certainty to both regulated suppliers and consumers about the rules, requirements and processes applying to Part 4 regulation.⁴ Certainty and predictability provide suppliers and investors in regulated firms with the confidence to invest in long-lived infrastructure that provides essential services to all New Zealanders.

Overview of our review process

- 1.8 We must review all IMs at least once every seven years.⁵ We set the original IMs in December 2010 and completed the first IM Review in December 2016.⁶ This is our second statutory review.
- 1.9 We adopted a cross-sector approach to this IM Review, as some of our decisions affect multiple sectors regulated under Part 4. We encouraged stakeholders to have regard to all parts of the review and submissions from other sectors, because they may affect the decisions we make for their sector.
- 1.10 In April 2021, we issued an Open Letter which notified stakeholders of the second IM Review.⁷ We followed that letter with a workshop on the impact of decarbonisation on electricity lines services in December 2021.⁸
- 1.11 In February 2022, we issued a Notice of Intention to commence this review of all IMs under Part 4.⁹
- 1.12 Throughout 2022, we sought to establish the key issues the IM Review should address, including through engagement with stakeholders. As outlined in table 1.1 below, this included:
- 1.12.1 consultation on our Process and issues paper;
 - 1.12.2 holding workshops and inviting stakeholders to make submissions after them; and

⁴ Section 52R of the Act.

⁵ Section 52Y(1) of the Act.

⁶ We deferred some decisions to 2017.

⁷ Commerce Commission "Open letter - Ensuring our energy and airports regulation is fit for purpose" (29 April 2021).

⁸ Commerce Commission "Summary and feedback on workshop on the impact of decarbonisation on electricity lines services" (7 December 2021).

⁹ Note that Fibre sector IMs are not in scope of this review as they are set under Part 6 of the Telecommunications Act 2001. We set the Fibre IMs in 2020, so they are on a different timeframe for review. We recognise there are some common issues with Part 4 regulated suppliers and have incorporated learnings from the Fibre IMs where relevant.

- 1.12.3 consultation on specific problem definition papers.
- 1.13 The feedback and submissions we received through that process, as well as on the 2021 Open Letter and in response to the decarbonisation workshop, refined our understanding of the issues and informed our draft decisions.
- 1.14 We sought submissions on our draft decisions and reasons and invited cross-submissions. We undertook further consultation on discrete points where we considered we needed further input from interested parties.
- 1.15 We have considered all the feedback we received and further refined our decisions, which are outlined in our topic papers and the Report on the IM Review.

Our Decision-making Framework

- 1.16 In identifying which IMs to consider changing, and in reaching decisions on changing IMs, we proposed to change IMs only if the change appeared likely to meet one or more of the overarching objectives of the IM Review, being to:
- 1.16.1 more effectively promote the Part 4 purpose in section 52A;¹⁰
- 1.16.2 more effectively promote the IM purpose in section 52R (without detrimentally affecting the promotion of the section 52A purpose);¹¹ and
- 1.16.3 significantly reduce compliance costs, regulatory costs, or complexity (without detrimentally affecting the promotion of the section 52A purpose).
- 1.17 In testing our decisions against these overarching objectives, we had regard to particular considerations where relevant and not inconsistent with promoting the s 52A purpose of Part 4.¹² These included the duties on us under s 54Q of the Act and the permissive considerations under s 5ZN of the Climate Change Response Act (CCRA).¹³
- 1.18 These overarching objectives and considerations mentioned above are set out in detail in our IM Review 2023 – Decision-making Framework paper (Framework).¹⁴

¹⁰ The section 52A purpose is outlined in para 1.6 above.

¹¹ The section 52R purpose is outlined in para 1.7 above.

¹² Framework paper, above n 5, para X21-3.16.

¹³ Commerce Commission “IM Review 2023 - Decision-making Framework Clarification note - s5ZN of the CCRA” (21 December 2022).

¹⁴ Commerce Commission “IM Review 2023 - Decision-making Framework paper (13 October 2022).

Table 1.1 Key steps in the IM Review

Key step	Date
Notice of Intention published	23 Feb 2022
Process and issues paper published	20 May 2022
Draft Decision-Making Framework paper published	20 May 2022
Confidential debt survey issued to relevant stakeholders	15-16 Sept 2022
Decision-Making Framework paper published	13 Oct 2022
Workshop #1 (Forecasting and incentivising efficient expenditure for EDBs) held	7 Nov 2022
Workshop #2 (Transpower's capital expenditure input methodologies) held	11 Nov 2022
Workshop #3 (Price-quality path in-period adjustment mechanisms) held	29 Nov 2022
Expert report on cost of capital published	29 Nov 2022
Paper on options for maintaining investment incentives in the context of declining demand published	20 Dec 2022
Decision-Making Framework – Clarification note published	21 Dec 2022
Updated Notice of Intention published	1 Mar 2023
Draft Airports, Electricity distribution, and Gas pipeline Input Methodology Amendment Determinations published	14 Jun 2023
Draft Topic Papers, Report on the IM Review, Context and summary of Draft decisions published	14 Jun 2023
Draft Transpower and Transpower Capex Input Methodology Amendment Determinations published	21 Jun 2023
Further updated Notice of Intention published	22 Aug 2023
Cost of capital: Invitation to cross-submit on specific matters	24 Aug 2023
Invitation to submit on further consultation relating to our draft decision on the cost of debt wash-up for EDBs and GTBs	29 Sept 2023
Invitation to submit on proposed change to the effective dates in draft Airport IM amendment determination	10 Oct 2023
Final decisions published	13 Dec 2023

1.19 Submissions made during the IM Review can be found on the Commission's website [here](#).

Our key decisions

- 1.20 It is important to understand that the IMs are the foundation of the regulatory regime and do not work in isolation. They are implemented through our regulatory tools and these tools have much broader scope.
- 1.21 Our review has found that the IMs are generally working well, and when applied in setting information disclosure requirements and price-quality paths, provide sufficient certainty and flexibility to give suppliers incentives to invest and innovate.
- 1.22 We have taken account of submissions in coming to our decisions. We have made a small number of substantive changes and a series of targeted improvements to strengthen the regulatory framework and ensure it remains robust to change.
- 1.23 There are some areas where we or stakeholders initially suggested a change, but we ultimately decided to retain our current approach.
- 1.24 A high level summary of some of the key decisions for each sector is in Appendix A. The remainder of this paper briefly describes our decisions in context. Our Report on the IM Review and topic papers, in combination, provide our full set of decisions and reasons in more detail.

Next steps

- 1.25 The 2023 IM Review is now complete. The amended IMs will be applied in future price-quality path resets and information disclosure requirements, including:¹⁵
 - 1.25.1 The default price-quality path for EDBs that will apply from 1 April 2025. Transpower's price-quality path for the next regulatory period which will begin 1 April 2025. Our reset process is underway for both of these price-quality paths.
 - 1.25.2 In most cases, our IM changes relating to information disclosure regulation will apply from disclosure year 2026, to align with changes we will propose to the relevant ID determinations to implement the IM changes. An exception to this is our IM changes relating to the cost of capital IMs for airports. Those changes will take effect on the day after we give notice of the airport IM changes in the Gazette, and apply for the purpose of future reviews of airports' price setting events.

¹⁵ Chapter 1 of our Final Report on the IM Review (2023) sets out the effective dates for all IM changes.

Chapter 2 Supporting a low carbon and resilient future

Purpose and structure of this chapter

- 2.1 Policy on climate change has developed significantly since the 2016 IM Review, with new efforts aimed at mitigating and adapting to climate-related risks. The Climate Change Response (Zero Carbon) Amendment Act (the Zero Carbon Act) commits New Zealand to achieving net zero long-lived greenhouse gases by 2050,¹⁶ and the first Emissions Reduction Plan (ERP) will provide a pathway to this target.¹⁷ The National Adaptation Plan (NAP) includes proposals to adapt to the impacts of climate change and reduce the potential harm.
- 2.2 Work has also been underway on a Gas Transition Plan (GTP) and New Zealand Energy Strategy (NZES), which consider strategic challenges in the energy sector.
- 2.3 This chapter outlines the implications of this changing operating environment for regulated businesses, particularly through:
- 2.3.1 decarbonisation, resulting in greater electrification and reduced reliance on natural gas; and
 - 2.3.2 a greater need for adaptation and resilience to natural hazards and events.
- 2.4 During this transition, the challenge for governments and businesses is to balance reliability, affordability, and sustainability (also known as the energy trilemma), along with economic growth. Governments and businesses need to consider how to ensure investments in each aspect do not compromise another.
- 2.5 Our role in this context remains to regulate the price and quality of regulated services to promote the Part 4 purpose outcomes for the long-term benefit of consumers.¹⁸ This includes by ensuring that regulated businesses disclose sufficient information for interested parties to assess whether the Part 4 purpose is being met.¹⁹ In carrying out our role, we can have regard to the permissive considerations under s 52N of the CCRA, where they are relevant and not inconsistent with promoting s 52A(1)(a) to (d).

¹⁶ Section 5Q of the [Climate Change Response \(Zero Carbon\) Amendment Act](#).

¹⁷ [Ministry for the Environment “Aotearoa New Zealand’s First Emissions Reduction Plan” \(2022\)](#).

¹⁸ Sections 52 and 52A of the Act.

¹⁹ Section 53A of the Act.

Preparing for increased electrification

- 2.6 For EDBs, there is significant uncertainty about the extent, timing, and location of increased electricity demand. In a price-quality path reset, a relatively higher revenue allowance would mitigate the risk of under-investment but could risk inefficiency or excessive profits if set too high. Conversely, setting a relatively lower initial allowance could risk under-investment, unless there was appropriate flexibility to adjust allowances during a regulatory period as uncertainty is resolved.
- 2.7 Transpower also faces uncertainty about the extent, timing and location of increased demand and generation. Our IM changes to streamline processes where appropriate and to enable investments in anticipatory capacity connection assets where this is justified, will help manage this uncertainty.
- 2.8 Chapter 3: Dealing with change and uncertainty under the Part 4 regime, and Chapter 4: Incentivising efficient investment, discuss this issue.

Transitioning from natural gas

- 2.9 For GDBs and the GTB, the energy transition means that demand for natural gas is expected to reduce in coming years, creating a particularly complex operating environment for them.²⁰ The expected decline in the use of natural gas presents a transition risk and has implications for the pipeline networks,²¹ including:
- 2.9.1 potential for declining throughput;
 - 2.9.2 uncertainty over the pace of demand decline, and if and when the conveyance of natural gas may be phased out; and
 - 2.9.3 the need for efficient investment (for example, in ensuring the safety and reliability of a network) while gas use remains useful.
- 2.10 It is possible that gas infrastructure could be repurposed, depending on the future development of blended or fully renewable gases. The pace of development of any alternative gases, and the extent to which they will be viable substitutes, will affect future demand for natural gas. In addition, uncertainty about the rate of decline in natural gas creates corresponding uncertainty about when demand for electricity will increase.

²⁰ The shift away from demand for natural gas may be accompanied by an increased demand for electricity.

²¹ Framework paper, above n 5, para A18.

- 2.11 The challenge for our regulatory regime in the context of declining demand is promoting the Part 4 purpose for consumers' long-term benefit, including ensuring that gas businesses have incentives to efficiently invest in maintaining safe and reliable networks in the transition to net zero. We discuss this issue in Chapter 4, and in the Financing and incentivising efficient expenditure during the energy transition topic paper.

Regulatory flexibility for adaptation efforts

- 2.12 Cyclone Gabrielle demonstrated the necessity of resilient electricity infrastructure. The storm caused power outages for around 225,000 people across the upper North Island. In Hawke's Bay and Gisborne, the loss of power resulted in lost phone and internet coverage as well. Organisations are having to adapt in response to increased physical risks²² arising from our changing climate.
- 2.13 The NAP contains strategies, policies, and proposals to adapt to the impacts of climate change and reduce the potential harm.²³
- 2.14 Alongside this, the National Emergency Management Agency is currently reviewing its regulatory framework which will likely have implications for operators of Lifeline Utilities.²⁴
- 2.15 Regulated businesses should take these physical risks²⁵ and associated policy changes into account in their planning and investment decisions. The review has ensured that our regime has sufficient flexibility to respond and to support them in appropriately managing the risk from increasingly frequent disasters.

²² Framework paper, above n 5, para A18.

²³ [Ministry for the Environment, "Aotearoa New Zealand's First National Adaptation Plan" \(2022\).](#)

²⁴ [National Emergency Management Agency, "Regulatory Framework Review \('Trifecta'\) Programme".](#)

²⁵ Framework paper, above n 5, para A18.

Chapter 3 Dealing with change and uncertainty under the Part 4 regime

Purpose and structure of this chapter

- 3.1 In the changing environment, businesses face uncertainty over the scale and pace of change in demand, the necessary level of resilience, and in the development and deployment of new technologies. Some uncertainty also remains in how Government energy and climate policies will develop over time.
- 3.2 We consider that businesses always operate under some degree of uncertainty. In the first instance, where suppliers can manage uncertainty themselves through good planning, they should. Through our ID requirements we are encouraging suppliers to move away from deterministic planning and engage in more probabilistic and scenario-based planning to try to better manage uncertainty and risk, where relevant.²⁶
- 3.3 It is important that we have the right tools to deal with change and uncertainty when setting price-quality paths and within regulatory periods. An important factor that we considered across the IM Review, but particularly in this area, is balancing responsiveness to change in promoting the Part 4 purpose with certainty in applying the IM purpose. We have had regard to whether our IM decisions promote the IM purpose effectively, while ultimately making decisions that promote the Part 4 purpose, which governs all of our decision-making under Part 4.²⁷
- 3.4 As we described in Chapter 2, EDBs face uncertainty in forecasting the extent, timing, and location of increased demand. Transpower is similarly facing an uncertain investment landscape. While forecasting uncertainty is not new, the scale of the expenditure impact is material. Also, a decrease in demand for gas may not just affect GPBs, as Transpower and EDBs will be affected by any corresponding increase in electricity demand.
- 3.5 Those forecasting uncertainties will be considered as part of the EDB DPP and Transpower IPP resets that are underway. The IMs enable appropriate flexibility, such that we can set revenue allowances and expenditure allowances that enable prudent levels of investment, while providing scope to later reconsider the price-quality path if further expenditure is deemed appropriate.

²⁶ We note there is a difference between good planning and accurate forecasting. Despite good planning, accurate forecasting may be difficult due to the potential variability of underlying drivers that are outside of an organisation's control.

²⁷ Framework paper, above n 5, para 2.22-2.25.

- 3.6 We consider that we generally have sufficient flexibility to respond appropriately at the right time and in the right way through the tools currently available to us. However, we have made a series of minor improvements to our regulatory settings, with a small number of more significant changes, that strengthen the foundations of our regulatory approach.
- 3.7 The following sections in this chapter discuss:
- 3.7.1 the flexibility in our regime to manage change and uncertainty;
 - 3.7.2 our improvements to the price-quality path reopeners;
 - 3.7.3 the role of customised price-quality paths (CPPs);
 - 3.7.4 improving certainty for Transpower; and
 - 3.7.5 supporting networks' resilience expenditure.

Providing flexibility to manage uncertain costs

- 3.8 The price-quality paths we set under Part 4 determine limits on revenue, quality standards, and incentive mechanisms for efficiency and quality over the regulatory period. Our regime provides mechanisms to account for change and uncertainty in the price-quality path in several ways:
- 3.8.1 costs may be directly passed through to consumers under the price-quality path, which we call "pass-through costs" and "recoverable costs";
 - 3.8.2 the price-quality path may be reconsidered under certain circumstances, which we refer to as "reopeners"; and
 - 3.8.3 in the case of an EDB, GDB or GTB subject to a DPP, the supplier may apply for a CPP, which involves a higher level of scrutiny proportionate to the applicant supplier's proposed expenditures.²⁸
- 3.9 The simplified regulatory continuum for the DPP/CPP regime in Figure 3.1 shows the package of existing mechanisms.

²⁸ Proportionate scrutiny in the context of the setting of a DPP or CPP price-quality path means our scrutiny of the price-quality path proposal "is commensurate with the materiality of the changes to prices or quality experienced by consumers, within the constraints of the ... regime." This was set out in our 2016 IM Review of Customised Price Path (CPPs) regulations.

Figure 3.1 Regulatory Continuum



- 3.10 Like DPPs and CPPs, Transpower's IPP also has pass-through costs and recoverable costs as well as reopeners.
- 3.11 We have assessed how this package of mechanisms could be improved to address the current and anticipated future operating contexts of suppliers in this IM Review.

Updated reopeners and other mechanisms better deal with uncertainty

- 3.12 We considered whether to extend the scope of the price-quality path reopeners and how we could make process improvements to make them easier to apply for and for us to assess. We have made a small number of key changes to strengthen our ability to manage uncertainty during a regulatory period in a way that promotes incentives for suppliers to invest and innovate while limiting their ability to make excessive profits:
- 3.12.1 One particular focus of our IM Review was to understand how existing reopeners and other mechanisms deal with uncertainty in new connection investments, and how they can be improved. We have made several IM changes to support new connection investment required for New Zealand's transition to a low-emissions economy.
- 3.12.2 These changes will support electricity distributors and Transpower to meet consumers' energy needs by better enabling new connections (such as public EV chargers) and supporting growth from new connections by increasing network capacity, either via network asset capacity upgrades or demand management services.
- 3.12.3 The IM Review decisions help deal with heightened uncertainty for electricity distributors and consumers and support new transmission capacity being built at the right time.
- 3.13 Below we discuss the changes to reopeners and other mechanisms to better deal with uncertainty and highlight new connection investment-specific changes to the IMs. To improve clarity, consistency, and ease of use of the reopeners, we have updated the DPP, CPP and IPP reopener processes. The updated processes are based on a similar process in the Fibre IMs.

- 3.14 We have expanded the availability of DPP reopeners, where this better meets our Framework's overarching objectives. These refinements provide for the increasing role of opex-based solutions and should help mitigate increased concerns about resilience to natural hazards.
- 3.15 The changes we have made to Transpower's IPP reopeners and the limited changes we have made to the CPP reopeners are consistent with the changes we have made to the DPP reopeners.
- 3.16 We have made changes to the existing price-quality path reopeners to address targeted situations where we consider the forecasting uncertainty risk is highest, including:
- 3.16.1 allowing for opex solutions in response to system growth;
 - 3.16.2 allowing for consequential opex and capex for system growth, connections, a combination of system growth and connections, and asset relocations;
 - 3.16.3 including resilience-related expenditure; and
 - 3.16.4 extending the application of the GDB and GTB Risk event reopener to EDBs.
- 3.17 In a change from our draft decision, we have decided not to limit reopener applications for large projects relating to general growth, and will allow a reopener for general growth where all other relevant criteria are met.
- 3.18 We have clarified the application of reopeners to improve the workability of the regime by modifying the Change event reopener to clarify how the reopener applies to generally accepted accounting practice (GAAP) changes. We have also clarified that as a form of secondary legislation, new or changed requirements in a local authority plan that apply to a regulated supplier are included in the Change event reopener.
- 3.19 We have implemented a large connection contract (LCC) mechanism for EDBs, which will be available as an option to address connection forecast uncertainty in situations where the connecting party seeking a large connection to the distribution network agrees that the terms and conditions of the contract with the EDB (including pricing) are reasonable.

- 3.20 We have also implemented a new connection wash-up mechanism for EDBs on a CPP to mitigate potential forecast error for the quantity of new connections. Where an EDB considers that there is significant uncertainty in the quantity of new connections, the new connections wash-up mechanism can be applied as part of its CPP to wash up for outturn connection quantities. We adopted feedback from submitters on our draft decision to make clear that the mechanism can accommodate more than one type of connection, with a different unit rate for each connection type.
- 3.21 We provide greater detail on these decisions in our CPP and in-period adjustments topic paper, and the Financing and incentivising efficient expenditure during the energy transition topic paper (new connection wash-up mechanism).

Adjustments to CPP requirements

- 3.22 CPPs are a key tool in the regulatory continuum for EDBs, GDBs and the GTB, offering those suppliers the opportunity to propose an alternative price-quality path that better meets their individual circumstances than the DPP.
- 3.23 We have not made significant changes to the CPP IMs for CPP proposals. However, we have updated the CPP reopener processes in line with the Fibre IMs to clarify the application and consideration processes. We have decided not to amend the IMs to allow for a single-issue CPP.

Providing greater clarity and certainty for Transpower

- 3.24 We have reviewed the Capex IM and Transpower IM with the understanding that Transpower is facing an uncertain investment landscape. We recognise that new transmission investment will be needed, and Transpower should be able to propose solutions with the lowest lifecycle costs and have these assessed in a timely manner. Transpower will also be able to invest ahead of need to build extra capacity for future customers where this is economically justified.
- 3.25 We consider that the majority of the IMs relevant to Transpower are fit for purpose. Stakeholders raised some concerns that we felt were already addressed by the Transpower IM and Capex IM. We have clarified the IMs in some places to support this and explained our reasoning in the Transpower Investment topic paper, including where we made no changes.

- 3.26 We have identified and made some changes to the Transpower IM and Capex IM, in line with our Framework. These reflect changes in the industry and policy context and continue to ensure proposed expenditure is adequately justified by Transpower and subjected to proportionate scrutiny.²⁹
- 3.27 Key changes are:
- 3.27.1 streamlining the MCP preparation and approval process by lowering the threshold for applying to undertake a reduced consultation process, clarifying the project staging process and introducing a cost estimation incentive deadband to enable investment proposals to be prepared faster;
 - 3.27.2 modifications to the investment test, including a revised discount rate, and clarifying the scenarios Transpower must analyse in support of investment proposals;
 - 3.27.3 allowing Transpower to amend major capex outputs following submission of its investment proposals, rather than the present requirement that Transpower withdraw the proposal and re-submit;
 - 3.27.4 extending the type of project that can be considered a listed project to include all reconductoring and cable replacement projects and large non-recurring information systems technology (IST) projects where there are major cost, timing, and scope uncertainties; and
 - 3.27.5 ensuring the Transpower IM accommodates anticipatory connection assets and that they are subject to the Capex IM to ensure these investments are economically tested and recovered through existing and new mechanisms, such as a new 'anytime' reopener specifically for anticipatory connection asset (ACA) capacity investments.
- 3.28 We consider that our final decisions appropriately promote Transpower's incentives to innovate, invest and improve cost efficiency, and retain investment optionality, while limiting Transpower's ability to extract excessive profits. In proposing changes, we have been mindful of administrative and regulatory process costs to us and Transpower.
- 3.29 We provide further detail on these final decisions in the Transpower investment topic paper.

²⁹ In Transpower's context, this means we will apply the level of scrutiny that is commensurate with potential price and quality impacts of forecast expenditures on Transpower's customers (see for example para 5.6 of [our process, framework and approach paper for the 2020-2025 Transpower individual price-quality path reset](#)).

Supporting networks' resilience response

- 3.30 We recognise that businesses need to plan for resilience to severe events and natural disasters in their networks, commonly referred to as high impact low probability (HILP) events. We encourage businesses to take a network-wide, systematic view to identify and manage risks, and prioritise mitigation measures for these events.
- 3.31 Increasingly frequent weather events mean HILP event risk profiles may change. We have reviewed the tools that we apply to meet the requirements of Part 4 to ensure that proactive resilience expenditure can be carried out. The regulatory framework already had tools to address some aspects of resilience expenditure. We have made some changes to further support businesses to recover prudent resilience expenditure as they adapt to changing risk profiles and to adequately plan for the possibility of future HILP events.
- 3.32 Our changes to the treatment of resilience expenditure are described in Chapter 6 of the CPP and in-period adjustments topic paper and Chapter 11 of the Transpower investment topic paper.

Chapter 4 Incentivising efficient investment

Purpose and structure of this chapter

- 4.1 Under s 52A(1)(a), we must ensure that regulated businesses have incentives to innovate and invest in supplying the regulated service, including in replacement, upgraded, and new assets.
- 4.2 GPBs submitted on the need for increased investment to meet the growing needs of consumers, and to investigate new ways of doing things to support the energy transition. Some considered that there were insufficient incentives for innovation.
- 4.3 The energy transition means that demand for natural gas is expected to reduce in the coming years. However, the pace at which this transition will occur remains uncertain. While gas remains widely used by homes and businesses, we need to maintain incentives for GPBs to invest efficiently to ensure the networks continue providing a safe and reliable supply of natural gas.
- 4.4 Given the important role innovation could play in helping improve outcomes for consumers in the energy transition, we have examined the incentives to innovate that the IMs and Part 4 regime provide. We want to ensure that regulated suppliers have the right incentives to make investments that meet consumer demands, whilst aiming for the lowest lifecycle cost, and considering key issues such as enabling innovation and new technologies.
- 4.5 We have considered the combination of existing tools within the IMs that incentivise businesses to invest and innovate efficiently. We discuss these in the following sections:
 - 4.5.1 striking the right balance for the cost of capital;
 - 4.5.2 incentivising innovation and efficient spend for EDBs and Transpower; and
 - 4.5.3 maintaining incentives for GPBs to invest efficiently.
- 4.6 We assessed these tools (including how the regime accounts for inflation) and consider that they are broadly sufficient to enable businesses to have incentives to invest appropriately to promote the long term benefit of consumers. We have made a small number of key changes to strengthen the IMs to better account for inflation and support electrification, including indexing Transpower's regulated asset base to inflation and introducing a new mechanism to better support suppliers' investment in new electricity connections. We have also made a change to the IMs to support greater innovation and better achieve our Framework's overarching objectives, namely evolving the Innovation Project Allowance into the improved Innovation and Non-traditional Solutions Allowance.

Striking the right balance for the cost of capital

- 4.7 The weighted average cost of capital (WACC) is a key input in regulation of infrastructure under Part 4. For firms subject to price-quality regulation, the WACC is the ex-ante allowed rate of return on regulated assets. For firms subject to information disclosure, the WACC is the benchmark used to assess profitability.
- 4.8 The cost of capital IM sets out our approach to estimating WACC, which is then applied at a PQ WACC determination, or an ID WACC determination. We have reviewed our cost of capital IM and retained the key elements. We have reset and updated some of the input parameters based on more up to date information.

Updated WACC parameters

- 4.9 We reviewed the cost of capital parameters and updated these to reflect more recent information and changes in the economic environment. Some key decisions include:
- 4.9.1 updating the asset beta, leverage estimates, and equity betas for EDBs, Transpower, GPBs, and Airports;
 - 4.9.2 retaining a combined asset beta sample for energy and gas (and continuing to apply an uplift of 0.05 to our estimate of the asset beta for GPBs);
 - 4.9.3 re-estimating the economy-wide tax adjusted market risk premium (TAMRP); and
 - 4.9.4 continuing to apply a hybrid approach for estimating the cost of debt, that is, applying a prevailing risk-free rate and trailing average debt premium.
- 4.10 More detailed information on our decisions and the reasons for these can be found in the cost of capital topic paper.

Changes to WACC percentiles

- 4.11 The adjustment to the WACC estimate, in the form of the uplift to the WACC percentile, is a key tool to mitigate the risks to consumers of under-investment by regulated suppliers. To determine whether an adjustment to the WACC is in consumers' interests, we trade-off higher costs to consumers against the benefits associated with reducing the risk of underestimating the WACC. The benefits include improved quality, which includes reduced risk of large-scale supply outages.
- 4.12 Based on our analysis, the details of which are in the Cost of Capital topic paper, we have decided to apply the following WACC percentiles:
- 4.12.1 the 65th percentile for EDBs and Transpower, which compares to the 67th percentile in the current IMs; and

- 4.12.2 the 50th percentile for GPBs, which compares to the 67th percentile in the current IMs.
- 4.13 Our decision to use the 65th percentile for EDBs and Transpower reflects an updated assessment of the evidence, including consideration of regulatory changes that have reduced the risks of underinvestment.
- 4.14 Our decision to use the 50th percentile for GPBs is based primarily on the lower probability of gas outages. Gas has much higher reliability than electricity.
- 4.15 As airports are subject to ID regulation only, we can consider whether a WACC, estimated by the regulated supplier, that is different to the mid-point is justified at each price-setting event.

Reasonableness checks

- 4.16 We have undertaken reasonableness checks of our updated WACCs by comparing the WACCs that our updated parameters produce to the WACCs used by investment analysts and other regulators, and considering the RAB multiple for the sale of Eastland Network (now Firstlight Network) and broker estimates of the RAB multiples for the regulated parts of Vector's business.
- 4.17 These checks suggest that our updated WACC parameters, taken as a whole, produce commercially realistic estimates of the cost of capital for regulated suppliers.

Incentivising innovation and efficient spend for EDBs and Transpower

- 4.18 With the anticipated increase in investment required for EDBs and Transpower in coming years, both current and future generations of consumers will pay for and benefit from these investments. It remains important to ensure that suppliers have incentives to invest efficiently - on the right things, at the right time, and at the lowest lifetime cost to meet consumer demands.
- 4.19 Our summary and analysis of information disclosed by suppliers related to expenditure and innovation plays an important role, including by highlighting developments and good practice by regulated suppliers, and where their practices may need improvement. An example of this is our introduction last year of a new requirement for EDBs to publish a description of their practices relating to new connections, such as what they do to minimise the cost to consumers.
- 4.20 Suppliers subject to revenue caps have incentives to reduce costs below their expenditure allowances as long as this is consistent with meeting quality standards. The current expenditure incentive mechanisms for EDBs and Transpower address a range of issues under price-quality regulation that can arise in the absence of an incentive scheme, and helps to promote the Part 4 purpose.

- 4.21 The expenditure incentive mechanisms applying to EDBs and Transpower achieve our Framework's overarching objectives and meet the objectives of expenditure incentive mechanisms, which include: equalising incentive rates for opex and capex spend (for EDBs and Transpower's base capex and opex), providing consistent incentive rates to make efficiency savings over time, and removing incentives to inflate costs in some key years (where a base year is adopted for the expenditure forecast). The expenditure incentive mechanisms also determine the extent and rate at which efficiency gains are shared with consumers over time. We have not implemented capex and opex expenditure incentive mechanisms (similar to those which apply to EDBs and Transpower) for GPBs, as we consider the benefits are unlikely to outweigh the costs.

Addressing capex bias

- 4.22 Some stakeholders submitted that the current approach to setting expenditure allowances and expenditure incentive mechanisms results in capex bias.³⁰ Capex bias could be a barrier to efficient investment decisions and might hinder progress towards decarbonisation objectives. Some suppliers suggested moving to a 'totex approach', similar to that applied by Ofgem in Great Britain.
- 4.23 Of the alternative expenditure incentive approaches that we considered, such as a totex approach (including a totex incentive mechanism), our decision is that none better promote our Framework's overarching objectives than the current expenditure incentive mechanisms.³¹ Our current expenditure incentive mechanisms provide for equalised incentives for capex and opex, as well as achieving our Framework's overarching objectives and meeting other objectives of expenditure incentive schemes.

Changes to expenditure incentive mechanisms

- 4.24 We have decided to maintain the current approach to the expenditure incentive mechanisms for EDBs (opex and capex IRIS) and Transpower (opex IRIS, base capex incentive scheme and major capex incentive scheme). We have considered alternative approaches and concluded that the current arrangements achieve our Framework's overarching objectives. We have made some targeted changes to the expenditure incentive mechanisms to improve their effectiveness and certainty.

³⁰ We define 'capex bias' as arising where the regulatory approach to setting price-quality paths financially incentivises investment in assets (capex) over alternatives, such as demand response (opex), where those alternatives are more efficient. We do not use the term 'capex bias' to refer to situations where favouring a traditional network solution over a non-network alternative results in greater net benefits to consumers. Efficient solutions are those that minimise the whole of life-costs while delivering the quality that consumers demand, in line with s 52A(1)(a), (b) and (d)).

³¹ Commerce Commission "Electricity distributor's expenditure incentives under the current Part 4 approach and under a totex approach - Staff working paper to inform 7 November 2022 workshop 'Forecasting and incentivising efficient expenditure for EDBs'" (1 November 2022).

Changes to EDB and Transpower incentive schemes

- 4.25 The changes we have made to the expenditure incentive mechanisms include:
- 4.25.1 Applying IRIS in real (CPI-adjusted) terms rather than nominal terms for EDBs: this will remove the impact of economy-wide inflation on incentive amounts for opex and capex, which will contribute to protecting suppliers from uncontrollable economy-wide inflation risk where they cannot manage this risk.
 - 4.25.2 Applying the midpoint vanilla WACC as the discount rate in the opex IRIS calculation for EDBs and Transpower: we do not consider that a WACC uplift is necessary for the purposes of discounting for the opex IRIS.
 - 4.25.3 Changes to Transpower's opex IRIS to help ensure its implications are understood and that there is a clearer link between behaviour and outcomes. These changes removed the baseline adjustment term, amended the base year adjustment term, and amended the year 5 carry forward calculation. The changes ensure IRIS accurately reflects how we set allowances and allows Transpower to better predict its return from making opex efficiency savings.

Incentivising innovation for EDBs

- 4.26 We have replaced the 'innovation project allowance' with the 'innovation and non-traditional solutions allowance' to improve our scope and flexibility at DPP resets and when setting CPPs, to set schemes that better promote the Part 4 purpose, including schemes that improve incentives for adopting non-traditional solutions to defer capex.
- 4.27 Suppliers advocated IM changes to enable a regulatory sandbox. Our view is that the current IMs enable the desired outcomes of a sandbox in providing a large degree of flexibility for suppliers to innovate. Certain statutory features of Part 4 of the Act also mean that some of the ad-hoc flexibility seen in overseas regulatory sandboxes is not available.
- 4.28 We discuss this further in Chapter 6 of the Financing and incentivising efficient expenditure during the energy transition topic paper³².

³² Commerce Commission "Input Methodologies (Financing and incentivising efficient expenditure during the energy transition topic paper)", para X59

Maintaining incentives for GPBs to invest efficiently

- 4.29 For GPBs, the energy transition means that demand for natural gas is expected to reduce over the coming years. However, the pace at which this transition will occur and the potential impact on GPBs remains uncertain.
- 4.30 We consider that our current approach to addressing asset stranding risk promotes the long-term benefit of consumers under s 52A in this context and our decision is not to change this.
- 4.31 We considered whether the current form of control for GDBs is the right one in the context of the expected decline in demand in the long-term. We decided to maintain the weighted average price cap for GDBs.
- 4.32 We discuss these decisions in greater detail in the Financing and incentivising efficient expenditure during the energy transition topic paper.

Chapter 5 Cashflows and inflation

Purpose and structure of this chapter

- 5.1 Some suppliers expressed concern that cashflow constraints could cause problems for their ability to invest in the current environment – particularly if investment needs were to increase significantly.
- 5.2 We reviewed the tools we have available to influence cashflows in terms of both the overall level and the profile of recovery over time. While we consider these tools are generally sufficient, we have made some improvements.
- 5.3 We also considered our method for forecasting inflation for the purposes of setting price-quality paths, and how inflation forecasts and outturns are applied to the RAB and price paths, impacting cashflows.

Understanding financeability concerns

- 5.4 We carefully considered concerns raised by some submitters about financeability in the current context, with some advocating for a financeability test in the IMs. Financeability refers to the ability of firms to raise and repay debt and raise equity in financial markets, readily and on reasonable terms, to fund investment needs.
- 5.5 We consider that financing the preferred path of recovery of investment (the one that best promotes the Part 4 purpose) is primarily the responsibility of suppliers. They have a range of tools for doing so, including reducing dividend payments, or raising debt and/or equity.³³ In addition, we are not aware of a shortage of capital currently in this sector. To the contrary, we continue to see transactions at RAB multiples above one,³⁴ and improving credit ratings.³⁵

³³ Potential capital raising constraints from ownership arrangements are not related to our regulatory regime.

³⁴ [Eastland Group "Eastland Group and shareholder Trust Tairāwhiti announce sale of Eastland Network to Firstgas Group, owned by Igneo Infrastructure Partners, for \\$260 million" \(22 November 2022\).](#)

³⁵ [S&P Global Ratings "Research Update: Vector Ltd. Upgraded to 'BBB+' on Strengthening Business Mix; Outlook positive" \(26 April 2023\).](#)

- 5.6 So what is the path of recovery of investment that best promotes the Part 4 purpose? In the absence of financeability issues, the price consumers face over time should ideally broadly reflect the flow of benefits to them over time from the investment. In practice, this would mean the depreciation allowance would reflect the flow of benefits to consumers. When demand is high, the flow of benefits to consumers is also high, so depreciation (ie the recovery of capital) should also be high. And vice versa with low demand. In the current context, we expect future electricity demand to be substantially higher than it is today. Therefore, deferring the recovery of capital promotes efficiency. However, it may also heighten financeability concerns for some suppliers.
- 5.7 In specific circumstances, alternative depreciation may be used in a CPP or IPP if it better promotes the Part 4 purpose. However, in general, we do not consider that depreciation should be used to address any financeability concerns.

Financeability test

- 5.8 We have decided not to adopt a financeability test in the IMs because we consider that a financeability test IM would not better achieve our Framework's overarching objectives. We can already consider, and indeed have previously considered, financeability where relevant and not inconsistent with promoting the Part 4 purpose. In the case of the EDB DPP4 reset, for example, the threshold of 'where relevant and not inconsistent with promoting the Part 4 purpose' is something that we would assess and address in the context of the reset.

Additional tools to manage cashflows

- 5.9 We have considered whether additional tools are necessary to enable businesses to better manage any cashflow challenges that may occur within or between regulatory periods. Since financeability issues are likely to be specific to individual suppliers, CPPs are our preferred mechanism for this purpose. CPPs are available as an option for suppliers facing business-specific issues that are not catered for in the DPP. Any departure from the DPP settings would need to better promote the Part 4 purpose.

RAB indexation for EDBs, GPBs, and Transpower

- 5.10 Submitters asked us to reconsider our approach to RAB indexation for EDBs, GPBs and Transpower. This was an issue of high importance for many submitters.
- 5.11 Stakeholders expressed a range of views on our approach to RAB indexation. Some EDBs noted concerns about financeability and submitted that we should allow them the option to choose to remove RAB indexation for cashflow purposes. For GPBs, concerns were raised on RAB indexation in relation to how we address asset stranding risk to incentivise efficient investment. Transpower submitted early in the IM Review that it favours keeping its RAB unindexed.

- 5.12 Our decision is to maintain RAB indexation to inflation for EDBs and GPBs and change the relevant IMs to index Transpower's RAB to inflation.
- 5.13 We generally consider that the original reasons for indexing EDBs' RABs remain valid in the current context. We did not receive evidence substantiating the risk of a widespread financeability problem. We consider that asset stranding risk for GPBs is better addressed independently of our approach to RAB indexation through asset life adjustment factors in DPPs, and if necessary, the option of changes to the depreciation method through a CPP. These alternatives can be better tailored to the specific circumstances of each GPB.
- 5.14 Our decision for Transpower is to index the RAB to inflation from RCP4 onwards. In the current environment, and given our understanding of Transpower's financeability, we no longer have the same concerns about matching the level of revenue to Transpower's investment needs as we did in 2010. Instead, we consider that the benefits of indexation (protection from inflation and promoting pricing profiles that are more likely to be consistent with allocative efficiency) justify the change. We sought stakeholder views on two alternatives to our draft decision to index Transpower's RAB:
- 5.14.1 delaying RAB indexation to start from RCP5 onwards and implementing a RAB inflation wash-up for RCP4 only.
 - 5.14.2 retaining the status quo (not indexing Transpower's RAB) and implementing the RAB inflation wash-up for RCP4 onwards.
- 5.15 Our final decision to index Transpower's RAB to inflation is less finely balanced than we had initially thought at the draft decision stage. This is because:
- 5.15.1 Having published our financial modelling for Transpower with the draft decision, we did not receive evidence in submissions that raises concerns about Transpower's financeability under an indexed RAB approach; and
 - 5.15.2 We did not receive evidence in submissions that the implementation and compliance costs are large enough to tip the balance in favour of the alternatives noted in 5.14 above.
- 5.16 We have enabled Transpower to request an alternative depreciation approach during an IPP reset, where doing so would better promote the Part 4 purpose. This would be similar to the option currently available to EDBs and GPBs under CPPs to request an alternative depreciation approach if doing so would better promote the Part 4 purpose than the standard approach of CPI-indexed RAB straight-line depreciation.
- 5.17 We outline our decision in Chapter 3: Dealing with change and uncertainty under the Part 4 regime.

Wash-ups and short-term cashflows

- 5.18 The primary purpose of wash-up mechanisms is to deliver outcomes that are consistent with our risk-allocation principle. They do this by washing up for the present-value revenue outcomes of the difference between forecast versus actual outcome.
- 5.19 The wash-up mechanisms can also help manage revenue and price volatility. This includes both volatility caused by the wash-up process itself and other sources of change in allowable revenue.
- 5.20 In the context of greater uncertainty about the future of energy networks and higher and less predictable inflation, it is particularly important that our wash-up mechanisms work well. Less certain forecasts (of demand or inflation) mean potentially greater differences between forecast and actual inputs, and a more material impact on prices and/or revenues.
- 5.21 We have implemented a series of modifications to the design and structure of the EDB and GTB revenue path wash-up mechanisms. As a package, these changes will:
- 5.21.1 better manage revenue and price volatility;
 - 5.21.2 mitigate potential issues with cashflow timing; and
 - 5.21.3 reduce the complexity of the overall wash-up mechanism.
- 5.22 We discuss these decisions in further detail in the Financing and incentivising efficient expenditure during the energy transition topic paper.

IRIS mechanism and cashflow timing

- 5.23 Our IRIS expenditure incentive mechanism has cashflow timing implications for regulated suppliers. Whenever a regulated supplier spends more or less than the opex and capex allowances reflected in the overall revenue allowance, there are cashflow implications in the year of spend and in the subsequent regulatory period (as a result of 'carry forward amounts'). Some submitters suggested that the IRIS cashflow timing implications may exacerbate cashflow problems or cause price shocks.
- 5.24 We have not made any changes to the cashflow timing of IRIS. We consider that in general IRIS cashflow should be manageable as it is predictable and can be appropriately dealt with, if deemed necessary, through general in-period cashflow timing tools (smoothing).

Inflation

- 5.25 As noted in the introduction to this chapter, inflation and its impacts are currently an important issue for consumers and suppliers. We have considered our method for forecasting inflation for the purposes of setting price-quality paths, and how inflation forecasts and outturns are applied to the RAB and price paths.

Method for forecasting inflation

- 5.26 We are retaining our current method of forecasting inflation: forecasting the CPI for the regulatory period using the most recently available Reserve Bank of New Zealand (RBNZ) CPI forecast. This is discussed in detail in Chapter 4 of the Financing and incentivising efficient expenditure during the energy transition topic paper.
- 5.27 Submitters proposed some alternatives to our draft decision, but none of them presented evidence showing that their preferred alternatives would provide a better forecast of inflation, being one that minimises the difference between forecast and actual inflation over the relevant forecast window.
- 5.28 Submitters mentioned market-based and survey-based methods as alternatives. The RBNZ inflation forecast is not purely model driven; it does include market data (and other data including survey data) to the extent that the Monetary Policy Committee and forecast team consider it relevant. We understand that this applies to inflation forecasts of six months or more into the future.
- 5.29 In relation to submitters' point about adopting the forecasting method that the AER or QCA have adopted, no submitter provided evidence that their methods would perform better in New Zealand than our method.
- 5.30 Having considered submissions, we consider that confirming the draft decision as our final decision is likely to better achieve our Framework's overarching objectives than alternatives put to us. For the rate at which the RAB is revalued; we consider that our approach is the best estimate of the market's expectation of inflation embedded in the WACC. It therefore delivers an expectation of real financial capital maintenance (FCM), and, in doing so, provides regulated suppliers with incentives to invest, consistent with s 52A(1)(a).

Inflation risk allocation and compensation

- 5.31 We have decided to amend the EDB IMs and GTB IMs to:
- 5.31.1 wash-up allowable revenue for the first year of a regulatory period when inflation differs from expected inflation; and
 - 5.31.2 ensure that the most up-to-date CPI inflation (actual and forecast) is used when determining forecast net allowable revenue at the start of each disclosure year.

- 5.32 We have decided not to introduce a cost of debt wash-up to the EDB and GTB IMs. This is a change to our draft decision. Following extensive consultation, the main reason for our final decision is that the status quo protects both consumers and suppliers from inflation risk.
- 5.33 We consider that the regime should not expose consumers to the risk that the real price they pay varies in response to unexpected changes in inflation. A constant real price better promotes efficiency when the benefits that consumers get from the service are also constant. It also better supports consumer-side efficient investment and consumption decisions by providing a better basis for planning long-term capital investments.
- 5.34 The revenue wash-up (together with the rolling forward of the RAB using actual instead of forecast inflation) protects suppliers, equity and debt holders combined, from inflation risk. Through their debt management practices, suppliers' management can protect or expose equity holders--to varying degrees--to the risk of inflation-driven windfall gains or losses. The debt management practices that influence the degree of equity holders' final inflation risk exposure include the use of swaps for hedging, debt refinancing timing and extent, use of floating debt and, where available, inflation-linked bonds.

Attachment A Summary of key decisions by sector

Airports

- A1 We have found that the IMs for regulated airports (ie, Auckland, Wellington, and Christchurch airports) are generally fit for purpose, as they were extensively reviewed and amended in 2016 to support more accurate assessments of airport profitability. However, we have reviewed and updated the airport cost of capital IM to reflect the best available information on the airport sector.

Transpower

- A2 We have streamlined the major capex project proposal (MCP) preparation and approvals process and changed the listed project mechanism to enable Transpower and the Commission to respond flexibly and efficiently to the changes in the electricity market, particularly changes regarding decarbonisation and electrification. We have also made some IM changes and clarifications to clarify the interpretation of the IMs and ensure appropriate scrutiny of the proposed expenditure.
- A3 Our decision to index Transpower's Regulatory Asset Base (RAB) to inflation will protect consumers and Transpower from inflation risk and promote the Part 4 purpose. Specifically, our decision supports a more efficient pricing profile—one that approximates constant average real prices. This better supports the electrification of our economy than the status quo.
- A4 We have made changes to remove Transpower's IRIS baseline adjustment term and made two amendments to Transpower's IRIS calculations to provide better incentives for efficiency and remove a large source of uncertainty for Transpower.
- A5 We increased the opportunity to recover approved resilience expenditure by including it in the scope of the mid-period E&D base capex reopener mechanism.
- A6 We have expanded Transpower's ability to recover investment opex by allowing:
- A6.1 non-transmission opex solutions as an alternative to capex in the E&D capex reopener mechanism in the Transpower IM; and
 - A6.2 inclusion of uncapitalised opex in an MCP application in the Capex IM.
- A7 We have resolved a first mover disadvantage (FMD) issue and aligned the IMs with recent Transmission Pricing Methodology changes, by allowing recovery of anticipatory capacity investments if they are economically justified.

EDBs and GPBs

- A8 We have decided to retain RAB indexation for EDBs and GPBs. This protects both consumers and suppliers from inflation risk.
- A9 For EDBs, this pricing approach is expected to result in an efficient pricing profile that approximates constant average real prices. This will support electrification and the energy transition by giving suppliers incentives to innovate and invest appropriately.
- A10 For GDBs and the GTB, while removing RAB indexation could mitigate economic network stranding risk, our view remains that these concerns are better addressed separately using more flexible tools.
- A11 Our final decision is to retain our current approach to asset stranding risk for GPBs. The simple, low-cost approach of keeping stranded assets in the RAB and allowing for asset life adjustment factors in DPPs to reflect changes in economic asset lives incentivises GPBs to invest and innovate appropriately.
- A12 For GDBs, we have also decided to maintain the Weighted Average Price Cap control. On balance, a WAPC better achieves our IM Review framework's overarching objectives, providing suppliers with a stronger incentive to tailor expenditure to changes in demand, such that consumers that value gas supply can continue to benefit from it.
- A13 EDBs and the GTB have a revenue cap. We have made changes to the IMs for EDBs and the GTB to protect both consumers and suppliers from inflation risk, including:
- A13.1 Washing-up revenue for the first year of a regulatory period when inflation differs from forecast.
 - A13.2 Using the most up-to-date inflation information available to determine allowed revenue at the start of each year.
 - A13.3 Ensuring that EDBs are not exposed to economy-wide inflation when calculating IRIS incentive amounts (ie, applying inflation-adjusted IRIS allowances).
- A14 After considering submissions, we have decided to make no change to the EDB IMs and GTB IMs to introduce a cost of debt wash-up, reversing our draft decision. The main reason, supporting our final decision, is that the status quo protects both consumers and suppliers from inflation risk.
- A15 We have decided not to adopt a financeability test in the IMs because we consider that a financeability test IM would not better achieve our Framework's overarching objectives.

- A16 For EDBs, we have amended and expanded the EDB IMs' 'innovation project allowance' into the 'innovation and non-traditional solutions allowance' to enable a wider range of approaches to provide better incentives for innovation and non-traditional solutions, at DPP resets or when setting a CPP.
- A17 Our final decisions on the IMs related to in-period adjustment mechanisms for EDBs include:
- A17.1 introducing a large connection contract (LCC) mechanism as an alternative to a reopener in certain circumstances, where the connecting party agrees the terms and conditions, including price, are reasonable. This will help address increased forecast uncertainty on large new customer-initiated connections;
 - A17.2 introducing an optional connection wash-up mechanism for EDBs on a CPP to reduce the exposure of the EDB and consumers to uncertainty in forecast growth in new connections;
 - A17.3 introducing a Risk event reopener for EDBs, similar to the GDB and GTB Risk event reopener;
 - A17.4 extending the scope of certain reopeners to address targeted situations where we consider the forecasting uncertainty risk is highest by allowing for opex solutions, consequential opex and capex and resilience-related expenditure; and
 - A17.5 providing for a reopener where there is a requirement for additional capacity at a particular location to support growth in demand for electricity from multiple new connections.

Cost of capital

- A18 Key decisions regarding the cost of capital are set out in the table below.

Table A1 Cost of capital parameters

	Airports	EDBs/Transpower	GPBs
Asset beta	0.67	0.36	0.41
Equity beta	0.87	0.61	0.69
Leverage	23%	41%	41%
WACC percentile	Publish the mid-point with standard error	65th	50th
TAMRP		7%	
Approach to cost of debt	Maintain our current approach to cost of debt (Prevailing approach to the risk-free rate, and Trailing average approach to debt premium)		

- A19 We have reduced the WACC percentile for EDBs and Transpower from the 67th to the 65th percentile which takes into account an updated assessment of the evidence including the improved incentives for investment provided by developments in our information disclosure regime and experience with enforcement.
- A20 We have reduced the WACC percentile from 67th to 50th for GPBs. Our decision to use the mid-point reflects the lower likelihood that undetected underinvestment will occur that results in gas outages and that gas is a secondary fuel.

Attachment B The package of decisions papers

Table B1 The package of decisions papers

Paper name	Primarily applies to
Overarching papers	
Context and summary paper	All sectors
Framework paper	All sectors
Topic papers	
Financing and incentivising efficient expenditure during the energy transition	EDBs, GDBs, GTB, Transpower
Cost of capital	All sectors
CPPs and in-period adjustments	EDBs, GDBs, GTB, Transpower
Transpower investment	Transpower
Report on the IM Review	All sectors
IM amendments	
EDB IM amendment determination	EDBs
Transpower IM amendment determination	Transpower
Transpower Capex IM amendment determination	Transpower
GDB IM amendment determination	GDB
GTB IM amendment determination	GTB
Airports IM amendment determination	Airports

Figure B1 below depicts our package of decisions and their implementation in the relevant IM amendment determinations.

Figure B1 Our decision package for the IM Review

