

Fibre price-quality regulation

Proposed process and approach for the 2025-2028 regulatory period

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Table of abbreviations

| Abbreviation | Definition |
|--------------|---|
| BBM | Building blocks model |
| CIP | Crown Infrastructure Partners |
| CPI | Consumer Price Index |
| DFAS | Direct fibre access service |
| FFLAS | Fibre fixed line access services |
| ID | Information disclosure |
| IFP | Integrated Fibre Plan |
| IMs | Input Methodologies |
| IV | Independent Verifier |
| LFC | Local fibre company |
| MAR | Maximum Allowable Revenue |
| POI | Point of Interconnection |
| PQ | Price-quality |
| PQP1 | Chorus' first price-quality path (from 1 January 2022 to 31 December 2024) |
| PQP2 | Chorus' second price-quality path (from 1 January 2025 to 31 December 2028) |
| RAB | Regulatory asset base |
| RPR | Regulatory processes and rules |
| RSP | Retail service providers |
| SFA | Specified Fibre Areas |
| UFB | Ultra-fast broadband |
| WACC | Weighted average cost of capital |
| WSA | Wholesale Service Agreement |

Executive summary

X1 Since 1 January 2022, providers of regulated fibre fixed line access services (FFLAS) have been subject to regulation under Part 6 of the Telecommunications Act 2001 (the Act). Chorus Limited (Chorus) is the only Local Fibre Company (LFC) subject to price-quality (PQ) regulation under Part 6.

Purpose and structure of this paper

X2 This paper outlines our proposed process, framework and high-level approach for determining Chorus' PQ path for the second regulatory period from 1 January 2025 to 31 December 2028 (PQP2). Information disclosure (ID) regulation is outside the scope of this paper.

X3 We discuss the following things in the remaining chapters of this paper to achieve these objectives:

X3.1 in Chapter 2, the process we propose following;

X3.2 in Chapter 3, the frameworks we must apply to make decisions about PQ;

X3.3 in Chapter 4, developments during PQP1;

X3.4 in Chapter 5, our approach to revenue and compliance;

X3.5 in Chapter 6, our approach to determining Chorus' expenditure allowances;

X3.6 in Chapter 7, our approach to setting quality standards;

X3.7 in Attachment A, our view on whether to undertake an anchor services review;

X3.8 in Attachment B, our proposed approach for amending Input Methodologies (IMs);

X3.9 in Attachment C, a summary of the forms of information required from Chorus; and

X3.10 in Attachment D, a summary of all our consultation questions.

Proposed process

Matters within the scope of this process

X4 Our process will include determination of the following:

X4.1 Chorus' PQ path for PQP2; and

X4.2 whether to undertake an anchor service review.

X5 It may also encompass limited amendments to the fibre IMs where such amendments are necessary and/or desirable to implement our PQ decisions or to correct for any technical errors. Our framework for addressing IM amendments is discussed in Attachment B.

Matters outside the scope of this process

X6 Matters generally excluded from the scope of this paper are:

X6.1 other statutory reviews such as PQ reviews or deregulation reviews;

X6.2 unbundling specification of an unbundled service (s 229);

X6.3 core changes to ID requirements;

X6.4 form of control/direct fibre access services (DFAS); and

X6.5 specified points of interconnections (SPOIs).

Timeline

X7 Table X1 below contains a detailed list of the major milestones for setting Chorus' PQ path for PQP2.

Table X1 Indicative dates for the PQ projects.

| Date | Milestone | Description |
|----------------------------|---|---|
| 28 February 2023 | Chorus PQP2 information request | A formal request under s 221 of the Act, seeking information necessary to set Chorus' expenditure allowances. |
| 31 August 2023 | Process and approach paper | Sets out our proposed approach to PQ regulation, and the process for delivering it (this paper). |
| 28 September 2023 | Process and approach paper submissions | Submission on this paper. |
| Q4 2023¹ | Chorus PQP2 expenditure proposal | Chorus submits its expenditure proposal for PQP2. |
| Q4 2023 | Consultation on Chorus' proposal | Consultation on Chorus' expenditure proposal. |
| Q4 2023 | Submissions on Chorus' proposal | Submissions on Chorus' expenditure proposal. |
| Q1 2024 | Draft determination of Chorus' expenditure allowance for PQP2 | Draft decision on Chorus' capex and opex allowances for PQP2. |
| Q1 2024 | Draft fibre IM amendments (if required) | Draft fibre IM amendments (if required) to implement our PQ decisions or correct technical errors. ² |
| Q2 2024 | Final fibre IM amendments (if required) | Final fibre IM amendments (if required) to implement our PQ decisions or correct technical errors. |
| Q2 2024³ | Determination of Chorus' expenditure allowance for PQP2 | Decision on Chorus' capex and opex allowances for PQP2. |
| Q2 2024 | Determination of Chorus' PQ path for PQP2 draft decision | Draft decision on Chorus' revenue path and quality standards for PQP2. |
| Q2 2024⁴ | WACC determination for Chorus PQP2 | The determination of the WACC that must be used to set Chorus' allowable revenue for PQP2. |
| Q4 2024 | Determination of Chorus' PQ path for PQP2 final decision | Final decision on Chorus' revenue path and quality standards for PQP2. |
| 1 January 2025 | Start of PQP2 regulatory period | PQP2 comes into effect. |

¹ Chorus must submit its base capex and connection capex baseline proposals by 31 October 2023 consistent with *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clauses 3.7.8(1)(b) and 3.7.14(1).

² We note the requirements for changes to input methodologies set out in ss 181 and 179 of the Act. We will follow the requirements as set out in the Act as necessary. Our process for amendments (if they are proposed) is further set out in Attachment B.

Proposed steps in our process

- X8 Our proposed process includes the following steps:
- X8.1 Information request – we issued a s 221 notice to Chorus on 28 February 2023 which requested the information necessary for the Commission to determine Chorus’ PQ path for PQP2.
 - X8.2 Expenditure proposal – the capital expenditure (capex) IM requires Chorus to submit its expenditure proposal by 31 October 2023. We intend to seek submissions on Chorus’ expenditure proposal in Q4 2023.
 - X8.3 Draft decision – we intend to split our draft decisions into:
 - X8.3.1 a draft determination of Chorus’ capex and opex allowances in Q1 2024; and
 - X8.3.2 a draft determination of Chorus’ PQ path for PQP2 in Q2 2024.⁵
 - X8.4 Final decision – we intend to split our final decisions into:
 - X8.4.1 a final determination of Chorus’ capex and opex allowances in Q2 2024; and
 - X8.4.2 a final determination of Chorus’ PQ path for PQP2 in Q4 2024.

Regulatory framework

Legal framework

Mandatory decision-making considerations that apply for our PQ determination

- X9 When setting our second PQ determination, we must consider the matters specified in s 166(2) of the Act:

166 Matters to be considered by Commission and Minister

[...]

- (2) The Commission or Minister must make the recommendation, determination, or decision that the Commission... considers best gives, or is likely to best give, effect-
- (a) to the purpose in section 162 of the Act; and
 - (b) to the extent that the Commission... considers it relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services

³ We must determine a base capex allowance and connection capex baseline allowance by 30 June 2024 consistent with *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clauses 3.7.12(1)(b) and 3.7.20(1)(b).

⁴ We must determine a WACC by 1 June 2024 consistent with *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.5.1.

⁵ We intend to consult on draft decisions and to have regard to submissions when making our final decisions.

X10 The purpose of Part 6 of the Act, as specified in s 162, reads:

162 Purpose

The purpose of this Part is to promote the long-term benefit of end-users in markets for fibre fixed line access services by promoting outcomes that are consistent with outcomes produced in workably competitive markets so that regulated fibre service providers-

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and supply fibre fixed line access services of a quality that reflects end-user demands; and
- (c) allow end-users to share the benefits of efficiency gains in the supply of fibre fixed line access services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.

Mandatory requirements for the second PQ determination

X11 Our determination dated 28 February 2023 specified a particular aspect of how PQ regulation applies to Chorus under s 170(1)(b).⁶ That determination specified, as a new s 170 determination, the duration of the regulatory period for PQP2 under s 194(2)(a) and s 207(2).

X12 Further to that determination, the next PQ path in respect of Chorus must specify:⁷

- X12.1 the maximum revenues which Chorus may recover from its PQ FFLAS;
- X12.2 the minimum quality standards that will apply to Chorus;
- X12.3 the date on which the PQ path takes effect (1 January 2025); and
- X12.4 the date or dates in which compliance must be demonstrated.

Economic framework

X13 We have developed an economic framework to guide our decision-making. This helps us make individual decisions that are consistent with each other, and with the requirement to best give effect to the purposes described in s 166(2) of the Act.

X14 The economic framework includes three components:

- X14.1 economic principles - including real financial capital maintenance, allocation of risk, and asymmetric consequences of under- or over-investment;

⁶ *Determination of the duration of the second regulatory period for Fibre Price-Quality Path Determination 2024 [2023] NZCC 2.*

⁷ Telecommunications Act 2001, s 194.

- X14.2 an incentive framework- to help us evaluate how the regime may interact with the incentives faced by regulated providers and assist us in identifying risks to end-users; and
- X14.3 competition screening questions - to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.

Revenue and price path compliance

How we propose to determine allowable revenue

- X15 For PQP2, we must specify allowable revenue as a cap on the revenues Chorus can recover in respect of its PQ FFLAS.
- X16 In the fibre IMs, under the specification of price and revenues IM, the revenue cap (defined as 'forecast allowable revenue') is composed of three parts:⁸
 - X16.1 forecast building blocks revenue – the revenues needed to cover Chorus' operating expenditure (opex), depreciation, return on investment and tax costs;
 - X16.2 forecast pass-through costs – a forecast of the costs that are passed through to end-users; and
 - X16.3 a wash-up amount – an amount that provides for any over- or under-recovery of revenue.

Wash-up mechanism

- X17 Section 196 of the Act requires us, from PQP2 onwards, to apply a wash-up mechanism that provides for any over- or under-recovery of revenue during Chorus' PQ path for the first regulatory period from 1 January 2022 to 31 December 2024 (PQP1).
- X18 The wash-up mechanism is composed of three key elements set out in the fibre IMs:
 - X18.1 wash-up accrual amounts - used to capture the relevant forecast versus actual differences in inputs to the revenue path;
 - X18.2 wash-up balance - used to track accruals, drawdowns, and time value of money adjustments; and

⁸ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21.

- X18.3 wash-up draw-down amount - used to deduct accrued balances to be returned to the regulated provider or access seekers (depending on whether the balance is positive or negative) via the revenue path in the subsequent regulatory period.

Notable changes to building blocks in PQP2

Repayments of Crown financing

- X19 Chorus is expected to commence the repayment of Crown financing during PQP2. This will reduce the outstanding Crown financing balance, and therefore reduce the size of the benefit of Crown financing. The benefit of Crown financing is recognised as a negative building block in the maximum allowable revenue (MAR) calculation. As this amount represents a reduction in the required revenue, reducing the size of the benefit of Crown financing over PQP2 will have the effect of increasing the MAR.

Exhaustion of regulatory tax losses

- X20 We expect Chorus to fully utilise any outstanding regulatory tax losses during PQP2.
- X21 Chorus is expected to begin paying taxes on its PQ FFLAS business and therefore a positive tax building block will be calculated. This will increase the MAR.

Assessing and demonstrating compliance with the PQ path

- X22 We propose to set compliance reporting requirements for PQP2 that operate in a broadly similar way to PQ compliance requirements in PQP1. This encompasses:
- X22.1 an *ex-ante* revenue path compliance statement prior to the start of the regulatory year, demonstrating that the prices Chorus proposes to set are compliant with the revenue path;
 - X22.2 annual price path compliance statements, including a director's certificate of compliance;
 - X22.3 an *ex-post* wash-up and quality standards compliance statement after the regulatory year has ended, demonstrating that Chorus has met its quality standards and calculating revenue cap wash-up; and
 - X22.4 an *ex-post* compliance statement, including a director's certificate of compliance, that states whether Chorus has complied with s 201.

Our approach to determining Chorus' expenditure allowances

- X23 A critical part of our process is to determine forecasts of capex and opex allowances for the regulatory period, which contribute to determining Chorus' allowable revenue for PQP2.

- X24 The capex IM identifies three types of capex, each of which has its own processes, timeframes, and requirements. These different types of capex are:⁹
- X24.1 base capex, which covers all forecast capital expenditure except capex associated with the connection of end-users (connection capex) and capex that has been approved as a result of an individual capex proposal;
 - X24.2 connection capex, which is capex that is directly incurred by Chorus in relation to connecting new end-user premises, building or other access points where the communal fibre network already exists or will exist at the time of connection, and includes:
 - X24.2.1 a ‘connection capex baseline’ component;
 - X24.2.2 a ‘connection capex variable adjustment’ component; and
 - X24.3 individual capex, which is capex that has a high degree of uncertainty as to need, economic case and/or timing, or the capex we determine should be approved for specific projects or programmes to which it relates and reported separately from base capex.
- X25 The capex allowances we will determine for Chorus’ PQ path for PQP2 are the base capex and connection baseline capex. Individual capex is evaluated and approved (if appropriate) under a separate process.
- X26 In addition to the base capex and the connection capex baseline allowances, we will also determine an opex allowance for PQP2. In contrast to the capex allowances which have a small effect on the revenue allowance in the short term (as only a percentage is recovered during the current regulatory period), the opex allowance has a one to one impact on the revenue allowance.

Process for evaluating Chorus’ expenditure proposals

- X27 Our process for evaluating Chorus’ expenditure proposals involves the following steps:
- X27.1 Information request – we issued an information request to Chorus on 28 February 2023 requesting the information required under the capex IM.

⁹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.1.

- X27.2 Independent verifier (IV) process – the capex IM requires Chorus’ base capex proposal to be verified by an IV.¹⁰ The verification process is intended to promote certainty for Chorus as to how its expenditure proposals are likely to be assessed, as well as to assist us to make the most effective use of a tight statutory timeframes for evaluating capex proposals.
- X27.3 Assessment of Chorus capex proposals – our approach involves Chorus developing the financial and other models used to specify expenditure allowances and building blocks revenue. These will then be subjected to assessment and scrutiny by us and other interested parties. We will make a determination on Chorus’ expenditure allowance, including opex, for PQP2 that best gives (or is likely to best give) effect to the purpose in s 162 and (to the extent that we consider it relevant) to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.
- X27.4 Assessing and determining Chorus’ opex – unlike capex, we do not have an IM that sets out the criteria for assessing and approving opex. We propose to adopt a similar approach to that used for assessing capex and:
- X27.4.1 seek stakeholders’ views on Chorus’ proposal;
 - X27.4.2 require the independent verifier to review, and where it considers it appropriate, verify Chorus’ opex;
 - X27.4.3 issue a draft determination of Chorus’ opex allowance and seek stakeholders’ views; and
 - X27.4.4 issue a final determination of Chorus’ opex allowance and use it as an input into the MAR calculation.

Our approach to evaluating Chorus’ expenditure allowances

- X28 In evaluating both Chorus’ base capex and connection capex baseline proposals, we must apply the evaluation criteria in the capex IM and ensure that our decisions best give effect or are likely to best give effect to the purpose in s 162 and (where relevant) 166(2)(b) of the Act.

¹⁰ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.10.

Cost allocation and cost escalation

- X29 Regulated providers have costs that are shared between regulated FFLAS and services that are not regulated FFLAS. Cost allocation ensures that only those costs associated with regulated FFLAS are included in the Building Block Model (BBM) calculations for Chorus' allowable revenue. As such, a component of determining expenditure allowances involves considering how the allocation of costs to PQ FFLAS changes over time.
- X30 Our evaluation of Chorus' proposed expenditure will consider the forecast FFLAS allocations. Consideration of the allocators is an important component of the evaluation as it allows us to ensure that the allocator calculations meet the expenditure objective.
- X31 In accordance with the capex IM, our determination of expenditure allowances is made in nominal terms. As such, cost escalation refers to the escalators used to inflate the real expenditure allowance to a nominal expenditure allowance that is suitably adjusted for price changes in future years. As part of our evaluation of Chorus' proposals we will consider the escalators proposed by Chorus and determine whether they are appropriate and consistent with other aspects of the expenditure determination.

Prioritisation of focus areas for evaluation and application of proportionate scrutiny

- X32 A key focus of our assessment will be on identifying expenditure that is prudent and efficient and meets the requirements (set out in the capex IM and adapted for opex as required).
- X33 A key part of our review will be consideration of the findings from the IV process, along with the feedback received from stakeholders on Chorus' proposal. To assist, the capex IM requires Chorus to develop and publish an Integrated Fibre Plan (IFP). The IFP helps to ensure we have visibility of and can encourage improvements in Chorus' processes and procedures relating to good asset management, as well as Chorus' oversight of its business and how it effectively engages with its end-users.
- X34 We will also apply proportionate scrutiny to Chorus' expenditure forecasts when determining expenditure allowances. This means that in evaluating Chorus' expenditure proposals we will apply the level of scrutiny that is commensurate with potential price and quality impacts of the related forecast expenditure.

Specific areas of potential interest for evaluation

- X35 There are several areas of expenditure that may warrant specific evaluation, depending on the outcome of the IV investigation. The areas where we have either already sought specific information, and areas that may warrant specific evaluation include:

- X35.1 expansion of the fibre network into rural areas of New Zealand;
- X35.2 expenditure to reinforce the resilience of the fibre network;
- X35.3 incentive payments associated with new connections and product upgrades;
- X35.4 cost allocation and the impact of increasingly higher proportion of costs being attributed to fibre;
- X35.5 other material capex expenditure areas such as network and customer information technology (IT) and aggregation expenditure; and
- X35.6 material opex expenditure categories such as corporate support expenditure and network maintenance.

Quality standards review

- X36 We set quality standards to ensure that regulated entities do not face incentives to increase profits by reducing the level of quality of service to users.
- X37 The IM requires us to set mandatory PQ quality standards for the availability and performance dimensions. We did not set standards for any of the optional quality dimensions of ordering, switching, provisioning, faults and customer service for PQP1.

Review of mandatory quality standards

- X38 For PQP1 we only considered it necessary to determine quality standards for availability and performance. To keep standard levels and conditions relevant to the quality that end-users demand, we consider that these two mandatory standards should be reviewed and maintained for Chorus' PQ path for PQP2.
- X39 We propose to update the base data with an information request on historical performance, to assess Chorus' PQP2 proposal and consider feedback from consultation with stakeholders.
- X40 We propose to review:
 - X40.1 the availability standard; and
 - X40.2 the performance standard.

Assessing the need to set optional quality standards

- X41 In our PQP1 reasons paper we decided not to set quality standards for the optional dimensions of ordering, provisioning, switching, faults, and customer service quality dimensions.¹¹
- X42 We are going to consider whether to add new quality standards for the optional dimensions if our analysis of quality measurement ID disclosures indicates that this is warranted.

Potential quality incentive scheme

- X43 We are considering whether to introduce a pilot quality incentive scheme for PQP2. This would be intended to further incentivise Chorus to improve quality.
- X44 We consider an incentive scheme could further align the interests of Chorus with those of end-users and build on the incentives created by the quality standards already introduced in PQP1.
- X45 We will set out more detail in our draft decision if we propose to introduce a scheme in PQP2. Our emerging view is that it would be a pilot scheme which by its nature is limited in application. This would allow us to mitigate risks, understand the impact of an incentive scheme on Chorus' behaviour and end-user outcomes and potentially move to a fully functioning incentive scheme in later regulatory periods. A pilot scheme could limit the total upsides and downsides from the incentive scheme, while ensuring that at the margin the incentive effectively matches an estimate of willingness to pay for the relevant measure of quality.
- X46 Any such scheme would build on our experience in the electricity distribution businesses (EDBs).
- X47 We are seeking comment now on this emerging view.

Anchor services review

- X48 We are seeking comment on our emerging view that we will not undertake a review of the anchor services before the start of PQP2. We consider:
- X48.1 the maximum monthly prices for broadband and voice anchor services are meeting their purpose in providing an appropriate constraint on other FFLAS; and

¹¹ Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021), at [7.72].

- X48.2 the Chorus UFB services agreement, ID, market-based competition from fixed wireless broadband and our quality standards are likely to be sufficient to maintain and improve quality over the next regulatory period.
- X49 The Act provides for regulations made under ss 227 to 228 to declare certain FFLAS as anchor services (s 227), DFAS (s 228), and unbundled fibre services (declared services) (s 229). Once services are declared, ss 198 to 200 provide that regulated providers subject to PQ regulation will have to provide the declared services and comply with any prescribed maximum prices and conditions.
- X50 In forming our emerging view to not undertake a review of the anchor services, we have considered whether the anchor services have met their purpose under s 208(7) of the Act (we elaborate on this in Attachment A). In doing so, we have considered the following areas:
- X50.1 service description - if the descriptions of the anchor services are influencing the quality of service and the speed of service ensuring that end-users receive the level of service that they expect at a reasonable price.
- X50.2 pricing - if the pricing of the anchor services is providing adequate constraint ensuring voice and broadband services are available at a reasonable price.

Proposed approach for amending IMs (if required)

- X51 We may amend the fibre IMs at any time under s 181 of the Act. This extends to the publication of IMs that deal with new matters (s 178(2)). Where an amendment is material, we must follow the process set out in s 179, which we were required to follow when first setting the IMs. We generally will not make fundamental policy changes to IMs outside of the periodic IM review process.
- X52 It may be necessary for us to consider amendments to the fibre IMs as part of our process to set Chorus' PQ path for PQP2. We expect to consider whether any amendments are necessary prior to the determination of Chorus' PQ path for PQP2. We anticipate beginning this consultation process in Q1 2024 in the event we propose amendments.

Chapter 1 Introduction

Purpose of this paper.

- 1.1 This paper outlines our proposed process, framework and high-level approach to determining Chorus' price-quality (PQ) path for the second regulatory period from 2025 to 2028 (PQP2).
- 1.2 We must make a determination under s 170 of the Act, specifying how PQ regulation applies to Chorus for PQP2, before 31 December 2024.¹² Chorus is currently the only local fibre company (LFC) subject to PQ regulation under Part 6 of the Act.¹³
- 1.3 This paper is intended to:
 - 1.3.1 allow Chorus and other interested parties to plan for future engagement on the PQ path for PQP2;
 - 1.3.2 give interested parties an opportunity to provide feedback to help shape this process;
 - 1.3.3 explain the options we have identified for addressing major issues within the scope of PQ regulation; and
 - 1.3.4 allow interested parties an early opportunity to provide their views on these options, and to identify any additional issues we may need to consider.

Structure of this paper

- 1.4 To achieve these objectives, we discuss the following things in the remaining chapters of this paper:
 - 1.4.1 in Chapter 2, the process we propose following;
 - 1.4.2 in Chapter 3, the frameworks we must apply to make decisions about PQ;
 - 1.4.3 in Chapter 4, developments during PQP1;
 - 1.4.4 in Chapter 5, our approach to revenue and compliance;

¹² Telecommunications Act 2001, s 172(1)(a).

¹³ Since 31 December 2021, Chorus has been subject to PQ regulation under Part 6 of the Act in respect of the services specified in regulation 6 of the Telecommunications (Regulated Fibre Service Providers) Regulations 2019.

- 1.4.5 in Chapter 6, our approach to determining Chorus' expenditure allowances;
- 1.4.6 in Chapter 7, our approach to setting quality standards;
- 1.4.7 in Attachment A, our view on whether to undertake an anchor services review; and
- 1.4.8 in Attachment B, our proposed approach for amending IMs;
- 1.4.9 in Attachment C, a summary of the forms of information required from Chorus; and
- 1.4.10 in Attachment D, a summary of all our consultation questions.

How you can provide your views

Scope of submissions

- 1.5 We are interested in your views across the broad range of PQ-related topics as part of this first step in our PQP2 consultation process, and are seeking comments on all matters raised in this paper.
- 1.6 As this is the second price path we will set for Chorus, there are parts of our approach where we think we can build on lessons from PQP1 and our experience in other sectors. In these areas, we have set out proposed approaches for carrying out our review and are seeking comment on these.
- 1.7 In other areas, we are seeking comment on broader proposals for how we may be able to conduct our review, and we have therefore set out options as we have identified them.
- 1.8 Finally, we have also set out our emerging view on whether or not we propose to undertake an anchor services review at this time in Attachment A, and are also seeking comment on this emerging view.
- 1.9 We therefore welcome submissions on all proposed approaches and options, and emerging views outlined in this paper and on any other matters submitters think we may need to consider as part of our PQP2 review, or which may need to be added to our proposed project approach and scope.
- 1.10 We have signposted matters we are interested in receiving feedback on in each chapter, and have included specific consultation questions on individual topics. These questions are also collated in Appendix D.

Process and timeline for making submissions

- 1.11 You are invited to provide your written views on this process paper no later than 5pm Thursday, 28 September. You should address your responses to:
- 1.11.1 Keston Ruxton (Manager, Fibre PQ Regulation)
 - 1.11.2 c/o infrastructure.regulation@comcom.govt.nz
- 1.12 Please include “Chorus PQP2 Process Paper” in the subject line. We prefer responses to be provided in a file format suitable for word processing in addition to PDF file format.

Confidentiality

- 1.13 Please note that we intend to publish all submissions on this process paper.
- 1.14 The protection of confidential information is something the Commission takes seriously. The process requires you to provide (if necessary) both a confidential and non-confidential/public version of your submission and to clearly identify the confidential and non-confidential/public versions.
- 1.15 When including commercially sensitive or confidential information in your submission:
- 1.15.1 Please provide clearly-labelled confidential and public versions. We intend to publish all public versions on our website.
 - 1.15.2 The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission. Where a confidential version of your submission is provided, please clearly identify and highlight all information you consider to be confidential.
 - 1.15.3 Please note that all submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we do not publish unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult with the party that provided the information before any disclosure is made.

Chapter 2 Proposed process

Purpose and structure of this chapter

- 2.1 This chapter sets out the process we propose following to set PQ requirements for PQP2.
- 2.2 This chapter addresses:
 - 2.2.1 the scope of the PQ process;
 - 2.2.2 the proposed timeline; and
 - 2.2.3 the proposed steps in our process.
- 2.3 We are interested in your views on whether the proposed timelines are workable, and any ways the process could be improved to deliver better outcomes for end-users and other industry stakeholders.

Scope of the PQ process

Matters within the scope of this process

- 2.4 Our process will include determinations of the following:
 - 2.4.1 Chorus' PQ path for PQP2; and
 - 2.4.2 whether to undertake an anchor service review.
- 2.5 It may also encompass limited amendments to the fibre IMs where such amendments are necessary and/or desirable to implement our PQ decisions or to correct for any technical errors. Our framework for addressing IM amendments is discussed in Attachment B.

Matters outside the scope of this process

- 2.6 The PQ process will not include consultation on other matters referred to in Part 6 or other Parts of the Act. However, we may refer to these matters where they have an impact on our approach to PQ.
- 2.7 Matters generally excluded from scope are:
 - 2.7.1 other statutory reviews such as PQ reviews, or deregulation reviews;
 - 2.7.2 unbundling specification of an unbundled service (s 229);

- 2.7.3 core changes to ID requirements;¹⁴
- 2.7.4 form of control/direct fibre access services (DFAS); and
- 2.7.5 specified points of interconnection (SPOIs).

Our approach to considering whether to undertake a deregulation review

- 2.8 Section 210 of the Act requires the Commission to consider whether there are reasonable grounds to start a deregulation review before the start of each regulatory period (from PQP2 onwards).¹⁵ A deregulation review considers how FFLAS is regulated and whether one or more FFLAS should no longer be regulated under Part 6, or be subject to PQ regulation under Part 6.¹⁶
- 2.9 We intend to consider whether there are reasonable grounds to conduct a deregulation review in 2024. We intend to release an emerging views paper on the legal and economic frameworks, as well as the proposed parameters for a review including relevant service descriptions and geographic coverage which we will invite submissions on. We will then publish a draft decision of our reasonable grounds analysis and our reasoning. We will invite consultation from interested parties on our draft decisions which will inform our final decision.
- 2.10 If we find there are reasonable grounds for a deregulation review, it is open to the Commission to conduct a deregulation review. If a review was undertaken, we would provide a recommendation to the Minister (in accordance with s 210 of the Act). Interested parties would also have an opportunity to give their views on the matters subject to review.

¹⁴ We may consider changes to ID requirements that apply to Chorus as a result of our final PQP2 decisions.

¹⁵ Telecommunications Act 2001, s 210(4).

¹⁶ Telecommunications Act 2001, s 210(1).

Proposed timeline

- 2.11 This section sets out our overall proposed process for determining PQ regulation which will apply to Chorus for PQP2. It includes the timing of major milestones for the consultation process, and a discussion of the constraints that any process we follow must work within.
- 2.12 We note that the timeframes for finalising Chorus' PQ path for PQP2 are tight. Ensuring that the timeframes are met will rely to some extent on Chorus submitting sufficient quality proposals. Submission of sufficient quality proposals will assist the Commission in assessing Chorus' expenditure against the fibre IMs in the time available to meet the deadlines set out in this paper.
- 2.13 A detailed list of major milestones is set out in Table 2.1 below.

Table 2.1 Indicative dates for the PQ projects

| Date | Milestone | Description |
|-----------------------------|---|--|
| 28 February 2023 | Chorus PQP2 information request | A formal request under s 221 of the Act, seeking information necessary to set Chorus' expenditure allowances. |
| 31 August 2023 | Process and approach paper | Sets out our proposed approach to PQ regulation, and the process for delivering it (this paper). |
| 28 September 2023 | Process and approach paper submissions | Submission on this paper. |
| Q4 2023¹⁷ | Chorus PQP2 expenditure proposal | Chorus submits its expenditure proposal for PQP2. |
| Q4 2023 | Consultation on Chorus' proposal | Consultation on Chorus' expenditure proposal. |
| Q4 2023 | Submissions on Chorus' proposal | Submissions on Chorus' expenditure proposal. |
| Q1 2024 | Draft determination of Chorus' expenditure allowance for PQP2 | Draft decision on Chorus' capex and opex allowances for PQP2. |
| Q1 2024 | Draft fibre IM amendments (if required) | Draft fibre IM amendments (if required) to implement our PQ decisions or correct technical errors. ¹⁸ |
| Q2 2024 | Final fibre IM amendments (if required) | Final fibre IM amendments (if required) to implement our PQ decisions or correct technical errors. |
| Q2 2024¹⁹ | Determination of Chorus' expenditure allowance for PQP2 | Decision on Chorus' capex and opex allowances for PQP2. |
| Q2 2024 | Determination of Chorus' PQ path for PQP2 draft decision | Draft decision on Chorus' revenue path and quality standards for PQP2. |
| Q2 2024 | WACC determination for Chorus PQP2 | The determination of the WACC that must be used to set Chorus' allowable revenue for PQP2. |
| Q4 2024 | Determination of Chorus' PQ path for PQP2 final decision | Final decision on Chorus' revenue path and quality standards for PQP2. |
| 1 January 2025 | Start of PQP2 regulatory period | PQP2 comes into effect. |

Proposed steps in our process

2.14 Draft decision – we intend to split our draft decisions into:

- 2.14.1 a draft determination of Chorus' capex and opex allowances in Q1 2024; and

- 2.14.2 a draft determination of Chorus' PQ path for PQP2 in Q2 2024.
- 2.15 Final decision – we intend to split our final decisions into:
 - 2.15.1 a final determination of Chorus' capex and opex allowances in Q2 2024; and
 - 2.15.2 a final determination of Chorus' PQ path for PQP2 in Q4 2024.

Fixed constraints on the PQ process

- 2.16 While we have some flexibility in the timing of major milestones and consultation events within the PQ processes, we are also subject to several legislative and practical constraints. These include:
 - 2.16.1 the requirements for the capex assessment process set out in the capex IM;
 - 2.16.2 the availability of information and data necessary to determine PQ inputs, such as the WACC and Chorus' expenditure allowances; and
 - 2.16.3 how we will deal with uncertain events.

Statutory deadlines for determining PQ

- 2.17 We are required to set Chorus' PQ path for PQP2 before the start of the PQP2 period on 1 January 2025. As such, the latest possible time we can determine PQ requirements for PQP2 (and any associated IM and ID requirements) is in December 2024.

Requirements in the capex IM

- 2.18 The capex IM includes timing requirements for the submission of Chorus' base capex proposal and connection capex baseline proposal (we refer to these together, along with any individual capex proposal Chorus chooses to submit alongside as the 'capex proposal') and for our final decision on Chorus' base capex allowance and connection capex baseline allowance (referred to together as the 'capex allowances').²⁰
- 2.19 For PQP2, the Chorus' capex proposal needs to be submitted by 31 October 2023.

²⁰ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clauses 3.7.8(1) and 3.7.13(1).

- 2.20 We issued a s 221 notice to Chorus on 28 February 2023 requesting the information Chorus must provide as part of its capex proposal, as well as information it must provide in an accompanying opex proposal.^{21,22}
- 2.21 The capex IM requires us to determine a base capex allowance for each regulatory year of PQP2 by 30 June 2024.

Availability of information

- 2.22 Some key inputs to the final PQ determination will not be available until part way through the determination process. These include:
- 2.22.1 the inputs required to determine the WACC for PQP2, which cannot be determined before 1 June 2024 and must be determined by 1 July 2024; and
 - 2.22.2 Chorus' responses to any information gathering requests may require a lead-time for the response to be prepared and subjected to audit and certification.
- 2.23 Utilising the actuals from the most recent base year to the start of PQP2 will result in more accuracy. This will result in less reliance on forecasts and less need for a wash-up. At this stage, we intend to use year-end 31 December 2023 as the base year.

Uncertain events

- 2.24 Given the possibility of further external events, ie, a pandemic or natural disaster, some uncertainty underlies our consultation process. While we intend to follow the process described above in table 2.1, future circumstances may limit our ability to meet these timelines, and may limit interested parties' ability to engage in the process.
- 2.25 If there are significant impacts on our consultation process, we will provide interested parties with process updates, as we did during the consultation period for PQP1.

The proposed steps in our process

- 2.26 The process we propose for expenditure is:

²¹ Commerce Commission "Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 - Requirements for base capital expenditure, connection capex baseline expenditure, and operating expenditure proposals" (16 August 2023).

²² Although opex is not covered by the capex IM, we are required to assess opex as well as capex, and have therefore included both in the s 221 notice.

- 2.26.1 in part, a ‘propose/respond’ one, where Chorus proposes expenditure allowances that are then subject to evaluation and scrutiny by the Commission and other interested parties; and
 - 2.26.2 in part, one that will be based on proposals made by us and subject to consultation with all interested parties.
- 2.27 Further details of this process are provided in Chapter 6. It will have three major steps:
- 2.27.1 an information gathering request from the Commission and an expenditure proposal prepared by Chorus;
 - 2.27.2 a draft decision on the expenditure proposal (which will be consulted upon); and
 - 2.27.3 final decisions on expenditure, allowance.
- 2.28 Our proposed process and approach for setting revenue is discussed in Chapter 5. It will have two major steps:
- 2.28.1 a draft decision on the allowable revenue, and quality standards (which will be consulted upon); and
 - 2.28.2 final decisions on revenue, and quality.
- 2.29 We propose to set quality standards by issuing an information request and using data collected to calculate proposed quality standards. We intend to consult on these prior to issuing a final determination on quality standards. This proposed approach is discussed further in Chapter 7.

Information request and expenditure proposal

- 2.30 The first major step in the process to determine Chorus' PQ path is an information gathering request under s 221. We issued a s 221 notice to Chorus on 28 February 2023, which requested the information necessary for the Commission to determine Chorus' PQ path for PQP2.²³ This request informs Chorus' capex and opex proposal – our starting point for determining Chorus' revenue path. Chorus' capex proposal must be accompanied by an independent verification report from an IV. The independent verification report will verify the information contained in the capex proposal.²⁴

²³ Commerce Commission “Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 - Requirements for base capital expenditure, connection capex baseline expenditure, and operating expenditure proposals” (16 August 2023).

²⁴ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clauses 3.7.10 and 3.7.16.

- 2.31 The information gathering request includes both the capex proposals required by the IMs, and information on opex. The information request sets out the information Chorus must provide in its proposals, complemented by requirements in the IM. It also specifies any audit, assurance, and certification requirements. The capex IM requires the expenditure proposals to be submitted by 31 October 2023.
- 2.32 We intend to seek submissions on Chorus' expenditure proposals, and any areas within it that interested parties believe may merit further scrutiny. These submissions will be due in Q4 2023.
- 2.33 Alongside this external consultation process on the expenditure proposal, the Commission will also undertake an internal proposal evaluation process. This will involve assessing the proposal for compliance with the IMs, and assessing proposed expenditure against the evaluation criteria in the capex IM. It may also involve further requests for information, and engagement of expert advice on particular categories of expenditure where necessary.

Draft decision

- 2.34 We intend to issue a full draft determination of Chorus' PQ path for PQP2 for consultation in Q2 of 2024. We anticipate that this decision will include:
- 2.34.1 draft allowable revenue (and related wash-up and compliance requirements);
 - 2.34.2 draft expenditure allowances;
 - 2.34.3 draft quality standards and incentive scheme; and
 - 2.34.4 a draft PQ determination.
- 2.35 We propose allowing:
- 2.35.1 four weeks for submissions; and
 - 2.35.2 a further two weeks for cross-submissions.

Final decisions

- 2.36 Consistent with s 170 of the Act, we must issue a PQ determination specifying the maximum revenues and minimum quality standards that apply for each regulatory year of PQP2.
- 2.37 Consistent with the capex IM, we must determine Chorus' capex allowances by 30 June 2024. We currently intend to determine Chorus' opex allowance at the same time.
- 2.38 We intend to make a final decision on Chorus' PQ path for PQP2 in Q4 2024.

Treatment of confidential information supplied to the Commission

- 2.39 We consider that transparency of information is important to ensure that interested parties have a fair opportunity to present their views and that we make robust high-quality determinations.
- 2.40 We therefore intend to make as much of the information from submissions available as possible during our development of the PQ determination, subject to the need to protect confidential and/or commercially sensitive information (confidential information).
- 2.41 We do not intend to publish confidential information on our website or make it available to interested parties or their internal advisors, given the potential commercial prejudice to the providers of the information if such information was disclosed to their competitors, customers, or suppliers.

Chapter 3 Regulatory framework

Purpose and structure of this chapter

- 3.1 This chapter sets out the framework we will apply to making decisions about PQ regulation. We are sharing this thinking now to give you an opportunity to provide feedback in advance of our draft decision, and to aid in explaining the reasons for the proposed approaches set out in Chapters 5, 6 and 7.
- 3.2 This chapter addresses:
- 3.2.1 the legal framework set out in Part 6 of the Act; and
 - 3.2.2 the economic framework we propose to apply.

PQ legal framework

- 3.3 This section describes the legal requirements under Part 6 of the Act for determining Chorus' PQ path for PQP2 and the mandatory decision-making considerations that apply.²⁵

Background

- 3.4 Before the end of the current regulatory period, the Commission must make a determination under s 170 of the Act specifying how PQ regulation applies to Chorus during the following regulatory period.
- 3.5 As specified in s 166(2) of the Act, in determining the PQ path for PQP2, we must make a determination that we consider best gives, or is likely to best give, effect:²⁶
- 3.5.1 to the purpose in s 162 of the Act, as specified in s 166(2)(a) of the Act; and
 - 3.5.2 to the extent that we consider it relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services, as specified in s 166(2)(b) of the Act.
- 3.6 The Commission determined Chorus' PQ path for PQP1 on 16 December 2021.

²⁵ Unless stated otherwise all references to statutory provisions in this paper are references to statutory provisions under the Telecommunications Act 2001.

²⁶ Telecommunications Act 2001, s 166(2).

- 3.7 This will be the second regulatory period we set a PQ path for Chorus. As detailed in our determination dated 28 February 2023, the second regulatory period will be four years, from 1 January 2025 until 31 December 2028.²⁷
- 3.8 The purpose of PQ regulation is to regulate the price and quality of FFLAS provided by regulated providers.²⁸ Regulations made under s 226 of the Act set out that Chorus is subject to PQ regulation for all FFLAS "except to the extent that a service is provided in a geographical area where a regulated fibre service provider (other than Chorus Limited) has installed a fibre network as part of the UFB initiative."²⁹ Chorus is currently the only LFC subject to PQ regulation under Part 6 of the Act.³⁰
- 3.9 In our reasons paper for PQP1 we set out a framework for the interpretation of regulation 6 and concluded that, from our assessment, we were confident that Chorus interpreted regulation 6 consistently with our interpretation and that Chorus had applied this interpretation correctly in setting its initial RAB.³¹
- 3.10 We intend to take a similar approach in PQP2 to assessing which parts of Chorus' FFLAS fall within PQ regulation. We may seek additional information from Chorus during the PQP2 process to determine whether it has appropriately applied the regulations.
- 3.11 During the second regulatory period (from 1 January 2025), as a regulated provider subject to PQ regulation, Chorus must:³²
- 3.11.1 apply the PQ path set by us in a determination made under s 170 of the Act, which includes:
 - 3.11.1.1 the maximum revenues that Chorus may recover from its PQ FFLAS; and
 - 3.11.1.2 the quality standards that must be met by Chorus; and
 - 3.11.2 provide an anchor service if an anchor service has been declared;³³

²⁷ *Fibre Price-Quality Determination 2024 (Determination of the duration of the second regulatory period for Fibre Price-Quality Path)* [2023] NZCC 2.

²⁸ Telecommunications Act 2001, s 192.

²⁹ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6.

³⁰ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6.

³¹ Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021), Attachment E.

³² Telecommunications Act 2001, s 193(1).

³³ Telecommunications Act 2001, s 193(1)(b) and s 198. Under s 227(1) of the Act, the Governor-General may, by Order in Council made on the recommendation of the Minister of Broadcasting, Communications and Digital Media, make regulations declaring a FFLAS to be an anchor service.

- 3.11.3 provide a DFAS if a DFAS has been declared;³⁴
 - 3.11.4 provide an unbundled fibre service if a point-to-multipoint layer 1 service supplied to end-users' premises or buildings has been declared an unbundled fibre service;³⁵ and
 - 3.11.5 regardless of the geographic location of the access seeker or end-user, charge the same price for providing FFLAS that are, in all material respects, the same.³⁶
- 3.12 The regulated services listed in 3.11.2 to 3.11.4 are referred to as 'declared services'. When imposed, declared services may act as an additional control on the revenues a PQ regulated provider can earn and the quality of services it provides.
- 3.13 To monitor compliance with the matters described in paragraph 3.11, we may issue a written notice to Chorus requiring it to provide any (or all) of the following:
- 3.13.1 a written statement that states whether it has complied with the PQ path;³⁷
 - 3.13.2 a report on the written statement that is signed by an auditor in accordance with any form specified by us;³⁸
 - 3.13.3 sufficient information to enable us to properly determine whether a PQ path has been complied with;³⁹ and
 - 3.13.4 a certificate, in the form specified by us and signed by at least one director, confirming the truth and accuracy of any compliance information provided.⁴⁰
- 3.14 Our approach at this time to monitoring compliance is explained in Chapter 5 in paragraphs 5.95 to 5.100.

³⁴ Telecommunications Act 2001, s 193(1)(b) and s 199. Under s 228(1) of the Act, the Governor-General may, by Order in Council made on the recommendation of the Minister of Broadcasting, Communications and Digital Media, make regulations declaring a FFLAS to be a DFAS.

³⁵ Telecommunications Act 2001, s 193(1)(b) and s 200. Under s 229(1) of the Act, the Governor-General may, by Order in Council made on the recommendation of the Minister of Broadcasting, Communications and Digital Media, make regulations declaring a point-to-multipoint layer 1 service supplied to end-users' premises or buildings to be an unbundled fibre service.

³⁶ Telecommunications Act 2001, s 193(1)(b) and s 201.

³⁷ Telecommunications Act 2001, s 193(2)(a).

³⁸ Telecommunications Act 2001, s 193(2)(b).

³⁹ Telecommunications Act 2001, s 193(2)(c).

⁴⁰ Telecommunications Act 2001, s 193(2)(d).

Mandatory decision-making considerations that apply for our PQ determination

3.15 When setting our second PQ determination, we must consider the matters specified in s 166(2) of the Act:⁴¹

“166 Matters to be considered by Commission and Minister

[...]

(2) The Commission or Minister must make the recommendation, determination, or decision that the Commission... considers best gives, or is likely to best give, effect—

- (a) to the purpose in section 162 of the Act; and
- (b) to the extent that the Commission... considers it relevant, to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.”

3.16 The purpose of Part 6 of the Act, as specified in s 162, reads:

“162 Purpose

The purpose of this Part is to promote the long-term benefit of end-users in markets for fibre fixed line access services by promoting outcomes that are consistent with outcomes produced in workably competitive markets so that regulated fibre service providers—

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and supply fibre fixed line access services of a quality that reflects end-user demands; and
- (c) allow end-users to share the benefits of efficiency gains in the supply of fibre fixed line access services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.”

3.17 In *Wellington International Airport Ltd & Ors v Commerce Commission*, the High Court discussed the purpose and operation of s 52A of the Commerce Act 1986 (the equivalent provision under Part 4 of the Commerce Act) in detail. Consistent with the High Court's analysis, we consider that:

3.17.1 we must promote the long-term benefit of FFLAS end-users by promoting the s 162(a)-(d) outcomes consistent with what would be produced in workably competitive markets.⁴² Our focus is not on replicating all the potential outcomes of workably competitive markets per se, but rather with specifically promoting the s 162(a)-(d) outcomes for the long-term benefit of FFLAS end-users consistent with the way those outcomes are promoted in workably competitive markets.

⁴¹ Telecommunications Act 2001, s 166(2).

⁴² *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [25]–[27].

- 3.17.2 The objectives in s 162 (a) to (d) are integral to promoting the long-term benefit of end-users, and reflect key areas of regulated provider 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 162 as a whole. Rather, we must balance the s 162(a)-(d) outcomes,⁴³ and must exercise judgement in doing so. When exercising this judgement, we are guided by what best promotes the long-term benefit of end-users, and must not treat any of the s 162(a)-(d) outcomes as paramount.⁴⁴
- 3.18 We must exercise our judgement on a case-by-case basis, but make the following observations about the relationship between the two objectives in s 166(2) of the Act:
- 3.18.1 We must make an assessment on what decision will best give effect to the statutory purposes and the outcomes we are required to promote by s 166. This requires an evaluative judgement.
- 3.18.2 Section 166(2)(a) directs us to make decisions that best give effect to the purpose in s 162. This is a mandatory consideration.
- 3.18.3 We are also required to make decisions that best give effect to the outcome in s 166(2)(b). This is also a mandatory consideration, but only in cases where we consider that it is 'relevant'. In assessing whether the promotion of workable competition is relevant, we will consider whether a decision has the potential to affect the level of competition in one or more telecommunications markets.
- 3.18.4 Section 166(2) does not establish a hierarchy between the promotion of the two outcomes. Where we consider that the promotion of competition is relevant, we must strive to make the decision that best gives, or is likely to best give effect, to both the promotion of outcomes consistent with workable competition for the benefit of end-users of FFLAS under s 162, and to the promotion of competition in telecommunications markets for the benefit of end-users in those markets under s 166(2)(b).

Legal requirements for PQ determinations

- 3.19 This section explains:

⁴³ *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [684].

⁴⁴ *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [684].

- 3.19.1 the mandatory requirements for the second PQ determination, as explained in paragraphs 3.20 to 3.33; and
- 3.19.2 the optional incentives we may require for our second PQ determination to maintain/improve quality of supply, which may include penalties/rewards, compensation schemes and reporting requirements, as explained in paragraphs 3.31 to 3.35.

Mandatory requirements for our second PQ determination

- 3.20 Our determination dated 28 February 2023 specified a particular aspect of how PQ regulation applies to Chorus under s 170(1)(b).⁴⁵ That determination specified, as a new s 170 determination, the duration of the regulatory period for PQP2 under s 194(2)(a) and s 207(2).⁴⁶
- 3.21 Further to that determination, the next PQ path in respect of Chorus must specify:⁴⁷
 - 3.21.1 the maximum revenues which Chorus may recover from its PQ FFLAS;⁴⁸
 - 3.21.2 the minimum quality standards that will apply to Chorus;⁴⁹
 - 3.21.3 the date on which the PQ path takes effect (1 January 2025);⁵⁰ and
 - 3.21.4 the date or dates in which compliance must be demonstrated, where our approach at this time to monitoring compliance is explained at the end of Chapter 5.⁵¹

Maximum revenues

- 3.22 In determining the maximum revenues which Chorus may recover from its PQ FFLAS:
 - 3.22.1 we must apply our IMs to determine key inputs, as described in paragraph 3.23;

⁴⁵ Telecommunications Act 2001, s 170(1)(b).

⁴⁶ Under s 203(1), before the end of each regulatory period, we must make a new s 170 determination specifying the PQ paths that will apply for the following regulatory period.

⁴⁷ Telecommunications Act 2001 s 194 and s 195 set out the necessary components of the PQ path.

⁴⁸ Telecommunications Act 2001, s 195, s 209 and s 225.

⁴⁹ Telecommunications Act 2001, s 194(2)(e).

⁵⁰ Telecommunications Act 2001, s 194(2)(d).

⁵¹ Telecommunications Act 2001, s 194(2)(e).

- 3.22.2 we must reflect the actual financing costs incurred by Chorus in respect of Crown financing, as described in paragraphs 3.25 and 3.26;
- 3.22.3 we must from the second regulatory period onwards (until the regulatory periods that start on or after the reset date) apply a wash-up mechanism, as described in paragraphs 3.27 and 3.28;⁵²
- 3.22.4 we must (where “necessary or desirable”) smooth revenues, as described in paragraphs 3.29 and 3.30; and
- 3.22.5 we may reduce/increase maximum revenues depending on how Chorus has performed against the quality standards, as described in paragraph 3.33.

Input methodologies

- 3.23 To determine key inputs for the calculation of maximum revenues under the PQ path, the following IMs must be applied:⁵³
 - 3.23.1 cost allocation;⁵⁴
 - 3.23.2 asset valuation (including the financial loss asset);⁵⁵
 - 3.23.3 taxation;⁵⁶
 - 3.23.4 cost of capital;⁵⁷
 - 3.23.5 RPR, specifically the specification and definition of prices;⁵⁸ and
 - 3.23.6 the capex IM.⁵⁹
- 3.24 We discuss the role of the IMs in the PQ path from paragraphs 3.41 to 3.46.

⁵² Under s 196(3), we may (but are not required to) apply the wash-up mechanism in a PQ path for a regulatory period that starts on or after the reset date.

⁵³ Under s 175(b)(ii) of the Act, we must apply the IMs in determining the prices applying to FFLAS.

⁵⁴ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subpart 2.

⁵⁵ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subpart 3.

⁵⁶ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subpart 4.

⁵⁷ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subpart 5.

⁵⁸ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subpart 1.

⁵⁹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Part 3, Subparts 7-8.

Benefit of Crown financing

- 3.25 In specifying the maximum revenues that Chorus may recover, we must ensure that they reflect, in respect of any Crown financing, the actual financing costs incurred by Chorus (or a related party) during the regulatory period.⁶⁰
- 3.26 Our approach to ensuring that the maximum revenues reflect, in respect of any Crown financing, the actual financing cost incurred by Chorus during the regulatory period, is explained in our IM consultation 'further consultation' draft decisions.⁶¹

Wash-up mechanism

- 3.27 Over the course of PQP1, the wash-up mechanism has accrued balances for any over- or under-recovery of revenue by Chorus. In determining the PQP2 path, we are required to apply a wash-up mechanism that provides for this accrued balance to be drawn down.⁶² The need for and form of any wash-up mechanism is likely to vary over time, as the over-recovery and under-recovery of Chorus' revenues varies.
- 3.28 Our proposed approach to the wash-up that has accrued during PQP1 and may be drawn down for the second PQ path is explained in paragraphs 5.62 to 5.77.

Smoothing revenues

- 3.29 Section 197 of the Act applies when the Commission specifies maximum prices or maximum revenues for the purpose of s 194(2)(b). The Commission can choose to smooth revenues over multiple regulatory periods. We must do this if we think it necessary or desirable to minimise any undue financial hardship to a regulated provider or to minimise price shocks to end-users.⁶³
- 3.30 Whether this is necessary will depend in part on the level of MAR we determine for PQP2, the size of the wash-up balance and other factors. As such, we have not yet determined whether we consider smoothing necessary. The options we have for how to smooth revenues are discussed in paragraphs 5.50 to 5.55.

⁶⁰ Telecommunications Act 2001, s 171.

⁶¹ Commerce Commission "Fibre input methodologies – Further consultation draft – Reasons paper" (23 July 2020), at [3.30]-[3.34].

⁶² *Fibre Input Methodologies Determination 2020* [2020] NZCC 21.

⁶³ Telecommunications Act 2001, s 197.

Quality standards

- 3.31 In specifying the quality standards that will apply to Chorus, we:
- 3.31.1 must apply the quality dimensions IM;⁶⁴ and
 - 3.31.2 may prescribe the standards in any way we consider appropriate (such as targets, bands, or formulas) as long as we apply the relevant IMs.⁶⁵
- 3.32 Our approach to specifying the quality standards that will apply to Chorus is explained in chapter 7.

Penalties/rewards for performance against quality standards

- 3.33 A PQ path may include incentives for Chorus to maintain or improve its quality of supply, and these may include (without limitation):
- 3.33.1 penalties which reduce Chorus' maximum revenues based on whether, or by what amount, it fails to meet the required quality standards;⁶⁶ and
 - 3.33.2 rewards which increase Chorus' maximum revenues based on whether, or by what amount, it meets or exceeds the required quality standards.⁶⁷

Optional incentives for the second PQ determination in respect of compensation schemes and reporting requirements

- 3.34 A PQ path may include incentives for Chorus to maintain or improve its quality of supply, and those incentives may include (without limitation):
- 3.34.1 compensation schemes that set minimum standards of performance and require Chorus to pay prescribed amounts of compensation if it fails to meet those standards;⁶⁸ and
 - 3.34.2 reporting requirements, including special reporting requirements in asset management plans, if Chorus fails to meet the quality standards.⁶⁹

⁶⁴ Under s 175(b)(ii) of the Act, we must apply the IMs in determining the quality standards applying to FFLAS. The quality dimensions IM is specified in Fibre Input Methodologies Determination 2020 (21 December 2021), Part 3, Subpart 6.

⁶⁵ Telecommunications Act 2001, s 194(4).

⁶⁶ Telecommunications Act 2001, s 194(3)(a).

⁶⁷ Telecommunications Act 2001, s 194(3)(b).

⁶⁸ Telecommunications Act 2001, s 194(3)(c).

⁶⁹ Telecommunications Act 2001, s 194(3)(d).

- 3.35 We are seeking feedback from stakeholders as part of this paper on possible approaches to incentivising quality outcomes including compensation schemes for PQP2. However, reporting requirements in the event of a failure to meet quality standards will continue to form an important part of our approach to quality of service.

Enforcement

- 3.36 The High Court may on application by us, order a person to pay a pecuniary penalty to the Crown for contravening PQ requirements under s 215, which must not:⁷⁰
- 3.36.1 in respect of each act or omission, exceed \$500,000 in the case of an individual; or
 - 3.36.2 \$5,000,000 in the case of a body corporate.
- 3.37 If the High Court orders a person to pay a pecuniary penalty under s 215 in respect of the contravention of a PQ requirement, the Court may, in addition, order the person to pay compensation to any person who has suffered, or is likely to suffer, loss or damage as a result of the contravention.⁷¹ An application for this order may be made by us or any “aggrieved person”.⁷² In proceedings under s 216, the Court may make such orders as to cost as it thinks fit.⁷³
- 3.38 If the High Court is satisfied that FFLAS that are subject to PQ regulation are being provided, or are likely to be provided, in contravention of any PQ requirement applying with respect to those services, the Court may (on application by any person) do one or both of the following:⁷⁴
- 3.38.1 grant an injunction restraining any provider of those services from providing them in contravention of the PQ requirement; or
 - 3.38.2 make an order requiring the provider to provide the service in accordance with the PQ requirement applying to them.
- 3.39 A person commits an offence if:⁷⁵
- 3.39.1 the person, knowing that particular FFLAS are subject to PQ regulation, intentionally contravenes a PQ requirement in respect of the services; or

⁷⁰ Telecommunications Act 2001, s 215.

⁷¹ Telecommunications Act 2001, s 215.

⁷² Telecommunications Act 2001, s 216(2).

⁷³ Telecommunications Act 2001, s 216(5).

⁷⁴ Telecommunications Act 2001, s 218.

⁷⁵ Telecommunications Act 2001, s 217(1).

- 3.39.2 the person is subject to an order under s 218(1)(b) of the Act and fails to comply with the order.
- 3.40 Where a person commits an offence under s 217(1), they are liable on conviction to a fine not exceeding \$200,000 in the case of an individual, or \$1,000,000 in the case of a body corporate.⁷⁶

IMs and the PQ path

- 3.41 The Commission is required to apply relevant IMs when determining the prices or quality standards applying to FFLAS. However, not all aspects of the PQ path are determined by the IMs.
- 3.42 As noted in Chapter 1, this approach paper is based on the current IMs, including amendments to the fibre IMs which have recently been finalised.⁷⁷ We expect to consider the need for potential further IM amendments prior to determining the MAR for PQP2. This could include amending the fibre IMs to enable a quality incentives scheme, if we consider it appropriate to introduce one.

Our approach to applying the IMs in setting allowable revenues

- 3.43 In instances where there are relevant IMs, our assessment will focus on ensuring we and Chorus apply the IMs correctly, and where we retain discretion, making decisions that are consistent with the statutory considerations in s 166(2) and that are consistent with the IMs.
- 3.44 Instances where IMs apply to the determination of PQ inputs are set out in Table 3.1 below.

⁷⁶ Telecommunications Act 2001, s 217(2).

⁷⁷ Commerce Commission “Amendments to Fibre Input Methodologies – Final decision – Reasons paper” (28 June 2023).

Table 3.1 Aspects of the PQ path where the IMs apply

| Relevant IM | Examples of where it applies |
|---------------------------------------|--|
| Cost allocation | Ensuring proper application of the cost allocation rules to the determination. |
| Asset valuation | Forecast roll-forward of the PQ RAB through the period. |
| Cost of capital | Determination of inputs including WACC and annual benefit of Crown financing building block. |
| Capex | Preparation and evaluation of Chorus' capex proposal. |
| Tax | Calculation of the regulatory tax allowance building block. |
| Quality dimensions | Mandatory dimensions of quality that we must include in quality standards. |
| Regulatory rules and processes | Specification of the components of the revenue cap. |

Our approach where there are no applicable IMs

3.45 Where there is no relevant IM, we retain the ability to set the PQ path in the way that we consider best promotes the purpose of Part 6 and (where relevant) the promotion of workable competition in telecommunications markets (s 166(2)). Our decisions in these instances will be guided by the legal and economic frameworks and based on the evidence available to us.

3.46 Instances where relevant IMs do not apply (or apply only in limited ways) include:

- 3.46.1 determining how building blocks revenue is calculated, including any smoothing of revenue within and between regulatory periods;
- 3.46.2 determining the draw-down of any wash-up balances;
- 3.46.3 setting Chorus' opex allowance;
- 3.46.4 setting quality standards within the mandatory dimensions required by the IMs, or choosing whether to set standards for the optional dimensions; or
- 3.46.5 setting rules for how Chorus must demonstrate compliance with the PQ path and wash-up mechanism.

PQ economic framework

3.47 This section discusses:

- 3.47.1 the high-level economic framework we will apply when making decisions for our PQ determinations; and
- 3.47.2 specific incentive properties of PQP2 that affect the application of the economic framework in setting the PQ path.

Economic framework

- 3.48 As part of our fibre IM decision-making process, we developed an economic framework to help guide the decisions we were required to make on the new regulatory regime for Part 6. We also applied this to our decision-making framework for PQP1.
- 3.49 The economic framework helps us make individual decisions that are consistent with each other, and that best give effect to the purposes described in s 166(2) of the Act. It has three components:⁷⁸
- 3.49.1 economic principles - including real financial capital maintenance, allocation of risk, and asymmetric consequences of under- over-investment;
 - 3.49.2 an incentive framework - to help us evaluate how the regime may interact with the incentives faced by regulated providers and assist us in identifying risks to end-users; and
 - 3.49.3 approach to identifying competition issues - to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.
- 3.50 More information is provided on our economic framework in our final IM and PQP1 decision papers.⁷⁹
- 3.51 We will continue to have regard to economic principles as they apply to our role in setting Chorus' second PQ path.
- 3.52 The remainder of this section discusses the relevance of the incentive framework and our approach to identifying competition issues in PQP2.

Incentive framework

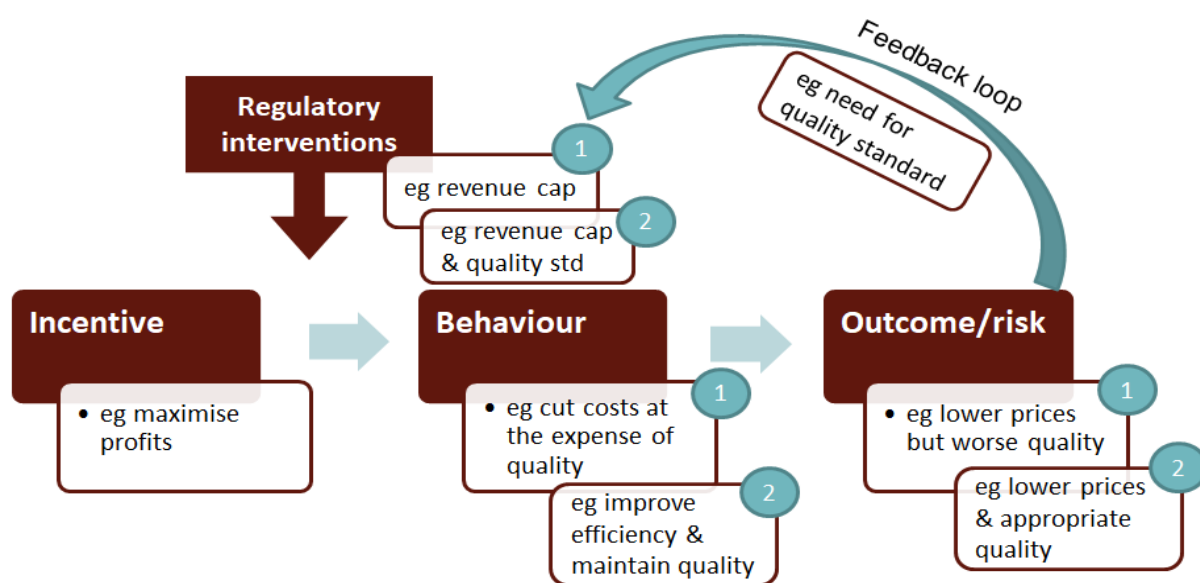
- 3.53 At its core, our PQ regulation aims to introduce incentives for regulated providers to behave in ways consistent with the purposes described in s 162 of the Act.

⁷⁸ Commerce Commission "Fibre input methodologies – Final decision paper" (13 October 2020), at [2.272]-[2.335] and [2.383]-[2.399].

⁷⁹ Commerce Commission "Fibre input methodologies – Final decision paper" (13 October 2020), at [2.272]-[2.335] and [2.383]-[2.399].

- 3.54 PQ paths introduce incentives for regulated providers to improve their efficiency and supply FFLAS of a quality that reflects end-user demands (s 162(b)), including through innovation (s 162(a)). Our periodic resetting of PQ paths ensures that end-users share in the benefits of any efficiency gains (s 162(c)), while limiting excessive profits (s 162(d)), similar to what would happen in a workably competitive market.
- 3.55 In line with the purposes in s 166(2), the regulatory rules introduced through our PQ determinations, underpinned by the fibre IMs and supported by the enforcement provisions specified in ss 212 to 218 of the Act, aim to better align the incentives for regulated providers with the long-term interests of end-users. The incentive framework (partly illustrated in Figure 3.1 below) helps us ensure we have a more holistic view of how the regime may interact with the incentives faced by regulated providers or create consequential incentives for regulated providers. The incentive framework therefore assists us in identifying risks to end-users.

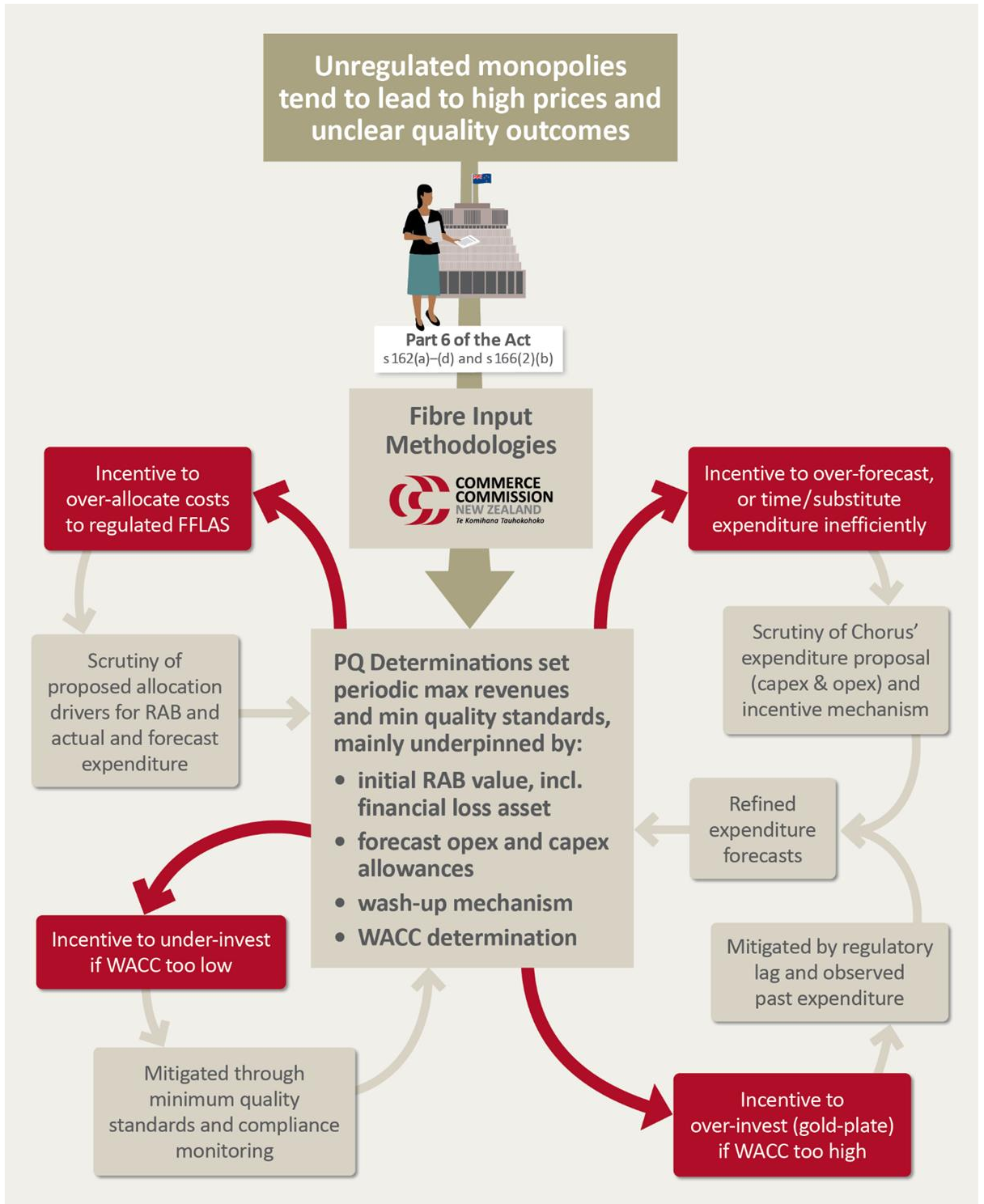
Figure 3.1 A regulated monopolist under a periodic revenue cap can increase profits by improving efficiency or degrading quality



- 3.56 We have relied on this incentive framework to identify the approach to setting the PQ path that we consider will best promote the long-term benefit of FFLAS end-users, as required by the Part 6 purpose described in s 162. We have also given consideration, where relevant, to the promotion of workable competition for the long-term benefit of all telecommunication end-users, as required by 166(2)(b).
- 3.57 Figure 3.2 illustrates an example of the interaction between:
- 3.57.1 the tools available to us under PQ regulation, subject to the fibre IMs set;
and

- 3.57.2 the main consequential incentives that might arise from the rules introduced for regulated providers subject to PQ regulation (ie, Chorus).
- 3.58 Figure 3.2 is only an example of how we apply our incentive framework and does not capture all regulatory tools that we could apply under PQ regulation in PQP1 or in future periods, nor does it capture all consequential incentives that Chorus might face.

Figure 3.2 An example of how the PQ regime mitigates the main consequential incentives caused by regulation



Incentives and the application of PQ regulation in PQP2

- 3.59 The introduction of PQ regulation creates consequential incentives that aim to better align the interests of regulated providers with those of end-users. We consider the incentives discussed in the economic framework section will exist in all regulatory periods, including PQP2.
- 3.60 Additionally, we consider there are some specific features of PQ regulation in PQP2 that create incentives we need to consider. These features are emphasised due to the relatively new nature of the fibre regulatory regime and include:
- 3.60.1 information asymmetry between us and Chorus;
 - 3.60.2 the change in the length of the regulatory period for PQP2 from 3 years to 4 years; and
 - 3.60.3 pricing dynamics, competition and quality.

Information asymmetry

- 3.61 We consider there will continue to be information asymmetry between us and Chorus as we develop our understanding of Chorus' business, the incentives Chorus faces and the impact of the fibre regulatory regime on Chorus' behaviour. As a result, Chorus might have an incentive in PQP2 to engage in forms of regulatory gaming, such as:
- 3.61.1 inflating its expenditure forecasts;
 - 3.61.2 gaming the timing of expenditure, eg, in the base and final year;⁸⁰and
 - 3.61.3 pricing individual FFLAS in inefficient and/or potentially anti-competitive ways.
- 3.62 We consider that the scope for Chorus to substitute expenditure inefficiently between opex and capex will be reduced in PQP2 because the fibre network is relatively new as a result of recent investments from the UFB initiative. However, due to the longer regulatory period for PQP2 (discussed in the following section) and Chorus' current state of asset management maturity, there are potential risks to over- (and under-forecasting) of Chorus expenditure needs during PQP2.
- 3.63 For these reasons, the level of scrutiny we apply in PQP2 might be particularly important, with regards to:

⁸⁰ Base year is defined in the fibre IM as "a disclosure year determined by the Commission". See Commerce Commission "[Further Consultation] Fibre Input Methodologies Determination 2020" (23 July 2020), at 11.

3.63.1 Chorus' expenditure proposal, potentially considering options for different expenditure allowances; and

3.63.2 quality standards.

Length of the regulatory period

- 3.64 We consider a longer regulatory period in PQP2 will provide greater incentives on Chorus to find further efficiencies. Under the current PQ settings for Chorus, we determine maximum revenues, based on expenditure allowances, before the start of a regulatory period (*ex-ante*). Chorus can outperform an *ex-ante* capex or opex allowance during a regulatory period by improving efficiency and delivering the FFLAS that end-users demand at a lower cost than its forecasts.
- 3.65 Longer regulatory periods typically create stronger incentives on regulated fibre service providers (regulated providers) to find efficiencies over the regulatory period. A longer regulatory period means Chorus has more time to find efficiencies and hold on to any efficiency gains before a reset. We also note that increasing the duration of the regulatory period is likely to reduce the regulatory and administrative burden of the regime by spreading the costs of PQ regulation over a longer period.
- 3.66 The duration of the regulatory period affects the level of certainty of expenditure forecasts used to set the PQ path. Chorus must forecast its expenditure allowances to support any *ex-ante* PQ path. Longer regulatory periods mean Chorus must forecast its expenditure requirements out further. Greater uncertainty in forecast allowances means the risk of over or under-forecasting Chorus' allowance is greater.
- 3.67 The ability of Chorus to accurately forecast its investment horizon affects the degree of over and under-forecasting risk. Improvements in Chorus' forecasting approaches will give us greater confidence in its longer-term forecasts. This is likely to minimise the potential for over and under-forecasting. However, greater improvements are not guaranteed, and we will still need to assess Chorus' forecasts during resets and monitor Chorus' development in asset management and forecasting reporting through our ID regime.
- 3.68 We have mechanisms in the fibre IMs for dealing with uncertainty with forecasting expenditure. Gaining experience with these mechanisms may give us greater confidence with managing uncertainty over longer regulatory periods. Some examples of managing this uncertainty are:
- 3.68.1 the individual capex mechanism in the capex IM was designed to address timing uncertainty for larger capex projects and programmes;

- 3.68.2 volumetric allowances, such as the connection capex variable adjustment;
- 3.68.3 PQ path reopeners in the IMs to deal with significant unexpected events; and
- 3.68.4 indexing revenues to actual, not forecast inflation, also provides some mitigation of escalator forecast error.

Pricing dynamics and implications of investments under the UFB contracts

- 3.69 In addition to the length of the period, PQP2 also has other features that are likely to have an impact on the strength of incentives and/or ability of Chorus to behave in ways that might not be to the long-term benefit of end-users.
- 3.70 There are legislative requirements for how Chorus must price certain FFLAS that apply during PQP2. These requirements may result in prices that are not necessarily efficient and price structures that benefits some end-users and disadvantage others.
- 3.71 Chorus is required to use geographically consistent pricing for FFLAS that are, in all material aspects, the same (s 201). As a result, end-users in low-cost areas may cross-subsidise end-users in high-cost areas.
- 3.72 Chorus is required to provide an anchor service under s 227, at a price no greater than the prescribed maximum price (s 198) as set out in regulation 8 of the Telecommunications (Regulated Fibre Services) Regulations 2021. The prescribed maximum price for the 100/20 anchor service for PQP1 was based on the Crown Infrastructure Partners (CIP) contract price for that service and was set at \$47.87 per month starting in 2022, with an annual CPI adjustment.⁸¹
- 3.73 Chorus is also required to provide DFAS, under s 228, at a price no greater than the prescribed maximum price (s 199) as set out in regulation 15 of the Telecommunications (Regulated Fibre Services) Regulations 2021. The prescribed maximum price for DFAS for PQP2 was set at \$369.41 per month starting in 2022 with an annual CPI adjustment.⁸²
- 3.74 Regulations can be made under s 229 of the Act to require Chorus to provide an unbundled fibre service. Currently, unbundled fibre services are governed by the CIP contracts.

⁸¹ Telecommunications (Regulated Fibre Services) Regulations 2021, regulation 8. See also Telecommunications Act 2001, s 227.

⁸² Telecommunications (Regulated Fibre Services) Regulations 2021, regulation 15. See also Telecommunications Act 2001, s 228.

- 3.75 As noted above, the legislative pricing requirements are likely to benefit some end-users and disadvantage others (relative to efficient, cost-based prices). For example, the requirement for the anchor service maximum prescribed price in PQP1 to be based on the CIP contract price (at s 227(2)(d) and clause 14(4) of Schedule 1AA) ensures that end-users whose retail product uses the anchor service are protected from price shocks. To the extent that the CIP contract price does not reflect the willingness to pay for the anchor service, this might mean that the price structure Chorus has to adopt is inefficient; and that end-users purchasing retail products other than the anchor service that use FFLAS might be charged inefficient prices as a result.
- 3.76 We can review the current anchor service during PQP1 and recommend a cost-based maximum prescribed price for the anchor service (see s 208(6)(b)). We cannot undertake a review under s 209 and recommend cost-based maximum prices for DFAS and the unbundled fibre service until 3 years after the regime implementation date at the earliest. Attachment A discusses our emerging views on whether to review the anchor service prior to PQP2.
- 3.77 We consider that legislative restrictions on Chorus' prices, and our ability to review anchor service prices, limit Chorus' ability to set prices in ways that could lead to long-term harm to competition or detriment to end-users of telecommunications services. This is one of the reasons why our final IM decisions concluded that a pricing structure IM is not likely to best promote the purposes of Part 6 or s 166(2).⁸³
- 3.78 However, as noted at paragraph 3.70 above, we are aware of the risks that might arise for end-users as a result of inefficient pricing structures, including potentially anti-competitive pricing, and we intend to monitor prices through ID disclosures to determine whether further intervention is required.

Competition and our roles under Part 6

- 3.79 Greater competitive pressure mitigates some of the incentives on regulated providers to behave in ways that are not in the long-term interest of end-users, which lessens the need for regulation. For example, the incentive to under-invest at the expense of quality is weakened, as the regulated provider would then risk losing end-users dissatisfied with the level of quality to competing firms supplying products based on alternative technologies.

⁸³ Commerce Commission "Fibre input methodologies – Regulatory processes and rules draft decision – Reasons paper" (2 April 2020), at [134.1].

- 3.80 We consider that our primary tool for addressing changes in competition is our power under s 210 to undertake a deregulation review, which could result in a fibre service being deregulated or PQ regulation being removed. As discussed in Chapter 2, we consider whether there are reasonable grounds to start a deregulation review before the start of each regulatory period (from PQP2 onwards) in accordance with s 210 of the Act, separately to this paper.⁸⁴
- 3.81 We are also required under s 166(2)(b) to consider, to the extent relevant, the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services. During PQP1 we sought feedback from stakeholders on specific competition issues that should be considered via a competition survey. For PQP2, we intend to seek stakeholder views on specific competition issues through consultation feedback on this paper and our draft PQ decisions. For example, this may include any proposal by Chorus to expand its fibre network, and the implications this may have in terms of the promotion of workable competition.

⁸⁴ Telecommunications Act 2001, s 210(4).

Chapter 4 Developments during PQP1

Purpose and structure of this chapter

- 4.1 This chapter addresses:
 - 4.1.1 development of PQ regulation in general over PQP1;
 - 4.1.2 developments we have made to the regime during PQP1; and
 - 4.1.3 potential focus areas and developments for PQP2 and the longer-term.

Summary of developments Chorus has made during PQP1

- 4.2 We determined Chorus' PQ path for PQP1 in 2021. This was the first time we had applied the fibre IMs and a BBM to setting Chorus' PQ path.
- 4.3 In 2022, Chorus announced it was moving end-users off its 100/20 Mbps anchor product onto a 300/100 Mbps product, referring to this as the 'big fibre boost'. We discuss the potential implications of this in Chapter 7 and Attachment A.
- 4.4 We required Chorus to develop a suite of improvement initiatives and submit plans and roadmaps on these to us during PQP1 as part of our PQP1 decisions.⁸⁵ The additional reporting requirements covered:
 - 4.4.1 An updated stakeholder engagement plan - outlining engagement and consultation on capex undertaken and planned by Chorus. This includes consultation and engagement prior to submitting the capex proposals and planned consultation on any aspect of expenditure for the upcoming regulatory period and potentially subsequent regulatory periods.
 - 4.4.2 A cost estimation roadmap - covering initiatives to improve Chorus' cost estimation methodologies and processes, with a focus on improvements in the lead-up to PQP2. Scope of this work includes how cost estimates are developed and used for forecasting purposes, ensuring consistency across the business, tracking performance of cost estimates and understanding cost trends.
 - 4.4.3 An asset data roadmap - focusing on Chorus' management of asset data, including how it determines what data to acquire, how data is managed through the asset management system, data quality, and how it is made available to be used over its lifespan.

⁸⁵ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision Reasons paper" (16 December 2021).

- 4.4.4 An asset management roadmap - outlining a programme of work Chorus proposed to undertake to adapt and improve its asset management capability in coming years, focusing on the lead up to PQP2.
- 4.5 Chorus reported on these to the Commission in August 2022 and aims to provide an update on progress made to achieving milestones laid out in the roadmap by the end of August 2023. We expect Chorus will include information from these roadmaps in its expenditure proposal and IFP so stakeholders can understand the rate of progress it is making.
- 4.6 Chorus submitted an individual capex proposal for customer incentives in the regulatory year 2023 in May 2022.⁸⁶ We published our final decision in December 2022, and determined an allowance of \$12.5m.⁸⁷
- 4.7 This decision will increase the revenues included as part of its second PQ path (via the wash-up mechanism in the regulatory period that starts on 1 January 2025 (PQP2)). This decision does not inhibit Chorus from modifying or adapting any incentive offers to respond to market dynamics.

Developments we have made to the regime during PQP1

Determining the length of the second regulatory period

- 4.8 In February 2023, we published a determination on the duration of the second regulatory period. This specified that the duration of PQP2 would be four years, starting on 1 January 2025 and end on 31 December 2028.
- 4.9 Our view is that a four-year regulatory period for PQP2 is likely to best give effect to the purpose in s 162. A four-year regulatory period balances the benefits from frequently resetting Chorus' revenues based on current and updated forecasts of expenditure and quality standards while allowing sufficient time for Chorus to find efficiencies as well as spreading the costs of a reset over a longer time period.

⁸⁶ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision Reasons paper" (16 December 2021).

⁸⁷ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision Reasons paper" (16 December 2021).

IM amendments in June 2023

- 4.10 We extended the scope of the RAB wash-up provision in clause 3.1.1(11)(a) of the fibre IMs to cover the opening RAB for all future regulatory periods, rather than just the initial RAB at the start of the first regulatory period.⁸⁸
- 4.11 In order to keep the IMs internally consistent, we also included wash-ups for:
- 4.11.1 the opening tax asset value; and
 - 4.11.2 the value of tax losses.

Potential focus areas and developments for PQP2 and the longer-term

- 4.12 In our PQP1 decisions, we implemented the full set of IMs as they stood at the time.
- 4.13 The regulatory period for PQP1 was three years long, which means Chorus will have been regulated for less than two years before we begin to consider the PQ settings for PQP2. This provides us with a short period of time on which to base our understanding of Chorus' performance under PQ regulation, and to design and implement changes for the regime.
- 4.14 However, there are potential areas to develop the regime, and in considering our approach to PQP2, we have focused on both:
- 4.14.1 those activities that we must undertake in setting a PQ path; and on
 - 4.14.2 prioritising regime developments for PQP2 and PQP3 that are to the longer-term benefit of end-users and where there is a clear case for change.
- 4.15 In determining how the regime evolves, we propose to consider:
- 4.15.1 how Chorus responds to PQP1 and PQP2 settings;
 - 4.15.2 potential gaps in the regime such as incentive mechanisms for quality and expenditure; and
 - 4.15.3 appropriate responses to developments in the sector, eg, competition, inflation, and pricing dynamics.

⁸⁸ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision Reasons paper" (16 December 2021).

- 4.16 During PQP2, some of our additional interventions also become available under Part 6, including the ability to review specific declared services and application of PQ regulation under s 209 of the Act, and the ability to undertake a deregulation review under s 210 of the Act.
- 4.17 Table 4.1 summarises the key differences between PQP1 and what we currently propose for PQP2.

Table 4.1 Comparison of PQP1 and proposed PQP2 regime features

| Key features | PQP1 | PQP2 |
|---------------------------------------|--|--|
| Revenue path | Introduced building blocks approach. Smoothed price path. | Consider refinement of BBM approach to reflect wash-ups, tax building block. Smoothed price path. |
| Setting expenditure allowances | No IV to support evaluation. | IV report submitted as part of Chorus' expenditure proposal. |
| Individual capex proposals | Incentive capex set for 2023. | No current proposed projects. |
| Quality | Mandatory standards set for performance and availability quality dimensions. | Consider refinement of current mandatory standards and inclusion of new requirements; and implementing a pilot incentive scheme. |
| Reg period and other matters | 3 years | 4 years |
| PQ compliance | Compliance requirements set for declared services, geographic consistent pricing, revenue and quality. | Continue with compliance covering declared services, geographic consistent pricing, revenue and quality. May consider changes to levels of assurance for each compliance area. |

- 4.18 The following sections summarise the key focus areas for PQP2 and other areas we may seek to develop over PQP2 for future regulatory periods. The PQP2 focus areas are also discussed in more detail in the respective chapters of this paper. As noted above, we may consider fibre IM amendments prior to the commencement of PQP2 to allow for refinements made to the PQ regime.

Proposed changes to building blocks and notable drivers of the revenue path for PQP2

- 4.19 We propose to make refinements to the way we calculate the MAR as part of Chorus' PQ path determination. We also propose making changes to the calculation of the building blocks revenue in PQP2. These are addressed further in Chapter 5 and include:

- 4.19.1 calculation of a wash-up building block in PQP2 to enable Chorus to refund and recover any revenue wash—up accrued during PQP1;
 - 4.19.2 changes to the value of the benefit of the Crown financing building block as a result of the commencement of Crown financing repayments; and
 - 4.19.3 the addition of a taxation building block based on expectation that Chorus exhaust its regulatory tax losses during PQP2.
- 4.20 Changes in macroeconomic conditions driving higher inflation and interest rates, combined with any expansion of Chorus’ fibre network, are likely to mean that revenues increase in PQP2 when compared with PQP1. These increases will likely be driven by a higher WACC and increases in the regulatory asset base.⁸⁹
- 4.21 Other potential drivers of notable change to the revenue path for PQP2 include:
- 4.21.1 the cumulative impact of high inflation during PQP1 could mean a higher-than-expected opening RAB value;
 - 4.21.2 changes to the allocation of shared costs to regulated FFLAS as end-users migrate from Chorus’ copper business; and
 - 4.21.3 any uplift in Chorus’ proposed expenditure for PQP2 (discussed in more detail in the following section and in Chapter 6).

Scrutinising Chorus’ expenditure proposal and focussing on asset management maturity

- 4.22 Chorus’ investment decisions for PQP2 are likely to have important implications for the price and quality that end-users experience. While Chorus has made significant investments in its fibre network during the UFB rollout, lessening the need for replacement and refurbishment capex, we understand it is considering significant investments as part of its rural expansion strategy and investment in network resilience.⁹⁰
- 4.23 Chorus’ PQP2 expenditure proposal will be scrutinised by an IV as required by the IMs.⁹¹ This is the first time Chorus will have its expenditure forecasting approaches and related business operations fully scrutinised by an independent third party.

⁸⁹ As noted above, we also expect changes relating to the benefit of Crown financing and taxation building blocks to drive the revenue requirement higher than it would otherwise have been.

⁹⁰ Chorus “Help us shape New Zealand’s fibre future – Consultation on goals for fibre broadband services to 2029” (8 November 2022). Available at <https://company.chorus.co.nz/file-download/download/public/2454>.

⁹¹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clauses 3.7.10 and 3.7.16.

- 4.24 We also see PQP2 as an important stage in Chorus' asset management journey as it seeks to mature its practices and focus on its role of network stewardship. We consider there are positive benefits for end-users in Chorus increasing its asset management maturity in terms of improved planning decisions and efficiencies.
- 4.25 Our approach to incentivising Chorus to continue to make developments in this area will depend on the progress it makes with its PQP2 expenditure proposal. We may consider changes to Chorus' reporting requirements on asset management through IFP or ID requirements. We may also consider seeking independent reviews of its asset management system during PQP2.
- 4.26 We discuss these topic areas in more detail in the Chapter 6.

Evolving our approach to setting quality standards

- 4.27 Quality standards are an important feature of our PQP2 approach, and seek to ensure quality outcomes that reflect what end-users want (at the price they are willing to pay). We are considering incentive mechanisms to:
- 4.27.1 evolve our understanding of consumer preferences and willingness to pay;
 - 4.27.2 understand the link between quality and expenditure; and
 - 4.27.3 ensure Chorus has incentives to improve quality outcomes in areas that end-users care about.

Chapter 5 Revenue and price path compliance

Purpose and structure of this chapter

- 5.1 This chapter sets out our proposed approach to setting Chorus' allowable revenue. The approach proposed here is set in accordance with the legal framework for PQ regulation and is intended to give effect to the economic incentives set out in Chapter 3.
- 5.2 This chapter addresses:
- 5.2.1 our proposed overall approach to the PQ path;
 - 5.2.2 the revenue path and wash-up mechanism;
 - 5.2.3 the IMs relevant to the PQ RAB; and
 - 5.2.4 information required for assessing and demonstrating Chorus' compliance with the PQ path.

Proposed overall approach to the PQ path

- 5.3 This section explains at a high-level how we propose to set Chorus' PQ path for the second regulatory period, and covers:
- 5.3.1 a brief summary of our approach to BBM modelling of allowable revenues; and
 - 5.3.2 the application of the IMs to the PQ path.

How we propose to determine allowable revenue

- 5.4 For Chorus' PQ path for PQP2, we must specify an allowable revenue amount that caps the revenues Chorus can recover in respect of its PQ FFLAS.⁹² As discussed in more detail below, this revenue cap will also include a 'wash-up' mechanism for over- and under-recovery of revenue.
- 5.5 In addition to the revenue cap that we will determine, a form of price cap may apply to certain services that Chorus must offer in the form of declared services. These are discussed in Attachment A.

⁹² Telecommunications Act 2001, s 195.

Composition of the revenue cap

- 5.6 In the fibre IMs, under the specification of price and revenues IM, the revenue cap (defined as ‘forecast allowable revenue’) is composed of three parts:⁹³
- 5.6.1 forecast building blocks revenue – the revenues needed to cover Chorus’ opex, depreciation, return on investment and tax costs;
 - 5.6.2 forecast pass-through costs – a forecast of the costs that are passed through to end-users; and
 - 5.6.3 a wash-up amount – an amount that provides for any over- or under-recovery of revenue.
- 5.7 The remainder of this section deals with the process for determining building blocks revenue. As the applicable pass-through costs are specified in the IMs, they are only discussed in limited detail in the remainder of this paper.
- 5.8 The wash-up drawdown amount did not apply during PQP1. It will apply for PQP2 and we discuss the features and scope of how the wash-up amount accrues and its application in PQP2 in the section on the revenue path and wash-up mechanism later in this chapter.

The limit on revenue provides incentives to focus on controllable costs

- 5.9 Setting a revenue limit means that profitability depends on the extent to which Chorus controls costs. Actual costs may differ from forecasts for a variety of reasons, but the incentive to increase profits helps to create an incentive for Chorus to reduce costs.
- 5.10 There is a risk that providers may find these cost savings by reducing investment or maintenance. Quality standards can therefore play an important role in reducing the risk of this occurring.
- 5.11 We expect both these constraints – the revenue cap and the quality standards – will for the most part apply at a network aggregate level for PQP2, as they did for PQP1. Within the constraints of any declared services, the requirements under s 201 to price in a geographically consistent manner, and any commercial constraints, Chorus will have discretion over how this revenue is apportioned among different products categories or end-users.

⁹³ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(2).

The allowable revenue setting process

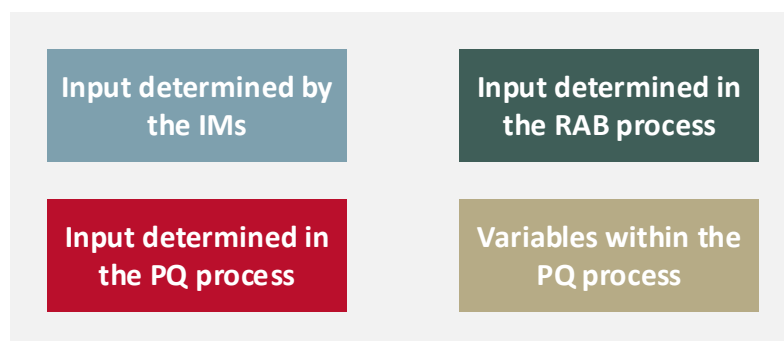
- 5.12 We need to do two things, broadly speaking, to set allowable revenue:
- 5.12.1 first, determine the total allowable revenue Chorus may earn in respect of the regulatory period; and
 - 5.12.2 second, determine how this revenue is spread over (and potentially beyond) the regulatory period.
- 5.13 For the first step, as with PQP1, our preferred approach is to apply a BBM, where we set total revenue in line with forecasts of a regulated provider's efficient costs.
- 5.14 We discuss options for the second step, including the use of non-GAAP depreciation to smooth revenue over the long-term further at paragraphs 5.29 to 5.36.

BBM approach to allowable revenue

- 5.15 A stylised description of the BBM approach is shown in Figure 5.1 below. It sets out simplified illustrations of how the calculations within a BBM model are applied – in other words, how building blocks revenue is built. In practice, financial models were developed to make these calculations for PQP1. We intend to revise these models as necessary for PQP2, and use them to undertake BBM calculations for this regulatory period.⁹⁴

⁹⁴ Commerce Commission "Chorus PQ building blocks demonstration model – Final decision" (16 December 2021).

Figure 5.1 Stylised key BBM equations



- 5.16 Forecasts of the capex and opex building blocks will be a key focus of consultation during the PQ process. The value of the opening PQ RAB (including the financial loss asset) will be determined based on the roll-forward during PQP1 of Chorus' initial RAB. Our approach to these key building blocks is discussed further from paragraph 5.18.
- 5.17 We note however, that not all the building blocks within the BBM are determined as part of the PQ setting process. The building blocks shown in blue are determined in accordance with the relevant IMs and will not be a focus of consultation during our PQP2 review. The Commission also retains only limited discretion for the depreciation and annual benefit of Crown financing building blocks under the current IMs, within the PQ process.

Approach to PQ path modelling

- 5.18 We propose that, as for PQP1, the financial and other models used to specify expenditure allowances, the opening PQ RAB (including the financial loss asset) and building blocks revenue will be developed by Chorus. These will then be subject to assessment and scrutiny by us and other interested parties. The specific form of assurance, assessment, and scrutiny for different information is discussed in more detail below.
- 5.19 As for PQP1, the Commission will develop a PQP2 'demonstration' BBM that demonstrates how we propose calculating allowable revenue. We are also considering if any other Commission models may be required.
- 5.20 For quality measures and standards, we have not identified yet whether any modelling will be required for the PQ path. However, we anticipate taking a similar approach to quality as the approach we propose for expenditure by assessing information provided by Chorus.
- 5.21 It is important to stress that decisions about allowable revenue and quality standards, and the inputs used to derive them, are for the Commission to make. As such, our final decision may depart from what Chorus proposes where we consider a different decision best gives (or is likely to best give) effect to the purpose in s 162 of the Act and (to the extent that we consider it relevant) to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services (see s 166).

Revenue path and wash-up mechanism

- 5.22 This section explains our proposed high-level approach to the revenue path and the wash-up mechanism for PQP2. We expect to take a similar approach to that used for PQP1 for the revenue path, noting that while wash-up amounts were accrued over PQP1, PQP2 will be the first-time wash-up amounts may be drawn down.

- 5.23 We intend to calculate a wash-up balance for PQP1. We anticipate that a drawdown of the wash-up balance is likely to occur in PQP2. We have already specified the way in which these over- or under-recoveries are calculated and accrued for PQP1 in the fibre IMs.⁹⁵
- 5.24 We consider the wash-up mechanism is a key tool to promote both incentives for Chorus to invest (in the case of under-recovery), consistent with s 162(a), and to limit excessive profits (in the case of over-recovery), consistent with s 162(d).⁹⁶

Revenue cap

- 5.25 As set out previously, the Commission must set a revenue cap for the second regulatory period. When the Commission specifies a maximum revenue for the purpose of s 194(2)(b), it must smooth revenue, if, in the Commission's opinion, it is necessary or desirable to do so to minimise any undue financial hardship to a regulated fibre service provider or to minimise price shocks to end-users.⁹⁷ In addition, in setting a revenue cap we would take a decision that best gives (or is likely to best give) effect to the purpose in s 162 of the Act and (to the extent that we consider it relevant) to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services (see s 166).
- 5.26 Finally, we must consider the complexity and workability of the revenue path compliance requirements.

Requirement for the Commission to determine a revenue cap

- 5.27 For Chorus PQ path for PQP2 (as for PQP1), the Commission must determine a revenue cap for Chorus and not a price cap.⁹⁸ While the two forms of control are distinct, the lines between the two forms of control are not always absolute. As such, in determining our approach to the revenue cap, we will need to consider whether particular measures would cause the form of control to take on price cap-like characteristics, contrary to s 195.
- 5.28 The key distinguishing characteristics of a revenue cap we are concerned with are:

⁹⁵ We issued a s 221 notice to Chorus requiring the provision of wash-up information on the 22 December 2021. See Commerce Commission "Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 – Wash-up information" (21 December 2021).

⁹⁶ The components of the wash-up calculation are set out in *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(11).

⁹⁷ Telecommunications Act 2001, s 197.

⁹⁸ Telecommunications Act 2001, s 195.

- 5.28.1 the extent to which demand risk (in present value terms) is borne by end-users rather than Chorus;⁹⁹ and
- 5.28.2 the extent of flexibility retained by Chorus to allocate revenue recovery between different classes of end-users, including by restructuring tariffs or by introducing new products.

Minimising price shocks to end-users

- 5.29 We have an obligation to smooth revenues over two or more periods in a present value neutral way where we consider it is necessary to minimise price shocks to end-users, this means we need to consider whether price shocks for end-users will result from our revenue cap.¹⁰⁰ In regulating allowable revenue under Part 4 of the Commerce Act, we have assessed price shocks in terms of the rate of increase in allowable revenue. This is because allowable revenues are a material determinant of the prices end-users face and are what we regulate. We propose to take a similar approach in PQP2 as we did for PQP1, focussing on the real step-change in revenue per consumer.
- 5.30 We have not, in general, considered the rate of change in any individual tariff or class of tariffs. This is because we do not have responsibility for regulating pricing and consider other regulatory tools such as pricing disclosures are adequate for managing price shocks.
- 5.31 In our view, for PQP2 (as for PQP1), the main group of end-users we are concerned with that may face allowable revenue-driven price shocks are those not receiving a declared service such as an anchor service or DFAS. We note that in our decision on the price path for PQP1 we explained that we did not consider that price shocks to end-users was a risk likely to eventuate.¹⁰¹ We therefore did not consider that revenue smoothing between periods was required under s 197 to address this risk.¹⁰²

⁹⁹ We apply the risk allocation principal from our economic framework when determining the appropriate allocation of demand risk.

¹⁰⁰ Telecommunications Act 2001, s 197(2).

¹⁰¹ Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021).

¹⁰² Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021), at [3.36]-[3.38].

- 5.32 For PQP1, we originally forecast that a significant proportion of Chorus' revenue would be determined by the level of uptake of anchor products (between 40 and 60%, based on Chorus forecasts at the time of writing the PQP1 decision document and our assumption about the definition of the anchor product).¹⁰³ This would mean that end-users, along with access seekers receiving DFAS, would be insulated from price shocks by any maximum price terms of the regulations specifying anchor services and DFAS.
- 5.33 Just prior to the commencement of PQP1, Chorus boosted its consumer Bitstream 100/20 plans to 300/100 (see Attachment A for further details). So, while Chorus retains the 100/20 anchor service within its service offering, there are no customers on it at present.
- 5.34 To comply with the revenue cap while recovering its full allowable revenue, Chorus can change the prices it charges for services not subject to regulations under ss 198 to 200 (while at the same time acknowledging that there are commercial limits on Chorus' ability to price these products).
- 5.35 Demand for these other products is forecast to continue to increase. However, demand may not increase fast enough to absorb an unsmoothed revenue increase without also requiring price increases.
- 5.36 We see the real rate of increase in revenue derived from non-anchor service end-users as our primary consideration when specifying the revenue path. Several of the options for the revenue cap and wash-up discussed below are informed by this risk.

Financial hardship

- 5.37 As set out previously, we also have an obligation to smooth revenues over two or more periods in a present value neutral way where we consider it is necessary to minimise any undue financial hardship to a regulated fibre service provider.¹⁰⁴
- 5.38 We considered the issue of financial hardship in our decision on the price path for PQP1. As with price shocks to end-users, we did not consider that financial hardship was a risk likely to eventuate. We therefore did not consider that revenue smoothing between periods was required under s 197 to address this risk.¹⁰⁵

¹⁰³ For the purposes of the previous approach paper, we assumed that the 100/20 product would form the basis of the anchor service, and that the current price for that anchor service would continue to apply (adjusted for inflation). We noted that responsibility for making regulations declaring a FFLAS to be an anchor service for PQP1 rested with the Governor-General on the recommendation of the Minister.

¹⁰⁴ Telecommunications Act 2001, s 197(2).

¹⁰⁵ Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021), at [3.36]-[3.37] and [3.39].

- 5.39 To the extent that price shock issues arise when determining the revenue cap in PQP2 and we considered it necessary to smooth revenues over multiple regulatory periods, any temporary under-recovery of revenue will have to be financed by Chorus before it has the opportunity to recover this revenue. This may be financed through retaining earnings or through increasing borrowing. However, both these options have limits, and could have flow-on impacts, especially on willingness to invest.
- 5.40 We will form a view on whether the revenue path we propose will give rise to undue financial hardship as part of our work on PQP2. However, our view is that Chorus would need to demonstrate that our proposal creates financial hardship risk before we would consider options for addressing it.

Approach to the revenue cap

- 5.41 This section discusses our proposed approach to implementing the revenue cap, and the different options we have identified within that approach. It addresses:
- 5.41.1 the timing of the demand forecasts used in assessing compliance with the revenue cap;
 - 5.41.2 the means of achieving revenue smoothing, consistent with s 197 of the Act; and
 - 5.41.3 possible additional controls on Chorus' revenue beyond the core revenue cap.

Timing of forecasts for assessing compliance

- 5.42 Total revenue caps necessarily depend on the use of forecasts for compliance purposes. When a regulated provider sets its prices for a given period (usually a pricing year) information about demand and other components such as inflation or pass-through costs will not be available. Where the regulated provider has the ability to vary its prices during the pricing year (due to an absence of any regulatory or contractual constraints), it may also depend on forecast prices.
- 5.43 Any over- or under-recovery of allowable revenue based on differences between forecasts and actuals is then dealt with through an *ex-post* wash-up mechanism.
- 5.44 For PQP1, our decision on demonstrating compliance with the revenue path was that Chorus was to provide:
- 5.44.1 a statement that it has (or has not) complied with the revenue path;
 - 5.44.2 the supporting information described below (at paragraphs 5.48 to 5.49); and

- 5.44.3 director certification for the annual compliance statement (but not for any mid-year updates) this statement and supporting information.
- 5.45 The compliance statement for regulatory year 2022 compliance was due by 31 March 2022, while that for regulatory year 2023 was due by 30 August 2022.¹⁰⁶ The compliance statement for regulatory year 2024 s due by 30 August 2023.
- 5.46 At any other time Chorus intends to change its prices, it must demonstrate compliance 30 working days prior to the change.¹⁰⁷
- 5.47 Chorus must provide director certification for the regular annual price path compliance statement, but director certification is not required for mid-regulatory year updates when Chorus intends to change its prices. Chorus is not required to provide an audit for price path compliance but is required to have its wash-up statements audited, as this determines future adjustments to Chorus' future prices to achieve compliance with the revenue allowances.
- 5.48 To determine whether the price path has been complied with, we have specified that 'forecast total FFLAS revenue' must be broken down into its component parts.¹⁰⁸ Specifically, Chorus must provide the information used to calculate forecast total FFLAS (FTFR) revenue in accordance with the formula:
- $$FTFR = \sum_i (P_i - D_i) \times FQ_i + FOFI$$
- Where:
- i is each tariff;
 - P is the corresponding price for that tariff;
 - D is any discount to the price;
 - FQ is the relevant forecast quantity; and
 - FOFI is forecast other FFLAS income.
- 5.49 Chorus must provide this supporting information as a schedule of products (broken down into the relevant tariffs that apply to that product) and corresponding prices, discounts, and quantities. Where prices will change at some point over the regulatory year, Chorus must itemise these separately.

¹⁰⁶ Note that these compliance statements have been provided by Chorus.

¹⁰⁷ This included where Chorus made changes to prices applying in regulatory year 2022 part-way through 2022.

¹⁰⁸ *Fibre Price-Quality Path Determination 2021* [2021] NZCC 27.

Means of achieving revenue smoothing

- 5.50 In addition to calculating allowable revenue on a BBM basis for each year of the period, we need to consider whether and how to smooth allowable revenue over time. This applies both within the regulatory period (to achieve relatively consistent levels of revenue and prices) and between periods (where smoothing may be necessary to minimise price shocks to end-users or minimise undue financial hardship to a regulated fibre service provider). Options for achieving smoothing include:
- 5.50.1 altering the rate of depreciation of Chorus' PQ RAB, either as a whole or of the financial loss asset specifically, which in turn alters building blocks revenue;
 - 5.50.2 smoothing building blocks revenue (net of pass-through costs) so it increases at a uniform rate; or
 - 5.50.3 smoothing forecast allowable revenue (gross of pass-through costs) so it increases at a uniform rate.
- 5.51 For PQP1, we smoothed Chorus' revenue over the period based on allowing (though not requiring) Chorus to maintain prices at current real levels.
- 5.52 This involved determining building blocks revenue such that it increases by:
- 5.52.1 forecasts of weighted average demand growth consistent with our final decision on connection expenditures for PQP1; and
 - 5.52.2 RBNZ CPI forecasts for PQP1.
- 5.53 To give effect to this smoothing of revenue within period, we included an additional 'in-period smoothing' building block in our building blocks revenue calculation for each regulatory year of PQP1.
- 5.54 As noted above, we have an obligation to smooth revenues over two or more periods in a present value neutral way where we consider it is necessary to minimise:
- 5.54.1 price shocks to end-users; or
 - 5.54.2 undue financial hardship to a PQ FFLAS provider.
- 5.55 For PQP1, we did not consider either of these risks were likely to eventuate and did not consider that revenue smoothing between periods was required under s 197.

- 5.56 We will consider whether revenue smoothing is required over time and if so how to smooth allowable revenue for PQP2 once we have the relevant information. We note that we expect that increases in the WACC applied as part of our BBM calculations and the impacts of inflation may lead to an increase MAR and higher risks of price shocks or undue financial hardship, which we will need to consider when determining if any smoothing is necessary.

Additional controls on Chorus' revenue

- 5.57 Beyond the core revenue cap, when setting revenue paths in the Part 4 context, we have also imposed additional controls on provider' revenues to manage specific risks.
- 5.58 Our general preference is to avoid the imposition of additional revenue constraints due to the added complexity they create and the risk of unintended outcomes. However, in some cases they may be justified to prevent harm to end-users.
- 5.59 We considered whether any additional controls on Chorus' revenue were justified in addition to the ordinary revenue path for PQP1. Measures considered included:
- 5.59.1 a limit on Chorus' ability to accrue a wash-up balance by choosing to under-recover its revenue voluntarily;
 - 5.59.2 a catastrophic demand risk cap (to share risk between Chorus and end-users in the event of a sudden loss of demand); and
 - 5.59.3 a limit on the rate of increase for Chorus' 'total FFLAS revenue', notwithstanding compliance with the revenue path.
- 5.60 For PQP1 we did not introduce any such measures and none of these measures are specified in the fibre IMs.¹⁰⁹
- 5.61 When considering whether to introduce additional controls on Chorus' revenue for PQP2, we intend to consider whether any additional controls aligned with the purpose of Part 6 and, as we consider relevant, s 166 (2). We also intend to consider if undue hardship or a potential price shock would otherwise result from our decisions. We do not currently consider any additional revenue controls or smoothing is necessary. However, we note the principles we intend to apply in determining the wash-up drawdown could see the introduction of new mechanisms in the future to reduce price volatility that might result from a large wash-up account balance (see paragraphs 5.76 to 5.77).

¹⁰⁹ Commerce Commission "Chorus price quality path from 1 January 2022 Final Decision Reasons Paper" (16 December 2021), at [3.55]-[3.64].

| Ref | Feedback Question |
|------|---|
| REV1 | Do you think any additional revenue controls are needed and if so whether they are an appropriate way to manage price shock risk during the period? |

Wash-up mechanism

5.62 This section discusses our approach to the wash-up mechanism as set out in the fibre IMs.¹¹⁰ It covers:

5.62.1 the mechanics of how the wash-up will be calculated;

5.62.2 our current decisions about the scope of the wash-up;

5.62.3 limits on the wash-up balance; and

5.62.4 principles we will apply when determining the wash-up balance.

5.63 Section 196 of the Act requires us, from PQP2, to apply a wash-up mechanism that provides for any over- or under-recovery of revenue during previous regulatory periods. We will need to determine the wash-up draw-down amount for the PQP2 regulatory period in accordance with the fibre IMs. This is explained further below.

Mechanics of the wash-up

5.64 We have specified the mechanics of the wash-up in the fibre IMs.

5.65 The wash-up mechanism will work on a 'balance' basis with amounts accruing to, and being drawn down from an ongoing wash-up balance with time value of money adjustments.

5.66 The wash-up mechanism is composed of three key elements, determined by the Commission by applying the fibre IMs and based on information provided by Chorus:

5.66.1 wash-up accrual amounts - used to capture the relevant forecast versus actual differences in inputs to the revenue path, defined as the difference between:¹¹¹

5.66.1.1 actual 'total FFLAS revenue' (the revenue a regulated provider receives from access seekers); and

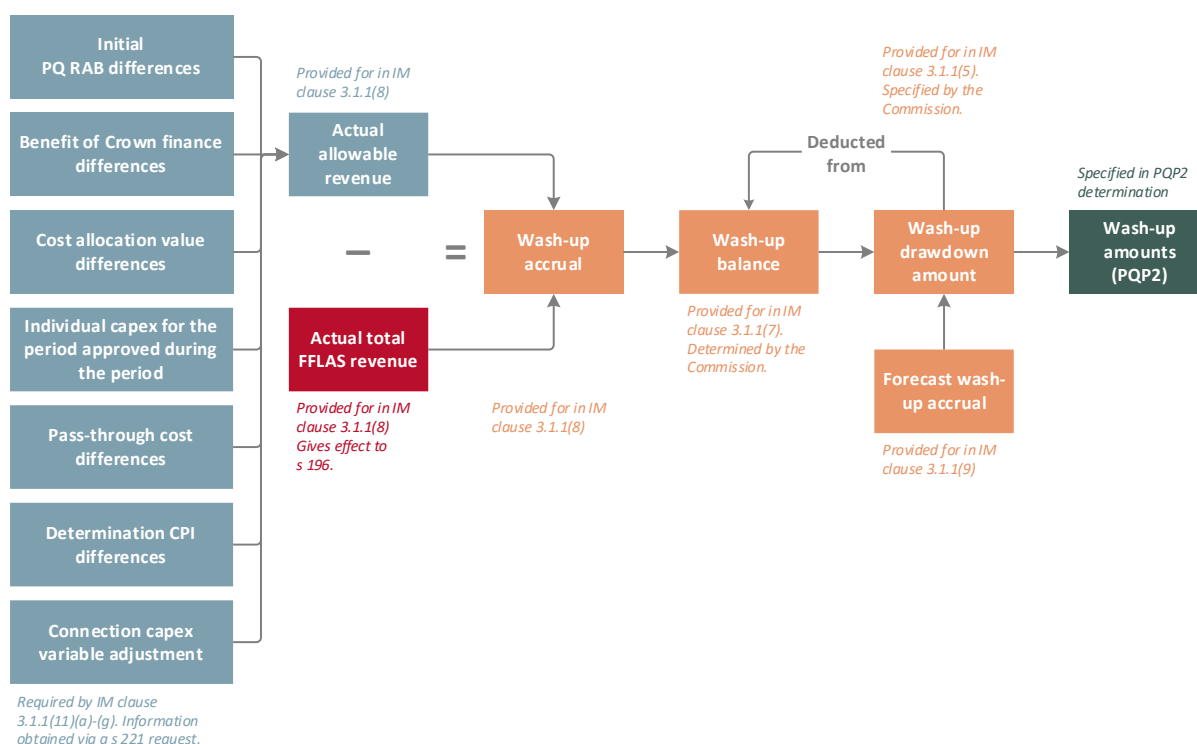
¹¹⁰ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1.

¹¹¹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(8).

- 5.66.1.2 'actual allowable revenue' (a version of allowable revenue recalculated with the relevant inputs updated (see paras 5.69 and 5.70 on the scope of the wash-up));¹¹²
- 5.66.2 wash-up balance - used to track accruals, drawdowns, and time value of money adjustments;¹¹³ and
- 5.66.3 wash-up draw-down amount - used to deduct accrued balances to be returned to the regulated provider or access seekers (depending on whether the balance is positive or negative) via the revenue path in the subsequent regulatory period, and whose value must:
 - 5.66.3.1 not be greater or less than (depending on whether the wash-up balance is positive or negative respectively) the existing wash-up balance at the time the wash-up draw-down is determined plus a forecast of the final regulatory year's wash-up accrual amount; and
 - 5.66.3.2 equal in present value terms to the sum of 'wash-up amounts' for the subsequent regulatory period.
- 5.67 The wash-up will operate on a period-to-period basis, rather than on a year-to-year basis. The discount rate applied to maintain the time value of money will be the vanilla WACC.
- 5.68 Figure 5.2 illustrates how the wash-up operates.

¹¹² *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(11).

¹¹³ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(7).

Figure 5.2 Overview of the wash-up mechanism¹¹⁴

Scope of the wash-up mechanism

5.69 In calculating (or specifying) the maximum revenues the Commission must apply a wash-up for any under- or over- recovery of revenue by the PQ FFLAS during the previous regulatory period.¹¹⁵ At a minimum, this encompasses differences in recovery due to differences in forecast versus actual levels of demand.

5.70 We have defined the scope of the wash-up mechanism in the fibre IMs.¹¹⁶ In addition to accounting for under- or over-recovery of revenue, the wash-up includes:

- 5.70.1 adjustment for the difference between the transitional RAB and final RAB (for PQP1 only);
- 5.70.2 the difference between the forecast and actual “annual benefit of Crown financing building block”;
- 5.70.3 differences between forecast cost/asset allocator values and actual cost/asset allocator values;

¹¹⁴ From PQP2 onwards, the wash-up mechanism will also incorporate a wash-up for the opening RAB value and related tax values. See: Commerce Commission *Fibre Input Methodologies Amendment Determination 2023* [2023] NZCC 13.

¹¹⁵ Telecommunications Act 2001, s 196.

¹¹⁶ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.1.1(11).

- 5.70.4 individual capex allowances in respect of the regulatory period determined after the PQ path was set;
- 5.70.5 the difference between forecast and actual pass-through costs;
- 5.70.6 the difference between any forecast CPI values in the PQ determination used to determine forecast allowable revenue, and the corresponding actual CPI values; and
- 5.70.7 the connection capex variable adjustment.

Limits on the wash-up balance

- 5.71 In designing the wash-up, we must consider whether we can impose any limits on how large a balance (positive or negative) can be accrued, and if so, whether doing so is justified in s 166(2) terms.
- 5.72 Our view is that where the wash-up relates to the over- or under-recovery of allowable revenue during the PQP1 period, the wash-up should be:
 - 5.72.1 unlimited (both in terms of accrual and total balance); and
 - 5.72.2 symmetric between over- and under-recoveries.
- 5.73 We consider that this is consistent with s 196, which requires that the Commission must, in calculating maximum revenues, apply a wash-up mechanism that provides for:
 - 5.73.1 any over- or under-recovery of revenue by the regulated fibre service provider; and
 - 5.73.2 for the wash-up to be applied in a way that is equivalent in present value terms.
- 5.74 Similarly, we consider that where the wash-up balance is used for the purposes of smoothing revenues under s 197, any accrual must be uncapped, as this smoothing is also required to be present value neutral.
- 5.75 Where the wash-up balance is used for other purposes, there is no explicit statutory requirement for the accrual to be unconstrained, and so where there is good reason for imposing a constraint, we are able to do so.

Principles we will apply when determining the wash-up drawdown amount

- 5.76 While our determination of the wash-up drawdown amount is subject to the parameters set out in 3.1.1(5)(a) and (b)) of the fibre IMs, and any determination we make must give effect to the purpose of Part 6 (and to the extent relevant, s 166(2)), the Commission has some discretion in determining the wash-up drawdown amount.
- 5.77 We intend to apply the following approach when determining the amount drawn down:
- 5.77.1 drawdown of the full PQP1 wash-up balance over PQP2 where possible within real price-shock and financial hardship constraints;
 - 5.77.2 a uniform real per-user terms rate of draw down;
 - 5.77.3 any in-period smoothing will be on a ‘gross’ basis (that is, on allowable revenue including forecast pass-through costs and the wash-up drawdown);
 - 5.77.4 we will consider if we need to develop a mechanism, such as a large balance reopener, to avoid the wash-up balance becoming so large that it may produce significant future price shocks or put the recovery of the balance at risk, noting that this would require a future fibre IM amendment;¹¹⁷ and
 - 5.77.5 we will not seek to prevent Chorus “retaining” some of the wash-up balance, such as by setting prices to under-recover the full MAR. However, if we saw behaviour that suggested under-recovery could lead to a material build-up of the wash-up balance, we would consider if a restriction was required. This would also require fibre IM amendments.

| Ref | Feedback Question |
|------|---|
| REV2 | Are there any changes you would suggest to our proposed approach to applying a wash-up drawdown amount to the PQP2 MAR? Please provide reasons for any suggested changes. |

¹¹⁷ This could be similar to the reopener available under the Transpower IMs relating to a large build-up in the EV account balance. See Commerce Commission “Transpower Individual Price-Quality Path from 1 April 2020 – Companion paper to final RCP3 IPP determination and information gathering notices” (14 November 2019), at [3.19]-[3.24].

IMs relevant to the PQ RAB

- 5.78 The regulatory rules and requirements that apply to the determination of the initial PQ RAB and the roll-forward of the PQ RAB to determine the RAB values used to set Chorus' PQ path are specified in the asset valuation IM and the cost allocation IM. These two IMs complement each other.

Asset valuation IM

- 5.79 In applying the asset valuation IM for PQ regulation, we will focus on ensuring:
- 5.79.1 the asset valuation IM for valuation of financial loss asset is appropriately applied;
 - 5.79.2 the asset valuation IM for valuation of core fibre assets is appropriately applied; and
 - 5.79.3 areas of judgement are appropriately justified and best give, or are likely to best give, effect to the purpose in s 162.
- 5.80 We established Chorus' initial RAB in October 2022.¹¹⁸ The MAR for PQP1 was based on a transitional initial PQ RAB value. For PQP2 we will roll-forward the opening RAB as at 1 January 2025, which will equal the closing PQP1 RAB as at 31 December 2024. We applied the asset valuation IM rules to determine the assets to be included in the initial PQ RAB.¹¹⁹ In summary, the initial PQ RAB:
- 5.80.1 reflects the depreciated historical cost of 'core fibre assets', net of specified capital contributions; and
 - 5.80.2 reflects the financial loss asset determined by us, ie, the financial losses Chorus incurred in providing FFLAS under the UFB initiative during the pre-implementation period.

Cost allocation IM

- 5.81 In applying the cost allocation IM for PQ regulation, we will focus on:
- 5.81.1 updating cost allocation values appropriately;

¹¹⁸ Commerce Commission "Chorus' initial regulatory asset base – Final decision – Reasons paper" (6 October 2022).

¹¹⁹ The PQ IMs specified a forecast value of the transitional PQ RAB by adopting historical values for the year-ending 31 December 2019, see; [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), clause 3.3.1(6). We previously referred to the sum of the forecast asset values used to determine maximum revenues for PQP1 as the 'provisional initial PQ RAB'.

- 5.81.2 understanding and checking the justification for any new or changed allocators; and
 - 5.81.3 ensuring areas of judgement are appropriately justified and best give, or are likely to best give, effect to the purpose in s 162.
- 5.82 Many Chorus assets are shared between the provision of regulated FFLAS and other services (eg, copper-based services). The allocation of these assets has required cost allocation to identify the value attributable to regulated FFLAS.
- 5.83 We applied the cost allocation IM rules for attributing asset values directly attributable and those that are not directly attributable (or shared) to regulated FFLAS in determining the ‘allocated initial RAB’. After allocating costs directly attributable to regulated FFLAS (and the initial RAB), the fibre IM specifies the rules for allocating values to shared assets employed in the provision of:
- 5.83.1 regulated FFLAS “provided by a regulated provider” that is subject to PQ regulation (PQ FFLAS), and regulated FFLAS “provided by a regulated provider” that is subject only to ID regulation (ID-only FFLAS); and
 - 5.83.2 regulated FFLAS and services that are not regulated FFLAS.
- 5.84 The fibre IMs provide flexibility to allow for the allocation of asset values between PQ FFLAS and ID-only FFLAS. In addition, the fibre IMs specify that any asset values that are allocated to regulated FFLAS must be further allocated to PQ FFLAS or ID-only FFLAS. Where asset values are not directly attributable, asset allocators must be used.¹²⁰ However, the fibre IMs do not specify the approach to interpreting regulation 6 of the regulations.¹²¹

The initial PQ RAB is now finalised

The initial PQ RAB

- 5.85 Chorus’ initial PQ RAB, along with its ID-only and ID RABs, was finalised in October 2022.
- 5.86 We determined a transitional initial PQ RAB for PQP1 to ensure the necessary work to establish the initial RAB was deliverable by Chorus and us in the timeframe required to set the allowable revenue for the first regulatory period, and we allowed for a wash-up once the initial RAB was finally determined.

¹²⁰ Commerce Commission “[Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020” (13 August 2020), clause 3.2.1(11).

¹²¹ Telecommunications (Regulated Fibre Service Providers) Regulations 2019.

Role of a 'transitional initial PQ RAB'

- 5.87 In general, when determining *ex-ante* building blocks-based revenue, some forecasts are needed to estimate the building blocks for the first year of the regulatory period. These forecasts deal with the practical issue of, for example, needing a RAB value for the start of the regulatory period before actual (and audited) information for one or more years is available. Differences between forecasts and actual values are generally washed up.
- 5.88 The asset valuation IMs provide for this situation. The initial PQ RAB (including the financial loss asset) allowed for the determination of a 'transitional initial PQ RAB' to be used when determining the initial PQ path on 1 January 2022, ie, before actual information for some of the years was available (information for the years-ending 31 December 2020 and 2021).
- 5.89 We subsequently, in October 2022, determined an 'initial PQ RAB' once actual information was available. We will true-up for differences in revenue due to differences between the initial RAB and the transitional initial PQ RAB in PQP2 via a wash-up mechanism.

The opening RAB for PQP2

- 5.90 A forecast of the closing RAB as at 31 December 2024 when PQP1 ends will then form the opening RAB for 1 January 2025, the beginning of PQP2.¹²² This opening RAB will be rolled forward to provide the relevant forecast PQ RAB values required to calculate the PQP2 BBM components for PQP2.

Notable changes to building blocks in PQP2

- 5.91 As well as PQP2 being the first regulatory period where a wash-up amount will be applied to the calculation of revenue, there will also be changes to other building blocks.

Repayments of Crown financing

- 5.92 Chorus is expected to commence the repayment of Crown financing during PQP2. This will reduce the outstanding Crown financing balance, and therefore reduce the size of the benefit of Crown financing. The benefit of Crown financing is recognised as a negative building block in the MAR calculation. As this amount represents a reduction in the required revenue, reducing the size of the benefit of Crown financing over PQP2 will have the effect of increasing the MAR.

¹²² In June 2023, we amended the fibre IMs to include a wash-up between the forecast of the opening RAB at the start of each regulatory period and the actual value. Commerce Commission [Fibre Input Methodologies Amendment Determination 2023](#) [2023] NZCC 13.

Exhaustion of regulatory tax losses

- 5.93 We expect Chorus to fully utilise any outstanding regulatory tax losses during PQP2.
- 5.94 Chorus is expected to begin paying taxes on its PQ FFLAS business and therefore a positive tax building block will be calculated. This will increase the MAR.

Assessing and demonstrating compliance with the PQ path

- 5.95 In addition to the substantive requirements of the PQ path set out in s 194 and s 195, under s 193(2) we may also set requirements for how Chorus must demonstrate compliance with the PQ path.
- 5.96 The specific statutory scope and requirements for demonstrating compliance are set out in Chapter 3.
- 5.97 We propose to set compliance reporting requirements for Chorus' PQ path for PQP2 that operate in a broadly similar way to PQ compliance requirements in PQP1. This encompasses:
- 5.97.1 an *ex-ante* revenue path compliance statement prior to the start of the regulatory year, demonstrating that the prices Chorus proposes to set are compliant with the revenue path;
 - 5.97.2 annual price path compliance statements, including a director's certificate of compliance (as set out above at paragraphs 5.44 to 5.47);
 - 5.97.3 an *ex-post* wash-up and quality standards compliance statement after the regulatory year has ended, demonstrating that Chorus has met its quality standards and calculating the revenue cap wash-up; and
 - 5.97.4 an *ex-post* compliance statement, including a director's certificate of compliance, that states whether Chorus has complied with s 201.
- 5.98 The reporting we receive via ID provides assurance that the roll-forward of the RAB has been undertaken correctly. For example, schedules 4b, 4c and 4d report on the ID, PQ and ID-only asset bases roll-forward. We note that the reasonable assurance report provided to the Directors of Chorus and the Commerce Commission that accompanies ID disclosures includes reasonable assurance of these three schedules.
- 5.99 A summary of the various forms of information that the Commission requires of Chorus and the associated types of assurance is summarised in Attachment C.
- 5.100 The assurance reports that are required to accompany some disclosures are procured from an independent auditor. The reports:

- 5.100.1 are to be prepared in accordance with SAE 3100 (Revised) and ISAE (NZ) 3000 (Revised), signed by the independent auditor (either in his or her own name or that of his or her firm);
- 5.100.2 are addressed to the directors of the ID-regulated provider and to the Commission as the intended users of the assurance report; and
- 5.100.3 must make various statements, such as setting out the scope and limitations of the assurance engagement.¹²³

| Ref | Feedback Question |
|-------------|--|
| REV3 | Do you suggest any changes to our proposed approach to monitoring Chorus' compliance with its PQP2 price-quality path? Please provide reasons for any suggested changes. |

¹²³ *Fibre Information Disclosure Determination 2021* [2021] NZCC 24, clause 2.7.1(1).

Chapter 6 Our approach to determining Chorus' expenditure allowances

Purpose and structure of this chapter

- 6.1 This chapter sets out our approach to determining Chorus' expenditure allowances for PQP2.
- 6.2 This chapter addresses:
- 6.2.1 expenditure allowances to be determined;
 - 6.2.2 our proposed process for evaluating Chorus' expenditure proposal;
 - 6.2.3 our proposed approach to evaluating Chorus' expenditure allowances; and
 - 6.2.4 specific areas of potential interest for evaluation.

Expenditure allowances to be determined

- 6.3 We need to determine PQ FFLAS expenditure allowances to set allowable revenue for Chorus' PQ path for PQP2. This includes both capex and opex allowances.
- 6.4 In regard to capex, the capex IM identifies three types of capex, each of which has its own processes, timeframes, and requirements. These different types of capex are:
- 6.4.1 base capex, which covers all forecast capital expenditure except capex associated with the connection of end-users (connection capex) and capex that has been approved as a result of an individual capex proposal;
 - 6.4.2 connection capex, which is capex that is directly incurred by Chorus in relation to connecting new end-user premises, building or other access points where the communal fibre network already exists or will exist at the time of connection, and includes: ¹²⁴
 - 6.4.2.1 a 'connection capex baseline' component;
 - 6.4.2.2 a 'connection capex variable adjustment' component; and

¹²⁴ Note that we have consulted on connection capex requirements in our IMs further consultation update paper; [Commerce Commission "Fibre input methodologies Further consultation draft – reasons paper" \(23 July 2020\)](#).

6.4.3 individual capex, which is capex that has a high degree of uncertainty as to need, economic case and/or timing, or the capex we determine should be approved for specific projects or programmes to which it relates and reported separately from base capex.

6.5 Table 6.1 describes the different categories of capex that we can approve.

Table 6.1 Different categories of Capex that we can approve

| Capex type | Approval prior to PQP2 | Approval during and/or after PQP2 |
|--|--|--|
| <p>Base Capex Separated by expenditure sub-category. Regulatory templates (including base Capex categories) agreed, and information request issued on 28 February 2023. Once approved, expenditure is substitutable within base Capex allowance.</p> | <p>Propose and respond. Evaluation based on expenditure objective, good telecommunications industry practice and assessment factors.</p> | |
| <p>Connection Capex Baseline + variable component. Volumes and unit rates for different connection types for each year of PQP2. Once approved, expenditure is not substitutable with base capex allowance.</p> | <p>Baseline component based on forecast volumes. Pre-approval of unit costs by connection type. Evaluation based on expenditure objective, good telecommunications industry practice, and assessment factors.</p> | <p>Variable component to be adjusted for actual volumes at pre-approved unit costs. Variable component informed by connection capex annual report.</p> |
| <p>Individual capex Larger projects and programmes. Expenditure > \$5m threshold. For expenditure with significant uncertainty at time base capex is assessed. Additional to base and connection capex. Commission discretion on IV requirement.</p> | <p>Propose and respond. Staged approval. Evaluation based on expenditure objective, good telecommunications industry practice, and assessment factors. Note that Chorus may also apply for individual capex at any time including prior to the start of, during or after PQP2.</p> | |

6.6 The capex allowances that we will determine for Chorus' PQ path for PQP2 are the base capex and connection baseline capex. Individual capex is evaluated and approved (if appropriate) under a separate process. Capex allowances have an impact on the allowable revenues for PQP2 and, assuming Chorus incurs the expenditure, an impact on the allowable revenues for subsequent regulatory periods.

- 6.7 In addition to the base capex and the connection capex baseline allowances we also determine an opex allowance for PQP2. In contrast to Capex allowances which have a small effect on the revenue allowance in the short term (as only a percentage is recovered during the current regulatory period), the opex allowance has a one to one impact on the revenue allowance.

Process for evaluating Chorus' expenditure proposals

- 6.8 This section explains our process for assessing expenditure proposals and determining expenditure allowances for Chorus' PQ path for PQP2. This includes the process for:
- 6.8.1 information requests;
 - 6.8.2 the IV;
 - 6.8.3 assessing Chorus' capex proposals;
 - 6.8.4 assessing and determining Chorus' opex; and
 - 6.8.5 consultation with stakeholders for setting the PQP2 expenditure allowances.
- 6.9 The overall process and our approach to assessing Chorus' capex proposals is set out in the capex IM, and we intend to use a similar approach for assessing opex (as we did in PQP1).
- 6.10 The capex IM prescribes the following requirements for setting capex allowances:¹²⁵
- 6.10.1 processes and timeframes for evaluating Capex proposals;
 - 6.10.2 information requirements required to assess Capex proposals including assurance requirements on any information provided and the extent of consultation with other parties; and
 - 6.10.3 the criteria we will use to evaluate capex proposals.

¹²⁵ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, Subpart 7.

Information request

- 6.11 In accordance with the capex IM, we issued an information request to Chorus on 28 February 2023 requesting the information required under the capex IM.¹²⁶ The information request requires Chorus to provide information relating to expenditure, cost escalators, and connection and demand forecasts.

Independent verifier process

- 6.12 The capex IM requires Chorus' base capex proposal to be verified by an IV.¹²⁷ PQP2 is the first time that an IV has been used within the expenditure process. The verification process is intended to promote certainty for Chorus as to how its expenditure proposals are likely to be assessed, as well as to assist us to make the most effective use of the tight statutory timeframes for evaluating capex proposals by highlighting which areas of a proposal we should focus on. The IV will consider the expenditure objective and the relevant assessment factors as part of its evaluation and apply proportionate scrutiny when completing its independent verification of Chorus' proposals.
- 6.13 The intended IV, scope and the terms and conditions proposed by Chorus for the IV report were submitted for approval prior to the start of the verification process.
- 6.14 As part of the process to approve the IV, the verification information submitted had to include enough information for the Commission to be satisfied:
- 6.14.1 the verifier is independent and capable of undertaking verification; and
 - 6.14.2 the terms and conditions of engagement and the scope of the IV report will provide the appropriate assurance needed to assess the base capex proposal.
- 6.15 Chorus ran a tender process to select and propose an IV. Synergies Economic Consulting was selected by Chorus as the preferred IV. After a review of Chorus' proposed IV selection, we approved both the choice of IV and the terms of reference under which the IV will operate.
- 6.16 The primary steps in the IV process are:
- 6.16.1 a draft IV report will be developed and shared with Chorus and ourselves prior to Chorus submitting its proposal; and
 - 6.16.2 a final IV report will accompany Chorus' capex proposal.

¹²⁶ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.8(9)(b).

¹²⁷ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.10.

- 6.17 Our intention is to consider the final IV report and utilise the IV findings in both establishing the issues that require further evaluation, and where we consider it appropriate, to utilise the IV findings within our draft and final decision. In the course of our evaluation, we will also seek stakeholders' views on the IV's findings.

Receipt of proposal from Chorus

- 6.18 Chorus is required to submit its capex proposal for PQP2 by 31 October 2023.¹²⁸

Seek initial views on Chorus' proposal

- 6.19 We intend to publish and seek initial views on Chorus' expenditure proposal in Q4 2023 after receiving Chorus' submission.

Approach to assessing Chorus' capex proposals

- 6.20 Our proposed approach to assessing Chorus' capex proposals is for Chorus to develop the financial and other models used to specify expenditure allowances and building blocks revenue. These will then be subject to assessment and scrutiny by us and other interested parties.
- 6.21 Our primary focus for setting Chorus' PQ path for PQP2 will be to assess the proposal and set the base capex and connection capex baseline allowance for the second regulatory period. We will make a determination on Chorus' expenditure allowance, including opex, for PQP2 that best gives (or is likely to best give) effect to the purpose in s 162 and (to the extent that we consider it relevant) to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.
- 6.22 During our evaluation of the base capex proposal, we may identify capex projects or programmes that would be better treated as individual capex, and as such exclude the expenditure from the allowances. The capex IM identifies matters that the Commission must have regard to when applying this discretion.¹²⁹
- 6.23 Our focus for assessing the connection capex baseline allowance will be to identify (and determine) an expenditure requirement that reflects expected connection take-up by end-users and expected efficient unit costs. Due to the uncertainty involved in forecasting connection volumes, the capex IM includes a connection capex variable adjustment mechanism. The adjustment mechanism will adjust Chorus' wash-up amount for the volume of connections to reflect any changes in the actual number of connections during a regulatory period.

¹²⁸ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.8(1)(b).

¹²⁹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.7.12(3).

Assessing and determining Chorus' opex

- 6.24 Unlike capex, we do not have an input methodology that sets out the processes, timeframes, information requirements and evaluation criteria for assessing and approving opex.
- 6.25 As such, to approve opex for Chorus' second regulatory period, we propose to adopt a similar approach to that used for assessing capex. We have required the IV to review, and where it considers appropriate, verify Chorus' opex. We also propose to:
- 6.25.1 seek stakeholders' views on Chorus' proposal;
 - 6.25.2 issue a draft determination of Chorus' opex allowance and seek stakeholders' views; and
 - 6.25.3 issue a final determination of Chorus' opex allowance and use it as an input into the MAR calculation.
- 6.26 We intend to use the same timeframes for assessing opex as those for capex. These are described in Table 2.1 in Chapter 2. This is a similar approach to the one taken in PQP1.

Additional information requests

- 6.27 During the evaluation phase, we may also identify areas where we need further information from Chorus which we will seek through targeted information requests.

Consultation with stakeholders for setting the PQP2 expenditure allowances

- 6.28 Stakeholder consultation on Chorus' proposal and our expenditure allowance determination is important to ensure the allowance we determine for PQP2 is likely to best give effect to s 166(2)(a) and (where relevant) s 166(2)(b). We intend to seek stakeholder views at the following stages of the expenditure assessment:
- 6.28.1 developing our approach to assessing expenditure for PQP2 (this paper);
 - 6.28.2 following receipt of the IV report and Chorus' proposal; and
 - 6.28.3 when we publish our draft determination of Chorus' expenditure allowances for PQP2.

- 6.29 During the course this process we may identify other areas that we consider necessary for consultation. The extent of any further consultation is dependent on our findings as we assess Chorus' proposal. If we identify areas that require further consultation, we will provide updates to stakeholders through both our website and via our Infrastructure Regulation email distribution list.

| Ref | Feedback Question |
|------|--|
| EXP1 | Are there any particular or additional aspects to our proposed evaluation process that you think we should consider? |

Our approach to evaluating Chorus' expenditure allowances

- 6.30 In evaluating both Chorus' base capex and connection capex baseline proposals, we must apply the evaluation criteria in the capex IM and ensure that our decisions best give effect or are likely to best give effect to the purpose in s 162 and (where relevant) s 166(2)(b) of the Act. This includes considering whether the proposed expenditure meets the expenditure objective and reflects good telecommunications industry practice.
- 6.31 The capex IM sets out that capex will meet the capital expenditure objective as if the expenditure reflects the efficient costs that a prudent fibre network operator would incur to deliver PQ FFLAS at appropriate quality, during the upcoming regulatory period and over the longer-term.¹³⁰
- 6.32 Good telecommunications industry practice means:¹³¹
- the exercise of a degree of skill, diligence, prudence, foresight and economic management, that would reasonably be expected from a skilled and experienced asset owner engaged in the management of a fibre network under comparable conditions. A decision on good telecommunications industry practice should take into account the domestic and international best practice, including international standards and factors such as the relative size, age and technology of the relevant fibre network and domestic regulatory and market conditions, including applicable law.
- 6.33 We will also have regard to the assessment factors when evaluating a capex proposal. ¹³² The assessment factors will help us identify the different aspects of prudence and efficiency that we consider relevant when evaluating the proposals.

¹³⁰ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.8.5(2).

¹³¹ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 1.1.4(2).

¹³² *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.8.6.

- 6.34 Any decision we make regarding opex will also be one that gives effect to or is likely to give effect to the purpose set out in s 162 and to the extent relevant, the promotion of workable competition (s 166(2)(b)). Therefore, we consider it appropriate to use the same evaluation criteria as specified in the IMs for capex for Chorus' opex proposal (which was the approach we took for PQP1). Accordingly, we propose evaluating Chorus' opex proposal by considering whether the proposed opex meets the expenditure objective and reflects good telecommunications industry practice.¹³³ We will also consider the assessment factors discussed as far as we consider them relevant to the proposed opex.

Cost allocation and cost escalation

- 6.35 Regulated providers have costs that are shared between regulated FFLAS and services that are not regulated FFLAS. Cost allocation ensures that only those costs associated with regulated FFLAS are included in the BBM calculations for Chorus' allowable revenue. As such, a component of determining expenditure allowances involves considering how the allocation of costs to PQ FFLAS changes over time.
- 6.36 Our evaluation of Chorus' proposed expenditure will consider the forecast FFLAS allocations. Consideration of the allocators is an important component of the evaluation to ensure that the allocator calculations meet the expenditure objective.
- 6.37 In accordance with the capex IM, our determination of expenditure allowances is made in nominal terms. As such, cost escalation refers to the escalators used to inflate the real expenditure allowance to a nominal expenditure allowance that is suitably adjusted for price changes in future years. As part of our evaluation of Chorus' proposals we will consider the escalators proposed by Chorus and determine whether they are appropriate and consistent with other aspects of the expenditure determination.

Prioritisation of focus areas for evaluation and application of proportionate scrutiny

- 6.38 A key focus of our assessment will be on identifying expenditure that is prudent and efficient and meets the requirements (as set out in the capex IM and adapted for opex as required).
- 6.39 We will prioritise assessment of areas that we expect to impact end-users most. A key part of our review will be consideration of the findings from the IV process, along with the feedback received from stakeholders on Chorus' proposal. To assist, the capex IM requires Chorus to develop and publish an IFP. The IFP helps to ensure we have visibility of and can encourage improvements in Chorus' processes and procedures relating to good asset management, as well as Chorus' oversight of its business and how it effectively engages with its end-users.

¹³³ *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.8.5(1).

- 6.40 We have also previously issued s 221 requests for Chorus to provide information on its asset management journey and intended development path.¹³⁴ The information provided within Chorus' IFP, Chorus' reported progress on asset management maturity, and demonstration of engagement with end-users, along with the IV findings are all factors that will contribute to our prioritisation of focus areas for the evaluation of the proposed expenditure.
- 6.41 We will also apply proportionate scrutiny to Chorus' expenditure forecasts when determining expenditure allowances. This means that in evaluating Chorus' expenditure proposals we will apply the level of scrutiny that is commensurate with potential price and quality impacts of the related forecast expenditures.
- 6.42 Consistent with our approach to prioritisation, we plan to commence our analysis with the areas identified by the IV.

Specific areas of potential interest for evaluation

- 6.43 Within the information request to Chorus we have sought information regarding specific areas of interest. There are also several other areas of expenditure that may warrant specific evaluation, depending on the outcome of the IV investigation. The areas where we have already sought specific information and areas that may warrant specific evaluation include:
- 6.43.1 expansion of the fibre network in rural areas of New Zealand;
 - 6.43.2 expenditure to reinforce the resilience of the fibre network;
 - 6.43.3 incentive payments associated with new connections and product upgrades;
 - 6.43.4 cost allocation and the impact of increasingly higher proportion of costs being attributed to fibre;
 - 6.43.5 other material capex expenditure areas such as network and customer information technology (IT) and aggregation expenditure; and
 - 6.43.6 material opex expenditure categories such as corporate support expenditure and network maintenance.

¹³⁴ Commerce Commission "Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 - Requirements for base capital expenditure, connection capex baseline expenditure, and operating expenditure proposals" (16 August 2023).

- 6.44 In addition to the areas listed, as part of our PQP1 decision, we identified several areas where we would expect to see improvements from Chorus over time. These include improvements in asset management, the level of justification provided for the proposed expenditure, and the maturity of the forecasting methods utilised. Within Chorus' proposal we would expect to see the application of improvements within these areas.
- 6.45 As noted above we will finalise the list of areas where we plan to undertake a 'deep dive' as necessary to be satisfied the expenditure objective has been met following receipt of the final IV report and Chorus' proposals.

| Ref | Feedback Question |
|------|--|
| EXP2 | Are there any additional areas or particular aspects of Chorus' expenditure that we should specifically focus on during our evaluation of Chorus' proposals? |

Rural fibre expansion

- 6.46 Chorus has indicated it is considering the inclusion of expenditure for the expansion of its fibre network into rural areas.
- 6.47 Where the proposed expenditure for the expansion of the fibre network meets the expenditure objective and aligns with good telecommunications industry practice, the expenditure is allowed for within the capex IM.
- 6.48 Accordingly, in our evaluation of Chorus' proposal to expand the fibre network into more rural areas, there are a number of potential aspects that we may need to consider. These aspects include for each area:
- 6.48.1 competition within the rural area in the context of geographic average pricing;
 - 6.48.2 the potential costs and benefits of the proposed expansion;
 - 6.48.3 whether fibre is the most efficient way to meet the need;
 - 6.48.4 the relevant capital contribution policies and expected value of the contributions; and
 - 6.48.5 the cost of maintaining legacy network and how this has contributed to the decisions on the proposed fibre expenditure.
- 6.49 We are interested to hear from submitters on any issues or any particular aspects or characteristics that they consider we should also take into account in our evaluation of Chorus' proposed rural fibre expansion expenditure.

| Ref | Feedback Question |
|-------------|--|
| EXP3 | Are there any particular aspects or characteristics that we should consider in our evaluation of Chorus' proposed rural fibre expansion expenditure? |

Resilience expenditure

- 6.50 The recent events associated with Cyclone Gabrielle have highlighted the importance of infrastructure resilience. In line with this, Chorus has indicated it is considering proposing expenditure to address network resilience to adverse weather events.
- 6.51 In our view, careful consideration of expenditure associated with infrastructure resilience is an important component of any expenditure proposal. The capex IM allows for resilience expenditure, provided the expenditure aligns with the expenditure objective, and good telecommunications industry practice.
- 6.52 We also recognise that in the face of expected increases in frequency and severity of adverse weather events, infrastructure operators may need to evaluate their network standards and architecture to meet reasonable standards of disaster preparedness.
- 6.53 In proposing resilience expenditure Chorus should ensure that it provides well justified proposals that have been sufficiently tested, demonstrating a good understanding of the risks that are being mitigated or managed, the alternative options for meeting the resilience need, including non-fibre alternatives and/or improved response capabilities. This also includes demonstration of why any standards relied upon (whether risk based or deterministic) to support the proposed investment are appropriate for the specific circumstances or physical environment in which the investment is being made.
- 6.54 We are also interested to receive submissions on any particular aspects or characteristics that submitters consider to be important in regard to any resilience expenditure.

| Ref | Feedback Question |
|-------------|--|
| EXP4 | Are there any particular aspects or characteristics that we should account for in our evaluation of Chorus' proposed resilience expenditure? |

Chapter 7 Quality standards review

Purpose and structure of this chapter

- 7.1 This chapter sets out our proposed approach to reviewing quality standards.
- 7.2 This chapter addresses:
- 7.2.1 our approach to assessing and setting mandatory quality standards;
 - 7.2.2 how we will assess the need to set new standards; and
 - 7.2.3 our considerations for a potential quality incentive scheme.

Background

- 7.3 In the quality dimensions IM we set mandatory quality standards for availability and performance, as these quality dimensions are likely to be of enduring importance over time.¹³⁵
- 7.4 We did not set standards for any of the optional quality dimensions of ordering, provisioning, switching, faults and customer service for PQP1. However, we noted that the duration of faults are implicitly included in the ‘average downtime’ metric for our availability quality standards.¹³⁶
- 7.5 We received several submissions as part of our consultation on our approach for PQP1 expressing concern that we did not propose to set standards for the optional dimensions. As set out in our reasons paper, we did not consider quality standards for the optional quality dimensions were warranted for PQP1, as we considered other regulatory tools, in particular ID regulation, and external factors such as competition from fixed wireless broadband, were sufficient to produce outcomes in the long-term benefit of end-users.¹³⁷
- 7.6 Finally, we did not set a quality incentive scheme for PQP1. This was because we considered that imposing an incentive scheme in the absence of clear information about the value end-users place on a given level of service quality ran the risk of creating inefficient incentives if the incentive rate was set too high or too low.¹³⁸

¹³⁵ Commerce Commission “Fibre input Methodologies Main final decisions reasons paper” (13 October 2020), at [5.134]. See also *Fibre Input Methodologies Determination 2020* [2020] NZCC 21, clause 3.6.1.

¹³⁶ Commerce Commission “Chorus price quality path from 1 January 2022 Final decision reasons paper” (16 December 2021), at [7.74].

¹³⁷ Commerce Commission “Chorus price quality path from 1 January 2022 Final decision reasons paper” (16 December 2021), at [7.82].

¹³⁸ Commerce Commission “Chorus price quality path from 1 January 2022 Final decision reasons paper” (16 December 2021), at [7.237].

Review of mandatory quality standards

- 7.7 In setting our quality standards for PQP1, we considered the regulatory requirements under Part 6 of the Act as a whole (including ID regulatory requirements, the declared services, and s 201 of the Act).
- 7.8 We only considered it necessary for PQP1 to determine quality standards for:¹³⁹
- 7.8.1 Availability - average net unplanned downtime; and
 - 7.8.2 Performance - port utilisation.
- 7.9 We consider that these two mandatory standards should be reviewed and maintained for Chorus' PQ path for PQP2 to ensure standard levels and conditions remain relevant to the quality that end-users demand.
- 7.10 We propose to do this by:
- 7.10.1 updating the base data on standard levels with an information request on historical performance;
 - 7.10.2 assessing material included in Chorus' PQP2 proposal; and
 - 7.10.3 seeking feedback from stakeholders.

Standard for availability

PQP1 Standard

- 7.11 To ensure Chorus faces incentives in each part of its network to maintain availability, we segmented its network into Availability POI areas. We determined an "average net unplanned downtime" metric for PQP1 with the following quality standards:¹⁴⁰
- 7.11.1 the average net unplanned downtime for layer 1 must not exceed 160 minutes in a given Availability POI Area in a regulatory year;¹⁴¹ and
 - 7.11.2 the average net unplanned downtime for layer 2 must not exceed 40 minutes in a given Availability POI Area in a regulatory year¹⁴².

¹³⁹ Commerce Commission "Chorus price quality path from 1 January 2022 Final decision reasons paper" (16 December 2021), at [7.59.1].

¹⁴⁰ Commerce Commission "Chorus price quality path from 1 January 2022 Final decision reasons paper" (16 December 2021), at [7.87].

¹⁴¹ *Fibre Price Quality Path Determination 2021* [2021], NZCC 27, at 8.1.

¹⁴² *Fibre Price Quality Path Determination 2021* [2021], NZCC 27, at 8.2.

Our proposed approach for PQP2

- 7.12 We consider that Availability POI Areas should be reviewed, as it may be possible to achieve a better equality in the number of end-user connections and consistent quality end-users demand while retaining enough meaningful geographic distinction. New geographic areas could be further combinations or disaggregation of POI areas.
- 7.13 For PQP1 we combined some POI areas (Whanganui and Palmerston North, New Plymouth and Hamilton, Oamaru and Timaru). These combined POI areas and the other POI areas are defined in the determination as the Availability POI areas. This was done to achieve more consistent connection numbers across the measurement areas and remove the issue of having POI Areas with significantly smaller numbers of connections being measured separately against the Availability standard.
- 7.14 We consider the Availability standards for Layer 1 and Layer 2 should be reviewed based on updated historical performance and PQP2 levels should be set using the methodology used for PQP1. This methodology is described in our PQP1 reasons paper and involves a contractual level of average downtime plus an additional buffer.¹⁴³
- 7.15 We consider that the Layer 1 and Layer 2 architecture differentiation should be retained.

Standard for performance

PQP1 Standard

- 7.16 To ensure Chorus faces incentives to maintain performance of its network we introduced a standard for the level of traffic on the ports in its network. We determined a 'port utilisation' metric for PQP1 with the following quality standard:¹⁴⁴
- 7.16.1 For the Performance quality standard applying for a regulatory year, the percentage of Chorus' ports experiencing Port Utilisation, upstream or downstream, equal to or exceeding 90% in any five-minute interval in one or more calendar months, must not exceed 0.12%.

¹⁴³ Commerce Commission "Chorus price quality path from 1 January 2022 final decision Reasons paper" (16 December 2021), at [7.161 to 7.175].

¹⁴⁴ Commerce Commission "Chorus price quality path from 1 January 2022 Final decision reasons paper" (16 December 2021), at [7.189].

Our proposed approach for PQP2

- 7.17 We consider the standard for Port Utilisation should be reviewed based on updated historical performance and levels for Chorus’ PQ path for PQP2 should be set the level using the methodology used for PQP1. This methodology is described in our PQP1 reasons paper and involves setting a percentage of ports above 90% port utilisation that is significantly above the mean and median values of historical data.¹⁴⁵
- 7.18 We consider unforeseeable spikes in demand should be investigated. This could include events such as software updates and denial of service attacks that coincide with peak traffic on the fibre network. Chorus dimensions the ports in its fibre network to enable a congestion-free network based on its forecast information but cannot forecast for these atypical peaks. There is a link between bandwidth growth and required expenditure for extra capacity. It would be inefficient to invest in extra capacity to cater for these eventualities as the quantum of the investment may not be known and end-users may not be prepared to pay if this was the outcome.
- 7.19 We consider that the treatment of Force Majeure events should apply similarly across all quality standards, but this was missing from the performance standard in PQP1. We consider that Chorus should only be exposed to enforcement action and potential statutory penalties if a breach of the availability quality standards is due to its own behaviour and not caused by a significant event beyond its reasonable control.

| Ref | Feedback Question |
|-------|---|
| QUAL1 | Do you consider the current standards are effective at creating meaningful incentives on Chorus to ensure that its network meets appropriate standards of availability and performance in normal operating conditions. What changes would you have us make and why? |

Assessing the need to set optional quality standards

- 7.20 In our PQP1 reasons paper we decided not to set quality standards for the optional dimensions of ordering, provisioning, switching, faults, and customer service quality dimensions.¹⁴⁶

¹⁴⁵ Commerce Commission “Chorus price quality path from 1 January 2022 final decision Reasons paper” (16 December 2021), at [7.196 to 7.197].

¹⁴⁶ Commerce Commission “Chorus price quality path from 1 January 2022 Final Decision Reasons Paper” (16 December 2021), at [7.72].

- 7.21 We are going to consider whether to add new quality standards for the optional dimensions if our analysis of quality measurement ID disclosures indicates that this is warranted. We discuss this more in detail below.

Consideration of the declared services specification

- 7.22 The revisions to the regulations for the declared services (anchor services and DFAS) has no reference to service level terms to maintain a minimum quality of service.¹⁴⁷
- 7.23 The Commission may, before the start of each regulatory period review whether, and how effectively, an anchor service ensures that baseband equivalent voice and basic broadband services are available to end-users at reasonable prices and acts as an appropriate constraint on the quality of other FFLAS.¹⁴⁸ Details of our emerging view on whether to carry out a review of the anchor services can be found in Attachment A.
- 7.24 We consider that Anchor services should provide incentives for Chorus to continue to deliver other higher quality FFLAS services that reflect end-user demands. We consider that the Chorus UFB services agreement, ID, market-based competition for wireless broadband and our quality standards are likely to be sufficient to maintain and improve quality over the next regulatory period.

Consideration of ID

- 7.25 Chorus is required to disclosure information on a range of quality performance measurements through ID.
- 7.26 These disclosure requirements are likely to provide incentives for Chorus to deliver FFLAS services at an appropriate level of quality, and over time, we would expect data to indicate that poor performance is being responded to with initiatives to improve service.
- 7.27 However, we have only three months of ID data, from October to December 2022, to use as input to our PQP2 review, and the limited timeseries may not allow us to observe these things.

¹⁴⁷ MBIE “Fibre Regulations: Revisions to the Regulations from 29 March 2023” (6 April 2023) <[¹⁴⁸ Telecommunications Act 2001, s 208.](https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/our-role-in-the-ict-sector/fibre-regulations/#:~:text=The%20Telecommunications%20(Regulated%20Fibre%20Services)%20Regulations%202021%20were%20initially%20made,retail%20service%20providers%20(RSPs)>. (Viewed on 9 August 2023).</p>
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- 7.28 We therefore intend to take a two-step approach for PQP2 and use the disclosures available to establish whether any measures justify further investigation on the setting of any additional quality standards for PQP2, and then investigate these further.
- 7.29 Where we identify a potential new standard, we would aim to set this proportionately to Chorus' costs, and the benefits to access seekers or end-users. For example, provisioning is important to the industry, and One (Vodafone) expressed this in its submission for PQP1.¹⁴⁹ Our assessment of whether to set a standard in this area would take this feedback into account along with an assessment of the costs to Chorus of imposing the new standard.
- 7.30 In carrying out our review, we also intend to reassess optional dimensions evaluated in PQP1.
- 7.31 We concluded that a provisioning standard should be excluded in PQP1, as we considered it was not warranted. We intend to re-evaluate this and consider the impact of a series of initiatives Chorus has implemented to improve provisioning beyond the current disclosure period.
- 7.32 However, we do not currently consider that it will be appropriate to set standards for other optional dimensions evaluated in PQP1 for the following reasons:
- 7.32.1 Ordering and switching- these are largely automated, and we have no metrics for them in ID and do not consider there is any need for a standard.
 - 7.32.2 Faults - we note that the duration of these are implicitly included in the 'average downtime' metric for our Availability quality standards and do not consider there is any need for a new standard that would effectively double count an outage in another standard.
 - 7.32.3 Customer service - we consider that this dimension is largely subjective. Although it provides valuable insight into end-users' experience of a new installation, we do not consider it lends itself to a quality standard. It is also likely that a component of customer service would be reflected in a new provisioning standard. We therefore do not currently propose to set a customer service standard.

¹⁴⁹ Commerce Commission "Chorus price quality path from 1 January 2022 Final decision reasons paper" (16 December 2021), at [7.189].

| Ref | Feedback Question |
|-------|---|
| QUAL2 | Do you see the need for a new quality standard, what would you propose and why? |
| QUAL3 | For RSPs that receive services from multiple telecommunications infrastructure providers, across the various dimensions of service quality and customer service experience, are there any areas where Chorus provides a materially different level of service or service quality? |

Potential quality incentive scheme

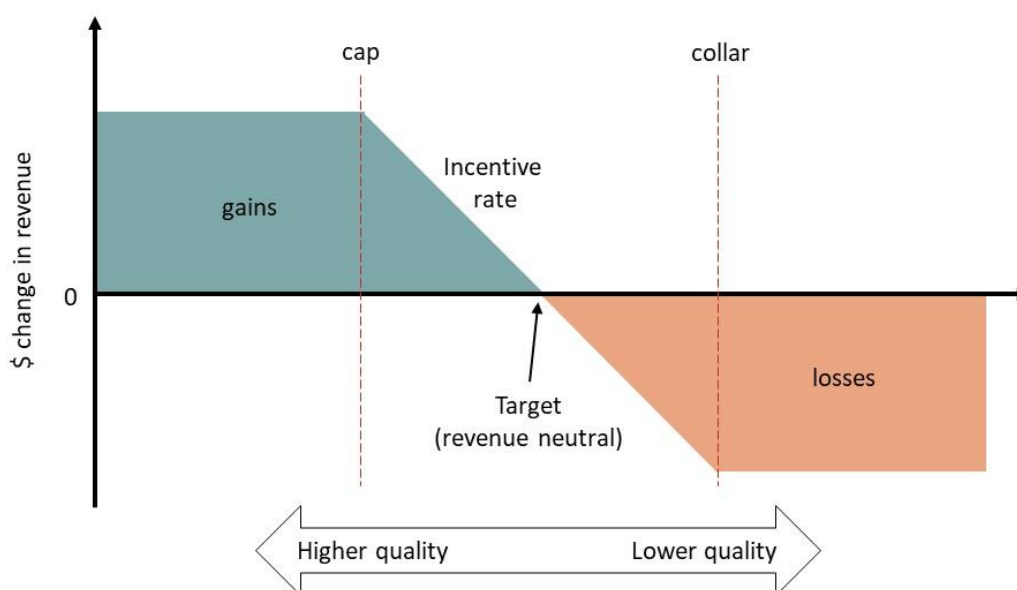
- 7.33 We are considering whether to introduce a pilot quality incentive scheme for PQP2. This would be intended to further incentivise Chorus to improve quality where end-users likely value it above cost rather than rely solely on decisions to meet a standard alone.
- 7.34 In this section we cover:
- 7.34.1 incentives driven by quality standards and quality incentive schemes;
 - 7.34.2 considerations and design choices for a quality incentive scheme;
 - 7.34.3 experience from implementing incentive schemes in the regulated electricity business (Part 4 of the Commerce Act);
 - 7.34.4 alternative to a revenue-linked quality incentive scheme - compensation schemes ; and
 - 7.34.5 proposed approach and next steps.

Incentives driven by quality standards and quality incentive schemes

- 7.35 We are considering whether to introduce a pilot quality incentive scheme. We consider an incentive scheme could further align the interests of Chorus with those of end-users and build on the incentives created by the quality standards already introduced in PQP1. The quality standards under PQ regulation aim to mitigate the incentives of regulated providers to reduce expenditure at the expense of quality.
- 7.36 We consider this means that any quality incentive scheme would be aligned to end-users' preferences and willingness to pay rather than aiming at drive behaviour that does not reflect end-user demands.
- 7.37 The quality standards may not provide sufficient incentives to move towards a PQ trade-off that better reflects both consumer willingness to pay and regulated provider cost to serve. The incentives of the standards largely depend on the risk and consequences of contravening. Specifically:

- 7.37.1 as the risk of contravening the quality standard grows, the incentives to improve reliability grow, most likely in a non-linear manner, which is not reflective of the end-user's willingness to pay; and conversely
- 7.37.2 if there is little to no risk of contravening, especially as the assessment period nears its end, there is minimal financial incentive to maintain reliability.
- 7.38 This may mean that with quality standards alone, regulated providers are not exposed to a consistent cost-quality trade-off in the decisions they make regarding reliability over time. Regulated providers are likely to spend less to improve reliability when contravention risk is low.
- 7.39 Furthermore, these standards have a buffer above historical performance built in to reduce false-positives. Having only quality standards could lead to regulated providers tending towards the standard and aiming to just do enough not to breach. This means that to the extent the standards incentivise reliability, it may be at a lower level of performance than experienced during the reference period. Quality standards may therefore allow a concerning level of deterioration beyond that which we might accept under a revenue-linked incentive scheme.
- 7.40 We will set out more detail in our draft decision if we propose to introduce a scheme in PQP2. Our emerging view is that it would be a pilot scheme which by its nature is limited in application. This would allow us to mitigate risks, understand the impact of an incentive scheme on Chorus' behaviour and end-user outcomes and potentially move to a fully functioning incentive scheme in later regulatory periods. A pilot scheme could limit the total upsides from the incentive scheme, while ensuring that at the margin the incentive effectively matches an estimate of willingness to pay for the relevant measure of quality.
- 7.41 In setting standards, we need to consider whether there are asymmetric consequences of over versus under-estimating the efficient level of quality. For example, absolute standards (set at relatively stringent levels) are more appropriate for those dimensions of quality where the costs of under-provision are asymmetric and rise steeply (eg, safety standards as quality below a certain level can be dangerous).
- 7.42 In other cases, we may set financial incentive schemes that are linked to revenue, ie, quality incentive schemes (QIS) around a target level of quality (which is generally based on the historical service quality provided). Figure 1 below demonstrates how a revenue-linked quality incentive scheme can operate.

Figure 7.1 Overview of a revenue-linked incentive scheme



- 7.43 Real world events such as changes in costs of maintaining or improving quality, may result in actual delivered quality that is different from the starting level of quality.
- 7.44 This suggests that we may want to apply financial incentives to those dimensions of quality where we are comfortable with uncertain quality outturns. For those dimensions of quality where the costs of under/over-provision are symmetric and rise less steeply, we may want to implement a QIS. Conversely, we may not want to apply financial incentives to those quality dimensions where we do not want uncertain quality outturns.
- 7.45 The marginal benefits to the supplier of changing quality under a QIS (ie, the marginal reward for quality, or incentive rate) are probably more tangible than under a pure standard (ie, the change in the probability of breaching the standard). The QIS can help reveal information about the marginal costs of improving quality. This may help us refine our views on the efficient level of quality based on how regulated providers react to different incentive rates.
- 7.46 We can also combine having a quality standard with a quality incentive scheme. If we have financial incentives, we may set a quality standard that is more of a safety net.

Considerations and design choices for a quality incentive scheme

Align incentives with what end-users care about

- 7.47 From our experience, end-users are usually concerned about matters such as the price of the service, the availability of the service, restoration time and the responsiveness of their retailer.

- 7.48 We suggest that we would only apply an incentive scheme to a dimension where we have a standard. For the mandatory dimension of availability this could mean having a scheme that aimed to incentivise Chorus to reduce the average downtime and thus reduce fault times and the period of an outage that end-users experience. The costs of these improvements would be balanced against end-users' willingness to pay for them. This would be similar to the System Average Interruption Duration Index (SAIDI) revenue-linked incentive scheme in the electricity distribution business.
- 7.49 For the mandatory dimension of performance this could mean having an incentive scheme that aimed to incentivise Chorus to keep port utilisation at a lower level.
- 7.50 If a standard for provisioning was introduced this could mean having an incentive scheme that aimed to incentivise Chorus to lower provisioning times or improve the number of instances to meet the expected provisioning times. Adherence to service level targets for provisioning would mean end-users could get their service when they wanted and in a timely manner which would in turn improve their experience and satisfaction.
- 7.51 We would need to consider how an incentive scheme for these quality dimensions interact to avoid over- and under-incentivising one or the other quality dimensions.

Strength of the incentive scheme

- 7.52 We consider that revenue-linked incentives on reliability for Chorus could provide useful incentives to manage the PQ relationship. With revenue-linked incentive settings that are appropriately calibrated, Chorus would likely be:
- 7.52.1 encouraged to find inexpensive solutions to improve reliability as marginal benefits will outweigh the marginal costs;
 - 7.52.2 encouraged to find solutions up to the point where marginal benefits equal marginal costs, assuming incentives are reflective of the value that end-users place on quality improvements; and discouraged to find expensive solutions to improve reliability such that marginal costs exceed the marginal benefits.
- 7.53 If the revenue-linked incentives were too strong, then Chorus may be encouraged to find solutions where the costs to end-users can exceed the benefit.
- 7.54 Conversely, if the revenue-linked incentives were too weak, or zero, then Chorus would not be encouraged to find all solutions where benefits exceed marginal costs.

Options for an incentive rate

- 7.55 We would need to consider an appropriate incentive rate to apply to any existing quality standard, for example the mandatory dimension of availability. An incentive scheme for the availability measure would incentivise Chorus to deliver average downtime outcomes at the point where costs equal benefits.
- 7.56 With a symmetric scheme, fault times and the period of an outage that end-users experience would depend on how the costs of improving performance compare to the marginal incentive rate. When the marginal cost of quality improvements is lower than the incentive rate, Chorus would be incentivised to spend to improve quality, and vice versa. This would be similar to how the SAIDI incentive scheme operates in the electricity distribution business.
- 7.57 If we applied an incentive scheme to the availability metric of average downtime, we would need to consider the value of downtime to the end-user. There is no equivalent to the VoLL in the FFLAS market so this would require some research for a value of lost service. This would inform our proposed values of average downtime (ie, the marginal incentive rate).
- 7.58 We would need to consider an appropriate method for determining and applying an incentive rate to the performance quality dimension.

Linkages between quality incentive scheme and expenditure

- 7.59 A quality incentive scheme overcomes the problem that if Chorus identifies improvements that it can make in a dimension of service quality, it is unable to receive any extra revenues to compensate it for the costs incurred in providing the improvement. Where we do not provide an expenditure incentive scheme (such as "IRIS" applied to some of the Part 4 regulated entities), the lack of incentives to improve quality can vary across the course of a regulatory period. The lack of incentive to improve quality is strongest at the start of a regulatory period because the regulated entity would forego any cost recovery for the entire period. The lack of incentive to improve quality is weaker at the end of a regulatory period because the period of any foregone cost recovery is limited and/or incurring additional costs may impact on the level of costs recoverable in the next regulatory period if they form part of an expenditure baseline.
- 7.60 Therefore, in the absence of an expenditure incentive scheme, designing a quality incentive scheme that delivers consistent incentives to improve quality through time becomes more complex. This is because it has to address the varying incentive to improve quality through time.

Setting appropriately aggregated quality targets for incentive schemes

- 7.61 There is a risk that averaged targets could be met by investing in high density areas where costs are lower at the expense of lower density areas. This means that not all end-users receive the same benefit from the incentive scheme. For example, for the availability standard, including part of north Auckland into Northland may lower the average downtime by including higher density Auckland areas.

Experience from implementing incentive schemes in the regulated electricity business

- 7.62 We introduced a revenue-linked incentive scheme for reliability designed to provide EDBs and Transpower with incentives to consider cost-quality trade-offs in their decision-making.¹⁵⁰ In the absence of adequate incentives, providers may be incentivised to reduce expenditure, at the expense of quality, to increase profitability.
- 7.63 We have made incremental improvements to the way we set quality incentives over subsequent regulatory periods for EDBs and Transpower. These changes reflect our understanding of how different regulated businesses measure quality and respond to financial incentives.
- 7.64 We introduced a symmetric incentive scheme in the second Default Price Path for EDBs (DPP2).¹⁵¹ Financial incentives were set for the following quality measures to help ensure EDBs are better incentivised to provide a level of reliability that consumers desire:^{152 153}
- 7.64.1 System Average Interruption Duration Index (SAIDI); and
 - 7.64.2 System Average Interruption Frequency Index (SAIFI).
- 7.65 The maximum amount of financial incentive that EDBs could gain/lose during the regulatory period from responding to the quality incentives was set to 1% of revenue. Incentive targets, caps and collars were introduced which set the boundaries for where the financial incentives would apply. The 'incentive rate' was the change in revenue resulting from a unit change in the reliability measure. This meant that the incentive rate for each distributor was different depending on its revenue amount.

¹⁵⁰ Commerce Commission "Default price quality paths for electricity distribution businesses from 1 April 2020 Final Decision Reasons paper" (27 November 2019), at 350-352.

¹⁵¹ Commerce Commission "Default price quality paths for electricity distribution businesses from 1 April 2020 Final Decision Reasons Paper" (27 November 2019).

¹⁵² SAIDI: The total number of minutes in which a customer's service is interrupted divided by the total number of customers served by the utilities company over the same period of time.

¹⁵³ SAIFI: The number of instances in which customers experience service interruptions divided by the total number of customers served by the utilities company over the same period of time.

- 7.66 Refinements were made in the third Default Price Path (DPP3) to the SAIDI incentive scheme including increasing the maximum amount of financial incentives that EDBs could gain/lose during the regulatory period from 1% to 2% and expanding on the cap/collar ranges allowing the incentive rate to provide the incentives on where optimal quality should be.
- 7.67 When determining the quality incentive rate for EDBs, we consider the interaction between the strength of the quality financial incentive and the incentive rate suppliers face for expenditure. This is to avoid incentivising the distributor to over-invest in reliability by setting the incentive rate too strong and not incentivising the distributor to find efficiencies in their expenditure allowances. For a more detailed description of how the quality incentive scheme works for EDBs, refer to our final decisions for DPP3.¹⁵⁴
- 7.68 We have also set financial quality incentives for Transpower. In Regulatory Control Period 2 (RCP2), Transpower proposed, and we set, 23 revenue-linked performance measures categorised as Asset Performance (AP) measures, Grid Performance (GP) measures, and Asset Health (AH) volumetric measures. Each of these revenue-linked incentive measures had targets, caps, collars and an incentive rate. The cap and collar set the range of performance for which Transpower would be penalised or rewarded, with the cap being the upper bound for rewards. The incentive rate was the dollar amount of revenue loss or gain for each unit of deviation from the target.
- 7.69 In RCP3, we agreed with Transpower's proposal to rationalise the RCP2 performance measures. The quality standards were based on pooling of measures across GP point of service (POS) sub-categories and over a rolling time period. Revenue-linked volumetric AH measures were removed and replaced with pilot risk based AH measures. The grid output incentive rate was calculated using Value of Lost Load (VoLL).
- 7.70 We also introduced a normalisation mechanism that allows Transpower to remove the effects of extreme weather events that exceed economic asset design strategies, from the revenue-linked grid output measures. The maximum revenue that Transpower could be penalised or rewarded was set at approximately 1%.

¹⁵⁴ Commerce Commission "Default price quality paths for electricity distribution businesses from 1 April 2020 Final Decision Reasons paper" (27 November 2019).

- 7.71 We have seen some evidence of regulated suppliers responding to quality incentives. We understand this is at least partly because suppliers can readily financially evaluate options for reliability improvements. The marginal benefits to the supplier of changing quality under a QIS (ie, the marginal reward for quality, or incentive rate) are likely to be more visible/tangible than under a pure standard (ie, the change in the probability of breaching the standard). This may help us refine our views on the efficient level of quality based on how suppliers react to different incentive rates.
- 7.72 Additionally, during DPP2 when distributors faced different quality incentive rates, those distributors which were exposed to greater incentives relative to other distributors, made among the best improvements in SAIDI and SAIFI.¹⁵⁵
- 7.73 However, it is difficult to attribute improvements in quality to incentives alone. In setting quality regulations for Transpower and EDBs, we retained quality standards as well as quality incentives to ensure that serious underperformance in quality could be addressed using enforcement powers rather than relying solely on financial penalties through an incentive scheme.

Alternative to a revenue-linked quality incentive scheme - compensation schemes

- 7.74 We could also set a compensation scheme that sets minimum standards of performance and require Chorus to pay prescribed amounts of compensation if it fails to meet those standards.¹⁵⁶ Chorus could be required to pay compensation to access seekers and/or end-users for failing to meet a target quality level.
- 7.75 A potential benefit from compensation schemes is that they produce direct benefits to end-users affected by performance below set service level obligations, whereas incentive schemes spread any penalties for below service level performance across all consumers through lower future revenue allowances. Consideration also needs to be given to the compensation 'amount' to ensure this is set at the right rate to incentivise the right behaviour from Chorus. We would also need to consider any administrative costs from implementing a regime.
- 7.76 While we have experience with setting and operating revenue-linked incentive schemes under Part 4, we will also consider end-user compensation schemes, which potentially produce direct benefits to affected end-users.

¹⁵⁵ Commerce Commission "Default price quality paths for electricity distribution businesses from 1 April 2020 Final Decision Reasons paper" (27 November 2019), at J22.

¹⁵⁶ Telecommunications Act 2001, s 194(3)(c).

Approach and next steps

- 7.77 To gain experience in operating an incentive scheme under fibre PQ regulation, we are considering a pilot scheme for Chorus' PQ path for PQP2. Consultation on this paper is intended to help us formulate a draft decision for a pilot incentive scheme which would be included in our draft decision on Chorus' PQ path planned for June 2024.
- 7.78 We consider a pilot scheme could provide valuable insight into how such a scheme might work in the fibre space. By pilot scheme, we mean setting the parameters of a potential quality incentive scheme conservatively for its first regulatory period so the impact of the scheme would be material enough to incentivise behaviour but not large enough to create significant adverse outcomes.
- 7.79 A pilot scheme would also enable us to move to a scheme that puts more revenue at risk in future regulatory periods. We see value in considering a quality incentive scheme now and improving it over successive regulatory periods.
- 7.80 In reaching a draft decision on whether to introduce an incentive scheme to Chorus' PQ path for PQP2 we will give effect to the purposes of the Act. This would likely require consideration of the revenue-linked or compensation 'amount' to ensure this is set at the right rate to incentivise efficient behaviour from Chorus. We would also need to consider any administrative costs from implementing a regime.

| Ref | Feedback Questions |
|--------------|--|
| QUAL4 | Do you think we should develop a quality incentive scheme PQP2 and what kind of incentive scheme do you see as appropriate? |
| QUAL5 | What measure or measures of quality, performance, or customer service do you consider should be subject to a quality incentive scheme that could deliver most benefits to end-users? |
| QUAL6 | How could we determine an appropriate incentive rate for a quality incentive regime under PQ regulation and do you consider it possible to determine a Value of Lost Load (VoLL) equivalent for fibre? |

Attachment A Anchor services review

Purpose and structure of this Attachment

- A1 This Attachment sets out our approach, and emerging view on to carry out a review of the anchor services under s 208 of the Act before the start of PQP2.
- A2 This Attachment covers:
- A2.1 our emerging view on whether to undertake a review of anchor services;
 - A2.2 the legal framework;
 - A2.3 anchor service developments; and
 - A2.4 the reasons for our emerging view.
- A3 It does not discuss a PQ review under s 209 of the existing DFAS service in any detail, or whether an unbundled service should be declared under s 229 because we are not able to undertake a review under s 209 until after 1 January 2025.

Emerging views summary

- A4 Our emerging view that we will not undertake a review of the anchor services before the start of PQP2. We consider:
- A4.1 the maximum monthly prices for broadband and voice anchor services are meeting their purpose in providing an appropriate constraint on other FFLAS.
 - A4.2 the Chorus UFB services agreement, ID, market-based competition from fixed wireless broadband and our quality standards are likely to be sufficient to maintain and improve quality over the next regulatory period.
- A5 We are seeking comment on our emerging view and other material included within this Attachment.

Legal framework

- A6 The Act provides for regulations made under ss 227 to 229 to declare certain FFLAS as anchor services (s 227), DFAS (s 228) and unbundled fibre services (declared services) (s 229) . Once services are declared, ss 198 to 200 provide that regulated providers that are subject to PQ regulation will have to provide the declared services and comply with any prescribed maximum prices and conditions.

A7 Under Part 6 of the Act, Chorus is required to provide an anchor service if it has been declared in regulations made under s 227.¹⁵⁷

A8 MBIE consulted on proposed anchor services.¹⁵⁸ Following this consultation, two anchor services were declared in regulations - a 100/20Mbps broadband anchor service and a voice anchor service.¹⁵⁹ Those services must be provided in accordance with the maximum price and description of the services in the regulations.

A9 In choosing the anchor services, the Minister explained that:¹⁶⁰

it is important to clarify the policy intent behind anchor products. Broadband anchor products should be clearly designed to ensure that an entry-level broadband service is available at a reasonable price, rather than to directly control the price of the most popular product. An entry-level service will still function as a price and quality ‘anchor’ for a more popular midmarket product. I think it likely that, by 2020, a 100/20Mbps product will be an entry-level product.

A10 Section 208 of the Act provides that the “Commission may, before the start of each regulatory period (including the first regulatory period), review whether, and how effectively, an anchor service meets the purpose of anchor services”.¹⁶¹ It is therefore open to the Commission to not conduct an anchor services review.

A11 The purpose of the anchor services is set out at s 208(7) as:¹⁶²

- (a) to ensure that baseband equivalent voice and basic broadband services are available to end-users at reasonable prices; and
- (b) to act as an appropriate constraint on the price and quality of other fibre fixed line access services.

A12 If the Commission decides to carry out a review:

- (2) A review must consider the following in respect of an anchor service:
 - (a) any prescribed description of the service:
 - (b) any prescribed conditions that apply to the service:
 - (c) any prescribed period for the service:
 - (d) any prescribed maximum price for the service.

¹⁵⁷ Telecommunications Act 2001, s 198.

¹⁵⁸ See <https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/our-role-in-the-ict-sector/fibre-regulations/>.

¹⁵⁹ Telecommunications (Regulated Fibre Services) Regulations 2021, regulation 6.

¹⁶⁰ Cabinet “Review of the Telecommunications Act 2001: Final Decisions on Fixed Line Services, Mobile Regulation and Consumer Protection” (27 April 2017), at [29].

¹⁶¹ Telecommunications Act 2001, s 208.

¹⁶² Telecommunications Act 2001, s 208(7).

- A13 The Commission is also required to give interested parties a reasonable opportunity to give their views on the matters subject to review, and the Commission must have regard to any views received.¹⁶³
- A14 If an anchor services review is conducted, s 208 sets out that at the conclusion of the review, the Commission is required to make a recommendation to the Minister on matters such as whether the description of the service should change or whether the maximum price should be altered.

Anchor services developments

- A15 The anchor services were declared on 13 September 2021.¹⁶⁴ At the time of enactment, the regulations specified a service description, maximum monthly price and additional document references for broadband and voice anchor services.
- A16 The additional document references included:¹⁶⁵
- A16.1 Chorus UFB Services Agreement, also known as the Wholesale Services Agreement (WSA schedules:
 - A16.1.1 General Terms, Operations Manual for Bitstream Services, Service level Terms for Bitstream Services;
 - A16.2 the notice of SPOIs;
 - A16.3 NZ Telecommunications Forum (TCF) UFB Ethernet Access Service Description; and
 - A16.4 technical standards.
- A17 Chorus challenged the legality of the declared services regulations (Broadband anchor service (100/20), Voice anchor service and Large-user DFAS).
- A18 In December 2022, the High Court found that the anchor services regulations were unlawful to the extent they incorporated certain documents (eg, the WSA).¹⁶⁶ The Court ordered that certain provisions of the regulation be severed.¹⁶⁷

¹⁶³ Telecommunications Act 2001, s 208(3).

¹⁶⁴ Telecommunications (Regulated Fibre Services) Regulations 2021.

¹⁶⁵ *Chorus Ltd v Minister for the Digital Economy and Communications* [2023] NZHC 662 at [11].

¹⁶⁶ *Chorus Ltd v Minister for the Digital Economy and Communications* [2023] NZHC 662.

¹⁶⁷ *Chorus Ltd v Minister for the Digital Economy and Communications* [2023] NZHC 662 at [26].

- A19 Certain provisions of the initial regulations have been removed to reflect the Court's order.¹⁶⁸
- A20 Following the severance of certain provisions in the regulation by the Court, the regulations include the following requirements only:¹⁶⁹
- A20.1 Anchor services - a broadband Internet access service with a minimum download speed of 100 megabits per second and a minimum upload speed of 20 megabits per second and a voice-only communication service provided using an ultra-fast broadband Internet connection;
 - A20.2 DFAS - a dark fibre service that enables access to, and interconnection with, the LFC fibre network; and
 - A20.3 each service specifies only a monthly maximum price that increases or decreases (as appropriate) by an annual CPI adjustment on 1 July each year.
- A21 In December 2021 Chorus and the other LFCs boosted the Bitstream 100/20 plans to have a download speed of 300 Mbps and an upload speed of 100 Mbps at the same price. All access seekers flowed through this change to end-users.
- A22 Chorus called this the 'Big Fibre Boost' and intend to keep price increases to CPI for PQP1.

Reasons for our emerging view

- A23 In forming our emerging view to not undertake a review of the anchor services, we have considered whether the anchor services are meeting their purpose under the Act (s 208(7)).
- A24 In doing so, we have considered the following areas:
- A24.1 service description - if the description of the anchor services are influencing the quality of service and that offered under Chorus Service Agreements ensuring that end-users receive the level of service that they expect at a reasonable price; and
 - A24.2 pricing - if the pricing of the anchor services is providing adequate constraint ensuring voice and broadband services are available at a reasonable price.

¹⁶⁸ See the following webpage for further details: <https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/our-role-in-the-ict-sector/fibre-regulations/>.

¹⁶⁹ *Chorus Ltd v Minister for the Digital Economy and Communications* [2023] NZHC 662 at [26] and Schedule A. We understand that the New Zealand legislation page will be updated by MBIE in due course, see the following webpage for further details: <https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/our-role-in-the-ict-sector/fibre-regulations/>.

The current anchor product is still likely to be achieving its statutory purpose

Service description

- A25 The simplified specification for the declared services means there are no service level terms to maintain a minimum quality of service. This means that:
- A25.1 quality service level terms offered by Chorus may be diluted over time to a point where end-users do not receive the quality of service they expect;
 - A25.2 consultation through the TCF UFB Product Forum, performance against ID measures, contractual relationships between Chorus and access seekers and any breaches of PQ standards will need to be relied upon for maintaining quality levels; and
 - A25.3 anchor services may not be aligned with end-user requirements. Chorus and other regulated providers have upgraded to a Bitstream 300/100 Mbps profile.
- A26 We note that without any quality service level terms, the anchor services may not act as an appropriate constraint on the price and quality of other FFLAS. This would mean that there would be no appropriate constraint in the anchor services on the quality of other FFLAS.
- A27 However, we consider the service levels in the Chorus Services Agreement remain sufficient to maintain quality. Further, we consider that contractual disclosures under ID will highlight any changes to quality.
- A28 The description of the broadband anchor services service states that what is required is “a minimum download speed of 100 megabits per second and a minimum upload speed of 20 megabits per second”. Chorus could therefore offer the increased speed of 300/100 as the anchor service.¹⁷⁰
- A29 We consider that the Chorus UFB services agreement, ID, market-based competition from wireless broadband and our quality standards are likely to be sufficient to maintain and improve quality over the next regulatory period. We believe there is no need yet to prescribe quality conditions for the anchor services. However, this is an issue that we intend to monitor closely over PQP2 through ID and other means, and we can review the anchor services at any time prior to the start of an upcoming regulatory period, including at any time during PQP2.

¹⁷⁰ Telecommunications (Regulated Fibre Services) Regulations 2021, regulation 6.

Pricing

- A30 Chorus and other LFCs all increased consumer Bitstream 100/20 plans to 300/100 in December 2021 at the same monthly charge as the anchor broadband service. To serve smaller households who have light demand, Chorus offers a lower priced Home Fibre Starter product at 50/10. The analogue telephone adapter (ATA) voice service is offered by Chorus at the same price as the anchor voice service.
- A31 Chorus made a commitment to link pricing of the boosted Bitstream 300/100 service to the anchor service throughout PQP1 with any price change linked to changes in the CPI. This could change in PQP2, and end-users could face a larger price rise. This could happen if the MAR determined for Chorus' PQ path for PQP2 was set at a level that would not be recoverable at the current anchor service price (assuming CPI increases).
- A32 The price of the broadband anchor service will provide a constraint on popular services especially as Chorus has linked it to the predominant 300/100 plan. This may change in the future if this constraint is removed and there is a drive to higher speed plans. While changes to the 300/100 plan could occur during PQP2, we have not seen prices increase greater than the anchor service product.
- A33 If we saw significant price increases to the 300/100 product during PQP2, we may consider reviewing the anchor service to ensure it is still meeting the intended purpose set out in s 208(7). We would also consider whether it was viable for consumers to switch back to the current anchor service (a 100/20 product).¹⁷¹ Therefore, we do not currently intend to carry out an anchor service review on the basis that the current anchor service is providing an adequate constraint ensuring voice and broadband services are available at a reasonable price.

Timing and sequencing of our decisions

- A34 We do not consider that a review of the anchor services is required prior to setting Chorus' second PQ path, but we will maintain a watching brief on the price and quality of fibre services. We consider that the Chorus UFB services agreement, quality measurement ID, competition from fixed wireless and our quality standards are sufficient incentive for Chorus to maintain quality.

¹⁷¹ Note that the majority of RSPs do not currently offer a 100/20 plan. However, Chorus must continue to make the 100/20 product available under the current Anchor service regulations.

- A35 Given the obligation to determine a “cost-based” price for any anchor service following a review, we consider it prudent to establish Chorus’ overall cost and revenue base (via the PQ path for PQP2 setting process) prior to considering how the anchor product can share in recovering these costs (and how costs are allocated between different services).
- A36 Our preference is to undertake an anchor services review prior to the start of a PQ regulatory period. However, we could undertake a review of the anchor services at any time included within the first one to two years of a PQ path, if we deemed it necessary to do so.

| Ref | Feedback Question |
|------------|--|
| AS1 | Do you agree that the Commission should, at this stage, not undertake an anchor services review? |

Attachment B Proposed approach for amending IMs

Purpose and structure of this Attachment

- B1 This Attachment explains the requirements for and the process we must follow if we proposed making amendments to the fibre IMs.
- B2 This attachment addresses:
 - B2.1 our IM framework; and
 - B2.2 the context ahead of PQP2.

IM amendment framework

- B3 It may be necessary for us to consider amendments to the fibre IMs as part of our process to set Chorus' PQ path for PQP2.
- B4 We have recently made amendments to the fibre IMs as part of our work to determine the LFC initial ID RABs.¹⁷² These amendments also addressed matters related to Chorus' PQ FFLAS.
- B5 We expect to consider whether any further amendments are necessary prior to the determination of Chorus' PQ path for PQP2. We anticipate beginning this in Q1 2024 in the event we propose amendments.
- B6 This section describes the (limited) circumstances in which we would consider an amendment, and the framework we would apply when doing so.

Framework for considering scope of amendments

- B7 This section covers:
 - B7.1 our powers to amend the IMs;
 - B7.2 the statutory context; and
 - B7.3 the relationship of amendments as part of the IM Review cycle to amendments outside this cycle.

¹⁷² *Fibre Input Methodologies Amendment Determination 2023* [2023] NZCC 13.

Powers to amend IMs

B8 We may amend the fibre IMs at any time, under s 181 of the Act. This extends to the publication of IMs that deal with new matters (s 178(2)). Where an amendment is material, we must follow the process in s 179 that we were required to follow when first setting the IMs. We generally will not make fundamental policy changes to IMs outside of the periodic IM review process.

B9 Section 179 requires the Commission to give public notice of its intention to amend an IM. We must give public notice of the draft methodology; consult with interested parties on the draft methodology; and give regard to views received on the draft methodology when making a final decision.

Statutory context

B10 The purpose of IMs, set out in s 174 of the Act, is to promote certainty for regulated fibre providers, access seekers, and end-users in relation to the rules, requirements and processes applying to regulation or proposed regulation, of (FFLAS) under Part 6 of the Act. To this end, fibre IMs, as far as is reasonably practicable, are required to set out relevant matters in sufficient detail so that each affected regulated provider is reasonably able to estimate the material effects of the methodology on the regulated provider (s 176(2)(a)). In that way, fibre IMs constrain our evaluative judgements in subsequent regulatory decisions and increase predictability.¹⁷³

B11 However, some uncertainty remains inevitable.¹⁷⁴ As the Court of Appeal observed (in relation to a judicial review against decisions made in the IMs under Part 4 of the Commerce Act 1986 in 2012) "certainty is a relative rather than an absolute value",¹⁷⁵ and "there is a continuum between complete certainty at one end and complete flexibility at the other".¹⁷⁶

B12 The s 174 purpose is therefore primarily promoted by having the rules, processes and requirements set upfront prior to being applied by regulated providers or ourselves.

B13 However, as recognised in ss 181 and 182, these rules, processes and requirements may change.

¹⁷³ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, at [213].

¹⁷⁴ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, at [214].

¹⁷⁵ *Commerce Commission v Vector Ltd* [2012] NZCA 220, at [34].

¹⁷⁶ *Commerce Commission v Vector Ltd* [2012] NZCA 220, at [60].

- B14 The power to amend a fibre IM must be used to promote the policy and objectives of the Act as ascertained by reading it as a whole. It is clear that Parliament saw the promotion of certainty as being important to the achievement of the purposes of PQ and ID regulation. This is reflected in s 174 in relation to the purpose of IMs, as well as in other aspects of the regime.¹⁷⁷
- B15 Accordingly, we are cautious about making amendments to fibre IMs given the importance of certainty and predictability in the regime. While this is to an extent inherent in s 162 (for example providing regulated providers with incentives to invest in accordance with s 162(a) requires recognition of the role that predictability plays), it is given extra force by s 174.
- B16 There will often be a tension between making changes to improve the regime and better promote the s 162 purpose (and, where we consider it relevant, the s 166(2)(b) purpose) on the one hand, and certainty on the other.
- B17 While we will have regard to the s 174 purpose (and the other indications of the importance of promoting certainty), ultimately under s 166(2), we must nevertheless make recommendations, determinations and decisions that we consider best give, or are likely to best give, effect:
- B17.1 to the purpose of s 162, as set out in s 166(2)(a); and
- B17.2 to the extent that we consider it relevant to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services (promotion of workable competition), as set out in s 166(2)(b).
- B18 Section 166(2) governs our decision-making process for all recommendations, determinations and decisions under Part 6 of the Act. The other purpose statements within Part 6 are relevant matters, but they should be applied consistently with s 166(2).¹⁷⁸
- B19 When making our decisions we must only give effect to these subordinate purposes to the extent that doing so does not detract from our overriding obligation to promote the purposes set out in s 166(2). Giving effect to the s 162 purpose may, however, require recognition of the role that predictability plays in providing suppliers with incentives to invest in accordance with s 162(1).

¹⁷⁷ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, at [213]-[221].

¹⁷⁸ We note that the High Court in *Wellington International Airport Ltd & Ors v Commerce Commission* considered that the purpose of IMs, set out in s 52R of the Commerce Act 1986, is “conceptually subordinate” to the purpose of Part 4 as set out in s 52A. See *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289, at [165].

Amendments inside and outside the IM review cycle

- B20 All fibre IMs must be reviewed at least once every seven years, as mandated by s 182. This process is key to delivering on the s 174 certainty purpose of IMs, while at the same time allowing the regime to mature and to evolve in response to changing circumstances.
- B21 Given the certainty purpose of the fibre IMs and the scheme set out in the Act to promote this purpose, we must carefully assess what amendments are appropriate to consider outside the fibre IM review cycle. Additionally, the predictability the IMs provide are key to promoting the s 162 purpose (as required under s 166(2)(a)), and in particular incentives to invest.
- B22 On the other hand, it is important that the IMs are fit-for purpose going into a PQ reset, especially as under s 204(1) IM amendments (other than in limited circumstances) made after the PQP is determined (including any made under s 182) will not affect the PQP until the next reset.¹⁷⁹
- B23 In the past, the need to balance these competing considerations has led us to focus on two sorts of amendments outside the fibre IM review:
- B23.1 those that support incremental improvements to PQ paths and ID regulation; and
- B23.2 those that enhance certainty about - or correct technical errors in - the existing IMs.
- B24 Conversely, it will not generally be appropriate to consider 'fundamental' changes outside the fibre IM review cycle. Fundamental IMs are generally those that define the fundamental building blocks used to set PQ paths (listed in s 176(1)(a)), and that are central to defining the balance of risk and benefits between regulated providers and end-users.
- B25 This distinction is not absolute: we can and have reconsidered fundamental building blocks in relative isolation in the past. However, there needs to be an especially compelling and urgent rationale for doing so.¹⁸⁰

¹⁷⁹ Under s 204(2) a PQP must be reopened by us with a new PQP made by amending the PQ determination if: an IM changes as a result of an appeal under s 183. That changed IM would have resulted in a materially different PQP being set had the changed IM applied at the time the PQP was set.

¹⁸⁰ A previous example of this was the re-consideration of the Part 4 WACC percentile decision in 2014. The compelling reason for this was criticism by the High Court of this decision in the IM merits appeals process, and the urgency was due to the upcoming default PQ path (DPP2) and individual PQ path (IPP2) resets for EDBs and Transpower.

Context ahead of PQP2

- B26 Finally, it is important to view this framework in context. There are a number of contextual factors that will influence the scope of amendments we may consider as part of the PQ setting process. Given we have set the first regulatory period and that is underway, we may identify amendments based on the insights gained from PQP1.
- B27 As part of our review that considers whether amendments are necessary, we could consider:
- B27.1 proposals for amendments previously submitted to the Commission;¹⁸¹
 - B27.2 potential amendments that have been identified by internal reviews of existing requirements or that are necessary to implement changes to the price-quality path ahead of PQP2; and
 - B27.3 any potential amendments to the Part 4 IMs that result from the Part 4 IM review to the extent that they are:¹⁸²
 - B27.3.1 relevant to fibre; and
 - B27.3.2 appropriate to consider outside a seven-year fibre IM review under s 182(1) of the Act.

Error correction

- B28 While our initial IM setting process is designed to ensure the IMs are as error free as possible, it is still possible that work on PQ and ID will identify errors in the determination.

¹⁸¹ For example, Chorus suggested a number of amendments to fibre IMs in 2021. Chorus “Submission on fibre IM Amendments draft decision” (8 July 2021).

¹⁸² For example, changes to the treatment of inflation in the revenue path for electricity distributors and gas transmission businesses. See: Commerce Commission “Financing and incentivising efficient expenditure during the energy transition topic paper – Part 4 Input Methodologies Review 2023 – Draft decision” (14 June 2023), at [5.63]–[5.115].

Attachment C Forms of information required from Chorus

| Information | Source | Public | Types of assurance |
|--|--------|--------|--|
| Historical financial information | ID | Yes | Assurance report (reasonable assurance) Director certification |
| Actual v forecast financial and non-financial information | ID | Yes | Assurance report (reasonable assurance) Director certification |
| Report on asset management capability (RAMC) | ID | Yes | Director certification |
| Forecast expenditure and supporting information | ID | Yes | Director certification |
| Asset register information | ID | Yes | Director certification |
| Network information - forecast capacity and utilisation | ID | Yes | Director certification |
| Network information - forecast demand | ID | Yes | Director certification |
| Quality information - metrics and measures for 5 of the 7 dimensions | ID | Yes | Assurance report (reasonable assurance) Director certification |
| Contract disclosures: comparative information | ID | Yes | Director certification |
| Contract disclosures: other disclosures on non-standard contracts | ID | Yes | Director certification |
| Mandatory explanatory notes | ID | Yes | Limited Assurance for notes relating to audited numbers and schedules in Schedule 14 (Not required for Schedule 14b) Director certification |
| Voluntary explanatory notes | ID | Yes | Director certification |
| Pricing, revenues and incentives for PQ FFLAS and ID FFLAS (semi-annually) | ID | Yes | Director certification |
| Contract disclosures: prescribed terms and conditions (semi-annually) | ID | Yes | |
| PQP2 Expenditure proposal | s 221 | Yes | IV report |
| Price path compliance statement (<i>ex-ante</i>) required by notice of 16 December 2021, issued under s 193 of the Telecommunications Act 2001 | s 193 | No | Director certification |

| Information | Source | Public | Types of assurance |
|--|--------|--------|---|
| Compliance statement in respect of quality standards in the s 193 notice 16 Dec 21 | s 193 | No | Assurance report (reasonable assurance) Director certification |
| Compliance with s 201 statement half year 1 and half year 2 s 193 notice 16 Dec 21 | s 193 | No | Director certification |
| Chorus' wash-up information report (Report) for the 12 months ended 31 December 2022 s 221 notice of 21 December 2021 | s 221 | No | Director certification Assurance report (reasonable assurance) |

Attachment D Summary of consultation questions

D1 This attachment summarises the consultation questions from this paper.

| Ref | Feedback question |
|-------|---|
| REV1 | Do you think any additional revenue controls are needed and if so whether they are an appropriate way to manage price shock risk during the period? |
| REV2 | Are there any changes you would suggest to our proposed approach to applying a wash-up drawdown amount to the PQP2 MAR? Please provide reasons for any suggested changes. |
| REV3 | Do you suggest any changes to our proposed approach to monitoring Chorus' compliance with its PQP2 price-quality path? Please provide reasons for any suggested changes. |
| EXP1 | Are there any particular or additional aspects to our proposed evaluation process that you think we should consider? |
| EXP2 | Are there any additional areas or particular aspects of Chorus' expenditure that we should specifically focus on during our evaluation of Chorus' proposals? |
| EXP3 | Are there any particular aspects or characteristics that we should consider in our evaluation of Chorus' proposed rural fibre expansion expenditure? |
| EXP4 | Are there any particular aspects or characteristics that we should account for in our evaluation of Chorus' proposed resilience expenditure? |
| QUAL1 | Do you consider the current standards are effective at creating meaningful incentives on Chorus to ensure that its network meets appropriate standards of availability and performance in normal operating conditions. What changes would you have us make and why? |
| QUAL2 | Do you see the need for a new quality standard, what would you propose and why? |
| QUAL3 | For RSPs that receive services from multiple telecommunications infrastructure providers, across the various dimensions of service quality and customer service experience, are there any areas where Chorus provides a materially different level of service or service quality? |
| QUAL4 | Do you think we should develop a quality incentive scheme PQP2 and what kind of incentive scheme do you see as appropriate? |
| QUAL5 | What measure or measures of quality, performance, or customer service do you consider should be subject to a quality incentive scheme that could deliver most benefits to end-users? |
| QUAL6 | How could we determine an appropriate incentive rate for a quality incentive regime under PQ regulation and do you consider it possible to determine a Value of Lost Load (VoLL) equivalent for fibre? |
| AS1 | Do you agree that the Commission should, at this stage, not undertake an anchor services review? |