

Fibre information disclosure and price-quality regulation

Proposed process and approach for the first regulatory period

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Associated documents

Publication date	Reference	Title
23 July 2020	ISBN 978-1-869458-30-0	Fibre input methodologies – Further consultation draft – Reasons paper
23 July 2020	ISBN 978-1-869458-29-4	[Further consultation] Fibre Input Methodologies Determination 2020
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13 August 2020	ISBN 978-1-869458-34-8	[Further consultation - initial value of financial loss asset] Fibre Input Methodologies Determination 2020

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Wellington, New Zealand

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Table of abbreviations

Abbreviation	Definition
BBM	Building blocks model
CIP	Crown Infrastructure Partners
DFAS	Direct fibre access service
FFLAS	Fibre fixed line access services
ID	Information disclosure
IFP	Integrated Fibre Plan
IM	Input Methodologies
LFC	Local fibre company
PQ	Price-quality
RAB	Regulatory asset bases
RPR	Regulatory processes and rules
RSP	Retail service providers
SFA	Specified Fibre Areas
UFB	Ultra-fast broadband
WACC	Weighted-average cost of capital

Executive summary

- X1 From 1 January 2022, providers of regulated fibre fixed line access services (FFLAS) will be subject to new forms of regulation under Part 6 of the Telecommunications Act 2001 (the Act).
- X2 The Commerce Commission (the Commission) is responsible for determining these regulations, which are:
- X2.1 information disclosure (ID) regulation; and
 - X2.2 price-quality (PQ) regulation.
- X3 The regulated providers who are subject to ID and PQ regulation are listed in the table below.

Table X1 FFLAS providers regulated under Part 6¹

ID regulated providers	PQ regulated providers
Chorus Limited (Chorus)	Chorus ²
Enable Networks Limited (Enable)	
Northpower Fibre Limited (Northpower 1) ³	
Northpower LFC2 Limited (Northpower 2)	
UltraFast Fibre Limited (UltraFast)	

Purpose of this paper

- X4 This paper is the first step in our consultation process on ID and PQ regulation. It sets out:
- X4.1 how we understand our task as required by Part 6 of the Act;
 - X4.2 the process we propose to achieve this task;
 - X4.3 at a high-level, how we plan to do it; and
 - X4.4 how you can be involved.

¹ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regs 5 and 6.

² 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.

³ We refer to Northpower 1 and Northpower 2 together as “Northpower” in the remainder of this paper.

- X5 Note that the consultation process to determine ID and PQ requirements is beginning while we are still finalising the fibre Input Methodologies (IMs). As such, the approaches we propose in this paper apply the draft IMs proposed in our "further consultation" draft decisions, and all references to the IMs are to these versions.⁴
- X6 We invite submissions on the matters discussed in this paper or on any other issues related to PQ and ID regulation by **5pm on Wednesday 14 October 2020**. Submissions can be made through the submission portal available on our website at: <https://comcom.govt.nz/regulated-industries/telecommunications/projects/fibre-price-quality-path-and-information-disclosure/>

Proposed process

- X7 Our current view is that the ID and PQ processes should be run in tandem, with the draft decisions and final decisions for both processes being published at about the same time.

Scope of the PQ and ID process

Matters within the scope of this process

- X8 This process will encompass determining:
- X8.1 ID rules for all regulated providers;
 - X8.2 the 2022-2024 PQ path (PQP1) for Chorus; and
 - X8.3 the initial regulatory asset bases (RABs), including the financial loss asset for all regulated providers.
- X9 It may also encompass limited amendments to the fibre IMs where such amendments are necessary either to implement our ID and PQ decisions, or to correct for any technical errors.

⁴ Commerce Commission "Fibre input methodologies – Further consultation draft – Reasons paper" (23 July 2020); Commerce Commission "Fibre input methodologies – Further consultation draft (initial value of financial loss asset) – Reasons paper" (13 August 2020).

Matters outside the scope of this process

- X10 The PQ and ID process will not include consultation on other matters within 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 and ID.
- X11 Matters generally excluded are:
- X11.1 the ongoing process to finalise the IMs;
 - X11.2 the declaration of anchor services, direct fibre access services, or unbundled services (together referred to as “declared services”);
 - X11.3 geographically consistent pricing;
 - X11.4 the assessment of specified fibre areas;
 - X11.5 statutory reviews such as anchor service reviews, price-quality reviews, or deregulation reviews; or
 - X11.6 regulations related to FFLAS under other Parts of the Act, such as equivalence of inputs and non-discrimination, copper withdrawal, or retail service quality.
- X12 The power to impose any declared services for PQP1 rests with the Governor-General on recommendation from the Minister. We anticipate that the process for doing this will be run by Ministry of Business, Innovation, and Employment, parallel to but separate from the process we are running to determine ID and PQ.
- X13 We intend to consult on the specific way geographically consistent pricing requirements will apply to Chorus as part of a separate process in early 2021. We previously have consulted separately on specified fibre areas, and must carry out further assessments to determine the geographic areas in which a specified fibre service is available to end-users at least annually.⁵
- X14 This process also largely excludes work on future developments of the ID regime and the PQ regime for Chorus beyond PQP1. However, to the extent that this future direction of travel influences decisions about ID and PQP1, they may be relevant. For example, the ID requirements will be informed by information needs for interested persons’ performance assessment, including the Commission’s summary and analysis. However, we do not intend to consider in detail the scope of the future summary and analysis programme for regulated FFLAS.

⁵ More information on specified fibre areas can be found on our website at:
<https://comcom.govt.nz/regulated-industries/telecommunications/projects/specified-fibre-areas>

Key phases and milestones

X15 Our proposed process to determine ID and PQ requirements is broken down into four phases set out in the table below.

Phase	Timing	Scope
Initiation	Q4 2020 to Q1 2021	Process and approach paper Submissions on process and approach Chorus PQ information request and proposal Chorus PQ expenditure proposal Submissions on PQ expenditure proposal Workshop on quality of service
Draft decisions	Q2 2021	ID draft decision Chorus transitional PQ initial RAB draft decision PQ draft decision Submissions on all draft decisions Cross-submissions on all draft decisions
Final decisions	Q3 to Q4 2021	PQ WACC determination Final decision on Chorus expenditure Final PQ decision Final ID decision
Post-final implementation	2022	Disclosure of the initial RABs Determination of the financial loss asset

Legal and economic framework

Mandatory decision-making framework

X16 When determining our ID determination and our PQP1 PQ determination, as specified in s 166(2) of the Act:⁶

"166 Matters to be considered by Commission and Minister

[...]

(2) The Commission... 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."

⁶ Telecommunications Act 2001, s 166(2).

X17 The purpose of Part 6 of the Act, as specified in s 162, reads:⁷

“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.”

Statutory framework for ID regulation

X18 All providers of regulated FFLAS services are subject to ID regulation.

The purpose of ID regulation

X19 The purpose of ID regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 6 is being met.⁸

We must make our ID determination before implementation date

X20 As discussed in Chapter 2, we are required to make an ID determination before the implementation date (1 January 2022) which specifies how ID regulation applies to regulated providers from the start of the first regulatory period (1 January 2022).⁹

Legal requirements for our ID determination

X21 Regulated providers that are subject to ID regulation must from 1 January 2022:¹⁰

- X21.1 publicly disclose information in accordance with the ID requirements set out in our ID determination;
- X21.2 supply to us a copy of all information disclosed in accordance with our ID determination, within five working days after the information is first made available to the public; and

⁷ Telecommunications Act 2001, s 162.

⁸ Telecommunications Act 2001, s 186.

⁹ Telecommunications Act 2001, s 172(1)(b).

¹⁰ Telecommunications Act 2001, s 187(1)(a)-(c).

- X21.3 supply to us, in accordance with a written notice by us, any further statements, reports, agreements, particulars, or other information required for the purposes of monitoring the regulated provider's compliance with our ID determination.
- X22 If a regulated provider is subject to ID regulation, we must, as soon as practicable after any information is publicly disclosed, publish a summary and analysis of that information.¹¹
- X23 If a regulated provider is subject to ID regulation, we may monitor and analyse all information disclosed in accordance with our ID requirements.¹²

Statutory framework for PQ regulation

- X24 From 31 December 2021, Chorus will be subject to PQ regulation for the majority of its FFLAS services (except to the extent that a service is provided in a geographical area where a non-Chorus regulated provider has installed a fibre network as part of the ultra-fast broadband (UFB) initiative).

We must make our first PQ determination before the implementation date

- X25 We are required to make a PQ determination before the implementation date (1 January 2022) specifying how PQ regulation applies to Chorus during the first regulatory period.¹³ The first regulatory period lasts from 1 January 2022 until 31 December 2024.¹⁴

The purpose of PQ regulation

- X26 The purpose of PQ regulation is to regulate the price and quality of FFLAS provided by regulated providers.¹⁵

¹¹ Telecommunications Act 2001, s 187(2)(b).

¹² Telecommunications Act 2001, s 187(2)(a).

¹³ Telecommunications Act 2001, s 172(1)(a).

¹⁴ Telecommunications Act 2001, s 207(1).

¹⁵ Telecommunications Act 2001, s 192.

Summary of detailed legal requirements for our PQP1 determination

- X27 As a regulated provider that will be subject to PQ regulation, from 1 January 2022 Chorus must:¹⁶
- X27.1 apply the “PQ path” set by us in a determination made under s 170 of the Act, which includes:
 - X27.1.1 the maximum revenues that Chorus may recover from its regulated FFLAS; and
 - X27.1.2 the quality standards that must be met by Chorus; and
 - X27.2 provide an anchor service if an anchor service has been declared;¹⁷
 - X27.3 provide a direct fibre access service (DFAS) if a DFAS has been declared;¹⁸
 - X27.4 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;¹⁹ and
 - X27.5 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.²⁰
- X28 To monitor compliance with the PQ path we may issue a written notice to Chorus requiring it to provide any (or all) of the following:²¹
- X28.1 a written statement that states whether it has complied with the PQ path;
 - X28.2 a report on the written statement that is signed by an auditor in accordance with any form specified by us;

¹⁶ Telecommunications Act 2001, s 193(1).

¹⁷ 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.

¹⁸ 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.

¹⁹ 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.

²⁰ Telecommunications Act 2001, s 193(1)(b) and s 201.

²¹ Telecommunications Act 2001, s 193(2).

- X28.3 sufficient information to enable us to properly determine whether a PQ path has been complied with; and
- X28.4 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.

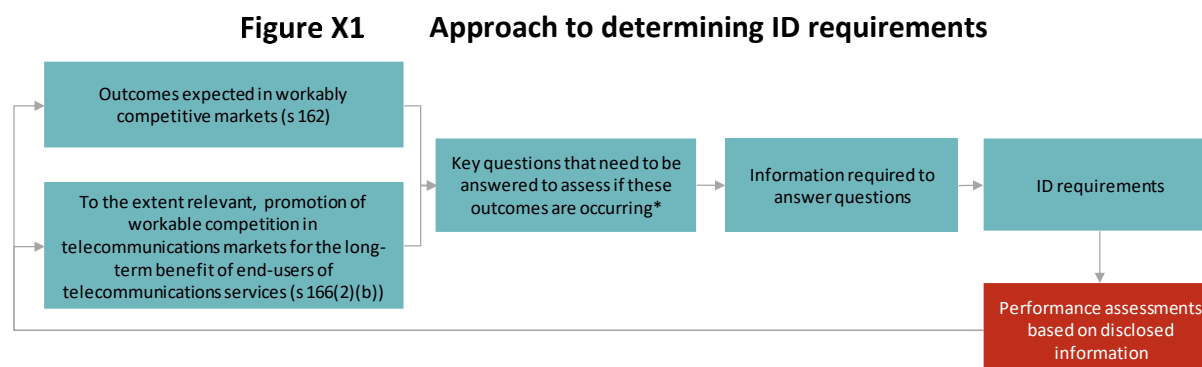
Economic incentives for ID and PQ regulation

- X29 As part of our fibre IM decision-making process, we developed an economic framework to help guide the decisions we make in developing the new regulatory regime for Part 6. The framework 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. We consider that this framework is equally relevant to our decision-making process for PQ and ID regulation and we intend to rely on it in developing the rules for PQ and ID regulation.
- X30 The economic framework includes three components:²²
- X30.1 **economic principles**, including real financial capital maintenance, allocation of risk, and asymmetric consequences of under/over investment;
- X30.2 **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
- X30.3 **competition screening questions** to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.
- X31 At its core, our incentive regulation aims to introduce incentives for regulated providers to behave in ways consistent with the purposes described in s 162 of the Act.

²² Commerce Commission "Fibre input methodologies - Draft decision paper" (19 November 2019), paragraphs 2.155-2.205 and 2.253-2.265.

Approach to information disclosure

X32 The figure below shows our proposed approach to determining ID requirements.



We propose to draw on existing disclosure requirements

X33 While ID regulation under Part 6 is new, we already require information disclosures in the NZ telecommunications sector²³ and ID regulation is a well-developed approach to economic regulation under Part 4 of the Commerce Act 1986.

X34 In developing the new requirements under Part 6 we intend to draw on existing requirements to provide or disclose information (specified under existing information disclosure regulation or specified in contracts), where those requirements promote the purpose of ID regulation under s 186, including:

X34.1 information disclosed as a result of contractual requirements in UFB agreements between regulated providers and Crown Infrastructure Partners;

X34.2 existing local fibre company (LFC) ID requirements under Subpart 3 of Part 4AA;

X34.3 ID requirements under Part 4 of the Commerce Act 1986.

X35 LFCs will not be required to comply with the current LFC disclosure requirements under subpart 3 of Part 4AA in respect of any period during which the LFC is subject to the new disclosure requirements under Part 6.²⁴

²³ Telecommunications Act 2001, Subpart 3 of Part 4AA.

²⁴ Telecommunications Act 2001, clause 10(1) of Schedule 1AA.

Information disclosures are not the sole source of performance information

X36 Our information disclosures need to satisfy the purpose of information disclosure regulation under Part 6. In our view, this does not mean that they are the only, or for same areas, the main, source of information for certain activities.

ID requirements driven by performance questions

X37 We intend to determine ID requirements based on the performance questions the disclosures are intended to inform. Our approach at this time is to specify two types of information disclosures:

X37.1 quantitative and qualitative information disclosed in (generally) standardised spreadsheets or via online disclosure systems; and

X37.2 report-based 'special topic' disclosures.

X38 We intend to explore which of these types of disclosures to specify for different areas and welcome your early views on the areas where the different approaches are preferable.

Initial view of areas for ID requirements

X39 The Act provides for a wide range of material about regulated provider performance to be disclosed under ID. Our initial view of areas that should be included under ID is set out in Figure X2 below.

Figure X2 Initial view of areas for ID requirements

Financial information	Asset management and network characteristics	Pricing, contracts, and stakeholders	Quality
Historical financial information	Network assets and their characteristics	Prices	Quality performance measures and statistics (historical)
Projected financial information	Asset management strategies and plans	Terms and conditions related to prices	Planned quality and service levels
Regulatory asset base and asset values	Planned investment	Pricing methodologies	
Financial performance measures (eg, profitability)	Demand and capacity (historical and forecast)	Contracts	
Cost allocation		Related party transactions	
Consolidated information that includes information about unregulated services		Stakeholder engagement	

Timing of disclosures and balance dates for disclosed information

X40 Unlike for PQ regulation, there is no fixed time period during which an ID determination applies. Disclosures themselves are generally required based on:

X40.1 fixed dates and intervals, eg annually or every six months; or

X40.2 certain events, such as material changes in prices or price structures.

X41 A key timing decision is the balance dates for disclosed information. In the fibre IMs further consultation paper (23 July 2020) our proposed decision was to not specify a regulatory balance date for the term “disclosure year” in the IM, and instead deferred a decision on the meaning of disclosure year (in the context of the ID IMs) to the ID determination.

- X42 In general, we prefer balance dates that are aligned for all regulated providers within an information disclosure regulation regime. Aligned balance dates, play a role in ensuring that information is “readily available” for interested persons. If balance dates are not aligned, interested persons, if they wish to make comparisons across regulated providers, have to take additional steps to undertake comparisons. Aligned balance dates reduce transaction costs for interested persons performance assessments, and reduces the risk of errors.
- X43 As part of developing ID requirements we will explore the cost effectiveness of requiring a common balance date of 30 June. We will explore further:
- X43.1 which areas of information are impacted by balance dates (eg just financial quantitative financial information, or also other information);
 - X43.2 the nature (eg one-off set-up vs ongoing costs, type of disclosure area) and quantum of effort and cost associated with common balance dates; and
 - X43.3 expected benefits of common balance dates.
- X44 The information disclosure requirements under Part 6 will only be determined by 1 January 2022. We will consider whether transitional requirements are needed for the first disclosure year.²⁵

Aggregated and subgroup information

- X45 In general, we expect to set ID requirements at an aggregate level: relating to all regulated FFLAS provided by each regulated provider. However, for certain types of information, interested persons may require disaggregated information to assess whether the Part 6 Purpose is being met. Examples of this are:
- X45.1 pricing disclosures, that are likely to require granular information at a product or end-user group level; or
 - X45.2 quality information, that may be disaggregated by product type, layer, or geography.

²⁵ For example, under clause 2.2.2(1)(a)-(b) of the [Further consultation – initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), both the ID and PQ RABs are formed at implementation date and then roll-forward for future disclosure years depending on whichever date is determined as the "disclosure year".

Approach to price-quality regulation

- X46 The PQ path we must determine for Chorus will be composed of three main parts:
- X46.1 a revenue path – the limit on the maximum revenue Chorus can recover in respect of its regulated PQ FFLAS, and that includes a wash-up for over- or under-recoveries of revenue during the previous regulatory period and potentially other uncertainties;
 - X46.2 quality standards for the mandatory dimensions set out in the IMs, and potentially for other optional dimensions; and
 - X46.3 requirements for demonstrating compliance with the revenue path, quality standards, and other aspects of PQ regulation outside the PQ path requirements we determine.

Overall approach to the PQ path

Building blocks model for the revenue path

- X47 Chorus' revenue path, or "allowable revenue" is composed of three components under the proposed specification of price IMs:
- X47.1 building blocks revenue;
 - X47.2 pass-through costs; and
 - X47.3 the wash-up draw-down amount.
- X48 To determine building blocks revenue, our preferred approach is to apply a building blocks model (BBM), where we set total revenue in line with forecasts of a providers' efficient costs.

Role of the IMs in the PQ path

- X49 We are 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.
- X50 In instances where there are relevant IMs (such as cost allocation or asset valuation), our task will focus on ensuring we and Chorus apply the IMs correctly. Where we retain discretion over specific decisions within the IMs, we will make decisions that are consistent with the statutory considerations in s 166(2) and that are consistent with the IMs.

- X51 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 for the long-term benefit of end-users of telecommunications services.

The role of information requests and Chorus' expenditure proposals

- X52 Expenditure proposals by Chorus are a starting point for setting the PQ path. At a minimum Chorus must (under the capex IM) submit a base capex proposal and connection capex baseline proposal for the PQ period. Alongside this capex information, we also intend to collect information on opex.
- X53 Beyond these expenditure proposals, we may seek further information to allow for deeper scrutiny of particular areas of expenditure. Later in the process we may also request information on other matters, such as:
- X53.1 the initial PQ RAB;
 - X53.2 forecasts of revenue (including financial modelling of the PQ path); or
 - X53.3 and information related to potential quality standards.

Transitional nature of PQP1

- X54 The fact that this is the first PQ path we are setting in the telecommunications sector has an influence on our approach to the PQ path.
- X55 In some cases, this will mean that we need to make decisions about matters that will have a long-term material impact on the revenues Chorus can recover and the quality they are expected to deliver. The best example of this is the calculation of the initial PQ RAB, including the financial loss asset.
- X56 In other cases, there are possible features of a PQ path that we will not be able to implement for PQ1, given the complexities involved and the uncertainties about the longer-term dynamics of the FFLAS market. Such features may be developed and added to the regime as it evolves, as has been the case with the development of PQ regulation under Part 4 of the Commerce Act 1986.

Revenue path and wash-up mechanism

Revenue path

- X57 Under s 195, for the first regulatory period we must determine a revenue cap for Chorus, rather than a price cap. In determining this revenue cap, in addition to the s 166(2)(b) considerations, we must consider whether:
- X57.1 the form of control we impose takes on price-cap characteristics, contrary to s 195;

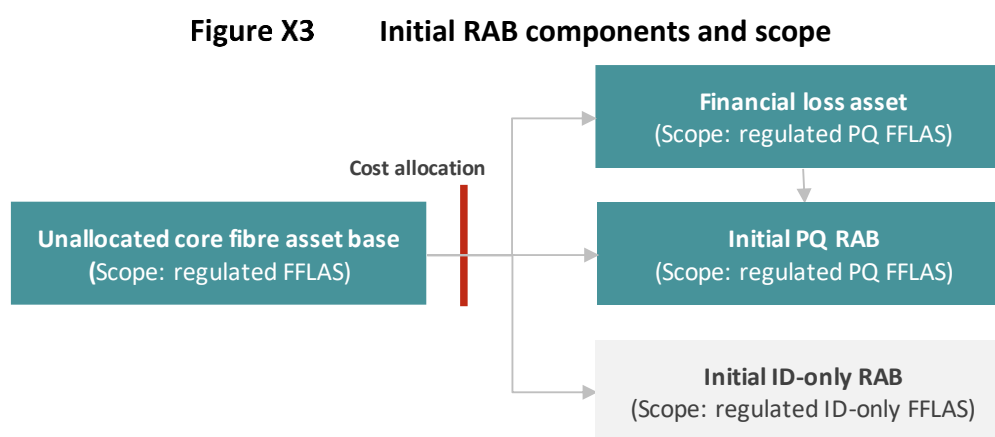
- X57.2 the revenue path we propose would create price shocks for end users; and
 - X57.3 the revenue path, including any deferral or revenue recovery to avoid price shocks, would create undue financial hardship for Chorus.
- X58 The revenue path we are considering would include:
- X58.1 a total limit on all of Chorus' PQ FFLAS revenue;
 - X58.2 *ex ante* compliance, based on forecasts of demand for PQ FFLAS for each year of the PQ period; and
 - X58.3 if necessary, smoothing either via altering the rate of depreciation, or of deferring revenue recovery through the wash-up mechanism.

Wash-up mechanism

- X59 The revenue path wash-up mechanism, which will accrue over PQP1 and may be drawn down from PQP2 onwards, must at a minimum provide for:
- X59.1 any over-recovery or under-recovery of revenue by Chorus during PQP1, as required by s 196; and
 - X59.2 the inclusion of any allowance for individual capex projects determined after the PQP is set, and the connection capex variable adjustment.
- X60 In addition to this, we are considering whether it may provide for:
- X60.1 unrecovered revenue necessary to smooth the revenue path;
 - X60.2 the difference between the transitional initial PQ RAB and the final initial PQ RAB;
 - X60.3 the difference between draft allowable revenue and the final allowable revenue if we allow Chorus to price using the draft decision for the first year of the PQP1 period;
 - X60.4 differences between forecast and actual CPI and input price inflation; and
 - X60.5 differences between forecast cost allocators and actual cost allocators used to allocate shared forecast opex and forecast capex.
- X61 We do not consider it appropriate for the wash-up to account for any general under- or over-forecast of opex and capex. To do so would undermine the efficiency and investment incentives PQ regulation is intended to create.

Approach to the initial PQ RAB including the financial loss asset

- X62 The establishment of Chorus' initial PQ RAB is one of the most material decisions we will have to make in setting not just the PQP1 revenue path, but also for future PQ periods. As such, the process to establish it will be a key focus of our PQ-setting process.
- X63 The initial PQ RAB will reflect the historical costs of investments incurred in providing FFLAS, as well as a financial loss asset reflecting the value of 'accumulated unrecovered returns' in providing UFB FFLAS for the period starting on 1 December 2011 and ending on the close of the day immediately before the implementation date (the pre-implementation period). The components of the initial RAB are set out in Figure X3 below.



- X64 Our approach aims to:
- X64.1 ensure stakeholders have confidence that an appropriate level of scrutiny is applied and assurance processes are in place before we determine the value that best gives effect (or is likely to best give effect) to s 162 and 166(2)(b) of the Act;
 - X64.2 provide certainty to Chorus and other stakeholders on the initial PQ RAB value as soon as is practical; and
 - X64.3 ensure the necessary work to establish the initial PQ RAB is deliverable by Chorus and us in the timeframe required to set allowable revenue for PQP1.²⁶

²⁶ Subject to any required wash-ups once the final value of the initial PQ RAB is determined.

Expenditure assessment

X65 We need to determine expenditure allowances to set allowable revenue for Chorus' PQP1. This determination will include both capital expenditure (capex) and opex allowances. We will determine the expenditure allowance before the start of the regulatory period through a process of consultation and expenditure scrutiny of Chorus' expenditure applications.

Approach to capex

X66 Our primary focus for the PQP1 determination will be to assess and set the base capex and connection capex baseline allowance for the first regulatory period. During our evaluation of the base capex proposal, we may identify capex projects or programmes that would be better treated as individual capex. The capex IM identifies matters that we must have regard to when applying discretion.

X67 Our main task 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 degree of uncertainty involved in forecasting connection volumes, the capex IM has introduced a connection capex variable adjustment mechanism.

X68 In evaluating Chorus' base capex and connection capex baseline proposals, we must apply the evaluation criteria in the capex IM. This includes considering whether the proposed expenditure meets the capital expenditure objective and reflects good telecommunications industry practice. The capital expenditure objective is that capital expenditure reflects the efficient costs that a prudent fibre network operator would incur to deliver PQ FFLAS of appropriate quality, during the relevant regulatory period and over the longer term.

X69 Unlike for capex, we do not have an input methodology that sets the processes, timeframes, information requirements and evaluation criteria for assessing and approving opex. However, to approve opex for Chorus' first regulatory period, we propose to adopt a similar approach to the one we use to assess capex.

Approach to quality of service standards

X70 We intend to consult with interested parties, such as regulated providers and access seekers. We expect to hold a technical workshop in Q1 2021, that would seek views on:

X70.1 which quality dimensions should be applied to set quality standards;

X70.2 how those quality standards should be set; and

X70.3 whether we should specify any revenue-linked incentive scheme for those quality standards.

- X71 We will consider available information on:
- X71.1 the quality of regulated FFLAS currently or historically supplied by regulated providers;
 - X71.2 the impact of any quality concerns or issues related to a particular quality dimension on end-users and access seekers;
 - X71.3 incentives regulated providers face to supply regulated FFLAS at a quality that reflects end-users demands; and
 - X71.4 the trade-offs between expenditure and quality.

Chapter 1 Introduction

Purpose of this paper

- 1.1 From 1 January 2022, providers of regulated fibre fixed line access services (FFLAS) will be subject to new forms of regulation under Part 6 of the Telecommunications Act 2001 (the Act).²⁷ The FFLAS providers regulated under Part 6 (regulated providers) are listed in Table 1.1 below.
- 1.2 The Commerce Commission (the Commission) is responsible for determining these regulations, which are:
- 1.2.1 information disclosure (ID) regulation; and
 - 1.2.2 price-quality (PQ) regulation.

Table 1.1 FFLAS providers regulated under Part 6²⁸

ID-regulated providers	PQ regulated providers
Chorus Limited (Chorus)	Chorus ²⁹
Enable Networks Limited (Enable)	
Northpower Fibre Limited (Northpower 1) ³⁰	
Northpower LFC2 Limited (Northpower 2)	
UltraFast Fibre Limited (UltraFast)	

- 1.3 This paper explains our high-level approach to determining ID and PQ, and our proposed process for doing so. Our reasons for doing this are:
- 1.3.1 to allow regulated providers and other interested parties to plan for future engagement on the PQ and ID processes;
 - 1.3.2 to give interested parties an opportunity to provide feedback to help shape this process;
 - 1.3.3 to explain the options we have for addressing major issues within the scope of ID and PQ regulation; and

²⁷ Unless stated otherwise all references to statutory provisions in this paper are references to statutory provisions under the Telecommunications Act 2001.

²⁸ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regs 5 and 6.

²⁹ 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.

³⁰ We refer to Northpower 1 and Northpower 2 together as “Northpower” in the remainder of this paper.

- 1.3.4 to 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, the remainder of this paper discusses:
- 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 ID and PQ;
 - 1.4.3 in Chapter 4, our high-level approach to ID regulation;
 - 1.4.4 in Chapter 5, our high-level approach to PQ regulation for the first PQ regulatory period (PQP1); and
 - 1.4.5 in Chapter 6, how we propose to implement the regulations that define in respect of regulated providers which fibre services are subject to PQ and ID regulation (the s 226 regulations).
- 1.5 Attachment A discusses in detail our framework for considering amendments to the IMs. Attachment B sets out in detail existing measures of quality that we may apply as part of ID and PQ regulation.
- 1.6 We invite submissions in response to this paper by **5pm, Wednesday 14 October 2020**. You can find details on how to submit at the end of this chapter.

How this process relates to the process to determine input methodologies

- 1.7 We are starting the ID and PQ process while we are still finalising the fibre Input Methodologies (IMs). These two processes are related, but separate. This section explains the relationships between the two processes.
- 1.8 The Commission and regulated providers must apply relevant IMs when determining and complying with PQ and ID regulations.³¹ As such, the approaches we propose in this paper apply the draft IMs proposed in our "further consultation" draft decisions, and all references to the IMs are to these versions, unless otherwise stated.³²

³¹ Telecommunications Act 2001, s 175.

³² Commerce Commission "Fibre input methodologies – Further consultation draft – Reasons paper" (23 July 2020); Commerce Commission "Fibre input methodologies – Further consultation draft (initial value of financial loss asset) – Reasons paper" (13 August 2020).

- 1.9 Therefore, we may need to revise our proposed approach to take account of any differences between the further consultation draft IMs and the IMs as finally determined.
- 1.10 We intend to finalise the majority of the IMs on Tuesday 13 October 2020, and the IMs that relate specifically to the determination of the financial loss asset on 3 November 2020.
- 1.11 Given the separate nature of the processes, the timeframes involved, and out of fairness to all interested parties in the IMs process, any submissions made as part of the ID and PQ determination process cannot be considered as part of the process to determine final IMs.

How you can provide your views

Scope for submissions

- 1.12 As this is the first step in our ID and PQ consultation process, we are interested in your views across the broad range of ID and PQ-related topics. This includes the matters raised in this paper. Additionally, to help us identify any other PQ or ID related issues early in the process, we welcome submissions on other matters that may need to be added to our proposed project scope.

Process and timeline for making submissions

- 1.13 Submissions can be made through the submission portal available on our website at:
<https://comcom.govt.nz/regulated-industries/telecommunications/projects/fibre-price-quality-path-and-information-disclosure>
- 1.14 The project page will direct you to a form with instructions on how to upload your submission. Your submission should be provided as an electronic file in an accessible form.
- 1.15 We invite submissions on the matters discussed in this paper or on any other issues related to PQ and ID regulation by **5pm on Tuesday 6 October 2020**.

Confidentiality

- 1.16 The protection of confidential information is something the Commission takes seriously. To continue to protect confidential submissions, we are trialling a new submission process. This will require you to upload your submission via the form on the project page. 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.

- 1.17 When including commercially sensitive or confidential information in your submission, we offer the following guidance:
- 1.17.1 Please provide a clearly labelled confidential version and public version. We intend to publish all public versions on our website.
 - 1.17.2 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.
 - 1.17.3 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 of this chapter

- 2.1 This chapter explains the process we propose following to set ID requirements for all regulated providers and PQ requirements for PQP1 for Chorus. This chapter addresses:
- 2.1.1 the scope of the ID and PQ process;
 - 2.1.2 the major milestones and dates in the overall consultation process;
 - 2.1.3 details of the process to set ID regulations; and
 - 2.1.4 details of the process to set PQ regulations for Chorus for PQP1.
- 2.2 Recognising the legislative and practical constraints we must work within, we are interested in your views about 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 and ID process

Matters within the scope of this process

- 2.3 This process will encompass determining:
- 2.3.1 ID rules for all regulated providers;
 - 2.3.2 PQP1 for Chorus; and
 - 2.3.3 the initial RABs, including the financial loss asset for all regulated providers.
- 2.4 It may also encompass limited amendments to the fibre IMs where such amendments are necessary either to implement our ID and PQ decisions, or to correct for any technical errors. Our framework for addressing IM amendments is discussed in Attachment A.

Matters outside the scope of this process

- 2.5 The PQ and ID process will not include consultation on other matters within 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 and ID.

- 2.6 Matters generally excluded from scope are:
- 2.6.1 the ongoing process to finalise the IMs;
 - 2.6.2 the declaration of anchor services, direct fibre access services, or unbundled services (together referred to as “declared services”);
 - 2.6.3 geographically consistent pricing;
 - 2.6.4 the assessment of specified fibre areas;
 - 2.6.5 statutory reviews such as anchor service reviews, price-quality reviews, or deregulation reviews; or
 - 2.6.6 regulations related to FFLAS under other Parts of the Act, such as equivalence of inputs and non-discrimination, copper withdrawal, or retail service quality.
- 2.7 The power to impose any declared services for PQP1 rests with the Governor-General upon recommendation from the Minister. We anticipate that the process for doing this will be run by Ministry of Business, Innovation, and Employment, parallel to but separate from the process we are running to determine ID and PQ.
- 2.8 We intend to consult on the specific way geographically consistent pricing requirements will apply to Chorus as part of a separate process in early 2021. We previously have consulted on specified fibre areas, and must carry out further assessments to determine the geographic areas in which a specified fibre service is available to end-users at least annually.³³
- 2.9 This process also largely excludes work on future developments of the ID regime and the PQ regime for Chorus beyond PQP1. However, to the extent that this future direction of travel influences decisions about ID and PQP1, they may be relevant. For example, the ID requirements will be informed by information needs for interested persons’ performance assessment, including the Commission’s summary and analysis. However, we do not intend to consider in detail the scope of the future summary and analysis programme for regulated FFLAS.

³³ More information on specified fibre areas can be found on our website at:
<https://comcom.govt.nz/regulated-industries/telecommunications/projects/specified-fibre-areas>

Proposed steps in the process

- 2.10 This section sets out our overall proposed process to determine ID and PQ regulation. It includes the timing or major milestones in the consultation process, and a discussion of the constraints that any process we follow must work within.

Proposed timeline

- 2.11 Our current view is that the ID and PQ processes should be run in tandem, with the draft decisions and final decisions for both processes being published at about the same time. Releasing the draft decisions around the same time will help minimise the lag time created by multiple submission and response periods.
- 2.12 However, we have also considered staggering the consultations and decisions on PQ and ID, and are interested in your views on whether this would be a more effective process.
- 2.13 A detailed list of major milestones is set out in Table 2.1 below.

Table 2.1 Indicative dates for the ID and PQ projects

Date	Milestone	Description
9 Sep 2020	Approach paper	Sets out our proposed approach to ID and PQ regulation, and the process for delivering it (this paper).
13 October 2020	Main IMs final decision	<i>IMs milestone (outside this process).</i>
14 October 2020	Approach paper submissions	Submission on this paper.
15 October 2020	Chorus PQP1 information request	A formal request under s 221 of the Act, seeking information necessary to set Chorus' expenditure allowances.
3 November 2020	Financial loss asset IMs final decision	<i>IMs milestone (outside this process).</i>
December 2020	Chorus PQP1 expenditure proposal	Chorus submits its expenditure proposal for PQP1.
Q1 2021	Submissions on Chorus' proposal	Consultation on Chorus' expenditure proposal.
Q1 2021	Quality of service workshop	Industry workshop on quality measures under ID and quality standards under PQ.
Q2 2021	Draft decision on transitional PQ RAB	Draft decision on Chorus' transitional RAB for setting the PQ path, including the draft value of the financial loss asset.
Q2 2021	Chorus PQP1 draft decision	Draft decision on Chorus' allowable revenue and quality standards for PQP1.
Q2 2021	ID draft decision	Draft decision on ID requirements for Chorus and LFCs.
By 1 July 2021	WACC determination for Chorus PQP1	The determination of the WACC that must be used to set Chorus' allowable revenue for PQP1.
By 30 Sep 2021	Chorus expenditure final decision	Final date decision on Chorus' capex allowances (per the capex IM).
Q4 2021	Final decision on provisional PQ RAB	Final decision on Chorus' transitional RAB for setting the PQ path, including the forecast value of the financial loss asset.
Q4 2021	Chorus PQP1 final decision	Final decision on Chorus' revenue path and quality standards for PQP1.
Q4 2021	ID final decision	Final decision on ID requirements for Chorus and LFCs.
1 January 2022	Implementation date	ID and PQ regulations come into effect.
2022	Disclosure of initial RABs	Completion of the process to set the initial ID and PQ RABs, including determining the value of the financial loss assets.

Fixed constraints on the PQ and ID processes

- 2.14 While we have some flexibility in the timing of major milestones and consultation events within the ID and PQ processes, we are also subject to several legislative and practical constraints. These include:
- 2.14.1 the statutory deadline imposed by the implementation date;
 - 2.14.2 the timelines for finalising the IMs;
 - 2.14.3 the requirements for the capex assessment process set out in the capex IM;
 - 2.14.4 the availability of the information and data necessary to determine ID and PQ inputs, such as the financial loss asset, weighted-average cost of capital (WACC) or Chorus' expenditure allowances; and
 - 2.14.5 the potential for COVID-19 and related responses to disrupt this process.

Statutory deadlines for determining PQ and ID

- 2.15 We are required to set ID requirements and Chorus' initial PQP before the implementation date: 1 January 2022. This date is imposed by statute, and cannot be varied. As such, the latest possible time we can determine ID requirements and PQ requirements for PQP1 is in December 2021.
- 2.16 For ID specifically, we can amend the ID requirements after they have been determined.³⁴ While our preference is to determine all ID requirements prior to 1 January 2022, if necessary, certain aspects of ID could be deferred until after this date. In addition, as discussed, in Chapter 4 we expect to refine the ID requirements over time, for example to meet changing information needs by stakeholders.
- 2.17 This is not the case for PQ determinations. The circumstances in which the PQ path may be reconsidered are specified in the regulatory processes and rules (RPR) IMs, and are limited to responding to identified “trigger” events. Outside these circumstances, any further development of PQ regulation must wait until the end of the PQP1 period when the PQ path is reset.

³⁴ Telecommunications Act 2001, s 173.

Timelines for finalising the IMs

- 2.18 As discussed in more detail in Chapter 3, the Commission and regulated providers must apply the relevant IMs when determining and complying with ID and PQ requirements. The date of the final determinations imposes a front-end constraint on the PQ and ID process, as the IMs are a key input into many of the decisions we must make.
- 2.19 While the publication of the further consultation IMs allows us to consult in broad terms about ID and PQ regulation, we will not be able to make detailed proposals until the IMs are determined. In particular, we do not consider it good regulatory practise to issue the applicable information requests specified in the capex IM to Chorus seeking expenditure information until the final capex IM is determined.

Requirements in the capex IM

- 2.20 The capex IM (as currently proposed) 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 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'.)
- 2.21 For the first regulatory period, the capex proposals need to be submitted as soon as reasonably practicable but no later than 31 December 2020, and the final decision on capex allowances needs to be made no later than 30 September 2021.

Availability of information

- 2.22 Some key inputs to the final PQ determination and for the initial RABs under ID will not be available until part-way through the determination process, such as:
- 2.22.1 the inputs required to determine the WACC for PQP1, which cannot be determined before 1 June 2021 and must be determined by 1 July 2021;
 - 2.22.2 Chorus' responses to any information gathering requests will require a lead-time for the response to be prepared and subjected to audit and certification;
 - 2.22.3 the final years' data for the determination of the initial RAB, including the financial loss asset will not be available until after 31 December 2021, and so the final financial loss asset determination cannot be made until 2022.

Impact of COVID-19

- 2.23 Given the on-going COVID-19 pandemic, and the possibility of future outbreaks in New Zealand, a higher than normal level of uncertainty underlies our ID and PQ consultation process. While it is our intention to follow the process described above in Table 2.1, future instances restrictions at Level 2 or above may limit our ability to meet these timelines, and may limit interested parties' ability to engage in the process.
- 2.24 If there are significant impacts on our consultation process, we will provide interested parties with process updates, as we did during the IMs consultation process earlier in 2020.

Process to determine information disclosure

- 2.25 The approach we propose for ID will be one that involves significant engagement with regulated providers and other interested parties. This will include the use of industry workshops, and the publication of a draft decision.

Workshop on quality of service

- 2.26 We intend to consult with interested parties, which may include holding a technical workshop on current fibre industry practices. We expect that the workshop would include discussion of service levels in the ultra-fast broadband (UFB) contracts, and the relevance of any lessons from determinations made under Part 4 of the Commerce Act 1986. The relevance of this information and any new measures required for the first regulatory period. We would also seek feedback on the costs and benefits of requiring such information to be disclosed as part of ID regulation. This may also encompass whether and how these measures could be implemented as quality standards for Chorus' PQ path.

Draft decision

- 2.27 We intend to publish a full draft decision for ID in Q2 of 2021. We intend to allow between four to six weeks for submissions, and to allow for cross-submissions.

Final decision

- 2.28 We intend to publish the final decision for ID in Q4 of 2021, so it is in place from the implementation date on 1 January 2022.

Process to determine Chorus' PQ path

- 2.29 The process we propose is:
- 2.29.1 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

- 2.29.2 in part one that will be based on proposals made by us and subject to consultation with all interested parties.
- 2.30 The details of how this process will work in substance are discussed in Chapter 5. The proposed process will have four major steps:
 - 2.30.1 an information gathering request from the Commission and an expenditure proposal prepared by Chorus;
 - 2.30.2 the industry workshop on quality standards discussed above;
 - 2.30.3 a draft decision on the expenditure proposal, allowable revenue, and quality standards; and
 - 2.30.4 final decisions on expenditure, revenue, and quality.

Information request and expenditure proposal

- 2.31 The first major step in the process to determine Chorus' PQ path is an information gathering request under s 221. This request will inform Chorus' expenditure proposal – our starting point for determining Chorus' revenue path.
- 2.32 This will include both the capex proposals required by the IMs, but we also propose including information on operating expenditure (opex). The information request will set out the information Chorus has to provide its proposals, complemented by requirements in the IM. It will also specify any audit, assurance, and certification requirements.
- 2.33 As this request involves the application of IMs, we intend to issue it shortly after the relevant IMs final decision in mid-October 2020. We propose allowing two months for the preparation of a response, to allow time for audit and certification processes. We anticipate the expenditure proposals will be submitted in December 2020.
- 2.34 Given time constraints, we do not intend to consult on the form or content of the information request. However, 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 early 2021.
- 2.35 Alongside this external consultation process on the expenditure proposal, the Commission will also undertake an internal proposal evaluation process. This process will involve assessing the proposal for compliance with the IMs, and an assessment of the proposed expenditure against the evaluation criteria in the capex IM. It may also involve further requests for information, and the engagement of expert advice on particular categories of expenditure.

Draft decision

- 2.36 We intend to issue a full draft decision for consultation in Q2 of 2021. We anticipate that this decision will include:
- 2.36.1 draft allowable revenue (and related wash-up and compliance requirements);
 - 2.36.2 draft expenditure allowances;
 - 2.36.3 a draft transitional initial PQ RAB (including the financial loss asset); and
 - 2.36.4 draft quality standards.
- 2.37 We propose allowing:
- 2.37.1 four to six weeks for submissions; and
 - 2.37.2 a further two weeks for cross-submissions.
- 2.38 Given the constraints imposed by the timeline for the final decision, we intend to allow Chorus to set its prices for the first year of PQP1 based on the allowable revenues proposed in the draft decision.³⁵ This would then be subject to a wash-up compared to the final decision.

Final decisions

- 2.39 Consistent with the current proposed capex IMs, we must determine Chorus' capex allowances by 30 September 2021. We also intend to determine Chorus' opex allowance at the same time.
- 2.40 A final decision on the remainder of the PQ determination will follow in Q4 of 2021.

³⁵ In Part 4, we applied a similar approach to customised price-quality paths for Powerco and Wellington Electricity in 2018.

Chapter 3 Regulatory framework

Purpose of this chapter

- 3.1 This chapter sets out the frameworks we will apply to making decisions about ID and PQ regulation. We are sharing this thinking early in the ID and PQ processes to give you an opportunity to provide feedback in advance of our draft decision, and to aid in explaining the reasons for the approaches we propose in Chapters 4 and 5.
- 3.2 Specifically, this chapter addresses:
 - 3.2.1 the legal framework set out in Part 6 of the Act;
 - 3.2.2 the economic framework we apply; and
 - 3.2.3 our over-all approach to quality of service across ID and PQ.

PQ and ID legal framework

Purpose of this section

- 3.3 This section describes our legal requirements under Part 6 for determining:
 - 3.3.1 how ID regulation applies to regulated providers from the start of the first regulatory period; and
 - 3.3.2 PQP1 for Chorus, that will apply for the regulatory period from 1 January 2022 until 31 December 2024.

Structure of this section

- 3.4 This section outlines:
 - 3.4.1 a summary of the legal requirements for our ID determination, as set out in paragraphs 3.5-3.13;
 - 3.4.2 a summary of the legal requirements for our first PQ path determination, as set out in paragraphs 3.14-3.23;
 - 3.4.3 the mandatory decision-making considerations that apply for our ID determination and our first PQ determination, as set out in paragraphs 3.24-3.27;
 - 3.4.4 detailed legal requirements for our ID determination, as set out in paragraphs 3.28-3.55.3; and
 - 3.4.5 detailed legal requirements for our first PQ determination, as set out in paragraphs 3.56-3.76.

Summary of the legal requirements for our ID determination

Regulated providers are subject to our ID determination

- 3.5 Providers supplying FFLAS who are prescribed in regulations made under s 226 as being subject to ID regulation are subject to ID regulation under Part 6 of the Act.³⁶
- 3.6 The following persons became subject to ID regulation on 20 December 2019 as a result of regulations made under s 226 by the Governor-General on 18 November 2019:³⁷
- 3.6.1 Chorus;
 - 3.6.2 Enable;
 - 3.6.3 Northpower 1;
 - 3.6.4 Northpower 2;³⁸ and
 - 3.6.5 UltraFast.

We must make our ID determination before implementation date

- 3.7 As discussed in Chapter 2, we are required to make an ID determination before the implementation date (1 January 2022) which specifies how ID regulation applies to regulated providers from the start of the first regulatory period (1 January 2022).³⁹

The purpose of ID regulation

- 3.8 The purpose of ID regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 6 is being met.⁴⁰ Our approach at this time to interpreting the meaning of:
- 3.8.1 “interested persons” is described in paragraphs 3.33-3.34;
 - 3.8.2 “sufficient information” is described in paragraphs 3.35-3.37; and
 - 3.8.3 “readily available” is described in paragraphs 3.38-3.42.

³⁶ Telecommunications Act 2001, s 168.

³⁷ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 5.

³⁸ We refer to Northpower 1 and Northpower 2 together as “Northpower” in the remainder of this paper.

³⁹ Telecommunications Act 2001, s 172(1)(b).

⁴⁰ Telecommunications Act 2001, s 186.

Mandatory decision-making considerations that apply for our ID determination

- 3.9 As specified in s 166(2) of the Act, in determining how ID regulation applies from the start of the first regulatory period, we must make a determination that we consider best gives, or is likely to best give, effect:⁴¹
- 3.9.1 to the purpose in s 162 of the Act, as specified in s 166(2)(a) of the Act; and
 - 3.9.2 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.
- 3.10 We explain our obligations under s 166(2) in more detail in paragraphs 3.24-3.27.

Summary of detailed legal requirements for our ID determination

- 3.11 Regulated providers that are subject to ID regulation must from 1 January 2022:⁴²
- 3.11.1 publicly disclose information in accordance with the ID requirements set out in our ID determination, as described in more detail in paragraphs 3.43-3.49.4;
 - 3.11.2 supply to us a copy of all information disclosed in accordance with our ID determination, within five working days after the information is first made available to the public; and
 - 3.11.3 supply to us, in accordance with a written notice by us, any further statements, reports, agreements, particulars, or other information required for the purposes of monitoring the regulated provider's compliance with our ID determination.
- 3.12 If a regulated provider is subject to ID regulation, we must, as soon as practicable after any information is publicly disclosed, publish a summary and analysis of that information, as described in more detail in paragraphs 3.51-3.52.⁴³
- 3.13 If a regulated provider is subject to ID regulation, we may monitor and analyse all information disclosed in accordance with our ID requirements.⁴⁴

⁴¹ Telecommunications Act 2001, s 166(2).

⁴² Telecommunications Act 2001, s 187(1)(a)-(c).

⁴³ Telecommunications Act 2001, s 187(2)(b).

⁴⁴ Telecommunications Act 2001, s 187(2)(a).

Summary of the legal requirements for our first PQ determination

Chorus is subject to our first PQ determination

- 3.14 Providers supplying FFLAS who are prescribed in regulations made under s 226 of the Act as being subject to PQ regulation are subject to PQ regulation under Part 6 of the Act.⁴⁵
- 3.15 On 31 December 2021 Chorus will be subject to PQ regulation as a result of regulations made by the Governor-General on 18 November 2019.⁴⁶

We must make our first PQ determination before the implementation date

- 3.16 We are required to make a PQ determination before the implementation date (1 January 2022) specifying how PQ regulation applies to Chorus during the first regulatory period.⁴⁷ The first regulatory period lasts from 1 January 2022 until 31 December 2024.⁴⁸

The purpose of PQ regulation

- 3.17 The purpose of PQ regulation is to regulate the price and quality of FFLAS provided by regulated providers.⁴⁹

Mandatory decision-making considerations that apply for our first PQ determination

- 3.18 As specified in s 166(2) of the Act, in determining the PQ path for the first regulatory period, we must make a determination that we consider best gives, or is likely to best give, effect:⁵⁰
- 3.18.1 to the purpose in s 162 of the Act, as specified in s 166(2)(a) of the Act; and
 - 3.18.2 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.
- 3.19 For further discussion refer to paragraphs 3.24-3.27.

⁴⁵ Telecommunications Act 2001, s 169.

⁴⁶ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6.

⁴⁷ Telecommunications Act 2001, s 172(1)(a).

⁴⁸ Telecommunications Act 2001, s 207(1).

⁴⁹ Telecommunications Act 2001, s 192.

⁵⁰ Telecommunications Act 2001, s 166(2).

Summary of detailed legal requirements for our PQP1 determination

- 3.20 As a regulated provider that will be subject to PQ regulation, Chorus must from 1 January 2022:⁵¹
- 3.20.1 apply the “PQ path” set by us in a determination made under s 170 of the Act, as described in more detail under paragraphs 3.57-3.71 which includes:
 - 3.20.1.1 the maximum revenues that Chorus may recover from its regulated FFLAS; and
 - 3.20.1.2 the quality standards that must be met by Chorus; and
 - 3.20.2 provide an anchor service if an anchor service has been declared;⁵²
 - 3.20.3 provide a direct fibre access service (DFAS) if a DFAS has been declared;⁵³
 - 3.20.4 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;⁵⁴ and
 - 3.20.5 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.⁵⁵
- 3.21 We term the regulated services listed in 3.20.2 to 3.20.4 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 they provide.

⁵¹ Telecommunications Act 2001, s 193(1)

⁵² 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.

⁵³ 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.

⁵⁴ 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.

⁵⁵ Telecommunications Act 2001, s 193(1)(b) and s 201.

- 3.22 To monitor compliance with the matters described in paragraph 3.20 we may issue a written notice to Chorus requiring it to provide any (or all) of the following:
- 3.22.1 a written statement that states whether it has complied with the PQ path;⁵⁶
 - 3.22.2 a report on the written statement that is signed by an auditor in accordance with any form specified by us;⁵⁷
 - 3.22.3 sufficient information to enable us to properly determine whether a PQ path has been complied with;⁵⁸ and
 - 3.22.4 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.⁵⁹
- 3.23 Our approach at this time to monitoring compliance is explained in Chapter 5 in paragraphs 5.197-5.200.

Mandatory decision-making considerations that apply for our ID determination and our first PQ determination

- 3.24 When determining our ID determination and our PQP1 PQ determination, as specified in s 166(2) of the Act: ⁶⁰

“166 Matters to be considered by Commission and Minister

[...]

- (2) The Commission... 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."

⁵⁶ Telecommunications Act 2001, s 193(2)(a).

⁵⁷ Telecommunications Act 2001, s 193(2)(b).

⁵⁸ Telecommunications Act 2001, s 193(2)(c).

⁵⁹ Telecommunications Act 2001, s 193(2)(d).

⁶⁰ Telecommunications Act 2001, s 166(2).

3.25 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.”

3.26 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:

3.26.1 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.⁶¹ 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.

3.26.2 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,⁶² 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.⁶³

⁶¹ *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [25] – [27].

⁶² *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [684].

⁶³ *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 at [684].

- 3.27 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:
- 3.27.1 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.
 - 3.27.2 s 166(2)(a) directs us to make decisions that best give effect to the purpose in s 162. This is a mandatory consideration.
 - 3.27.3 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.
 - 3.27.4 s 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).

Detailed legal requirements for our ID determination

- 3.28 This section of the chapter explains:
- 3.28.1 the purpose of ID regulation, as explained in paragraphs 3.31-3.32;
 - 3.28.2 matters to be included in our ID determination, as explained in paragraphs 3.43-3.49.4; and
 - 3.28.3 our requirement to publish a summary and an analysis of information publicly disclosed, as explained in paragraphs 3.51-3.52.

- 3.29 We consider that 166(2)(a) and 166(2)(b) are linked. For example, as outlined in Table 4.1 below, a key question under ID regulation will be whether the outcomes of workable competition are being promoted in telecommunications markets for the long-term benefit of end-users of telecommunications services. This includes the outcomes specified in s 162.⁶⁴
- 3.30 Another question to consider is the extent to which PQ or ID regulation should be used, where relevant, to actively encourage or promote competition for the long term-benefit of end-users of telecommunications.⁶⁵

The purpose of ID regulation

- 3.31 Section 186 of the Act states that the purpose of ID is to ensure sufficient information is readily available to interested persons to assess whether the Part 6 purpose is being met.
- 3.32 To develop requirements for regulated providers, we need to understand what the key terms in s 186 of the Act mean. Our approach at this time to interpreting the meaning of “interested persons”, “sufficient information” and “readily available” is discussed below.

“Interested persons”

- 3.33 We interpret ‘interested persons’ broadly to include, among others, persons who are or may be affected by the way in which regulated FFLAS are provided. Therefore, we consider interested persons to include, but not be limited to:
- 3.33.1 all the regulated providers currently subject to ID regulation (Chorus, Enable, Northpower, and UltraFast);
 - 3.33.2 end-users and end-user representative groups;
 - 3.33.3 retail service providers and retail service provider representative groups;
 - 3.33.4 central government, regional councils, and territorial authorities;
 - 3.33.5 suppliers of goods or services regulated under Part 4 of the Commerce Act 1986 (e.g. Transpower New Zealand limited);
 - 3.33.6 market analysts and investors; and

⁶⁴ We note that the scope of s 166(2)(b), being in respect of promoting workable competition in telecommunications markets for the long-term benefit of “end-users of telecommunications services”, is broader than the scope of s 162, which focuses on promoting outcomes for the long-term benefit of “end-users in markets for FFLAS”.

⁶⁵ [Vogelsang, Ingo & Martin Cave “Framework for promoting competition” \(19 November 2019\).](#)

3.33.7 us (the Commerce Commission).

3.34 Interested persons are a diverse group. This particular information needs will vary depending on their particular areas of interest and available resources. Some interested persons will wish to undertake their own customised analysis of disclosed information, while others may lack the resources or specialist knowledge for this, and so will prefer information to be summarised and analysed for them (eg, through our summary and analysis, as described in paragraphs 3.51 and 3.52.)

“Sufficient information”

3.35 The Act requires that the information is sufficient for interested persons to assess whether the Part 6 purpose is being met. Both quantitative and qualitative information is necessary to make this assessment, with quantitative information sufficiently disaggregated to allow interested persons to understand what drives performance.

3.36 ID is a specific form of regulation under Part 6, with its own clearly defined purpose in s 186, independent of other regulatory instruments. We consider that the requirement for ‘sufficient’ information to make informed assessments against the Part 6 purpose should be independent of whether a regulated provider is also subject to PQ regulation.

3.37 We are mindful of ID regulation compliance costs. We will consider the cost effectiveness of our disclosure requirements, by balancing the need for sufficient information with the expected additional cost for regulated providers in making those disclosures. We intend to engage with stakeholders to understand the additional cost of developing disclosure requirements, and the expected benefit of disclosures.⁶⁶

“Readily available”

3.38 The form in which information is disclosed affects interested persons’ ability to use that information to assess performance. We consider that relevant factors in ensuring information is ‘readily available’ are the extent to which information is:

3.38.1 consistent;

3.38.2 accessible; and

⁶⁶ We expect the quantification of costs to be more straightforward than the quantification of benefits. In general, we expect to undertake qualitative cost-effectiveness assessments. An example of a framework for cost-effectiveness assessments can be found in: [Commerce Commission “Information Disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper” \(1 October 2012\), Attachment A.](#)

- 3.38.3 understandable.
- 3.39 Consistent disclosure of data—disclosure of data in a standardised form that can be compared over time and across regulated providers—helps interested persons to assess performance of regulated providers, including whether they are managing their assets for the long-term benefit of end-users.
- 3.40 Inconsistency may mean that data is not “readily available”. We therefore expect some of our information to be required in a standardised format.⁶⁷ Without requirements ensuring consistency, the disclosed data may not be useful for gaining useful insights, or time-consuming processes may be needed to improve consistency and comparability of data.
- 3.41 Accessibility of information refers to the ease with which the information can be accessed (for example, on a website) and the format in which it is available (for example, in a PDF report or a spreadsheet.)
- 3.42 Understandable refers to the ease with which interested person can navigate quantitative or qualitative information and get access to key insights relevant to them. The format of disclosures and our summary and analysis of information will assist interested persons' understanding (refer to paragraphs 3.51-3.52 and to Chapter 4.)

Matters that must be included in our ID determination

- 3.43 An ID determination relating to FFLAS that are subject to ID regulation must specify the following:⁶⁸
- 3.43.1 the regulated providers to which it applies;
 - 3.43.2 the information to be disclosed, as described further in paragraphs 3.44-3.47;
 - 3.43.3 the manner in which the information is disclosed;
 - 3.43.4 the form of disclosure;
 - 3.43.5 when, and for how long, information must be disclosed;
 - 3.43.6 the IMs that apply, as described in paragraphs 3.48-3.49.4;

⁶⁷ For example, in a standardised spreadsheet template or online disclosure system.

⁶⁸ Telecommunications Act 2001, s 188(1)(a)-(g).

- 3.43.7 any other methodologies that are required in the preparation or compilation of the information.

Information to be disclosed

- 3.44 An ID determination relating to FFLAS that are subject to ID regulation may specify (without limitation) one or more of the following:⁶⁹
- 3.44.1 financial statements (including projected financial statements);
 - 3.44.2 asset values and valuation reports;
 - 3.44.3 prices, terms and conditions related to prices, and pricing methodologies;
 - 3.44.4 contracts;
 - 3.44.5 transactions with related parties;
 - 3.44.6 financial and non-financial performance measures;
 - 3.44.7 plans and forecasts, including (without limitation) plans and forecasts about demand, investments, prices, revenues, quality and service levels, capacity and spare capacity, and efficiency improvements;
 - 3.44.8 asset management plans;
 - 3.44.9 quality performance measures and statistics;
 - 3.44.10 assumptions, policies, and methodologies used or applied in these or other areas;
 - 3.44.11 consolidated information that includes information about unregulated services; and⁷⁰
 - 3.44.12 information related to one or more parts of a fibre network.
- 3.45 We discuss the potential areas where we may require information at 4.42-4.44 in Chapter 4.

⁶⁹ Telecommunications Act 2001, s 188(2)(a)-(l).

⁷⁰ The specific requirements for consolidated information are specified in Telecommunications Act 2001, s 189.

- 3.46 An ID determination may do one or more of the following:⁷¹
- 3.46.1 require disclosed information, or information from which disclosed information is derived (in whole or in part), to be verified by statutory declaration;
 - 3.46.2 require independent audits of disclosed information;
 - 3.46.3 require the retention of data on which disclosed information is based, and associated documentation;
 - 3.46.4 exempt any person or class of persons, or provide for exemptions, from any requirements of the determination, and provide for the revocation of exemptions;
 - 3.46.5 provide for transitional provisions; and
 - 3.46.6 impose any other requirements that we consider necessary or desirable to promote the purpose of ID regulation.
- 3.47 An ID determination may not require a regulated provider to publicly disclose any provision of an existing contract that, immediately before the FFLAS became subject to ID regulation, was not required by or under any other enactment to be publicly disclosed.⁷²

Input methodologies that apply

- 3.48 IMs relating to the supply of regulated FFLAS must be applied:
- 3.48.1 by each regulated provider in accordance with our ID determination;⁷³ and
 - 3.48.2 by us in recommending, deciding or determining how ID regulation should apply to regulated FFLAS.⁷⁴

⁷¹ Telecommunications Act 2001, s 188(3)(a)-(f).

⁷² Telecommunications Act 2001, s 188(4).

⁷³ Telecommunications Act 2001, s 175(a).

⁷⁴ Telecommunications Act 2001, s 175(b)(i).

3.49 At this time, we intend for our ID determination to specify that the following IMs will apply:

3.49.1 cost allocation;⁷⁵

3.49.2 asset valuation;⁷⁶

3.49.3 taxation;⁷⁷ and

3.49.4 quality dimensions.⁷⁸

3.50 As regulated providers who are subject only to ID regulation do not have to apply IMs for evaluating or determining the cost of capital. Our proposed approach in respect of cost of capital for ID regulation will be outlined in the draft decision.⁷⁹

Summary and analysis

3.51 If a regulated provider is subject to ID regulation, we must, as soon as practicable after any information is publicly disclosed, publish⁸⁰ a summary and an analysis of that information for the purpose of promoting greater understanding of the performance of individual regulated providers. Their relative performance, changes in their performance over time and their ability to extract excessive profits.⁸¹

3.52 We may, as part of a summary and an analysis, include an analysis of how effective our ID requirements imposed on regulated providers are in promoting the purpose of Part 6 in s 162.⁸²

⁷⁵ The cost allocation IM for ID, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 2, Subpart 1.

⁷⁶ The asset valuation IM for ID, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 2, Subpart 2.

⁷⁷ The taxation IM for ID, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 2, Subpart 3.

⁷⁸ The quality dimensions IM for ID, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 2, Subpart 5.

⁷⁹ Telecommunications Act 2001, s 191(1). The cost of capital IM for ID, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 2, Subpart 4.

⁸⁰ Section 187(2)(b) directs us to publish “on an Internet site maintained by or on behalf of [us]”.

⁸¹ Telecommunications Act 2001, s 187(2)(b). As specified in s 187(4) of the Act, in publishing a summary and an analysis, we must ensure that satisfactory provision exists to protect the confidentiality of any information that may reasonably be regarded as confidential or commercially sensitive.

⁸² Telecommunications Act 2001, s 187(3).

Enforcement

- 3.53 The High Court may, on application by us, order any person to pay a pecuniary penalty to the Crown for contravening an ID requirement under s 212, which must not:⁸³
- 3.53.1 in respect of each act or omission, exceed \$500,000 in the case of an individual; or
 - 3.53.2 \$5,000,000 in the case of a body corporate.
- 3.54 The High Court may, on application by us, order a regulated provider to comply with an ID requirement that applies to the provider.⁸⁴
- 3.55 A person commits an offence if:⁸⁵
- 3.55.1 the person, knowing that particular FFLAS are subject to ID regulation, intentionally contravenes any ID requirement relating to those services; or
 - 3.55.2 the person is subject to an order referred to under paragraph 3.54 and fails to comply with the order by the date, or within the period specified.
 - 3.55.3 Where a person commits an offence under s 214(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.⁸⁶

Detailed legal requirements for our first PQ determination

- 3.56 This section of the chapter explains:
- 3.56.1 the mandatory requirements for our first PQ determination, as explained in paragraphs 3.57-3.67; and
 - 3.56.2 the optional incentives we may require for our first PQ determination to maintain/improve quality of supply, which include penalties/rewards, compensation schemes and reporting requirements, as explained in paragraphs 3.68-3.71.

⁸³ Telecommunications Act 2001, s 212.

⁸⁴ Telecommunications Act 2001, s 213.

⁸⁵ Telecommunications Act 2001, s 214(1).

⁸⁶ Telecommunications Act 2001, s 214(2).

Mandatory requirements for our first PQ determination

- 3.57 Our first PQ path in respect of Chorus must specify:⁸⁷
- 3.57.1 the maximum revenues which Chorus may recover from its regulated FFLAS, as outlined further in paragraphs 3.58-3.69;⁸⁸
 - 3.57.2 the minimum quality standards that will apply to Chorus, as outlined further in paragraphs 3.66-3.67;⁸⁹
 - 3.57.3 the regulatory period (1 January 2022 to 31 December 2024);⁹⁰
 - 3.57.4 the date on which the PQ path takes effect (1 January 2022);⁹¹ and
 - 3.57.5 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 5.⁹²

Maximum revenues

- 3.58 In determining the maximum revenues which Chorus may recover from its regulated FFLAS:
- 3.58.1 we must apply our IMs to determine key inputs, as described in paragraph 3.59;
 - 3.58.2 we must reflect the actual financing costs incurred by Chorus in respect of Crown financing, as described in paragraphs 3.60 and 3.61;
 - 3.58.3 we must from the second regulatory period onwards (until the regulatory periods that start on or after the reset date)⁹³ apply a wash-up mechanism, as described in paragraphs 3.62 and 3.63;
 - 3.58.4 we must (where “necessary or desirable”) smooth revenues, as described in paragraphs 3.64 and 3.65; and

⁸⁷ Sections 194 and s 195 of the Act set out the necessary components of our first PQ path.

⁸⁸ Telecommunications Act 2001, s 195(1). This form of control will also apply to Chorus’ second PQ path by virtue of the operation of s 195, s 209 and s 225.

⁸⁹ Telecommunications Act 2001, s 194(2)(c).

⁹⁰ Telecommunications Act 2001, s 194(2)(a).

⁹¹ Telecommunications Act 2001, s 194(2)(d).

⁹² Telecommunications Act 2001, s 194(2)(e).

⁹³ Under s 196(3), we may (not are not required to) apply the wash-up mechanism in a price-quality path for a regulatory period that starts on or after the reset date.

- 3.58.5 we may reduce/increase maximum revenues depending on how Chorus has performed against the quality standards, as described in paragraphs 3.68 and 3.69.

Input methodologies

- 3.59 To determine key inputs of the calculation of maximum revenues under the PQ path, the following IMs must be applied:⁹⁴
- 3.59.1 cost allocation;⁹⁵
 - 3.59.2 asset valuation (including the financial loss asset);⁹⁶
 - 3.59.3 taxation;⁹⁷
 - 3.59.4 cost of capital;⁹⁸
 - 3.59.5 RPR, specifically the specification and definition of prices;⁹⁹ and
 - 3.59.6 the capex IM.¹⁰⁰

Benefit of Crown financing

- 3.60 In specifying the maximum revenues that Chorus may recover, we must ensure that the maximum revenues reflect, in respect of any Crown financing, the actual financing costs incurred by Chorus (or a related party) in the regulatory period.¹⁰¹

⁹⁴ Under s 175(b)(ii) of the Act, we must apply the IMs in determining the prices applying to FFLAS.

⁹⁵ The cost allocation IM for PQ paths, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 2.

⁹⁶ The asset valuation IM for PQ paths, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 3.

⁹⁷ The taxation IM for PQ paths, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 4.

⁹⁸ The cost of capital IM for PQ paths, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 5.

⁹⁹ The specification of prices and revenues IM, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 1.

¹⁰⁰ The capex IM, which is currently under consultation, is specified in [Further consultation — initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 7-8.

¹⁰¹ Telecommunications Act 2001, s 171.

- 3.61 Our approach at this time to ensuring that the maximum revenues reflect, in respect of any Crown financing, the actual financing cost incurred by Chorus in the regulatory period, is explained in our IM consultation “further consultation” draft decisions.¹⁰²

Wash-up mechanism

- 3.62 Over the course of PQP1, a wash-up mechanism will accrue balances for any over- or under-recovery of revenue by Chorus. When we determine the PQP2 path, we will be required to apply a wash-up mechanism that provides for this accrued balance to be drawn down. The need for and form of any wash-up mechanism is likely to vary over time, as the over-recovery and under-recovery of revenues of Chorus varies.
- 3.63 Our approach at this time to specifying a wash-up that will accrue during PQP1 and be drawn down for the second PQ path is explained in paragraphs 5.84 to 5.104 in Chapter 5.

Smoothing revenues

- 3.64 When we determine our PQP1, we 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.¹⁰³
- 3.65 Whether this is necessary will depend in part on the level of maximum allowable revenue we determine for PQP1. 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 5.66 to 5.70 in Chapter 5.

Quality standards

- 3.66 In specifying the quality standards that will apply to Chorus, we:
- 3.66.1 must apply the quality dimensions IMs;¹⁰⁴ and
 - 3.66.2 may prescribe the standards in any way we consider appropriate (such as targets, bands, or formulas) as long as we apply the relevant IMs.¹⁰⁵

¹⁰² Commerce Commission “Fibre input methodologies – Further consultation draft – Reasons paper” (23 July 2020), para 3.30-3.34.

¹⁰³ Telecommunications Act 2001, s 197.

¹⁰⁴ 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, which is currently under consultation, is specified in [Further consultation – initial value of financial loss asset] Fibre Input Methodologies Determination 2020 (13 August 2020), Part 3, Subpart 6.

¹⁰⁵ Telecommunications Act 2001, s 194(4).

- 3.67 Our approach at this time to specifying the quality standards that will apply to Chorus is explained in paragraphs 5.193.1 to 5.196 of Chapter 5 and in Attachment B.

Penalties/rewards for performance against quality standards

- 3.68 A PQ path may include incentives for Chorus to maintain or improve its quality of supply, and those incentives may include (without limitation):
- 3.68.1 penalties which reduce Chorus' maximum revenues based on whether, or by what amount, it fails to meet the required quality standards;¹⁰⁶ and
 - 3.68.2 rewards which increase Chorus' maximum revenues based on whether, or by what amount, it meets or exceeds the required quality standards.¹⁰⁷
- 3.69 Given the transitional nature of PQP1 were we to impose any revenue-linked quality measures, they would be targeted at the most important aspect of quality, rather than broadly applied.

Optional incentives for our first PQ determination in respect of compensation schemes and reporting requirements

- 3.70 A PQ path may include incentives for Chorus to maintain or improve its quality of supply, and those incentives may include (without limitation):
- 3.70.1 compensation schemes that set minimum standard of performance and require Chorus to pay prescribed amounts of compensation if it fails to meet those standards;¹⁰⁸ and
 - 3.70.2 reporting requirements, including special reporting requirements in asset management plans, if Chorus fails to meet the quality standards.¹⁰⁹
- 3.71 As with the penalty/reward incentives described above, at this stage we are not considering introducing compensation schemes for PQP1. However, reporting requirements in the event of a failure to meet quality standards may form an important part of our approach to quality of service.

¹⁰⁶ Telecommunications Act 2001, s 194(3)(a).

¹⁰⁷ Telecommunications Act 2001, s 194(3)(b).

¹⁰⁸ Telecommunications Act 2001, s 194(3)(c).

¹⁰⁹ Telecommunications Act 2001, s 194(3)(d).

Enforcement

- 3.72 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:¹¹⁰
- 3.72.1 in respect of each act or omission, exceed \$500,000 in the case of an individual; or
 - 3.72.2 \$5,000,000 in the case of a body corporate.
- 3.73 If the High Court orders a person to pay a pecuniary penalty under s 215 in respect of the contravention of a price-quality 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.¹¹¹ An application for this order may be made by us or any “aggrieved person”.¹¹² In proceedings under s 216, the court may make such orders as to cost as it thinks fit.¹¹³
- 3.74 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:¹¹⁴
- 3.74.1 grant an injunction restraining any provider of those services from providing them in contravention of the PQ requirement;
 - 3.74.2 make an order requiring the provider to provide the service in accordance with the PQ requirement applying to them.
- 3.75 A person commits an offence if:¹¹⁵
- 3.75.1 the person, knowing that particular FFLAS are subject to PQ regulation, intentionally contravenes a PQ requirement in respect of the services; or
 - 3.75.2 the person is subject to an order referred to under paragraph 3.74 and fails to comply with the order.

¹¹⁰ Telecommunications Act 2001, s 215.

¹¹¹ Telecommunications Act 2001, s 216(1).

¹¹² Telecommunications Act 2001, s 216(2).

¹¹³ Telecommunications Act 2001, s 216(5).

¹¹⁴ Telecommunications Act 2001, s 218.

¹¹⁵ Telecommunications Act 2001, s 217(1).

- 3.76 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.¹¹⁶

PQ and ID economic framework

- 3.77 This section discusses:
- 3.77.1 the high-level economic framework we will apply when making decisions for our PQ and ID determinations;
 - 3.77.2 the application of the economic framework for the initial ID determination; and
 - 3.77.3 specific incentive properties of PQP1 that affect the application of the economic framework in setting the initial PQ path.

Economic framework

- 3.78 As part of our fibre IM decision-making process, we developed an economic framework to help guide the decisions we make in developing the new regulatory regime for Part 6. The framework 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. We consider that this framework is equally relevant to our decision-making process for PQ and ID regulation and we intend to rely on it in developing the rules for PQ and ID regulation.
- 3.79 The economic framework includes three components:¹¹⁷
- 3.79.1 **economic principles**, including real financial capital maintenance, allocation of risk, and asymmetric consequences of under/over investment;
 - 3.79.2 **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
 - 3.79.3 **competition screening questions** to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.

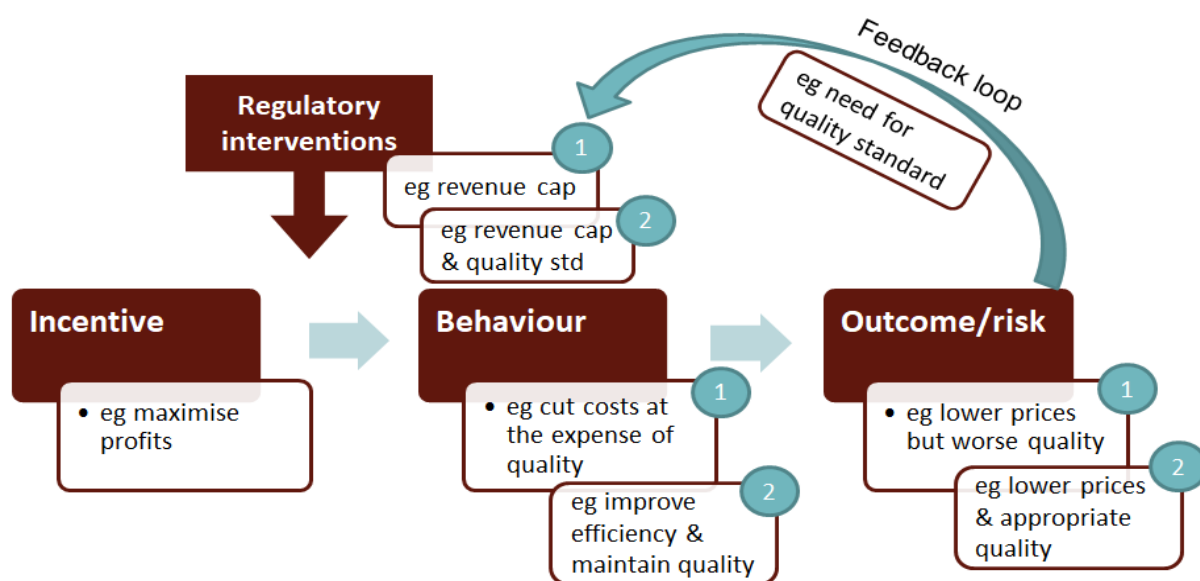
¹¹⁶ Telecommunications Act 2001, s 217(2).

¹¹⁷ Commerce Commission "Fibre input methodologies – Draft decision paper" (19 November 2019), paragraphs 2.155-2.205 and 2.253-2.265.

- 3.80 At its core, our incentive regulation aims to introduce incentives for regulated providers to behave in ways consistent with the purposes described in s 162 of the Act.
- 3.80.1 The transparency introduced through ID reporting requirements incentivises regulated providers to charge prices in line with competitive outcomes limiting their ability to earn excessive profits (s 162(d)) and ensuring that over time regulated providers share any efficiency gains with end-users (s 162(c)). The reporting requirements also allow interested persons to evaluate whether the quality of FFLAS reflects end-user demand (s 162(b)) and whether new or innovative products are introduced over time (s 162(a)). The threat of increased regulation through additional ID reporting requirements (or a potential move from ID to PQ regulation) further strengthens these incentives.
- 3.80.2 The 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 the 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.
- 3.81 In line with the purposes in s 166(2), the regulatory rules introduced through our ID and PQ determinations, underpinned by the fibre IMs and supported by the enforcement provisions specified in sections 212-218 of the Act,¹¹⁸ aim to better align the incentives of 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.

¹¹⁸ See discussion at paragraphs 3.53-3.55.3 and 3.72-3.76 above.

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



3.82 We have relied on this incentive framework to identify the approach to setting the ID rules and 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). Our initial approach to ID regulation is discussed in Chapter 4, while our initial approach to PQ regulation is described in Chapter 5.

3.83 Figure 3.2 illustrates an example of the interaction between:

3.83.1 the tools available to us under PQ regulation, subject to the fibre IMs set; and

3.83.2 the main consequential incentives that might arise from the rules introduced for regulated providers subject to PQ regulation.

3.84 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 regulated providers might face. A non-exhaustive list of other potential regulatory tools, not illustrated at Figure 3.2, that could be introduced under PQ regulation is:

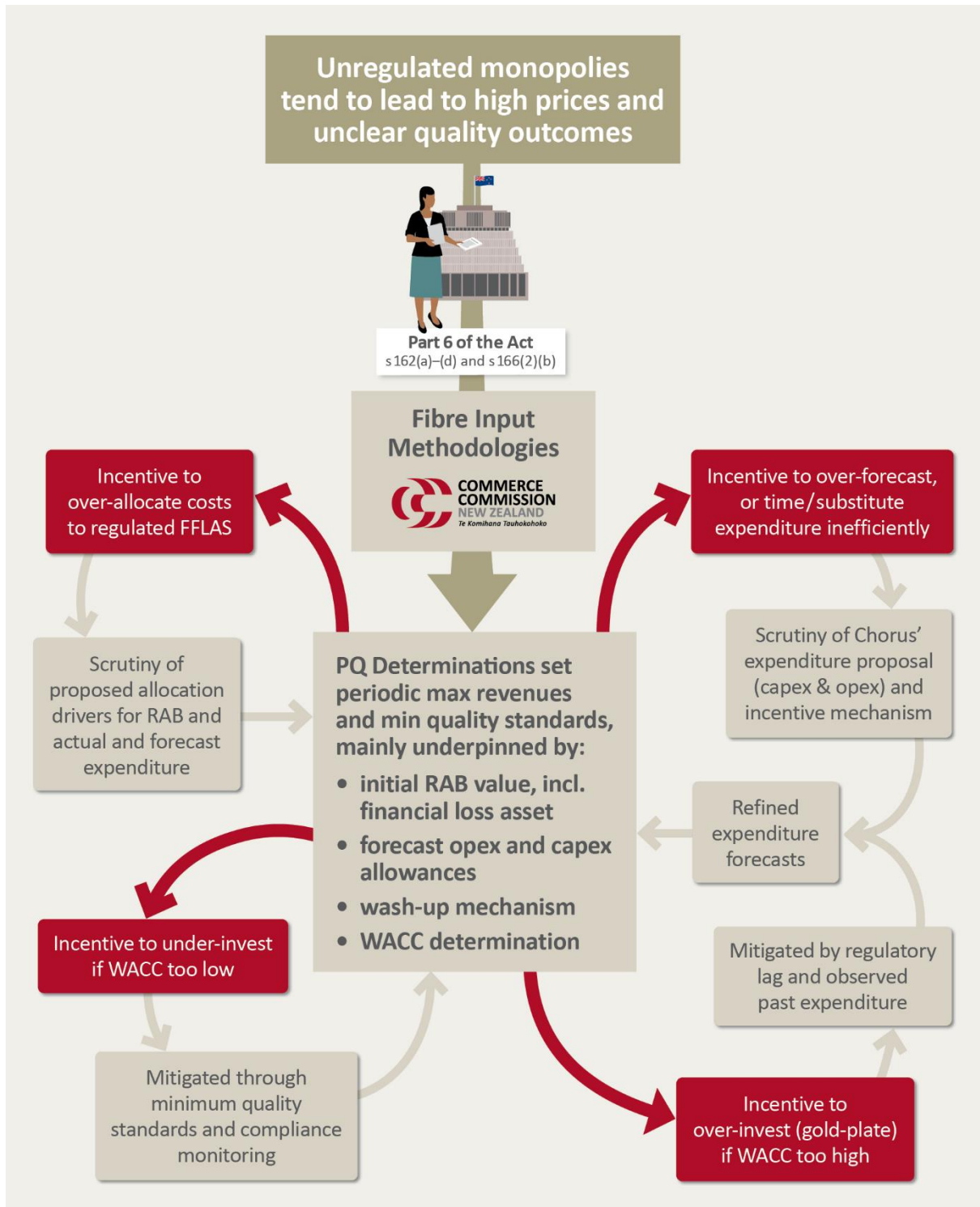
3.84.1 within-period or between-periods expenditure incentive schemes;

3.84.2 a set of options with different expenditure incentive strengths within a regulatory period in exchange for different expenditure allowances;

- 3.84.3 quality incentive schemes; and/or
- 3.84.4 rules related to pricing efficiency.
- 3.85 To the extent that some of these regulatory tools apply across multiple regulatory periods they might require new IMs to be set in future before they can be introduced into PQ regulation. For example, this might be the case for pricing rules or for expenditure incentive schemes that apply across multiple regulatory periods. The current draft IM decision is not to introduce a pricing structure IM or an expenditure incentive scheme IM prior to the regulation coming into force in January 2022.¹¹⁹ If this decision is maintained in the final fibre IMs then such rules or schemes will not be available for PQP1.
- 3.86 For regulated FFLAS, the relationships depicted in the figure are also affected by ID and competition. The latter is explicitly recognised by the requirement in s 166(2)(b) of the Act for our decisions to consider the promotion of workable competition in telecommunications markets for the long-term benefit of end-users, where relevant. The following are examples of relevant considerations that affect the incentives of regulated providers.
- 3.86.1 The repeated nature of regulation allows us to observe through ID expenditure outturns over time, which lessens the incentive and therefore the risk of regulated providers gaming the expenditure forecasts.
- 3.86.2 Greater competitive pressure mitigates some of the incentives of 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, since the regulated provider would then risk losing end-users dissatisfied with the level of quality to competing firms supplying products based on alternative technologies.

¹¹⁹ Commerce Commission “Fibre input methodologies – Regulatory processes and rules draft decision – Reasons paper (2 April 2020), paragraphs 134.1 and 135-140.

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



Application of the economic framework for the initial ID determination

- 3.87 For Chorus and other LFCs, we will be able to impose reporting requirements under ID regulation. As explained in Chapter 4 this information will assist interested parties in assessing whether the purposes of Part 6 are being met and may incentivise regulated providers to improve their performance.
- 3.88 The reporting requirements we will set in the initial ID determination are a starting point that we expect to refine over time through repeatedly applying the incentive framework feedback loop illustrated at Figure 3.1.
- 3.89 We acknowledge that prior to the implementation of the initial ID determination, we will know the least (relative to any subsequent period) about:
- 3.89.1 the existing cost efficiency of regulated providers and their ability to realise cost efficiencies over time;
 - 3.89.2 the extent to which the profitability of regulated providers is consistent with the return on capital that might be expected in workably competitive markets;
 - 3.89.3 the extent to which prices of FFLAS are efficient (and thus, consistent with those that might be expected in workably competitive markets);
 - 3.89.4 end-users' and retail service providers' (RSP) preferences about the quality of FFLAS supplied, including the quality dimensions and measures that are of greatest concern to end-users; and
 - 3.89.5 to the extent relevant, the expected efficacy of the (initial) ID reporting requirements in achieving outcomes consistent with the purposes at s 162 and, in promoting workable competition in telecommunications markets for the long-term benefit of end-users over time, consistent with s 166(2)(b).
- 3.90 The repeated nature of reporting under ID regulation and assessing performance will reveal over time more information about each of these factors. In turn, over time we expect to refine the initial ID reporting requirements to reflect market developments or to increase the incentives on regulated providers to behave in ways consistent with outcomes in workably competitive markets.

- 3.91 We note that as part of our IM decision-making process, we considered whether setting a pricing structure or a pricing methodology IM would best promote the Part 6 purposes at s 166(2). For the reasons explained in our RPR draft decision we did not consider that a pricing structure IM is necessary at this time.¹²⁰ This view is supported by the views expressed by our expert panel.¹²¹
- 3.92 Nonetheless, we are aware of the risks of inefficient price structures, including price structures that may have anticompetitive effects. We intend to monitor prices through targeted ID requirements and assess whether further intervention is required in the future.

Incentives properties of PQP1 and the application of the economic framework

- 3.93 The introduction of PQ regulation creates consequential incentives that aim to better align the interests of regulated providers with those of end-users. The incentives discussed in the Economic Framework section (and illustrated in Figure 3.2) will exist in all regulatory periods, starting with PQP1.
- 3.94 However, PQP1 has some unique incentive features in that:
- 3.94.1 the information asymmetry between us and Chorus is likely to be higher in PQP1 than in subsequent periods. This is compounded with the incentive and potential ability for Chorus to set baselines for expenditure and quality that favour them, but not end-users; and
 - 3.94.2 PQP1 may be shorter than subsequent periods given that s 207(2) allows us to determine the duration of subsequent periods between 3 and 5 years.

Information asymmetry

- 3.95 The information asymmetry between us and Chorus is likely to be higher in PQP1 than in subsequent regulatory periods. As a result, Chorus might have a greater incentive in PQP1 (relative to subsequent periods) to engage in forms of regulatory gaming, such as:
- 3.95.1 inflating their expenditure forecasts;

¹²⁰ Commerce Commission “Fibre input methodologies – Regulatory processes and rules draft decision – Reasons paper (2 April 2020), paragraph 134.1.

¹²¹ Ingo Vogelsang and Martin Cave “Pricing under the new regulatory framework provided by Part 6 of the Telecommunications Act” (21 May 2019).

- 3.95.2 gaming the timing of expenditure, eg, in the base year;¹²²
 - 3.95.3 degrading quality prior to quality standards being set (as a low base for the standards) or degrading quality in not directly observable ways; and
 - 3.95.4 pricing individual FFLAS in inefficient and/or potentially anti-competitive ways.
- 3.96 For this reason, the level of scrutiny we apply in PQP1 might be particularly important, especially with regards to:
- 3.96.1 setting the initial RAB;
 - 3.96.2 Chorus' initial expenditure proposal, potentially considering options for different expenditure allowances linked to different incentive strengths; and
 - 3.96.3 quality standards.
- 3.97 As explained in Chapter 5, we expect that the initial RAB determination will be a main focus for the regulation we develop for PQP1. Further, the shorter duration of PQP1 will allow end-users to benefit sooner from any refinements in regulation we may implement when setting the PQ path for PQP2.

Length of the regulatory period

- 3.98 The length of PQP1 is determined by the Act at s 207(1) to be for 3 years from the implementation date. We can set the duration of subsequent periods to be between 3 and 5 years (s 207(2)). The shorter duration of PQP1, relative to subsequent regulatory periods that might be of 5-year duration, has the following marginal effect on incentives.

¹²² 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), page 11.

- 3.98.1 A shorter regulatory period, such as PQP1, results in a weaker natural incentive strength than a longer period. Since the period over which Chorus can enjoy the benefits from retaining any efficiency gains is shorter (before they are passed on to end-users in PQP2), Chorus might choose to defer investment in certain cost saving initiatives to the next regulatory period, or not make them at all. However, Chorus' ability to find efficiency improvements in PQP1 is also likely to be lower, especially for capex. This is because the network is new, and therefore the need to replace assets is small. Because of this, even though incentives to find efficiencies are weaker given the shorter regulatory period, the potential harm is also likely lower. The risk to efficiency will grow over time - we intend to monitor it and to consider ways to increase the incentive strength if the need arises in the future.
- 3.98.2 The longer the regulatory period, the greater the incentive to achieve cost reductions (efficiency savings and/or inefficient expenditure deferral) early in the period (and enjoy the higher profits for longer). While such a strategy could be beneficial to end-users, the flip side is that if Chorus identifies cost reductions later in a regulatory period, they might have an incentive to defer the implementation of these savings to the beginning of the next regulatory period. In PQP1 Chorus' scope to inefficiently time work delivered within this period is reduced (relative to a longer regulatory period). This is one of the reasons why we did not consider it necessary to adopt an incremental rolling incentive scheme in the fibre IMs at this stage.¹²³ The connection capex mechanism specified in the fibre IMs, which involves a variable component, can also mitigate the risk of expenditure being inefficiently delayed.
- 3.98.3 The shorter duration of PQP1, relative to a longer regulatory period, might imply weaker incentives for Chorus to argue for quality standards that would benefit them rather than end-users. This is because any consequences to end-users (that benefit Chorus instead) from setting inappropriate quality standards in PQP1 would be corrected sooner at the reset after 3 years (rather than later).

Potential implications of investments under the UFB contracts and price restrictions in the legislation

- 3.99 In addition to the length of the period, PQP1 also has other features that are likely to have an impact on the strength of incentives and/or ability for Chorus to behave in ways that might not be to the long-term benefit of end-users.

¹²³ Commerce Commission "Fibre input methodologies – Regulatory processes and rules draft decision – Reasons paper (2 April 2020), paragraphs 135-140.

- 3.99.1 The scope for Chorus to substitute expenditure inefficiently between opex and capex is reduced in PQP1 because a significant proportion of investment is recently incurred or already committed through the Crown Infrastructure Partners (CIP) contracts.
- 3.99.2 There are legislative requirements for how Chorus has price certain FFLAS in PQP1. These requirements may mean that Chorus' prices may not necessarily be efficient and that Chorus' price structure benefits some end-users, while disadvantaging others.
- 3.99.2.1 Chorus is under a requirement for geographically consistent pricing for FFLAS that are, in all material aspects, the same (s 201).
- 3.99.2.2 Once Regulations are made under s 227, there is a requirement on Chorus to provide an anchor service, at a price no greater than the prescribed maximum price (s 198). In PQP1, the prescribed maximum price for the anchor service have to be based on the CIP contract price for that service, with an annual CPI adjustment (s 227(2)(d) and clause 14(4) of Schedule 1AA).
- 3.99.2.3 Once Regulations are made under s 228, there is a requirement on Chorus to provide DFAS, at a price no greater than the prescribed maximum price (s 199). In PQP1, the prescribed maximum price for DFAS have to be based on the CIP contract price for that service, with an annual CPI adjustment (s 228(6) and clause 15(3) of Schedule 1AA).
- 3.99.2.4 Once Regulations are made under s 229, there is a requirement on Chorus to provide an unbundled fibre service.
- 3.100 As noted above, the legislative requirements imposed on Chorus' prices in PQP1 are likely to benefit some end-users while disadvantaging 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 in PQP1. However, to the extent that the CIP contract price does not reflect the costs of the anchor service, this might mean that the price structure Chorus has to adopt is inefficient; and that end-users purchasing retail products that use FFLAS other than the anchor service might be charged higher prices as a result.

- 3.101 We do not have the power to recommend a cost-based maximum prescribed price for the anchor service until PQP2 (see s 208(6)(b)). Likewise, 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.
- 3.102 We consider that these legislative restrictions on Chorus' prices limit, at least in PQP1, Chorus' ability to set prices in ways that could lead to long-term harm to competition or to detriment to end-users of telecommunications services. This is one of the reasons why in our draft IM decisions we concluded that a pricing structure IM is not likely to best promote the purposes at Part 6 at s 166(2).¹²⁴ However, as noted at paragraph 3.91 above, we are aware of the risks to end-users that might arise from inefficient pricing structures, including potentially anti-competitive pricing, and we intend to monitor prices through ID disclosures and determine whether further intervention is required in the future.

Overall approach to quality of service

- 3.103 The principles and processes for the application of the quality dimensions IM under ID and PQ regulation are set out below.
- 3.104 We would seek to ensure that any performance measures or standards are aligned with best practice characteristics, in that they are:
- 3.104.1 relevant: important to ensuring FFLAS service quality reflects access seeker and end-user demands;
 - 3.104.2 measurable: able to be measured by regulated provider(s);
 - 3.104.3 verifiable: able to be checked or demonstrated to be true or accurate;
 - 3.104.4 controllable: able to be controlled (at least to some extent) by regulated provider(s); and
 - 3.104.5 proportionate: the benefits to access seekers or end-users justify the costs to regulated provider(s).

¹²⁴ Commerce Commission "Fibre input methodologies – Regulatory processes and rules draft decision – Reasons paper (2 April 2020), paragraph 134.1.

- 3.105 The current draft of the quality dimensions IM enables us to set performance measures and quality standards for regulated FFLAS across a range of fibre lifecycle dimensions as well as for an overarching dimension of customer service. Within this, it sets out mandatory dimensions of “availability” and “performance” for PQ and “availability”, “performance”, “faults” and “customer service” for ID. We may also specify performance measures and quality standards for one or more of the other optional dimensions set out in the IM.
- 3.106 We may also set different quality measures and standards in the ID and PQ regulation determinations for different purposes. For example, we may wish to break down reporting requirements by geographic areas, or by classes of end-users (such as business or residential) or access seekers. We may also differentiate by service such as layer 1 and layer 2, as different FFLAS face different levels of competitive constraint. This approach would allow us to better tailor the regulatory instruments to best give (or be likely to best give) effect to the purpose of Part 6 and s 166(2)(b) of the Act.
- 3.107 The quality dimensions IM prescribes quality dimensions and example metrics, but not performance measures or standards. The service levels in the UFB contracts will help inform performance measures under ID and standards under PQ regulation. We anticipate the service levels in the UFB contracts will provide a useful starting point for ID and PQ regulation, at least for PQP1 and represent the service levels that regulated fibre providers have been working to for some time.
- 3.108 As part of PQ and ID-setting processes for PQP1, we will look to consult on ID performance measures and PQ standards. This may include considering reasons for any proposed variance from UFB contractual measures and service levels for applicable dimensions and metrics.
- 3.109 We anticipate that the anchor services of Voice, Bitstream and DFAS will have specified service levels similar to those in the UFB contracts.
- 3.110 We will need to ensure that our powers under Part 6 and Part 7 are applied in a consistent and complementary manner and do not over-burden industry participants. For example, we will consider the interaction between ID regulation and our Part 7 powers to require the supply of information to support our functions of monitoring and reporting on RSQ.

Chapter 4 Proposed approach to information disclosure

Purpose of this chapter

- 4.1 This chapter sets out our proposed approach to setting ID requirements for all regulated providers.
- 4.2 Our proposed approach is in accordance with the legal framework for ID set out in Chapter 3.

Structure of this chapter

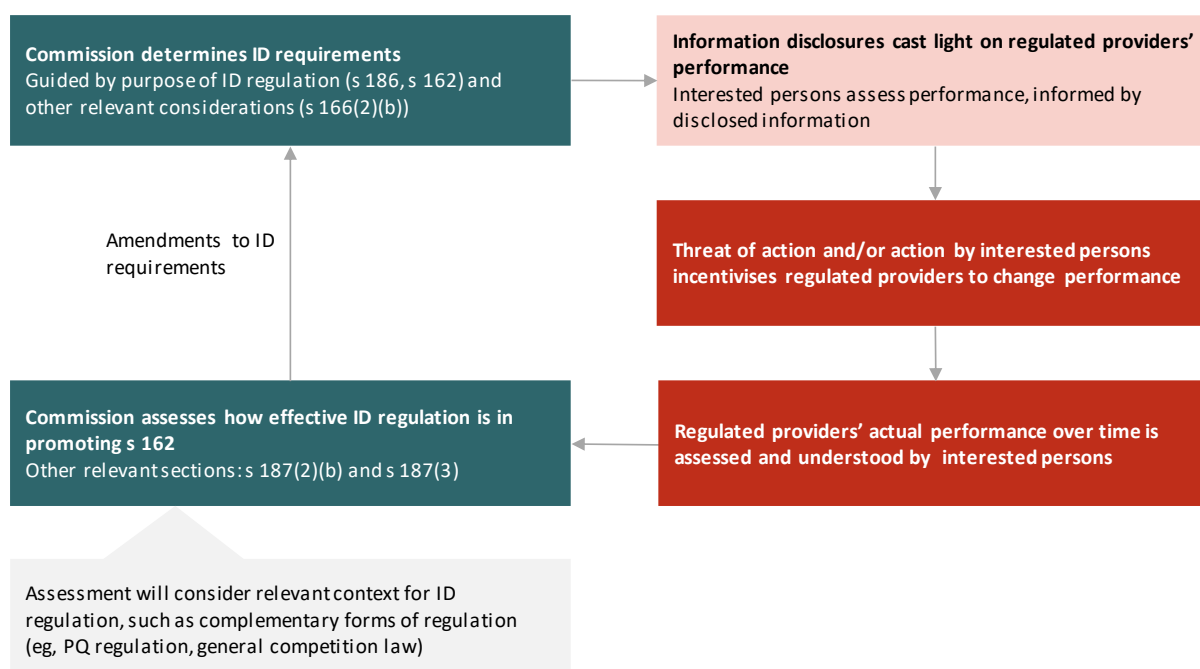
- 4.3 This chapter starts with a high-level introduction to ID regulation, based on our prior experience regulating services under Part 4 of the Commerce Act 1986 and based on the provisions of Part 6 and the draft fibre IMs.
- 4.4 We then set out:
 - 4.4.1 our high-level approach to determining ID requirements;
 - 4.4.2 key performance questions the disclosures (in accordance with ID requirements) are intended to help answer;
 - 4.4.3 an overview of areas for which we intend to determine ID requirements; and
 - 4.4.4 our areas of focus at this time:
 - 4.4.4.1 quality;
 - 4.4.4.2 determining the initial RAB; and
 - 4.4.4.3 timing.

How information disclosure regulation promotes the Part 6 purpose

How information disclosure regulation works

- 4.5 The figure below summarises how ID regulation is intended to work.

Figure 4.1 How information disclosure regulation is intended to work



Note: The evolving understanding of performance may also inform other changes outside the scope of ID regulation, for example a change in the scope of PQ regulation.

- 4.6 Given the Part 6 purpose, the supply of regulated FFLAS is intended to be influenced by each type of regulation. ID regulation is a form of economic regulation in its own right, and is currently the only form of economic regulation that applies to other LFCs under Part 6. For Chorus, ID regulation is complemented by PQ regulation for most of its regulated FFLAS. The ID requirements will reflect the Part 6 purpose.
- 4.7 ID improves transparency of regulated providers' performance. The action, or the threat of action (eg, the possibility of additional regulation) taken by interested persons on the basis of their understanding of regulated providers' performance (both positive and negative) can incentivise regulated providers in improving their performance.
- 4.8 An effective ID regime provides transparency to interested persons about the performance of regulated providers. This will then provide an ongoing source of information so that trends can be identified and monitored over time, which will allow interested persons to assess whether the Part 6 purpose is being met.¹²⁵

¹²⁵ Any summary and analysis we publish under s 187(2)(b) would be intended to assist interested persons in understanding the performance of individual regulated providers, their relative performance, changes in their performance over time, and their ability to extract excessive profits.

4.9 Over time we intend to assess how effective ID regulation is in promoting s 162. This may result in changes to ID requirements, for example:

4.9.1 to improve assessments of enduring performance areas (eg, profitability); and

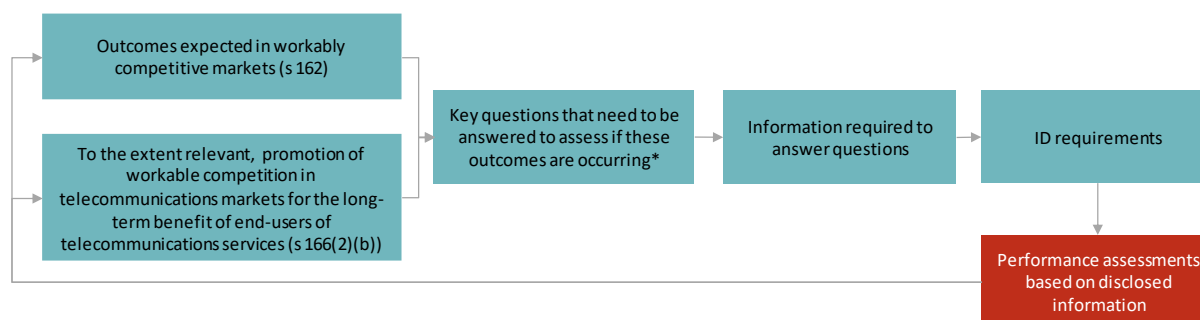
4.9.2 to enable assessments of newly emerging issues (eg, changes in competition due to market developments).

Overall approach to determining information disclosure requirements

4.10 This section explains at a high-level, how we propose to set ID requirements for all regulated providers.

4.11 The figure below shows our proposed approach to determining ID requirements.

Figure 4.2 Approach to determining information disclosure requirements



Note: * In practice, we will identify more detailed questions relating to each key question. These detailed questions then drive the information requirements.

We propose to draw on existing disclosure requirements

4.12 While information disclosure regulation under Part 6 is new, we already require information disclosures in the NZ telecommunications sector,¹²⁶ and ID regulation is a well-developed approach to economic regulation under Part 4 of the Commerce Act 1986.

¹²⁶ Telecommunications Act 2001, Subpart 3 of Part 4AA.

- 4.13 In developing the new requirements under Part 6 we intend to draw on existing requirements to provide or disclose information (specified under existing ID regulation or specified in contracts), where those requirements promote the purpose of ID regulation under s 186, including:
- 4.13.1 information disclosed as a result of contractual requirements in UFB agreements between regulated providers and CIP;¹²⁷
 - 4.13.2 existing LFC ID requirements under Subpart 3 of Part 4AA;¹²⁸ and
 - 4.13.3 ID requirements under Part 4 of the Commerce Act 1986.¹²⁹
- 4.14 'Drawing on' may mean the following.
- 4.14.1 Incorporating existing requirements into the ID requirements under Part 6, with refinements to scope, if relevant.
 - 4.14.2 Reflecting practical lessons learned from existing ID regulation. For example, one lesson we learned from determining airports disclosure requirements under Part 4 of the Commerce Act 1986 is that in order to inform profitability assessments, some disclosure requirements require iterative development. Lessons learned by us, and other stakeholders from undertaking performance assessments provide insights into business processes. Over time this provides information for more meaningful performance assessments.
- 4.15 LFCs will not be required to comply with the current LFC disclosure requirements under subpart 3 of Part 4AA in respect of any period during which the LFC is subject to the new disclosure requirements under Part 6.¹³⁰

¹²⁷ For example, those agreed as part of the Network Infrastructure Asset Transfer Agreements (NIPA) between CIP/CFH and each regulated provider www.crowninfrastructure.govt.nz/ufb/who/

¹²⁸ [Commerce Commission "LFC Information Disclosure Determination 2018" \(22 August 2018\)](#)
[Commerce Commission "Chorus Information Disclosure Determination 2018" \(29 June 2018\)](#)
 These disclosures are only to the Commerce Commission. The disclosures themselves are not published, but some of the information has been used in published reports, eg, Commerce Commission "Study into fibre services, Summary report issued under s 9A of the Telecommunications Act 2001" (17 December 2018).

¹²⁹ For example, Commerce Commission "Information Disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper" (1 October 2012); Commerce Commission "Electricity Distribution Information Disclosure Determination 2012" (3 April 2018); and Commerce Commission "Disclosure requirements for airports"

¹³⁰ Telecommunications Act 2001, clause 10(1) of Schedule 1AA.

Information disclosures are not the sole source of performance information

- 4.16 Our information disclosures need to satisfy the purpose of information disclosure regulation under Part 6. In our view, this does not mean that they are the only, or for some areas, the main, source of information for certain activities.
- 4.17 For example, assessing whether the outcomes of workable competition are being promoted in telecommunications markets for the long-term benefit of end-users of telecommunications services (s 166(2)(b)) requires consideration of a range of information. While information disclosed under ID will be useful for assessing competition, this may need to be complemented with other information. For example, in respect of a deregulation review under s 210, we could gather any necessary information outside of our ID requirements.
- 4.18 Another example of an area that is likely to require additional information would be a review of anchor services under s 208.

ID requirements driven by performance questions

- 4.19 We intend to determine ID requirements based on the performance questions the disclosures are intended to inform. Our approach at this time is to specify two types of information disclosures:
- 4.19.1 quantitative and qualitative information disclosed in (generally) standardised spreadsheets; and
 - 4.19.2 report-based 'special topic' disclosures.
- 4.20 We intend to explore which of these types of disclosures to specify for different areas and welcome your early views on the areas where the different approaches are preferable. Below we briefly discuss the characteristics and advantages and disadvantages of each disclosure type.

Information disclosed in standardised spreadsheet templates

- 4.21 With information in standardised spreadsheets, interested persons undertake their own assessments of disclosed quantitative and/or qualitative information to understand performance.
- 4.22 An advantage of this form of disclosure is that it typically can be used to inform different types of analysis. Requiring disclosure in standardised templates also means that information can be compared across regulated providers (where appropriate).

- 4.23 A disadvantage of this type of information is that it can be resource intensive to undertake these assessments. This cost may mean that interested persons with fewer specialised resources to engage with disclosed information, such as end-users, are limited in their ability to assess regulated providers' performance.
- 4.24 Summary and analysis of disclosures undertaken by us can make the information more accessible.

Report-based 'special topic' disclosures.

- 4.25 For these disclosures, regulated providers are required to disclose a detailed report on a special topic. Examples include the following (noting that not all information may be relevant for ID regulation).

4.25.1 Electricity distributors are required to prepare asset management plans.¹³¹

4.25.2 Powerco is required to publish an annual delivery report to allow stakeholders to understand the delivery of the customised price-quality path works programme.¹³²

4.25.3 The economic regulator of the water sector in England and Wales (Ofwat) requires companies to publish on their websites 'annual performance reports'.¹³³

- 4.26 An advantage of this form of disclosure is that it may provide insights in a more accessible and potentially more timely way. Disadvantages include the following.

4.26.1 Special topic reports may be more costly to compile than providing information in a spreadsheet.

4.26.2 While the regulated providers are closer to their information which potentially leads to more relevant and deeper insights, providing editorial control to regulated providers over what to include in reports may result in selective reporting.

¹³¹ Refer to <https://comcom.govt.nz/regulated-industries/electricity-lines/electricity-distributor-performance-and-data/review-of-asset-management-practices>

¹³² Powerco, Annual Delivery Report available on www.powerco.co.nz/Publications/Disclosures/Electricity/ Note that this report is required under a 53ZD information notice and therefore is not part of ID regulation.

¹³³ Ofwat "Annual performance report" accessible at: www.ofwat.gov.uk/regulated-companies/company-obligations/annual-performance-report/.

Dealing with potentially confidential disclosures

- 4.27 A regulated provider who is subject to ID regulation must publicly disclose information in accordance with the information disclosure requirements set out in the ID determination.¹³⁴ However, we may on application, exempt any person from any obligation to make that information available to the public as part of the requirements of ID regulation where we consider that information (or class of information) to be commercially sensitive.
- 4.28 We will decide on a case-by-case basis what information, if any, should be just provided to us. We must meet s 187(4), that requires us to ensure that when we publish summary and analysis of disclosed information, we must ensure that satisfactory provision exists to protect the confidentiality of any information that may reasonably be regarded as confidential or commercially sensitive.

Timing of disclosures and balance dates for disclosed information

- 4.29 Unlike for PQ regulation, there is no fixed time period during which an ID determination applies. Disclosures are generally required based on:
- 4.29.1 fixed dates and intervals, eg, annually or every six months.
 - 4.29.2 certain events, such as material changes in prices or price structures.
- 4.30 We are also considering whether all regulated providers should be required to disclose information at the same time, or whether different disclosure dates for different providers, or different disclosures are appropriate.
- 4.31 In general, we intend to determine fixed dates for disclosures, (eg, disclosures are required annually by a certain date each year) on a common time frame for each regulated provider. Predictable timing will assist regulated providers with planning the work needed to meet regulatory obligations and interested persons with planning and undertaking their performance assessments.
- 4.32 A key timing decision is for the balance dates for disclosed information. In the fibre IMs Further Consultation paper we decided to not specify a regulatory balance date for “disclosure year” in the IMs, and instead deferred a decision on the meaning of disclosure year (in the context of the ID IMs) to the ID determination.

¹³⁴ Telecommunications Act 2001, s 187(1)(a).

- 4.33 In submissions on our draft decisions, Enable and Ultrafast, and Northpower disagreed with our decision to impose a single 31 December balance date for all regulated providers. Their submissions contained details about the difficulties they would face in complying with this obligation and the costs involved.¹³⁵
- 4.34 In general, we prefer balance dates that are aligned for all regulated providers within an ID regulation regime. Aligned balance dates, play a role in ensuring that information is “readily available” for interested persons. If balance dates are not aligned interested persons, if they wish to make comparisons across regulated providers, have to take additional steps to undertake comparisons. Aligned balance dates reduce transaction costs for interested persons’ performance assessments and reduces the risk of errors.
- 4.35 As part of developing ID requirements we will explore the cost effectiveness of requiring a common balance date of 30 June. We will explore further:
- 4.35.1 which areas of information are impacted by balance dates (eg, just quantitative financial information, or also other information);
 - 4.35.2 nature (eg, one-off set-up vs ongoing costs, type of disclosure area) and quantum of effort and cost associated with common balance dates; and
 - 4.35.3 expected benefits of common balance dates.

Transitional requirements

- 4.36 The ID requirements under Part 6 will only be determined by 1 January 2022. We will consider whether transitional requirements are needed for the first disclosure year.¹³⁶
- 4.37 Practical considerations will include the time required to collect any information required by our ID determination that is not currently held by a regulated provider. For example, some business information may not be readily available. We may need to allow for time so that regulated providers can develop and implement systems and processes needed to comply with ID requirements.

¹³⁵ Enable Networks Limited and Ultrafast Fibre Limited “Submission on NZCC Fibre regulation input methodologies regulatory processes and rules” (27 May 2020), pp 2-3; and Northpower Fibre Limited and Northpower LFC2 Limited “Submission on Draft – regulatory processes and rules Fibre Input Methodologies Determination 2020 and Fibre input methodologies: Draft decision – reasons paper (regulatory processes and rules)” (28 May 2020). pp 2-3.

¹³⁶ For example, under clause 2.2.2(1)(a)-(b) of the further consultation IMs, both the ID and PQ RABs are formed at implementation date and then roll-forward for future disclosure years depending on whichever date is determined as the “disclosure year”. Commerce Commission, “[Further consultation – initial value of financial loss asset] Fibre Input Methodologies Determination 2020” (13 August 2020).

Aggregated and subgroup information

4.38 In general, we expect to set ID requirements at an aggregate level, ie relating to all regulated FFLAS provided by each regulated provider. However, for certain information, subgroups of information may be required to assist interested persons in assessing whether the Part 6 purpose is being met. Examples of this are:

4.38.1 pricing disclosures, that are likely to require granular information at a product or end-user group level; or

4.38.2 quality information, that may be disaggregated by product type, layer, or geography.¹³⁷

Performance key questions

4.39 To assess whether the Part 6 purpose is being met, interested persons need to be able to answer several key questions on different aspects of supplier performance. These questions relate to historical, current and future performance. The table below sets out these questions and the elements of the Part 6 purpose that each question addresses.

¹³⁷ For example, the Quality IM (clause 2.5.3(1)) states that an ID determination may include requirements to disclose information on quality performance measures and statistics that are by:

(a) regulated providers;

(b) geography;

(c) fibre network architecture;

(d) regulated ID FFLAS, such as layer 1 and layer 2; and

(e) classes of end-users, such as rural, urban, business or residential.

Table 4.1 Key performance questions to assess whether the Part 6 purpose is being met

Key performance question	Relevance to the Part 6 purpose
1. Are regulated providers operating and investing in their assets efficiently?	162(a) and (b)
2. Are regulated providers innovating where appropriate?	162(a)
3. Are regulated providers providing FFLAS of a quality that reflects end-user demands?	162(b)
4. Do the prices set by regulated providers promote efficient outcomes?	162 (a) and (b)
5. Are regulated providers sharing the benefits of efficiency gains in the supply of FFLAS with end-users, including through lower prices?	162(c)
6. Are regulated providers earning an appropriate economic return over time?	162(d)
7. Are the outcomes of workable competition being promoted in telecommunications markets for the long-term benefit of end-users of telecommunications services?	166(2)(b)

4.40 The questions in Table 4.1 address the key areas of performance highlighted by the Part 6 purpose in s 162 and the matters to be considered by us (and the Minister) in 166(2)(b).¹³⁸ The answers to these questions will assist interested persons to assess whether the Part 6 purpose is being met —as required by s 186 of the Act.

4.41 In developing our ID requirements, we identify sub-questions interested persons must address in order to answer each of the questions identified in Table 4.1.¹³⁹

ID requirement areas

4.42 In Chapter 3, at paragraph 3.44 we set out some of the information that an ID determination may specify. The figure provides an initial view of areas that may be covered in our ID determination, incorporating areas set out in (s188(2)).

¹³⁸ Minister means the "Minister for Broadcasting, Communications and Digital Media".

¹³⁹ We note that this approach is illustrated for electricity distributors and gas pipeline businesses in: [Commerce Commission "Information Disclosure for Electricity Distribution Businesses and Gas Pipeline Businesses: Final Reasons Paper" \(1 October 2012\)](#), paragraphs 2.34 to 2.46.

Table 4.2 Initial view of areas for ID requirements

Financial information	Asset management and network characteristics	Pricing, contracts, and stakeholders	Quality
Historical financial information	Network assets and their characteristics	Prices	Quality performance measures and statistics (historical)
Projected financial information	Asset management strategies and plans	Terms and conditions related to prices	Planned quality and service levels
Regulatory asset base and asset values	Planned investment	Pricing methodologies	
Financial performance measures (eg, profitability)	Demand and capacity (historical and forecast)	Contracts	
Cost allocation		Related party transactions	
Consolidated information that includes information about unregulated services		Stakeholder engagement	

Information that may inform ID requirements

4.43 In the tables below we set out existing disclosures that may inform the development of ID requirements. As discussed above, in developing the ID requirements we can draw on existing information. You may find the content in these tables useful for providing your views on the scope of ID requirements, for example when assessing how complete or relevant this information would be incorporated into Part 6 ID requirements.

Table 4.3 Financial information

Type of information	Existing disclosures/initial view
Historical financial information	LFC broadband disclosures, schedules 1,2, 3, 3a ¹⁴⁰ Electricity distributor disclosures, schedule 6a, 6b, 7 ¹⁴¹
Projected financial information	Electricity distributor disclosures, schedule 11a and 11b ¹⁴²
Regulatory asset base and asset values	Electricity distributor disclosures, schedule 4 ¹⁴³
Financial performance measures (eg, profitability)	Electricity distributor disclosures, schedule 2 and 3 ¹⁴⁴
Cost allocation	Information on opex and asset value allocation outcomes and assumptions; Electricity distributor disclosures, schedule 5d, 5e, 5f, 5g ¹⁴⁵
Consolidated information that includes information about unregulated services	Financial statements in annual reports

Table 4.4 Asset management and network characteristics

Type of information	Existing disclosures/initial view
Network assets and their characteristics	Information could be broken down by network length based on its role in the network (leads, cabinet distribution etc) and the access type (eg, aerial, internal or underground). LFC disclosures, schedule 4. ¹⁴⁶
Asset management strategies and plans	We may adopt aspects of Chorus Integrated Fibre Plan requirements specified in the capex IM. ¹⁴⁷
Planned investment	We may adopt aspects of Chorus Integrated Fibre Plan requirements (investment plan) specified in the capex IM. ¹⁴⁸
Demand and capacity (historical and forecast)	We may adopt aspects of the Chorus Integrated Fibre Plan requirements (demand report) specified in the capex IM. LFC disclosures, schedule 8. ¹⁴⁹

¹⁴⁰ [Commerce Commission Chorus Information Disclosure Determination 2018 \[2018\] NZCC 9 \(29 June 2018\)](#), Schedules 1-3a; [Commerce Commission LFC Information Disclosure Determination 2018 \[2018\] NZCC 10 \(29 June 2018\)](#), Schedules 1-3a.

¹⁴¹ [Commerce Commission Electricity distribution information disclosure determination 2012 \[2012\] NZCC 22 \(consolidated 3 April 2018\)](#), Schedules 6a-7.

¹⁴² Ibid, Schedules 11a and 11b.

¹⁴³ Ibid, Schedule 4.

¹⁴⁴ Ibid, Schedules 2 and 3.

¹⁴⁵ Ibid, Schedules 5d-5g.

¹⁴⁶ [Commerce Commission Chorus Information Disclosure Determination 2018 \[2018\] NZCC 9 \(29 June 2018\)](#), Schedule 4; [Commerce Commission LFC Information Disclosure Determination 2018 \[2018\] NZCC 10 \(29 June 2018\)](#), Schedule 4.

¹⁴⁷ [Commerce Commission "\[Further consultation – initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), Clause 3.7.7

Table 4.5 Pricing, contracts and stakeholders

Type of information	Existing disclosures/initial view on requirement
Prices	Information on prices for different groupings (eg products), relative prices and changes in prices over time. LFC disclosures, schedule 6. ¹⁵⁰
Terms and conditions related to prices	Standard and non-standard pricing terms for regulated services, including discounts and other incentives.
Pricing methodologies	We have not determined pricing input methodologies for Chorus' first regulatory period. ¹⁵¹ We will consider what information would be valuable to collect as part of information disclosure regulation, including to inform future work on pricing methodologies and prices under information disclosure. Electricity distributor disclosures. ¹⁵²
Contracts	The UFB contracts require regulated providers to make available wholesale service agreements containing approved price and non-price terms for the supply of fibre services to access seekers. ¹⁵³
Related party transactions	LFCs disclosures schedule 9. ¹⁵⁴ ID requirements applicable for electricity distribution businesses and gas pipeline businesses under Part 4 of the Commerce Act 1986. ¹⁵⁵
Information on engagement with stakeholders	A summary of key areas that are being shaped by engagement with key stakeholders.

¹⁴⁸ [Commerce Commission "\[Further consultation – initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\), Clause 3.7.7](#)

¹⁴⁹ [Commerce Commission *Chorus Information Disclosure Determination 2018* \[2018\] NZCC 9 \(29 June 2018\), Schedule 8; Commerce Commission *LFC Information Disclosure Determination 2018* \[2018\] NZCC 10 \(29 June 2018\), Schedule 8.](#)

¹⁵⁰ [Commerce Commission *Chorus Information Disclosure Determination 2018* \[2018\] NZCC 9 \(29 June 2018\), Schedule 6; Commerce Commission *LFC Information Disclosure Determination 2018* \[2018\] NZCC 10 \(29 June 2018\), Schedule 6.](#)

¹⁵¹ Commerce Commission, *Fibre input methodologies: Draft decision – reasons paper (regulatory processes and rules)* (2 April 2020), para 132 to 134
https://comcom.govt.nz/_data/assets/pdf_file/0028/213949/Draft-Fibre-input-methodologies-Regulatory-processes-and-rules-draft-decision-Reasons-paper-2-April-2020.PDF

¹⁵² [Commerce Commission *Electricity distribution information disclosure determination 2012* \[2012\] NZCC 22 \(consolidated 3 April 2018\), clauses 2.41-2.45](#)

¹⁵³ See for example: [Chorus "Chorus UFB Service Agreement \(Reference Offer\)" available at https://company.chorus.co.nz/node/523 \(accessed 14 September 2020\).](#)

¹⁵⁴ [Commerce Commission *Chorus Information Disclosure Determination 2018* \[2018\] NZCC 9 \(29 June 2018\), Schedule 9; Commerce Commission *LFC Information Disclosure Determination 2018* \[2018\] NZCC 10 \(29 June 2018\), Schedule 9.](#)

¹⁵⁵ [Commerce Commission *Electricity Distribution Information Disclosure Amendments Determination 2017* \[2017\] NZCC 33 \(21 December 2017\).](#)

Table 4.6 Quality

Type of information	Existing disclosures/initial view on requirement
Quality performance measures and statistics (historical)	UFB contractual service level terms may inform the performance measures and statistics we want LFCs to provide historical information for. ¹⁵⁶ Refer also to Attachment B setting out potential measures for quality.
Planned quality and service levels	UFB contractual service levels may inform the performance measures and statistics we want LFCs to forecast. Refer also to Attachment B setting out potential measures for quality. We may also adopt aspects of the Chorus Integrated Fibre Plan requirements (quality report) specified in the capex IM. ¹⁵⁷

4.44 Below we provide additional information on key focus areas.

Quality

4.45 During the IM process one of the areas of particular interest for stakeholders was quality.¹⁵⁸ We consider quality to be a priority area for ID disclosures as quality is an area where stakeholders have indicated they are keen to get visibility of how the next level of detail may be determined. Reflecting this priority, we intend to hold a technical workshop on current fibre industry practices and potential performance measures and statistics to inform the development of disclosure requirements. We expect to discuss a range of matters, including:

- 4.45.1 the practicality and accuracy of generating quality performance measures and statistics using current reporting systems and processes.
- 4.45.2 the expected benefits and costs of enhancing reporting systems and processes to generate additional or more accurate quality performance measures and statistics than currently available.
- 4.45.3 leading indicators of potential changes in quality in addition to lagging indicators.

4.46 We intend to specify quality performance measures and statistics for the proposed mandatory dimensions of availability, performance, faults and customer service and may also specify quality performance measures and statistics for the proposed optional dimensions of ordering, provisioning and switching.

¹⁵⁶ See Attachment B of this paper, and for example: [Chorus "Chorus UFB Service Agreement \(Reference Offer\)" available at https://company.chorus.co.nz/node/523](https://company.chorus.co.nz/node/523) (accessed 14 September 2020).

¹⁵⁷ [Commerce Commission "\[Further consultation – initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), Clause 3.7.7

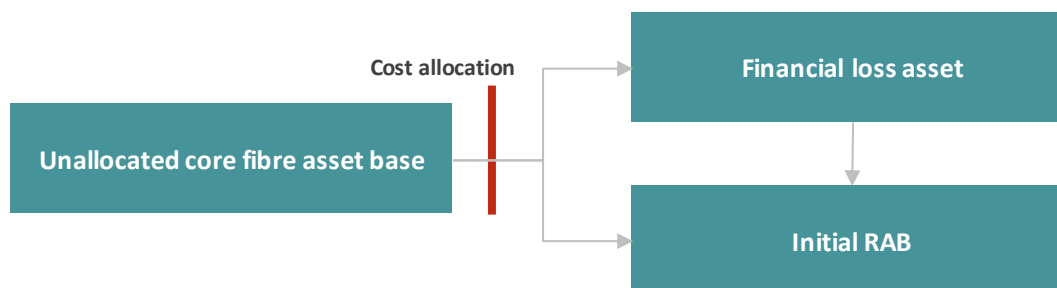
¹⁵⁸ 2degrees, Spark, Vocus and Vodafone "Submission on Fibre input methodologies – Draft decision" (30 January 2020).

- 4.47 Table B1 in Attachment B gives examples of the service levels taken from the UFB contracts we may consider as a starting point for developing ID quality performance measures and statistics.

Approach to initial RAB under ID regulation

- 4.48 The ID IMs specify the methodologies for determining both the initial ID RAB and the initial PQ RAB. In this section we focus on the initial ID RAB (ie, all fibre assets employed by a regulated provider in the provision of ID FFLAS).¹⁵⁹
- 4.49 The initial ID RAB performs the following role under ID regulation:
- 4.49.1 It acts as a key input for assessing a regulated provider's profitability (consistent with the outcome promoted under s 162(d));
 - 4.49.2 It is a key input for interested persons assessing whether regulated providers have incentives to innovate and to invest (consistent with the outcome promoted under s 162(a)).
- 4.50 The scope of the initial ID RAB at 1 January 2022 is determined by the scope of regulated FFLAS. Figure 4.3 below shows the main components and scope of the different components involved in creating the initial ID RAB.

Figure 4.3 Initial RAB components and scope



Note: The financial loss asset also incorporates other inputs.

¹⁵⁹ By adopting a flexible definition of regulated FFLAS, the IM also provides for the compilation of other classes of assets, such as an 'ID-only RAB' (ie, all fibre assets employed by a regulated provider in the provision of ID-only FFLAS, ie, FFLAS that is subject to only ID regulation).

- 4.51 The initial RAB includes two main components:
- 4.51.1 core fibre assets which means fibre assets that are employed by a regulated provider in the provision of ID FFLAS (whether the asset is also employed in the provision of other services) and includes some exclusions;¹⁶⁰ and
 - 4.51.2 the financial loss asset (the fibre asset each regulated provider is treated as owning under s 177(2)).
- 4.52 Many fibre assets are shared between the provision of regulated FFLAS and other services (eg, copper-based services). A key focus for establishing the initial RAB is the application of the cost allocation IM.
- 4.53 For Chorus, we also have to distinguish between the PQ RAB and the ID RAB. Our approach to determining the PQ RAB for Chorus is set out in Chapter 5.
- 4.54 We intend to start our process for determining the initial ID RAB in 2022.
- 4.54.1 The initial RAB under ID is determined based on actual values of fibre assets employed by a regulated provider in the provision of ID FFLAS as at 1 January 2022.
 - 4.54.2 Our approach at this time is that for Chorus the initial PQ RAB determined under ID regulation will create the value against which a wash-up is calculated, as discussed in Chapter 5 at paragraphs 5.91 and 5.126-5.128
 - 4.54.3 Our approach at this time in respect of the initial ID RAB for Chorus and the other LFCs is to start the process closer to the time at which actual values are available, which would in practice be in Q1/Q2 2022.

Timing

- 4.55 Below we outline key milestones for ID regulation milestones.

¹⁶⁰ Exclusions to the definition of core fibre assets are (a) the financial loss asset; (b) intangible assets, unless they are- (i) finance leases; or (ii) identifiable non-monetary assets whose costs do not include (wholly or partly) pass-through costs; and (c) works under construction.

Table 4.7 Indicative timing for the ID project

Date	Milestone	Description
9 Sep 2020	Approach paper	Sets out our proposed approach to ID and PQ regulation, and the process for delivering it (this paper).
Q1 2021	Quality of service workshop	Industry workshop on quality performance measures and statistics under ID and quality standards under PQ.
Q2 2021	ID draft decision	Draft decision on ID requirements for Chorus and other LFCs
Q4 2021	Technical consultation on ID requirements	Work to resolve technical issues
Q4 2021	ID final decision	Final decision on ID requirements for Chorus and other LFCs
1 January 2022	Implementation date	ID determination comes into effect
Q1/Q2 2022	Initial ID RAB info request	Information request for initial ID RAB
Q3/Q4 2022	Initial ID RAB final decision	
2023	First ID disclosures due	ID disclosure for disclosure year 2022 due

Chapter 5 Proposed approach to price-quality regulation

Purpose of this chapter

- 5.1 This chapter sets out our proposed approach to setting Chorus' allowable revenue, expenditure allowances, and quality standards for PQP1.
- 5.2 The approaches proposed here are set in accordance with the legal framework for PQ and is intended to give effect to the economic incentives set out in Chapter 3.

Structure of this chapter

- 5.3 This chapter starts with a high-level introduction to PQ regulation based on the provisions of Part 6, the relevant requirements in the IMs, and on our prior experience regulating services under Part 4 of the Commerce Act 1986.
- 5.4 It then addresses the major components of the revenue path:
 - 5.4.1 the *ex ante* revenue cap and the *ex post* wash-up mechanism;
 - 5.4.2 establishing Chorus' initial PQ RAB, including the value of the financial loss asset; and
 - 5.4.3 assessing Chorus' expenditure proposal.
- 5.5 Finally, it discusses our approach to setting quality standards, and our approach to assessing compliance with the revenue path and quality standards.

Proposed overall approach the PQ path

- 5.6 This section explains at a high-level how we propose to set Chorus' PQ path for the first regulatory period, and covers:
 - 5.6.1 a brief summary of our approach to "building-blocks" modelling (BBM) of allowable revenues;
 - 5.6.2 the application of the IMs to the PQ path;
 - 5.6.3 the role of Chorus' expenditure proposals; and
 - 5.6.4 the transitional nature of PQP1.

How we propose to determine allowable revenue

- 5.7 For PQP1, we will specify allowable revenue as a cap on the revenues Chorus can recover in respect of its PQ FFLAS.¹⁶¹ As discussed in more detail below, this revenue cap will also include a ‘wash-up’ mechanism for over- and under-recovery of revenue.
- 5.8 A revenue cap can be contrasted with a price cap. A price cap limits either the weighted-average price of the services (or a subset of the services) a regulated provider provides, the prices of individual products, or a combination of both. In practice, the key difference between a price and revenue cap is whether end-users or regulated providers bear demand risk.
- 5.9 In addition to the revenue cap that we will determine, a form of price cap may apply to certain services that Chorus must offer. These are the declared services that the Governor-General may, on the recommendation of the Minister, make regulations for under s227-229.

Composition of the revenue cap

- 5.10 Under the proposed RPR IM, the revenue cap (defined as “allowable revenue”) is composed of three parts:¹⁶²
- 5.10.1 building blocks revenue;
 - 5.10.2 pass-through costs; and
 - 5.10.3 a wash-up draw-down amount.
- 5.11 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.
- 5.12 Similarly, the wash-up draw-down amount will not apply during PQP1, so this section does not deal in detail with how the draw-down of any wash-up balance will function. However, the features and scope of how the wash-up amount will accrue are discussed later in this chapter, in the section on the revenue path and wash-up mechanism.

¹⁶¹ As outlined in Chapter 3, the Act requires us to specify a revenue cap for the PQP1 period.

¹⁶² [Commerce Commission “\[Further consultation – initial value of financial loss asset\] Fibre Input Methodologies Determination 2020” \(13 August 2020\)](#), Clause 3.1.1-3.1.3.

The limit on revenue provides incentives to focus on controllable costs

- 5.13 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 a regulated provider to reduce costs.
- 5.14 There is a risk that providers may find these cost savings by reducing investment or maintenance. Quality standards can play an important role in reducing the risk of this occurring.
- 5.15 Our emerging view is that, at least for PQP1, both these constraints – the revenue cap and the quality standards – will for the most part apply at a network aggregate level. 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.¹⁶³

The allowable revenue setting process

- 5.16 Broadly speaking, to set allowable revenue, we need to do two things:
- 5.16.1 first, determine the total allowable revenue Chorus may earn in respect of the regulatory period; and
 - 5.16.2 determine how this revenue is spread over (and potentially beyond) the regulatory period.
- 5.17 For this first step, our preferred approach is to apply a building blocks model (BBM), where we set total revenue in line with forecasts of a providers' efficient costs.
- 5.18 The main alternative to a BBM approach is a 'roll-over' approach, where future revenues are based on current revenues, possibly adjusted for inflation and changes in demand. We do not consider this approach appropriate at this point, because;
- 5.18.1 it may not promote incentives to invest where current revenues are too low relative to efficient costs;
 - 5.18.2 it may not limit excess profitability, where current revenues are too high; and

¹⁶³ Contrast this with the approach to pricing and quality disclosures under ID. As discussed in Chapter 4 at paragraph 4.38, these are areas where we consider disaggregated information may be required.

5.18.3 where current revenue is too low or too high, it may lead to pricing distortions that negatively impact workable competition in telecommunications markets.

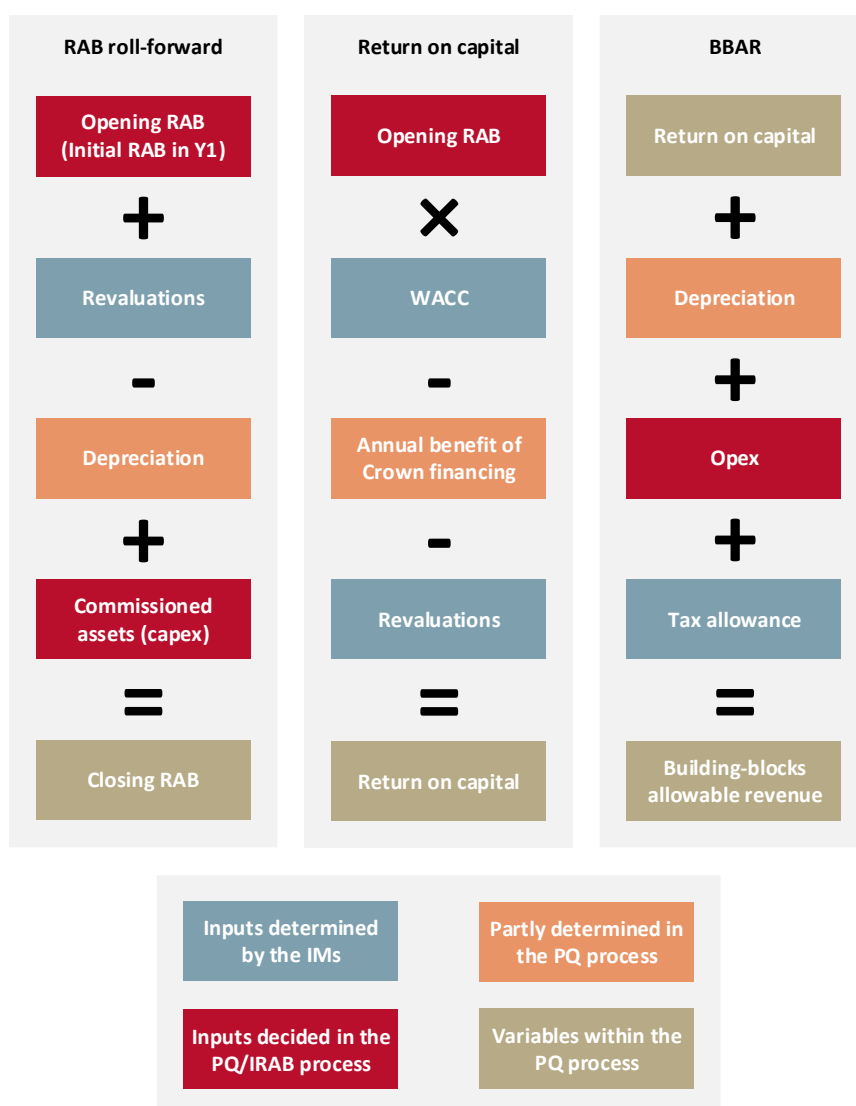
5.19 However, we are interested in your views on the viability and merits of a roll-over approach.

5.20 We discuss options for the second step, including the use of non-GAAP depreciation to smooth revenue over the long-term further below at paragraphs 5.66-5.70

BBM approach to allowable revenue

5.21 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, a financial model will be used to make these calculations.

Figure 5.1 Stylised key BBM equations



- 5.22 The building blocks shown in red will be a key focus of consultation within the PQ process. These are forecasts of capex and opex, and the value of the transitional PQ RAB (including the financial loss asset). Our approach to these key building blocks is discussed further below at 5.107 to 5.140 and 5.141 to 5.192 respectively.
- 5.23 Not all the building blocks within this model 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 the PQ project. For the building blocks shown in orange, under the current draft IMs, the Commission retains only limited discretion within the PQ process.

Role of the IMs in the PQ path

- 5.24 As discussed in Chapter 3, 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.
- 5.25 As noted in Chapter 1, this paper is based on the further consultation draft of the IMs. As such, the scope of what is determined or not determined by the IMs is subject to potential change.

Our approach where IMs apply

- 5.26 In instances where (based on the further consultation draft) there are relevant IMs, our task 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 and that are consistent with the purpose of the IMs.
- 5.27 Instances where IMs apply to the determination of PQ inputs are set out in Table 5.1 below.

Table 5.1 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 of the transitional initial PQ RAB and Chorus' expenditure proposals.
Asset valuation	The determination of the initial RAB (including the financial loss asset) and the forecast roll-forward of the PQ RAB through the period.
Cost of capital	The determination of inputs including the WACC and the annual benefit of Crown financing building block.
Capex	The preparation and evaluation of Chorus' capex proposal.
Tax	The calculation of the regulatory tax allowance building block.
Quality dimensions	The mandatory dimensions of quality that we must include in quality standards.
Regulatory rules and processes	The specification of the components of the revenue cap.

Our approach where there are no applicable IMs

- 5.28 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. Our decisions in these instances will be guided by the legal and economic framework set out in Chapter 3 and based on the evidence available to us.
- 5.29 Instances where relevant IMs would not apply (or apply only in limited ways) include:
- 5.29.1 determining how building blocks revenue is calculated, including any smoothing of revenue within and between regulatory periods;
 - 5.29.2 setting Chorus' opex allowance;
 - 5.29.3 the detailed specification of the revenue path and wash-up mechanism;
 - 5.29.4 setting quality standards within the mandatory dimensions required by the IMs, or choosing whether to set standards for the optional dimensions; or
 - 5.29.5 setting rules for how Chorus must demonstrate compliance with the PQ path.

The role of information requests and Chorus' expenditure proposals

Expenditure proposals

- 5.30 As discussed in more detail below in the section on expenditure, expenditure proposals by Chorus are a starting point for determining the PQ path. At a minimum Chorus must submit a base capex proposal and connection capex baseline proposal for the PQ period under the capex IM. Alongside this capex information, we also intend to collect information on opex.

Information requests

- 5.31 Outside this "propose/respond" approach for expenditure, we may also request information related to:
- 5.31.1 demand and pricing forecasts to inform our approach to the revenue cap and wash-up mechanism; and
 - 5.31.2 quality of service.
- 5.32 We also intend to collect information relevant to the establishment of Chorus' initial PQ RAB, including the financial loss asset. This information will be collected in a separate, subsequent request in early 2021.

Approach to PQ path modelling

- 5.33 Our proposed approach is that the financial and other models used to specify expenditure allowances, the initial 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 detail below in the sections on the initial PQ RAB and expenditure.
- 5.34 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.
- 5.35 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, and that our decision may depart materially 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 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.

Transitional nature of PQQ1

- 5.36 Finally, the fact that this is the first PQ path we are setting in the telecommunications sector has an influence on our approach to the PQ path.
- 5.37 In some cases, this will mean that we need to make decisions about matters that will have an on-going material impact on the revenues Chorus can recover and the quality they are expected to deliver. In these cases, we will take a more thorough and detailed approach to our decisions. The best example of this is the calculation of the initial PQ RAB (including the financial loss asset).
- 5.38 In other cases, there are possible features of a PQ path that we will not be able to implement for PQQ1, given the complexities involved and the uncertainties about the longer-term dynamics of the FFLAS market. Such features may be developed and added to the regime as it evolves, as has been the case with the development of PQ regulation under Part 4 of the Commerce Act 1986.

Revenue path and wash-up mechanism

- 5.39 This section explains our proposed high-level approach to the revenue path and the wash-up mechanism.

- 5.40 As discussed above, one of our core tasks when setting Chorus' PQ path is to set a limit on the amount of revenue Chorus can recover in respect of the regulatory period, and then in each year within the period. This limit, the revenue cap, is one of our strongest tools for delivering on the purpose of Part 6, and in particular incentives for Chorus to improve efficiency, consistent with s 162(a) and to limit excessive profits, consistent with s 162(d).
- 5.41 Additionally, in future regulatory periods, the Act requires us to provide for a wash-up mechanism that provides for the pay back or recovery of any over- or under-recovered revenues during the current regulatory period.¹⁶⁴
- 5.42 While the draw-down of this amount will likely not occur until at least PQP2, the way in which these over- or under-recoveries are specified and accrued must be specified for PQP1. This 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).

Considerations

- 5.43 This section sets out the statutory and other considerations that have informed our proposed approach, and that will guide future decisions we will make about the revenue cap and wash-up mechanisms.
- 5.44 In addition to the s 166(2) matters that we must consider when making any decisions under Part 6 of the Act, there are specific statutory considerations we must give weight to when specifying the smoothed revenue recovery profile for Chorus' maximum allowable revenue. These are:
- 5.44.1 the requirement for us to determine a revenue cap;¹⁶⁵
 - 5.44.2 minimising price shocks to end-users;¹⁶⁶ and
 - 5.44.3 minimising any undue financial hardship for regulated providers.¹⁶⁷
- 5.45 Finally, we must consider the complexity and workability of the revenue path compliance requirements.

¹⁶⁴ Telecommunications Act 2001, s 196.

¹⁶⁵ Telecommunications Act 2001, s 195.

¹⁶⁶ Telecommunications Act 2001, s 197.

¹⁶⁷ Telecommunications Act 2001, s 197.

Requirement for the Commission to determine a revenue cap

- 5.46 For PQP1 and PQP2, the Commission must determine a revenue cap for Chorus and not a price-cap.¹⁶⁸ While the two forms of control are distinct, the lines between the two ‘forms of control’ are not absolute. In determining our approach to the revenue cap, we must consider whether particular measures would cause the form of control to take on price cap-like characteristics, contrary to s 195.
- 5.47 Key distinguishing characteristics of a revenue cap we are concerned with are:
- 5.47.1 the extent to which demand risk (in present value terms) is borne by end-users rather than Chorus; and
 - 5.47.2 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

- 5.48 When calculating maximum revenues, the Act requires us to consider whether our revenue cap creates price shocks for end-users. 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.
- 5.49 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.
- 5.50 In our view, for PQP1, the main group of end-users we are concerned with may face allowable revenue-driven price shocks are those not receiving a declared service such as an anchor service or DFAS.
- 5.51 A significant proportion of Chorus’ revenue will be determined by the level of uptake of anchor products (between 40-60%, based on current Chorus forecasts and our assumption about the definition of the anchor product).¹⁶⁹ These end-users, along with access-seekers receiving DFAS, will be insulated from price-shocks by any maximum price terms of the regulations specifying anchor services and DFAS.

¹⁶⁸ Telecommunications Act 2001, s 195.

¹⁶⁹ For the purposes of this paper, we have assumed that the current 100/20 product will form the basis of the anchor service, and that the current anchor price will continue to apply (adjusted for inflation). However, responsibility for making regulations declaring a FLASS to be an anchor service for PQP1 rests with the Governor-General on the recommendation of the Minister.

- 5.52 To comply with the revenue cap while recovering its full allowable revenue, Chorus can only control 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).
- 5.53 Demand for these other products is also forecast to increase, but may not increase fast enough to absorb the unsmoothed revenue increase without also causing a price increase.
- 5.54 We see the rate of increase in revenue derived from non-anchor service end-users as our primary constraint 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

- 5.55 The Act also requires us to consider undue financial hardship for regulated providers.
- 5.56 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.
- 5.57 At this point, we are not able to take a view on whether the revenue path we propose would give rise to financial hardship. However, consistent with our approach when regulating allowable revenue under Part 4 of the Commerce Act, 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

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

Timing of forecasts for assessing compliance

- 5.59 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 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.
- 5.60 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.
- 5.61 We have identified two options for the timing of forecasts Chorus must use in this compliance process:
- 5.61.1 demand forecasts made at the start of the regulatory period (either Chorus' own forecasts or forecasts specified by us); or
 - 5.61.2 demand forecasts made prior to each pricing year (or other relevant pricing period).
- 5.62 Using a forecast made at the start of the PQ period for the whole PQ period limits price volatility for end-users, as demand forecasts will be aligned with allowable revenues. Conversely, this may result in the accrual of a significant wash-up balance (either positive or negative) where actual demand differs substantially from forecasts. We apply this approach as part of Transpower's revenue path under Part 4 of the Commerce Act.
- 5.63 The opposite holds true for an annual forecast of demand as the basis of pricing: there is greater potential for price volatility, but as the most up-to-date forecasts can be used, the potential for a significant wash-up balance is reduced. This is the approach we apply to electricity distribution businesses and First Gas' gas transmission business under Part 4 of the Commerce Act.
- 5.64 The same considerations apply to the use of whole-of-period forecasts for the value of pass-through costs and for the rate of inflation used.
- 5.65 We are interested in your views on these approaches, and the relative priority of short-term price volatility risk and the risk of a significant wash-up balance over the longer term.

Means of achieving revenue smoothing

- 5.66 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 is necessary to manage the risk of price shocks or financial hardship). Options for achieving smoothing include:
- 5.66.1 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;
 - 5.66.2 smoothing building blocks revenue (net of pass through costs) so it increases at a uniform rate; or
 - 5.66.3 smoothing forecast allowable revenue (gross of pass-through costs) so it increases at a uniform rate.
- 5.67 While the Act provides for depreciation as an example for achieving smoothing, at this point we do not prefer this approach. Creating a rate of depreciation for modelling purposes that significantly departs from the GAAP depreciation of the underlying assets may lead to distortions in future, and may be complicated to implement.
- 5.68 An alternative within this approach would be to vary the depreciation of the financial loss asset specifically, increasing or decreasing the period over which it is recovered. Such an approach may achieve sufficient revenue smoothing, while not affecting the depreciation of Chorus' core fibre assets.
- 5.69 Beyond this, we consider that smoothing via allowable revenue, with the wash-up balance used to track over- or under-recovery is a satisfactory means for bringing forward or deferring cost recovery.
- 5.70 The advantage of smoothing allowable revenue at the gross level, rather than building blocks revenue at the net level is that it enables us (on a forecast basis) to limit volatility caused by changes in pass-through costs. This approach would require us to take a forecast approach to pass-through costs at the start of the regulatory period.

Additional controls on Chorus' revenue

- 5.71 Beyond the core revenue cap, when setting revenue paths in the Part 4 context, we have also imposed additional controls on providers' revenues to manage specific risks.

- 5.72 In general, our preference is to avoid the imposition of additional revenue constraints. This is because the added complexity they create can lead to unintended outcomes. However, in some cases they may be justified to prevent harm to end-users.
- 5.73 Two examples of this we may apply to Chorus' revenue path are:
- 5.73.1 a limit on the amount of wash-up balance Chorus can accrue due to setting prices that lead to revenue recovery below its revenue cap on a forecast basis (an undercharging limit); and
 - 5.73.2 a limit on the rate of increase in forecast revenue recovery from one year to the next.

Undercharging limit

- 5.74 Our initial view is that an undercharging limit is not necessary for Chorus' revenue path, because the risk of price volatility it seeks to mitigate is lower in the FFLAS context.
- 5.75 This kind of limit is applied to electricity distributors as part of the 2020-2025 default price-quality path. If implemented in a manner similar to the approach used for electricity distributors, it would not prevent a provider from charging below its revenue cap; it would only prevent some or all of that under-recovered amount from being recovered in future years (accrued to the wash-up balance).
- 5.76 We considered this mechanism necessary as several electricity distributors are consumer-owned, and choose to under-charge to benefit their consumer-owners. The risk is that where a significant balance is accrued due to undercharging, it may then be drawn down at some point in the future, creating a price shock.
- 5.77 We do not consider such a measure necessary for Chorus, both because it is not consumer owned, and because there may reasons for Chorus to undercharge its revenue cap that benefit end-users (such as to manage lower than forecast demand).

Limit on the increase in total FFLAS revenue recovered

- 5.78 A limit on the rate of increase in forecast revenue recovery from one year to the next differs from the revenue cap in that it focuses on the amount of revenue a regulated provider intends to recover, rather than on the amount they are allowed to recover.

- 5.79 This mechanism applies where a regulated provider sets prices in a way that is compliant with the revenue cap, but nonetheless the revenue forecast to be recovered significantly exceeds revenue recovered in the prior year. Such volatility could be caused by a large wash-up balance being drawn down, or a dramatic change in the value of pass-through costs. This mechanism works in a present-value neutral way, with any under-recovery accruing to the wash-up balance. It affects only the timing of revenue recovery, not whether revenue is recovered at all.
- 5.80 For PQ paths determined under Part 4 of the Commerce Act 1986, we applied this mechanism for electricity distributors, because there was a risk of multiple coinciding factors (incentive mechanisms, pass-through and recoverable costs, wash-up balances) combining to create revenue shocks, and therefore price shocks.
- 5.81 We do not see this as a risk for Chorus, as any revenue linked incentives we might impose are likely to be limited in scope, the wash-up balance will likely not be drawn down until PQP2, and the relative size of pass-through costs is expected to be smaller.¹⁷⁰
- 5.82 However, we may want to apply a similar mechanism during PQP1 to help insulate non-anchor product end-users from price-shocks. As discussed above, if demand for anchor services is lower than forecast, this could result in an increasingly large portion of revenue being recovered from end-users receiving other services that are not subject to any form of price control. This risk could be mitigated by placing a limit on how fast total revenue derived from non-anchor products increases.
- 5.83 We are interested in your views about whether any control is needed and if so whether this is an appropriate way to manage price-shock risk during the period.

Wash-up mechanism

- 5.84 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 PQP1. As these over- or under-recoveries will occur in PQP1, we must specify at least some of the features of the wash-up mechanism as part of the PQP1 setting process.
- 5.85 First, this section deals with the structure of the wash-up and the general features that it will need to have under any approach. It then discusses the options we have for how to approach:
- 5.85.1 the scope of the wash-up mechanism;
 - 5.85.2 the level of disaggregation of the wash-up;

¹⁷⁰ For comparison, recoverable costs for electricity distributors typically make up 30% of allowable revenue.

5.85.3 any limits on how much can accrue to the wash-up account; and

5.85.4 the timing of the draw-down of any wash-up balance.

Structure of the wash-up

5.86 Any version of the wash-up mechanism we implement will have three broad components:

5.86.1 a “wash-up accrual amount” that combines under- or over-recoveries and other amounts that need to be accounted for;

5.86.2 a “wash-up balance” that tracks the accumulation of wash-up accrual amounts; and

5.86.3 a “wash-up draw-down” that allows for the accumulated wash-up balance to be added to allowable revenue in future.¹⁷¹

5.87 In addition to these features, the wash-up balance must be carried forward with WACC as the time-value of money. This approach is consistent with the ss 196 and 197 requirements that the wash-up and any revenue smoothing are present-value neutral, and with our 'expectation of a normal return' principle.

Scope of the wash-up

5.88 The wash-up must provide for any over-recovery or under-recovery of revenue by Chorus during PQP1, as required by s 196. At a minimum, this wash-up will encompass Chorus' recovering more or less than its maximum allowable revenue over the regulatory period because of differences in actual demand for its PQ FFLAS.

5.89 As discussed above, we are also considering using the wash-up balance as a means of giving effect to revenue smoothing under s 197 of the Act.

5.90 In addition to this, there are mechanisms proposed in the draft IMs that would be implemented via a wash-up:¹⁷²

5.90.1 individual capex project forecast allowances determined after a regulatory period commences; and

5.90.2 the volume component of the connection capex allowance (referred to in the IMs as a "connection capex variable adjustment").

¹⁷¹ This “wash-up amount” is specified as a component of allowable revenue in the RPR IM; [Commerce Commission \[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020 \(13 August 2020\)](#), Clause 3.1.1(2)(c).

¹⁷² Ibid, Clause 3.7.1(4)(b).

- 5.91 Finally, there are a number of risks and uncertainties that we may wish to use a wash-up mechanism to mitigate:
- 5.91.1 the difference between the transitional initial PQ RAB and the final initial PQ RAB;
 - 5.91.2 the difference between draft allowable revenue and the final allowable revenue where we allow Chorus to price using the draft decision for the first year of the PQP1 period;
 - 5.91.3 differences between forecast and actual CPI and input price inflation; and
 - 5.91.4 differences between forecast cost allocators and actual cost allocators used to allocate shared forecast opex and forecast capex.

Disaggregation of the wash-up

- 5.92 Given the different potential components of the wash-up, we need to consider at what level of aggregation the wash-up works. Put another way; should there be a single wash-up balance and draw-down for all types of accrual amounts, or should the balances be treated separately?
- 5.93 A single account tracking all aspects of the wash-up is the simplest to implement. Each item (such as the ones listed in paragraphs 5.88 to 5.91 above) would be a component of the accrual amount that is added to the wash-up each year or at the end of the PQ period.
- 5.94 Multiple wash-up accounts would be more complex to implement and administer, but may be warranted where different types of accruals are to be treated differently in future periods. An example of this would be differential treatment of the mandatory s 196 revenue over- or under-recovery amounts compared with optional risks we may include a wash-up for.

Limits on the wash-up balance

- 5.95 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.
- 5.96 Our view is that where the wash-up relates to the over- or under-recovery of allowable revenue during the PQP1 period, s 196 requires wash-up accrual to be:
- 5.96.1 unlimited (both in terms of accrual and total balance); and
 - 5.96.2 symmetric between over- and under-recoveries.

- 5.97 This view is based on s 196 requiring:
- 5.97.1 *any* over- or under-recovery to be provided for; and
 - 5.97.2 the wash-up to be applied in a way that is equivalent in present value terms.
- 5.98 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.
- 5.99 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, are able to do so.

Timing of the draw-down of the wash-up

- 5.100 While we do not need to apply the draw-down of the wash-up during PQP1, we need to consider how we will achieve this in future periods, as it may inform design choices in the PQP1 period.
- 5.101 There are two broad ways the wash-up draw-down could work:
- 5.101.1 on a rolling-basis, with the balance drawn-down in whole or in part on a two-year lag from when it is accrued (this is the approach taken to the revenue cap wash-up for electricity distributors and First Gas' gas transmission business);
 - 5.101.2 on an end-of-period basis, with the drawn-down spread over the next PQ period (this is the approach taken to the revenue cap applied to Transpower).
- 5.102 A rolling wash-up necessarily works on at least a two-year lag. This is because the necessary accrual information for the preceding year will not be available for the forthcoming year in time to set prices.
- 5.103 For similar data availability reasons, where the draw-down is done on an end-of-period basis, the value of the accrual amount for the final year of the period must be either:
- 5.103.1 washed-up on a forecast basis (with a subsequent additional wash-up at a later point); or
 - 5.103.2 excluded from the draw-down over the next PQ period (eg, PQP2), and instead included in the wash-up for the period after that (eg, PQP3).

- 5.104 Our initial view is that, because PQP1 is only three years long, there is limited benefit to specifying the wash-up on a rolling basis, and that an end-of-period approach is preferable.

Establishing Chorus' initial PQ RAB

- 5.105 In this section we outline our proposed approach to establishing the initial PQ RAB for Chorus.
- 5.106 We have briefly set out our approach in Chapter 4 for determining the initial ID RAB under information disclosure regulation for Chorus and other LFCs.

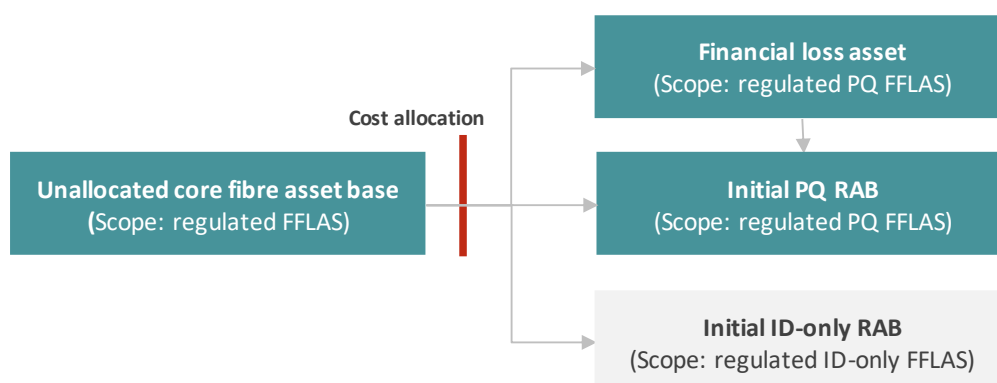
Role of Chorus' initial PQ RAB

- 5.107 The initial PQ RAB is a key input for determining the return on and of capital to be included in allowable revenue from 1 January 2022.
- 5.108 The initial PQ RAB will reflect the historical costs of investments incurred in providing FFLAS, as well as a financial loss asset reflecting the value of 'accumulated unrecovered returns' in providing UFB FFLAS for the period starting on 1 December 2011 and ending on the close of the day immediately before the implementation date (the pre-implementation period). The value of the initial PQ RAB for Chorus is expected to be substantial (several billions of dollars).
- 5.109 In general, under building blocks regulation after the initial PQ RAB is determined, the value of the initial PQ RAB is 'locked-in'.¹⁷³ The approach we have in this section:
- 5.109.1 reflects that the initial PQ RAB determination has material and lasting implications for Chorus' allowable revenue (and other LFCs' allowable revenue, if they become subject to PQ regulation in the future), and end-user prices; and
- 5.109.2 sets out how we intend to deal with the practical issue of needing an initial RAB before actual information for some years is available.

Scope of the initial PQ RAB

- 5.110 The scope of the initial PQ RAB at 1 January 2022 is determined by the scope of regulated FFLAS. Figure 5.2 below shows the main components and scope of the different components involved in creating the initial PQ RAB.

¹⁷³ After the initial RAB is determined, the 'RAB roll-forward' rules in the IM apply.

Figure 5.2 Initial RAB components and scope

Note: The financial loss asset also incorporates other inputs.

5.111 The initial PQ RAB includes two main components:

5.111.1 core fibre assets which means fibre assets that are employed by a regulated provider in the provision of PQ FFLAS (whether the asset is also employed in the provision of other services) and includes some exclusions;¹⁷⁴ and

5.111.2 the financial loss asset (the fibre asset each regulated provider is treated as owning under s 177(2)).

5.112 Many fibre assets are shared between the provision of regulated FFLAS and other services (eg, copper-based services). A key focus for establishing the initial RAB is the application of the cost allocation IM.

5.113 We need to establish the unallocated initial PQ RAB, before determining the RAB in respect of fibre assets employed in providing FFLAS subject to PQ regulation ('initial PQ RAB'). Cost allocation plays a key role in determining the initial PQ RAB.

5.113.1 The unallocated initial PQ RAB includes asset values that are directly and not directly attributable to regulated FFLAS (ie, it includes the full value of shared assets).

5.113.2 The initial PQ RAB includes asset values that are directly attributable and a portion of asset values not directly attributable to PQ FFLAS. By applying the cost allocation IM, it excludes:

5.113.2.1 asset values relating to FFLAS subject only to ID regulation; and

¹⁷⁴ Exclusions to the definition of core fibre assets are: (a) the financial loss asset, (b) intangible assets, (unless they are: (i) finance leases; or (ii) identifiable non-monetary assets whose costs do not include (wholly or partly) pass-through costs); and (c) works under construction.

5.113.2.2 the value of shared assets that are not attributable to PQ FFLAS.¹⁷⁵

5.114 Based on our further consultation draft decision, the PQ RAB for RP1 will be a transitional RAB forecast on the basis of historic values for the year-ending 31 December 2019.¹⁷⁶ The final value of the initial PQ RAB will need to be determined once actual data for core fibre assets in the initial PQ RAB is available after 1 January 2022 and after the initial value of the financial loss asset is determined under s 177(2) and in accordance with the applicable IMs.

Input methodologies relevant to determining the initial PQ RAB

5.115 The regulatory rules and requirements in relation to the development of the initial PQ RAB 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

Key focus for PQ regulation

- Ensure the asset valuation IM for valuation of financial loss asset is appropriately applied.
- Ensure asset valuation IM for valuation of core fibre assets is appropriately applied.
- Ensure areas of judgement are appropriately justified and best give, or are likely to best give, effect to the purpose in s 162.

5.116 The asset valuation IM specifies the rules for valuing assets to be included in the initial PQ RAB.¹⁷⁷ In summary, the initial PQ RAB:

5.116.1 reflects the depreciated historical cost of 'core fibre assets', net of specified capital contributions; and

5.116.2 reflects the financial loss asset determined by us, i.e. the financial losses Chorus incurred in providing FFLAS under the UFB initiative during the pre-implementation period.

¹⁷⁵ Shared assets that are attributable to ID-only FFLAS are included in the ID-only initial RAB. The 'initial ID RAB' comprises all fibre assets employed in providing ID FFLAS, ie, both the 'initial PQ RAB' and the 'initial ID-only RAB'.

¹⁷⁶ [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), clause 3.3.1(6).

¹⁷⁷ The PQ IMs specify 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). For the purposes of this paper we refer to the sum of the forecast asset values used to determine maximum revenues for PQP1 as the 'provisional initial PQ RAB'.

*Cost allocation IM***Key focus for PQ regulation**

- determination of the financial loss asset
- all core fibre assets in the initial PQ RAB
- the application of “the Regulations”
- Ensure areas of judgement are appropriately justified and best give, or are likely to best give, effect to the purpose in s 162.

5.117 Many fibre assets are shared between the provision of regulated FFLAS and other services (eg, copper-based services). The allocation of these assets will require cost allocation to identify the value attributable to regulated FFLAS.

5.118 The cost allocation IM specifies the rules for attributing asset values directly attributable and those that are not directly attributable (or shared) to regulated FFLAS and hence the ‘allocated initial RAB’. After allocating costs directly attributable to regulated FFLAS (and the initial RAB), the IM specifies the rules for allocating values to shared assets employed in the provision of:

5.118.1 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

5.118.2 regulated FFLAS and services that are not regulated FFLAS.

5.119 As explained in the 23 July further consultation paper, the IMs provide flexibility to allow for the allocation of asset values between PQ FFLAS and ID-only FFLAS. In addition, the 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.¹⁷⁸ However, it does not specify the approach to implementing reg 6 of the Regulations.

5.120 Our emerging views on implementing the Regulations under PQ regulation is set out in Chapter 6.

¹⁷⁸ [Commerce Commission “\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020” \(13 August 2020\)](#), clause 3.2.1(11).

Approach to setting the initial PQ RAB

Our aims for setting the initial PQ RAB

5.121 Our approach aims to:

- 5.121.1 ensure stakeholders have confidence that an appropriate level of scrutiny is applied and assurance processes are in place before we determined the value of the RAB that best promotes s 162 and 166(2)(b) of the Act;
- 5.121.2 provide certainty to Chorus and other stakeholders on the initial PQ RAB value as soon as practical; and
- 5.121.3 ensure the necessary work to establish the initial RAB is deliverable by Chorus and us in a timeframe required to set the allowable revenue for the first regulatory period, and allowing for a wash-up later once the initial RAB is finally determined.¹⁷⁹

Areas of potential trade-offs

5.122 We may need to apply trade-offs when considering the level of assurance and scrutiny we apply and the timeframes available to us. These trade-offs are explained in more detail below.

5.123 Additional scrutiny and other assurance activities take time and may mean key milestones or deliverables targeted by the overall PQ programme may need to be adjusted. For example, if a robust estimate of the initial PQ RAB is not available in time for the draft determination, we may need to consider:

- 5.123.1 using a high-level estimate for calculating an illustrative allowable revenue published alongside the draft determination (which could focus on expenditure and quality related aspects of the proposal); or
- 5.123.2 separating the timeline for the draft determination for determining the expenditure allowance (ie, capex and opex), and defer the draft determination for allowable revenues (which incorporates the initial PQ RAB).

5.124 The need for an accelerated time frame, may reduce the time available to apply appropriate scrutiny and provide assurance to the initial PQ RAB. For example, insufficient time to scrutinise and assure the initial PQ RAB before the final determination could be addressed by using an 'initial PQ RAB estimate':

- 5.124.1 that is scrutinised and assured after the final determination; and

¹⁷⁹ Subject to any required wash-ups once the final value of the initial PQ RAB is determined.

5.124.2 where any differences between revenue consistent with the 'initial PQ RAB estimate' and revenue consistent with the 'initial PQ RAB' are washed up.

5.125 The purpose of highlighting these trade-offs is to signal that we are planning for situations requiring trade-offs, not that we expect that these trade-offs will need to be made.

Role of a 'transitional initial PQ RAB'

5.126 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.

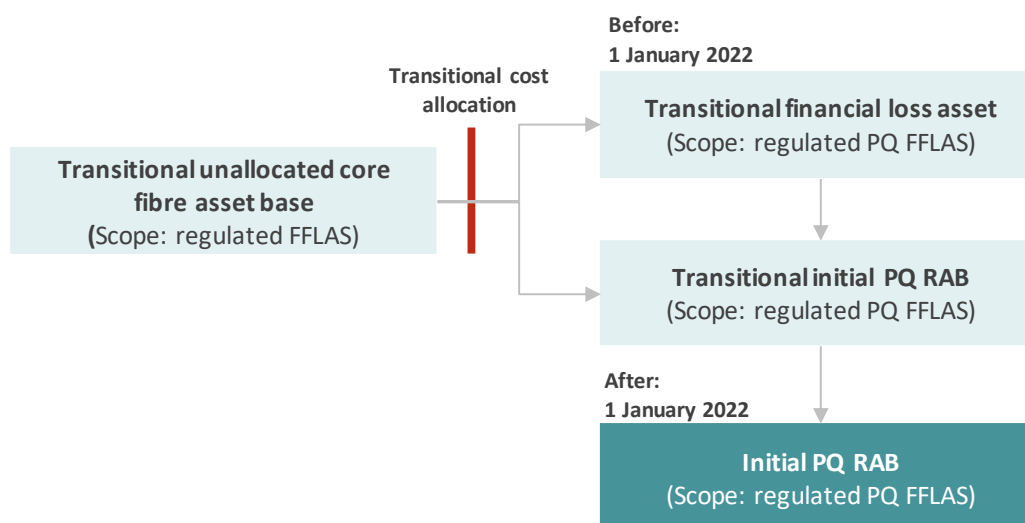
5.127 The asset valuation IMs provide for this situation. The initial PQ RAB (including the financial loss asset) allows for the determination of a 'transitional initial PQ RAB' to be used for determining the initial price-quality path on 1 January 2022, ie, before actual information for some of the years is available (information for the years-ending 31 December 2020 and 2021).

5.128 We intend to:

5.128.1 determine an 'initial PQ RAB' once actual information is available after 1 January 2022; and then

5.128.2 true-up for differences in revenue due to differences between the initial RAB and the provisional initial PQ RAB.

5.129 Figure 5.3 below shows the difference between the provisional RAB and the initial RAB.

Figure 5.3 From 'provisional initial RAB' to 'initial RAB'

5.130 The following section sets out key aspects of our approach and timing to setting the initial PQ RAB.

Form of scrutiny and assurance

5.131 An important aspect of our approach is determining what form and extent of scrutiny is appropriate for each component and stage of the PQ RAB valuation. This section identifies the key focus areas or risks that our scrutiny will target, and the 'tools' or approaches we will use to ensure that appropriate scrutiny has been applied.

5.132 The form and extent of scrutiny and assurance we propose reflects:

5.132.1 the nature of the tasks required to determine the initial PQ RAB (such as applying relevant accounting rules and/or applying judgement on areas of cost allocation);

5.132.2 the potential risk to end-users of incorrect valuations; and

5.132.3 the relevant roles and expertise available to conduct the valuation.

5.133 We consider that information asymmetry and potential lack of information on the approach presents risks to the PQ RAB valuation being in the long-term benefit of end-users. Chorus holds most if not all the information needed to create the initial PQ RAB. Chorus is also well placed to understand its business operations and how the applicable IMs must be applied. We propose to utilise this knowledge while ensuring that the information we receive from Chorus can be relied upon when making decisions on the value of the initial PQ RAB.

- 5.134 The application of the cost allocation IM is another area that requires judgement, where decisions on what costs are allocated and how those costs are allocated can have significant impacts on the initial PQ RAB valuation.
- 5.135 Our approach at this time on the form and extent of scrutiny and assurance is to:
- 5.135.1 Use Chorus modelling of the financial loss asset value, the initial unallocated PQ RAB, and the initial PQ RAB as a starting position.
 - 5.135.2 Specify audit and assurance requirements to ensure information provided to us applies the IMs appropriately and proper processes have been applied, including;
 - 5.135.2.1 director certification;
 - 5.135.2.2 independent audit opinions covering data inputs, modelling mechanics, and compliance with IMs; and
 - 5.135.2.3 evidence of internal governance processes and Chorus internal assurance activities.
 - 5.135.3 Use an independent expert to review aspects of the initial PQ RAB with the particular focus on the approach to cost allocation.
 - 5.135.4 Develop a suite of high-level models to undertake cross checks of Chorus modelling and scenario modelling.
 - 5.135.5 Determine the initial PQ RAB value (which might differ from Chorus calculated value).
- 5.136 Our approach relies on Chorus modelling that is complemented by a comprehensive package of assurance. This approach balances the considerations in paragraph 5.122 to 5.124. We also considered alternative approaches including
- 5.136.1 Relying on Chorus developing the initial PQ RAB with voluntary assurance and scrutiny (just on director certification and voluntary). However, at this time we do not consider this option would sufficiently mitigate risks to end-users
 - 5.136.2 Us undertaking all modelling. At this time, we do not consider this option to be workable under our current time frames, it would increase the cost of the exercise while potentially introducing risks of additional errors in the modelling exercise.

Scope of the 'initial PQ RAB' determination

5.137 When determining the value of the final initial PQ RAB, we need to decide on the scope of work required to update the final initial PQ RAB from the provisional initial PQ RAB. The two options we have considered are:

5.137.1 Update the component of the initial PQ RAB that is based on forecast values only. This would include applying scrutiny and assurance on these update years. This is our preferred approach to provide certainty to Chorus and other stakeholders.

5.137.2 In addition to para 5.137.1, also updates for actual values (including cost allocators), updates and or error corrections (eg, asset data errors) relating to other years, with scrutiny and assurance activities wider than just update years.

5.138 We are aiming for the 'update scope' which updates any forecasts for actual values (including cost allocators), scrutinises cost allocation and requires assurance. This option provides as much certainty as soon as possible to Chorus and other stakeholders.

5.139 The process for wash-ups in the revenue cap for differences between the initial PQ RAB and the provisional PQ initial RAB is discussed above in the revenue cap and wash-up section in this chapter.

Timing of our decisions on the provisional initial PQ RAB

5.140 Our aim is to determine the provisional initial PQ RAB in time for the draft determination Q1 2021. We intend to determine the 'initial PQ RAB' at the same time as when we determine the ID RAB in 2022.

Determining Chorus' expenditure allowances

5.141 This section covers our approach to determining Chorus' expenditure allowances for the first regulatory period.

The purpose of expenditure allowances in PQ regulation

5.142 We need to determine expenditure allowances to set allowable revenue for Chorus' PQP1. This determination will include both capex and opex allowances. We will determine the expenditure allowance before the start of the regulatory period.

- 5.143 As shown in Figure 5.1, capex and opex allowances are building blocks used to calculate allowable revenues. Commissioned asset values, which reflect capex allowances, are added to the opening value of the RAB which is then used as an input into the forecast MAR by calculating:
- 5.143.1 A forecast return on capital, which is the forecast return on Chorus' forecast PQ RAB at the WACC rate.
 - 5.143.2 A forecast of the depreciation of Chorus' forecast PQ RAB, which is the forecast 'return of' capital.
- 5.144 The capex allowances we will set for PQP1 have both an impact on the allowable revenues for PQP1 and, assuming Chorus incurs the expenditure, an impact on the allowable revenues for subsequent regulatory periods.
- 5.145 In contrast to capex allowances, the total opex allowances we will set for PQP1 only relate to the forecast allowable revenues for the upcoming regulatory period (except to the extent that any allowable revenue in respect of PQP1 is smoothed into future regulatory periods).

Scope of expenditure in PQP1 ex-ante approval process

- 5.146 Chorus provides both regulated FFLAS and services that are not regulated FFLAS (e.g, copper-based services). Most of Chorus regulated FFLAS is subject to both PQ and ID regulation (PQ FFLAS).¹⁸⁰ The scope of our expenditure determination only includes expenditure relating to PQ FFLAS.

Approach to assessing expenditure proposals

- 5.147 This section explains our approach to assessing expenditure proposals and determining expenditure allowances for PQP1. This includes our approach to:
- 5.147.1 assessing Chorus' capex proposals;
 - 5.147.2 assessing and determining Chorus' opex; and
 - 5.147.3 consultation with stakeholders for setting the PQP1 expenditure allowances.
- 5.148 A key part of our approach to assessing Chorus' capex proposals will be to apply the Chorus capex IM. To approve opex for Chorus' first regulatory period, we propose to adopt a similar approach to that used for assessing capex.

¹⁸⁰ Refer to Chapter 6 for our emerging views on how we intend to identify geographical areas where PQ regulation applies to Chorus.

- 5.149 Audit and assurance will be an important part of our approach to assessing and determining expenditure allowances. Audit and assurance help ensure that the relevant IMs have been applied and that the Commission and stakeholders can have confidence in the information relied upon when making decisions on expenditure allowances.

Approach to assessing Chorus capex proposals

- 5.150 Many of the aspects of approach to determining capex allowance are included in the capex IM, which we (and Chorus) must apply. The Chorus capex IM prescribes the following requirements for setting capex allowances:

5.150.1 processes and timeframes for evaluating capex proposals;

5.150.2 information requirements required to assess capex proposals including assurance requirements on any information provided and the extent of consultation with other parties; and

5.150.3 the criteria we will use to evaluate capex proposals.

- 5.151 The capex IM identifies three types of capex each of which has its own processes, timeframes, and requirements. These different types of capex are:

5.151.1 base capex;

5.151.2 connection capex, which includes:¹⁸¹

5.151.2.1 a “connection capex baseline” component;

5.151.2.2 a “connection capex variable adjustment” component; and

5.151.3 individual capex.

- 5.152 Refer to Table 5.2 for a description of the different categories of capex that we can approve.

¹⁸¹ 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” \(23 July 2020\)](#).

Table 5.2 Approach to approving different categories of capex for PQP1

Capex type	Approval prior to PQP1	Approval during/after PQP1
Base capex Separated by expenditure sub-category Regulatory templates (including base capex categories) agreed, and information request issued, before submission date Proposal submitted by 31 Dec 2020 Once approved, expenditure is substitutable within base capex allowance No IV for PQP1	Propose and respond Evaluation based on expenditure objective, good telecommunications industry practice and assessment factors	
Connection capex Baseline + variable component Volumes and unit rates for different connection types for each year of PQP1 Once approved, expenditure is not substitutable with base capex allowance No IV for PQP1	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	Variable component to adjust for actual volumes at pre-approved unit costs Variable component informed by connection capex annual report
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 Expenditure is generally ring-fenced, with waiver if justified Commission discretion on IV requirement		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 PQP1

5.153 Our primary focus for setting PQP1 will be to assess and set the base capex and connection capex baseline allowance for the first regulatory period. During our evaluation of the base capex proposal, we may identify capex projects or programmes that would be better treated as individual capex. The capex IM identifies matters that the Commission must have regard to when applying this discretion.

- 5.154 Our main task 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 degree of uncertainty involved in forecasting connection volumes, the capex IM has introduced a connection capex variable adjustment mechanism. The adjustment mechanism will adjust Chorus' wash-up amount to reflect any changes in the actual number of connections during a regulatory period. However, to avoid the accrual of a significant wash-up balance or price shocks we intend to determine a robust connection capex baseline allowance for Chorus that minimises the expected difference between forecast and actual volumes.
- 5.155 In evaluating Chorus' base capex and connection capex baseline proposals, we must apply the evaluation criteria in the capex IM. This includes considering whether the proposed expenditure meets the expenditure objective and reflects good telecommunications industry practice. The expenditure objective is that capital 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.¹⁸²
- 5.156 Good telecommunications industry practice means:
- 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.
- 5.157 We will also have regard to assessment factors when considering whether a capex proposal has met the expenditure objective.¹⁸³ The assessment factors will help us identify the different aspects of prudence and efficiency that we consider relevant when evaluating capex proposals.

Transitional arrangements for PQP1

- 5.158 For the first regulatory period we need transitional arrangements, mainly due to the shortened timeframes for meeting some of the IM requirements for capex proposals for the first regulatory period.

¹⁸² [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), clause 3.8.5(1).

¹⁸³ [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), clause 3.8.6.

- 5.159 We identified specific issues for:
- 5.159.1 the timeframes for regulatory templates and information requirements for base capex and connection capex baseline proposals;
 - 5.159.2 the date for submitting base and connection capex baseline proposals; and
 - 5.159.3 the requirements for an independent verifier report.¹⁸⁴
- 5.160 To ensure that we can meet the timeframes set out in the capex IM, Commission staff have started to develop the form and content of the regulatory templates with Chorus. We need to understand the information Chorus has available to be able to appropriately set the form and content of the regulatory templates. We will update the regulatory templates once the final IMs have been published and aim to seek agreement to the final form and content. The Commission will specify the form and content of the regulatory templates if agreement cannot be made.
- 5.161 In the absence of an independent verifier report, we consider it appropriate to seek an expert opinion to support our evaluation of Chorus' expenditure proposal. The expert opinion will help provide assurance on the extent to which the proposed expenditure is in line with the Chorus capex IM expenditure objective and assessment factors.
- 5.162 Chorus sought our involvement in a process for an independent verification of its expenditure proposal for the first regulatory period. We were unable to participate because the process for setting IMs for use in the development of the PQ path was not yet complete.¹⁸⁵
- 5.163 Chorus has instead sought an independent expert to scrutinise its expenditure proposal and provide a report for the first regulatory period.¹⁸⁶ We understand that Chorus has taken steps to ensure the independence of the expert appointed.

¹⁸⁴ There are no independent verifier requirements for a base and connection capex proposal for PQP1.

¹⁸⁵ [Commerce Commission "Chorus' arrangements for an independent expert to scrutinise its capital expenditure for its first price-quality path" \(24 October 2019\)](#).

¹⁸⁶ Ibid.

- 5.164 Given our lack of involvement in the appointment process, and since the independent expert does not owe us a duty of care, we are unable to rely on Chorus' independent expert report in the same way as we might rely on an independent verification report as per the capex IM.¹⁸⁷ An independent verifier report would play a key role in helping us target and focus our assessment of Chorus' expenditure proposal as well as to reach conclusions on whether proposed expenditure meets the expenditure objective.
- 5.165 However, we still consider Chorus' independent expert report has value for the expenditure assessment process for PQP1.
- 5.165.1 Firstly, it provides Chorus with a third-party scrutiny of its proposals and supports the generation of information for our evaluation. We expect that the proposals to be submitted no later than 31 December 2020 will have benefited from this process.
- 5.165.2 Secondly, we see value in considering the conclusions in Chorus' independent expert report and scrutinising the findings to inform our own analysis. In particular, we propose to acknowledge areas where the independent expert identified expenditure that may not meet the assessment criteria when we determine the focus of our assessment.¹⁸⁸
- 5.166 We will aim to understand the assumptions and approach taken by the independent expert to understand the potential gaps in their analysis and areas of focus. We will not rely, without supplementing with our own further consideration, on the conclusions of the report when determining whether proposed expenditure has met the expenditure objective and reflects good telecommunications industry practice.

Approach to assessing and determining Chorus opex

- 5.167 Unlike for capex, we do not have an input methodology that sets the processes, timeframes, information requirements and evaluation criteria for assessing and approving opex.
- 5.168 To approve opex for Chorus' first regulatory period, we propose to adopt a similar approach to that used for assessing capex. This means that we will:

¹⁸⁷ [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#), clause 3.7.10 and 3.7.16.

¹⁸⁸ We understand from Chorus that the independent expert relied on the evaluation criteria in the draft capex IM which a particular focus to whether expenditure reflected good telecommunication.

- 5.168.1 issue an information request to Chorus for an opex proposal at the same time as we issue the information request for the base capex and connection capex baseline proposals;
 - 5.168.2 seek stakeholders' views on Chorus' proposal;
 - 5.168.3 seek an expert opinion to support our assessment of Chorus' opex;
 - 5.168.4 issue a draft determination of Chorus' opex allowance and seek stakeholders' views; and
 - 5.168.5 issue a final determination of Chorus' opex allowance and use it as an input into the maximum allowable revenue calculation.
- 5.169 We intend to use the same timeframes for assessing opex as those for capex. These are described in Table 2.1 in Chapter 2.
- 5.170 While we do not have evaluation criteria to assess opex specified in an IM or in the Act, we must make decisions that we consider best give, or are likely to best give effect to s 166(2)(a) and (where relevant) s 166(2)(b). Our approach at this time is to use the evaluation criteria specified in the Capex IM, where relevant, to evaluate Chorus' opex proposal.
- 5.171 We will therefore evaluate Chorus' opex proposal by considering whether the proposed opex meets the expenditure objective, and reflects good telecommunications industry practice.¹⁸⁹
- 5.172 In evaluating Chorus' opex proposal, our approach at this time is to have regard to the assessment factors in clause 3.8.6 (with any necessary modifications to refer to "opex", rather than "capex") when considering whether an opex proposal has met the expenditure objective.

Approach to consultation with stakeholders for setting the PQP1 expenditure allowances

- 5.173 Stakeholder consultation on Chorus' proposal and our expenditure allowance determination is important to ensure the allowance we determine for PQP1 is likely to best give effect to s 166(2)(a) and (where relevant) s 166(2)(b). We will seek stakeholder views on the following stages of the expenditure assessment:
- 5.173.1 developing our approach to assessing expenditure for PQP (this paper);
 - 5.173.2 Chorus's proposal and independent report, when submitted, by no later than 31 December 2020; and

¹⁸⁹ [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\), 3.8.5\(1\) of the capex IM.](#)

5.173.3 our draft determination on Chorus' expenditure allowance for PQP1.

5.174 Our past practice has been to publish an issues paper prior to a draft determination on the capex allowance (eg, as part of a customised price-path evaluation in respect of suppliers regulated under Part 4 of the Commerce Act 1986). For PQP1, we do not have an independent verifier report to support this step and we have a shorter evaluation timeframe. We will, however, seek stakeholder views on Chorus' proposal and its independent expert report.

Focus areas for PQP1

5.175 Our focus areas for the expenditure assessment for the first regulatory period are:

5.175.1 setting appropriate expenditure allowances that meet the regulatory requirements set out in the capex IM and the Act; and

5.175.2 setting up processes that we can build on during PQP1 and that provide a solid foundation for our approach to PQP2.

Setting appropriate expenditure allowances and meeting the relevant IM requirements

5.176 To set appropriate expenditure allowances for PQP1 we will ensure that the capex IM and other relevant IMs have been applied. This is the first regulatory period where we will apply the base capex, connection capex and individual capex categories for Chorus.

5.177 We have requirements in the capex IM, such as audit and certification requirements to help provide confidence that Chorus has complied with the IMs and that the information it provided to us can be relied upon. We will ensure that information Chorus provides us has commensurate audit and certification requirements.

5.178 The different categories of capex, along with the evaluation criteria in the capex IM, are important parts of our approach to help address any significant timing, cost and demand uncertainty involved in expenditure forecasts. We will ensure our processes are set up so different categories work to address timing and cost uncertainty and are fit for purpose.

5.179 Another key part of ensuring we and Chorus apply the capex IM and that our decisions best give effect, or are likely to best give effect to s 162 and (where relevant) s 166(2)(b) will be to ensure stakeholders have participated in the assessment process and have provided input into our decisions.

5.180 A key focus of our assessment will be on approving expenditure that is prudent and efficient, and meets the requirements (set out in the capex IM and adapted for opex as required). To do this, we will target our assessment on areas that we expect to impact end-users most (such as expenditure that directly impacts end-users' quality outcomes and material expenditure sub-categories at highest risk of forecast inaccuracy).

Setting up processes that we can build on during PQP1 and that provide a solid foundation for our approach to PQP2

5.181 As discussed at the start of this Chapter, we are introducing a new regulatory framework for Chorus. This means some of the features of the regime will require monitoring and development over time.

5.182 Over the last decade, Chorus' focus has been to build a new fibre network and connect customers so they can receive FFLAS. PQP1 will see the beginning of a shift of focus from delivering a large capital programme to operating and maintaining that network. During PQP1 we expect Chorus to start shifting its focus from works delivery towards asset management.

5.183 A key focus of our assessment for the first regulatory period will be to understand Chorus' asset management maturity and ability to plan, forecast and deliver on the investment needs of its current network. We consider this will be an important part of ensuring any capex allowances we determine best give effect to s 162 and (where relevant) s 166(2)(b).

5.184 The capex IM requires Chorus to develop and publish an Integrated Fibre Plan (IFP). This is a key part of our approach 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.

5.185 We expect that Chorus' approach to asset management will evolve and improve over time and we expect Chorus' proposal and IFP to identify these areas of improvement and the implications for expenditure. We see stakeholders playing a key role in ensuring that Chorus' approach to asset management is fit for purpose and helping Chorus to deliver services that matter to end-users.

Applying proportionate scrutiny to our assessment

5.186 We will apply proportionate scrutiny to Chorus' expenditure forecasts when determining expenditure allowances through PQ regulation. This means that in evaluating Chorus' capex proposals we will apply the level of scrutiny that is commensurate with the potential price and quality impacts of the forecast capex on end-users.

- 5.187 This approach will help us target our evaluation to mitigate the risks that PQ FFLAS end-users bear costs that are not reflective of the level that efficient providers would incur when meeting end-user demands in a workably competitive market.
- 5.188 When applying proportionate scrutiny, our proposed approach is to give consideration to:
- 5.188.1 areas where potential end-user harm in PQP1 is greatest (eg, areas most prone to over-forecasting);
 - 5.188.2 expenditure that has not already had some degree of scrutiny (for example, potential examples of expenditure that has already been subject to some degree of scrutiny include UFB expenditure, and expenditure that has been subject to competitive pressure);
 - 5.188.3 areas that are most beneficial to end-users in the long term (eg, building an information base to support identification of improvement initiatives for PQP2 and beyond); and
 - 5.188.4 areas of expenditure that Chorus' independent expert review identified as not reflecting good telecommunications industry practice.

How we intend to apply proportionate scrutiny

- 5.189 We plan to start our analysis at the level of the base capex sub-categories that are set out in the capex IM and reflected in the regulatory templates.¹⁹⁰
- 5.190 To focus our review, we will have regard to assessment factors as set out in the capex IM (and those relevant for opex). When evaluating capex allowances, we do not consider it necessary to assess capex proposals using each assessment factor. During our evaluation, we will identify how we have given regard to the assessment factors in our evaluation.
- 5.191 We will also use the information request to identify areas we anticipate needing to scrutinise more thoroughly than others.
- 5.192 During the evaluation phase, we may identify areas where we need further information from Chorus, and we expect to supplement information received in Chorus' proposal with targeted information requests. We may also identify areas requiring further assessment. To help inform our evaluation, we may engage an expert opinion.

¹⁹⁰ For the current definition of base capex sub-categories, refer to: [Commerce Commission "\[Further consultation — initial value of financial loss asset\] Fibre Input Methodologies Determination 2020" \(13 August 2020\)](#).

Setting quality standards

- 5.193 We intend to consult with interested parties, such as regulated providers and access seekers. We expect to hold a technical workshop in Q1 2021, in order to seek views on:
- 5.193.1 which quality dimensions should be applied to set quality standards;
 - 5.193.2 how those quality standards should be set; and
 - 5.193.3 whether we should specify a revenue-linked incentive scheme for those quality standards.
- 5.194 We will consider available information on:
- 5.194.1 the quality of regulated FFLAS currently or historically supplied by regulated providers;
 - 5.194.2 the impact of any quality concerns or issues related to a particular quality dimension on end-users and access seekers;
 - 5.194.3 incentives regulated providers face to supply regulated FFLAS at a quality that reflects end-users demands; and
 - 5.194.4 the trade-offs between expenditure and quality.
- 5.195 The proposed Chorus capex IM requires the linkages between expenditure and quality outcomes to be set out by Chorus in its expenditure proposals to help inform our assessment of expenditure-quality trade-offs. These will inform the setting of quality standards along with input from other stakeholders as part of PQ regulation consultation processes.
- 5.196 Table B2 in Attachment B gives examples of service levels in the UFB contracts for the two mandatory quality dimensions set out in the quality dimensions IM for which we must specify quality standards. We will use these UFB service levels to help inform quality standards but would also consider whether any additional or alternative quality standards are appropriate for the availability and performance quality dimensions. We will also consider whether quality standards should also be specified for any of the optional quality dimensions set out in the quality dimensions IM.

Assessing and demonstrating compliance with the PQ path

- 5.197 In addition to the substantive requirements for 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 the PQ path.

- 5.198 The specific statutory scope and requirements for demonstrating compliance are set out in Chapter 3 at paragraph 3.22.
- 5.199 Our emerging view is that compliance for PQ1 will operate in a broadly similar way to PQ compliance under Part 4 of the Commerce Act. This encompasses:
- 5.199.1 an *ex ante* revenue path compliance statement prior to the start of the regulatory year, demonstrating that the prices the regulated provider proposes to set are compliant with the revenue path;
 - 5.199.2 an *ex post* wash-up and quality standards compliance statement after the regulatory year has ended, demonstrating that the regulated provider has met its quality standards and calculating the revenue cap wash-up; and
 - 5.199.3 separate requirements for demonstrating compliance with ss 198 to 201.
- 5.200 We also anticipate requiring audit and certification in similar forms to those used in Part 4.

Chapter 6 Identifying the areas where PQ regulation applies to Chorus

Introduction

- 6.1 This chapter sets out our emerging views on how we could identify the geographical areas where Chorus' FFLAS are subject to PQ regulation.
- 6.2 We need to identify these areas because the Regulations exempt certain of Chorus' FFLAS from PQ regulation.¹⁹¹ All FFLAS provided by the LFCs, including Chorus, are subject to ID regulation.

The role of our emerging views

- 6.3 We are consulting on this now to seek feedback from stakeholders on our proposed approach, before we implement PQ regulation. One of the reasons it is important to understand your views early is because the geographical boundaries of PQ areas affect the size of the RAB. The RAB is used to determine Chorus' revenue cap under PQ regulation.
- 6.4 Your views will help shape:
- 6.4.1 our draft decision on the approach to identifying the geographical areas where PQ regulation applies to Chorus. Our draft decision is planned for Q2 2021.¹⁹²
 - 6.4.2 our further work on choosing a technical approach to implementing the Regulations for the first regulatory period, and subsequently for updates following implementation.

¹⁹¹ The Regulations were made under section 226 of the Telecommunications Act 2001. The relevant regulation is reg 6.

¹⁹² Commerce Commission "Fibre Input Methodologies: Process Update" (20 May 2020).

Table 6.1 Our emerging views

Emerging view	Discussion
EV1	Our emerging view is that in areas where it is arguable whether the other LFC has “installed a fibre network under the UFB initiative”, regulated FFLAS supplied by Chorus to end-users should be subject to ID-only regulation.
EV2	Our emerging view is that we will use the Specified Fibre Areas (SFA) database for identifying end-user premises in relevant geographical areas to determine which of Chorus’ FFLAS is subject to PQ regulation, and which is subject to ID regulation only.
EV3	Our emerging view is that any additional FFLAS that Chorus constructs after 1 January 2022 within another LFC’s “geographical area” will be exempt from PQ regulation and subject to ID regulation only.

Relevant context

IM draft decisions were based on exposure draft regulations

- 6.5 Our fibre IM draft decisions, published on 19 November 2019,¹⁹³ and draft fibre IM determination, published on 11 December 2019,¹⁹⁴ were based on the exposure draft regulations published on 6 June 2019 (draft regulations).¹⁹⁵
- 6.6 The draft regulations proposed that all Chorus’ FFLAS would be subject to both ID and PQ regulation under Part 6 of the Act.¹⁹⁶

The Regulations

- 6.7 The Regulations provide that:¹⁹⁷
- 6.7.1 all regulated providers’ FFLAS are subject to ID regulation (reg 5); and
 - 6.7.2 all Chorus’ FFLAS (except to the extent that a service is provided in a geographical area where a regulated fibre provider (other than Chorus) has installed a fibre network as part of the UFB initiative) are subject to PQ regulation (reg 6) (the proviso). Reg 6 comes into force on 31 December 2021.

¹⁹³ Commerce Commission “Fibre input methodologies – Draft decision paper” (19 November 2019). See paragraphs 2.39- 2.43.

¹⁹⁴ Commerce Commission “[Draft] Fibre input methodologies determination 2020” (11 December 2019).

¹⁹⁵ Ministry of Business, Innovation and Employment “Exposure draft of regulations to be made under section 226 of the Telecommunications Act 2001” (6 June 2020).

¹⁹⁶ This was contemplated by the original bill: Telecommunications (New Regulatory Framework) Amendment Bill 2017 (293—1) (explanatory note).

¹⁹⁷ Telecommunications (Regulated Fibre Service Providers) Regulations 2019.

- 6.8 The key difference between the draft regulations and the Regulations is reg 6. Rather than providing that all Chorus' FFLAS would be subject to PQ regulation, reg 6 introduced a proviso exempting Chorus' FFLAS from PQ regulation in geographical areas where an LFC other than Chorus has installed a fibre network under the UFB initiative.
- 6.9 A majority of end-user premises nationwide covered by Chorus' network will be in areas clearly outside geographical areas where other LFCs have installed a fibre network under the UFB initiative. Chorus' FFLAS in these areas will be subject to PQ regulation.¹⁹⁸
- 6.10 However, some of Chorus' FFLAS network that was not built under the UFB initiative is regulated FFLAS within the scope of Part 6 regulation and extends to areas (and is available to supply end-user premises) within another LFC's UFB geographical area. This subset of Chorus' FFLAS falls within the proviso under reg 6, and will be exempt from PQ regulation. Estimates indicate that the number of end-user premises that fall into this category will be relatively small.¹⁹⁹
- 6.11 For a small subset of Chorus' FFLAS, it is arguable whether the other LFC has "installed a fibre network under the UFB initiative". For this subset, the Commission will need to make a judgement to determine whether the FFLAS comes within the exemption to PQ regulation under reg 6 or not. This is discussed further at 6.31-6.43 below.

IMs Further Consultation Paper

- 6.12 In our IMs Further Consultation paper we set out three overarching decisions by which we intend to implement the Regulations in the fibre IMs, explaining the ways in which the Regulations impact on our IM draft decisions.²⁰⁰

Interpretation of reg 6: focus is on the geographical location of FFLAS end-users

- 6.13 In Chapter 2 of the Further Consultation Paper we explain our interpretation of reg 6 as it applies to the IMs. This is summarised as follows.
- 6.13.1 The Regulations describe services with reference to s 226(3)(a): "the geographic area in which the service is supplied".

¹⁹⁸ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, reg 6.

¹⁹⁹ Spark has estimated that Chorus may have around 15,000 broadband fibre connections outside Chorus UFB areas. Spark "Further consultation on regulations to be made under section 226 of the Telecommunications Act 2001" (2 August 2019), paragraph 8.

²⁰⁰ Commerce Commission "Fibre input methodologies – Further consultation draft – Reasons paper" (23 July 2020), paragraph 2.35.

- 6.13.2 The intended focus of reg 6 is on the geographical location of the end-users who are the ultimate recipients of FFLAS, rather than on the physical location of the corresponding handover point or of the assets used to supply that service.²⁰¹
- 6.13.3 The Regulations are not focused on whether a particular end-user actually has access to an LFC connection (or has such a connection installed). Rather, reg 6 contemplates a more flexible definition of “geographical area” meaning the Commission is not required to define a “geographical area” down to the level of individual sections or titles.
- 6.14 In its submission on the Further Consultation paper, Chorus argued that a potential issue arises regarding our interpretation of reg 6 and how it applies where the location of the end-user of FFLAS is not within an LFC’s UFB area:²⁰²
- A potential issue arises from the Commission’s expansive view of what constitutes FFLAS. For fibre access services it will be relatively straightforward to determine whether the location of the end-user premises or access point is within an LFC’s UFB area. For other services which the Commission currently considers to be FFLAS the exercise may be less clear.
- For instance, we would expect that any transport/backhaul services (which have no end-users and are not access services) within an LFC’s UFB coverage area (e.g. Chorus ICABs inside an LFC’s coverage area) would be subject to ID only. Similarly a co-location service at a location inside an LFC’s coverage area would be subject to ID only. It would not be workable to try to determine the location of end-users supported by transport, or co-location services. Even if it were possible, these services can support multiple end-users in different locations and could potentially result in services which are partly subject to PQ and partly subject to ID-only. This is not a practical outcome.
- 6.15 We consider our approach to the interpretation of reg 6 applies equally to FFLAS where there is an end-user within the LFC’s UFB area and to backhaul, transport and co-location FFLAS that fall outside the bounds of FFLAS to which an end-user can directly connect. The intended focus of reg 6 is on the location of the end-users who are the ultimate recipients of FFLAS. It follows that reg 6 is not confined to FFLAS that originate and terminate wholly within an LFC area.
- 6.16 For example, the question of whether PQ regulation applies to a co-location or transport service should depend on whether the service is used to support the provision of FFLAS to an end-user within an LFC’s UFB geographical area, even if the activity involved in the service, such as the transmission of signals on the transport network to the Point of Interconnection, takes place (in part) outside that area.

²⁰¹ Refer to paragraphs 6.15-6.16 below for our response to Chorus’ submission on this point.

²⁰² Chorus “Submission on Fibre Input methodologies – further consultation draft reasons paper” (13 August 2020), page 10, paragraphs 8-9.

Our approach to identifying geographical areas subject to PQ regulation

6.17 In this section we explain:

- 6.17.1 why we consider that UFB coverage areas are a useful starting point for identifying geographical areas where Chorus' FFLAS will be exempt from PQ regulation;
- 6.17.2 our emerging view that in areas where it is arguable whether the other LFC has "installed a fibre network under the UFB initiative", Chorus' FFLAS should be subject to ID-only regulation; and
- 6.17.3 our reasons for building on the SFA database to identify end-users supplied by Chorus within another LFC's geographical area.

The UFB coverage areas are a useful starting point

6.18 The UFB contracts determined where the LFCs were required to construct a fibre network, and the end-users whom that network had to be available to serve, by reference to particular towns and cities (these were defined in the UFB contracts as "coverage areas"). The UFB1 contracts include definitions of "Coverage Area" for LFCs with reference to a map. For example, under the Enable UFB1 contract, "Coverage Area" means:

Christchurch, Rangiora and Rolleston as identified in the map set out in Schedule 13 plus any greenfield areas that arise in, or adjoining, that area and (ii) such other areas as agreed by Crown Fibre Holdings and the Contractor.

- 6.19 It follows that the UFB coverage areas provide a useful starting point to identify the geographical areas where an LFC other than Chorus has installed a fibre network as part of the UFB initiative for the purposes of reg 6.
- 6.20 LFCs other than Chorus are expected to complete the installation of fibre networks under the existing UFB contracts by mid-2021. This means we can use the UFB coverage areas as fixed starting reference points for identifying the relevant geographical areas for the purposes of reg 6.²⁰³ UFB coverage areas do not however provide complete information for every scenario. We discuss this further at paragraphs 6.26-6.30 below.

²⁰³ The other LFCs are: Enable Networks (Enable), Northpower Fibre Limited (Northpower), and Ultrafast Fibre Limited (Ultrafast Fibre). Northpower Fibre Limited, alongside Northpower LFC2, was formerly known as Whangarei Local Fibre Company Limited.

6.21 Table 6.2 below sets out the estimated number of end-users covered by each regulated provider’s network built under the UFB initiative (as of May 2020), and the broad geographical areas covered by each network.²⁰⁴

Table 6.2 Number of end-users and geographical areas covered by each regulated provider under the UFB initiative

Regulated provider	Estimated number of end-users by end of 2022 ²⁰⁵	Area covered by network ²⁰⁶
Chorus	1,321,475	More than 350 communities across the country (North and South Island)
Ultrafast Fibre	222,057	Bay of Plenty and Waikato regions
Enable	208,156	Christchurch, Rangiora, Kaiapoi, Woodend, Lincoln, Prebbleton and Rolleston
Northpower	32,617	Kaipara and Whangarei

6.22 For the majority of Chorus’ FFLAS, it is straightforward to determine whether the FFLAS are within the geographical area where PQ regulation applies. For example, Figure 2.1 below shows the UFB coverage areas in the South Island.²⁰⁷ The corresponding map for the North Island is included in Attachment C.

6.23 The dots on the map at Figure 6.1 broadly indicate the “areas” where each regulated provider, Enable and Chorus, is contracted to build a fibre network under the UFB initiative in the South Island. In most areas, Chorus network areas (blue dots) are clearly distinguishable from Enable’s areas (black dots).

²⁰⁴ Crown Infrastructure Partners “Ultra-fast Broadband Programme Full City/Town List and Schedule” (May 2020). Accessible at www.crowninfrastructure.govt.nz/wp-content/uploads/UFB-Programme-Schedule-MAY-2020.pdf

²⁰⁵ Chorus is expected to complete its UFB rollout in 2022. Other LFCs are expected to complete their rollout under the existing UFB contracts by mid-2021. See Crown Infrastructure Partners “Ultra-fast Broadband Programme Full City/Town List and Schedule” (May 2020), accessible at www.crowninfrastructure.govt.nz/wp-content/uploads/UFB-Programme-Schedule-MAY-2020.pdf

²⁰⁶ Crown Infrastructure Partners “Who builds the UFB Network” at www.crowninfrastructure.govt.nz/ufb/who/

²⁰⁷ Crown Infrastructure Partners “Where is UFB Coverage” at www.crowninfrastructure.govt.nz/ufb/where/

Figure 6.1 UFB coverage areas by regulated provider in the South Island



- 6.24 Most of the approximately 760,000 end-user premises nationwide covered by Chorus' network are expected to be clearly outside geographical areas where other LFCs have installed a fibre network under the UFB initiative. Chorus' FFLAS in such areas are subject to both PQ and ID regulation under the Part 6 regime, as noted at paragraphs 6.7-6.8 above.
- 6.25 However, Chorus' FFLAS network that was not built under the UFB initiative, but which is regulated FFLAS and as such, within the scope of Part 6 regulation, potentially extends to areas within another LFC's UFB geographical areas (and is available to supply end-user premises in those areas). The number of end-user premises that will fall into this category at implementation date (1 January 2022) is estimated to be relatively small.²⁰⁸
- 6.26 The LFC's UFB coverage area does not provide complete information, given there may be a gap between the coverage area specified under the UFB contract and the actual UFB network the LFC built.
- 6.27 For example, Figure 6.2 below shows the coverage of Enable's network built under the UFB initiative (left panel, green areas) and Chorus' fibre network (blue areas) in Christchurch. The red circles outline a residential development where Chorus has a FFLAS network within an area where Enable has also constructed a fibre network under the UFB initiative.

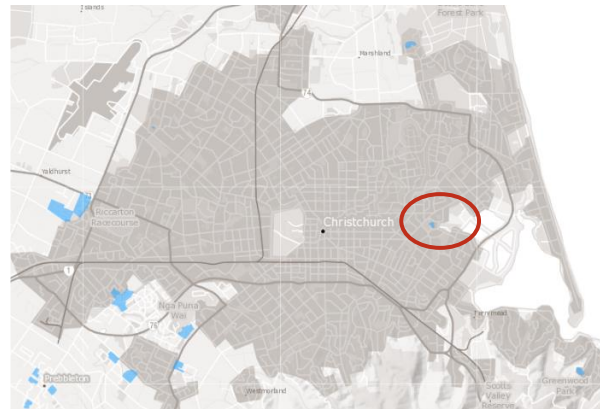
²⁰⁸ Spark has estimated that Chorus may have around 15,000 broadband fibre connections outside Chorus UFB areas. Spark "Further consultation on regulations to be made under section 226 of the Telecommunications Act 2001" (2 August 2019), paragraph 8.

Figure 6.2 Example of Chorus' network within Enable's UFB coverage area

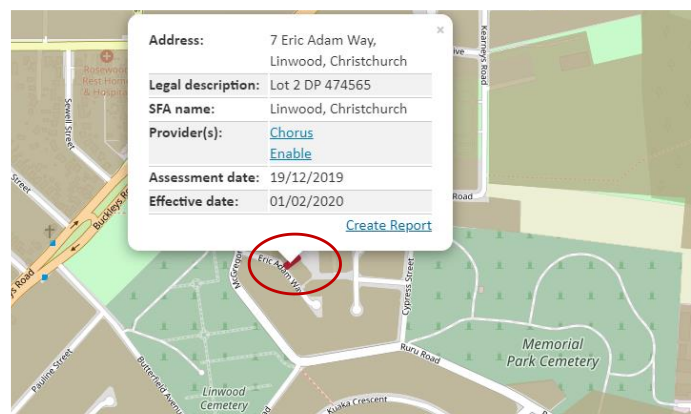
Enable's network built under the UFB initiative²⁰⁹



Chorus' fibre network in Christchurch²¹⁰



Example of Chorus network within Enable's UFB area²¹¹



6.29 This more granular level of detail is not shown by the UFB coverage area maps. The UFB coverage area maps focus on broader areas and reflect expected network geographical coverage, rather the actual geographical coverage of the network that the LFC built, defined, for example, with reference to end-user premises or to individual property titles.²¹²

²⁰⁹ Enable "Network Coverage Map" at www.enable.net.nz/about-enable/building-our-network-2/

²¹⁰ Chorus "Broadband Availability Map" at www.chorus.co.nz/broadband-map

²¹¹ Commerce Commission "Map of specified fibre areas" at <https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/consumer-protections-for-copper-withdrawal/map-of-specified-fibre-areas>.

²¹² See paragraphs 6.18-6.19 above.

- 6.30 As such, we need to find another means of identifying where Chorus supplies FFLAS in “a geographical area where [another LFC] has installed a fibre network as part of the UFB initiative”. An example is shown in Figure 6.2 above, where both Chorus and Enable provide regulated FFLAS to end-users in Linwood, Christchurch.

Geographical areas where Chorus supplies FFLAS in another LFC’s UFB area

- 6.31 Neither the Act nor the Regulations prescribe how the Commission should identify or define a “geographical area where [an LFC] has installed a fibre network as part of the UFB initiative”, nor, more specifically, what it means for an LFC to have “installed a fibre network”. As noted at paragraphs 6.22-6.24 above, in the majority of cases it will be straightforward to determine whether Chorus’ FFLAS are within a geographical area where PQ regulation applies. For a small number of cases, however, it will be arguable whether the other LFC has “installed a fibre network under the UFB initiative” in the particular geographical area, and therefore, whether Chorus’ FFLAS in that area are exempt from PQ regulation or not.
- 6.32 There are two broad scenarios where Chorus could potentially be considered to provide FFLAS in another LFC’s geographical area:
- 6.32.1 Scenario 1 arises where both Chorus and the other LFC supply FFLAS in the other LFC’s UFB area. The end-user can choose between RSPs who in turn can choose between using Chorus and the other LFC’s regulated FFLAS. (This scenario is illustrated at Figure 6.2 above.)
- 6.32.2 Scenario 2 arises where the other LFC has not installed a lead-in to connect an end-user in its UFB coverage area and, potentially, has also not installed common infrastructure required to serve that end-user. The other LFC may have constructed some infrastructure such that the end-user could be connected at a small incremental cost despite there being no lead-in currently in place to connect the end-user, or on the other hand, the incremental cost of connection may be material. In this scenario, while the end-user can currently only connect to Chorus’ FFLAS network, it can be argued that the other LFC has “installed a fibre network under the UFB initiative” in that specific geographical area.
- 6.33 The Scenario 2 cases illustrate that, in order to implement reg 6, we must exercise judgement, balancing the costs and benefits of precision and practicability, and adopting the approach that best gives effect to the Part 6 purpose.
- 6.34 The rationale of reg 6 is that Chorus should not be subject to PQ regulation in areas where it faces a competitive constraint from the FFLAS provided by other LFCs in UFB areas.

- 6.35 A critical consideration when determining the boundary of a geographical area where Chorus' FFLAS will be exempt from PQ regulation under reg 6, is whether end-users are likely to enjoy the benefits of (actual or potential) competition between Chorus and the other LFC.
- 6.36 In Scenario 1, the end-user has a choice of regulated provider (by virtue of the RSP having the choice of LFC wholesaler) and benefits from competition between RSPs. This is in part due to the benefits that arise from competition between Chorus and the other LFC in the supply of FFLAS in that area (including potentially in the form of lower prices).
- 6.37 In Scenario 2, RSPs cannot offer differentiated retail services based on their choice of FFLAS supplier and thus, end-users would not be able to enjoy all of the benefits of direct competition between FFLAS suppliers.
- 6.38 Despite the difference in the level of competitive constraint between these two scenarios, given the small number of end-user premises affected, we consider that all FFLAS in both scenarios above should be treated as within the "geographical area" that is exempt from PQ regulation by reg 6, and subject to ID regulation only at implementation date.
- 6.39 Our reasons are as follows:
- 6.39.1 Competitive constraints on Chorus' FFLAS in the vicinity of another LFC's UFB network are likely to be similar to those in areas where the networks overlap directly.
- 6.39.2 To the extent that direct competition between Chorus and the other LFC has resulted in lower end-user prices, allowing Chorus to offer 'ID prices' to RSPs in areas in the immediate vicinity directly benefits end-users in the short- to medium-term.²¹³ If competition between Chorus and the other LFCs is not sustainable in the longer term and one of the providers exits the area, Chorus' FFLAS in that area will be brought back under PQ regulation on the basis that the reg 6 exemption will no longer apply. This will limit Chorus' incentive to price strategically in an effort to drive a competitor out of the market.

²¹³ PQ prices might be higher due to the requirement to be geographically-consistent.

- 6.39.3 If we treated premises that could be categorised within Scenario 2 as subject to PQ regulation, this would mean that geographically-consistent pricing would apply for Chorus' FFLAS. As a result, Chorus might be discouraged from investing in areas close to another LFC's UFB network. In turn, this could limit the benefits to end-users from lower prices that were not subject to the geographic consistency requirement. This approach would not best give effect to the purposes of Part 6 set out in s 162(b) and (c) and s 166(2)(b).
- 6.40 We acknowledge that the requirement to charge geographically consistent prices applies only to FFLAS that is subject to PQ regulation.²¹⁴ That is, Chorus is not required to charge geographically consistent prices in areas where FFLAS is subject to ID regulation only. Chorus may therefore have the ability to charge higher prices than those charged under PQ in areas where it faces only potential, but not direct, competition from other LFCs (ie, those premises described in Scenario 2). Such a strategy would:
- 6.40.1 involve Chorus engaging in highly granular house-by-house or street-by-street price discrimination; and
 - 6.40.2 imply that Chorus is not subject to sufficient competitive constraint for the type of premises described in Scenario 2 within the other LFC's UFB coverage area.
- 6.41 We will be able to monitor for such granular pricing strategies by Chorus through ID regulation. If we find evidence of potential harm to end-users where Chorus' and the other LFC's fibre networks do not directly overlap (within the other LFC's UFB coverage area), we can address this harm through modifying our implementation of reg 6 in future PQ periods to exclude the type of premises described in Scenario 2.
- 6.42 Table 6.3 below summarises the proposed forms of regulation that will apply to Chorus' regulated FFLAS in different circumstances.

²¹⁴ Commerce Commission "Fibre input methodologies – Further consultation draft – Reasons paper" (23 July 2020), paragraphs 2.28-2.32.

Table 6.3 Chorus' FFLAS and form of regulation that applies in different circumstances

Circumstance	Form of regulation that applies
End-user premise able to connect to FFLAS provided by Chorus' network constructed under the UFB initiative	PQ and ID regulation apply
End-user premise able to connect to FFLAS provided by Chorus' network not constructed under UFB initiative outside other LFC's UFB coverage area	PQ and ID regulation apply
End-user premise able to connect to FFLAS provided by Chorus' network within another LFC's UFB coverage area (ie, Scenario 1 and Scenario 2 premises)	ID regulation only applies

6.43 We anticipate that Chorus may expand its network in another LFC's geographical area in the future. The approach we adopt to implementing reg 6 needs to be able to accommodate these changes in Chorus' or other LFC's networks. If in future we consider that the approach we have adopted in order to implement reg 6 does not promote the Part 6 purpose, we can revise our approach to reflect the changes in the competitive constraints faced by Chorus. Where relevant, regulations can also be amended in order to change the scope of regulation as provided for in s 226 of the Act. For our initial thinking on this process refer to the next section starting at paragraph 6.59.

Building on the specified fibre areas database to identify end-users supplied by Chorus within another LFC's geographical area

6.44 As discussed above, the UFB coverage areas do not provide sufficient detail on the end-users supplied by Chorus within another LFC's geographical area to enable us to determine in all cases whether the exemption from PQ under reg 6 applies. In order to implement reg 6, we propose to use an existing database, the SFA database. This database was developed in the context of the withdrawal of copper services.²¹⁵ We will apply some enhancements to the SFA database to support the implementation of the Regulations.

6.45 Under s 69AB of the Act, the Commission is required to determine the geographical areas in which specified fibre services are available to end-users. These geographical areas will be known as SFAs. The assessment and notification of SFAs is a prerequisite to enabling Chorus to withdraw supply of copper services to end-users within those SFAs. The purpose of an SFA is to determine which properties that currently have copper-based services can be served by a fibre service (and therefore, the areas in which copper services can be withdrawn).

²¹⁵ Commerce Commission "Determining specified fibre areas – framework and initial approach" (31 October 2019).

- 6.46 SFA data is prepared using GIS data and published on the Commission’s website through an interactive digital map (SFA map).²¹⁶ The SFA database contains geo-locator information that allows determining whether an address (including a new address) is within the relevant area.
- 6.47 The minimum size of an SFA needs to be at a level of granularity that allows interested parties to identify an end-user location (for example, an address point and property boundary). SFA assessments are conducted at a point in time. If a property boundary is declared to be an SFA, the whole of that property is within the SFA. If a property is subsequently subdivided, the newly created parcels of land will still all be within the SFA displayed on the Commission’s map on its website, even though the specific boundaries of each property are not specified as part of our declaration.
- 6.48 To take account of all changes to property boundaries and subdivisions that have occurred in the period since the previous annual SFA assessment, we intend to carry out a complete national update of the SFA map at each annual assessment. In the case of any supplementary assessments, the SFA map will be amended accordingly. This is most likely to reflect regional or local changes.
- 6.49 SFAs include properties where a fibre network has been installed but is not yet connected. It will therefore allow the identification of addresses that have access to fibre services from both Chorus and another LFC. As such, the Commission can draw on the SFA data in order to determine “geographical areas” for the purposes of reg 6.

Using the SFA database to determine which properties are supplied by FFLAS where the reg 6 proviso will apply

- 6.50 The SFA database contains all of the addresses where regulated providers have installed a fibre network. That is, it contains all addresses that can be connected to a fibre network, rather than confirmation that the premises are necessarily connected to the FFLAS network.
- 6.51 The advantage of relying on the SFA database to determine the boundaries of the geographical areas where the reg 6 proviso will apply is that this database is already being maintained and updated as part of the Commission’s telecommunications regulation. Adopting an approach that uses the SFA database would also allow us to build on an existing database that stakeholders are already familiar with.

²¹⁶ Commerce Commission “Map of specified fibre areas” at <https://comcom.govt.nz/regulated-industries/telecommunications/regulated-services/consumer-protections-for-copper-withdrawal/map-of-specified-fibre-areas>

- 6.52 One of the elements of reg 6 is a requirement that another LFC has installed a fibre network as part of the UFB initiative. The SFA database will need to contain data that confirms whether an address was given certification by Crown Fibre Holdings as part of the UFB initiative.²¹⁷ This will require the addition of a field into the database to record this status. This indicator will be used to check that, where a service is available from an LFC other than Chorus, it is provided as a result of building a network under the UFB initiative.
- 6.53 The SFA database can then be used to identify addresses served by Chorus that are subject to ID regulation. An appropriate classification field will be added to the database to provide a snapshot of premises subject to ID regulation only and, those also subject to PQ regulation at implementation. This classification field can be updated over time.
- 6.54 An updating process for the SFA database already exists.²¹⁸ The timeframes necessary to produce updated mapping to maintain the classification of Chorus' network will need to be considered as part of the further development of the database.

Initial submissions on the use of the SFA database

- 6.55 In our IMs Further Consultation paper we indicated that we intend to draw on the data used for the determination of SFAs under s 69AB for the purposes of determining the relevant geographical areas where reg 6 applies.²¹⁹
- 6.56 Enable and Ultrafast submitted that:²²⁰

We agree that the Commission must identify “a geographic area where a regulated fibre service provider (other than Chorus) has installed a fibre network as part of the UFB initiative” in order to delineate the areas in which Chorus' FFLAS will be subject to ID regulation only.

The Commission acknowledges that “the coverage areas in the UFB contracts would be a useful starting point” for this assessment, and that it will draw on the data used in its SFA determination in this process.

²¹⁷ Formerly CIP (Crown Infrastructure Partners).

²¹⁸ See paragraph 6.48 above and Commerce Commission “Determining specified fibre areas – framework and initial approach” (31 October 2019).

²¹⁹ Commerce Commission “Fibre input methodologies – Further consultation draft – Reasons paper” (23 July 2020), paragraph 2.27.

²²⁰ Enable Networks Limited and Ultrafast Fibre Limited “Submission on Fibre Input Methodologies Further Consultation Draft – reasons paper 23 July 2020” (13 August 2020), paragraphs 2.1-2.3.

In our view the Commission should define the geographic areas for the purposes of regulation 6 as the coverage areas in the UFB contracts. We cannot see any benefit in the Commission applying a more granular approach, which can only increase the cost and uncertainty of the regulatory process, whereas the UFB coverage areas are clearly defined and objectively.

6.57 Chorus submitted that:²²¹

It makes sense to use data provided for the purpose of determining specified fibre areas (SFAs) to determine the extent of ID-only areas since this will provide the Commission with information on the extent of LFC networks. However, the exercise of making an SFA declaration is a process from a different part of the Act with a different purpose. So, while the underlying data on fibre network location is useful, the actual SFA process and declaration should not be used to guide the determination of ID-only areas. Rather the Commission should consider a process predicated on the principle that PQR should only be imposed to the extent a provider faces insufficient competitive constraint.

6.58 We look forward to further submissions from stakeholders in light of the emerging views in this paper. As a next step, and subject to stakeholders' further feedback in response to this paper, we intend to expand the SFA database to allow identification of end-user premises receiving regulated FFLAS from Chorus in another LFCs area, and add relevant fields to identify end-user premises receiving ID-only FFLAS, or FFLAS subject to both PQ and ID regulation.

Questions for stakeholders

Q1: Do you agree with our proposed approach to treat all addresses within an LFC's UFB coverage area as subject to the reg 6 proviso, irrespective of the exact reach of the other LFC's network? If you disagree, please provide an alternative proposal.

Q2: What are your views on our proposed approach to use SFA data to assign addresses as subject to both PQ and ID regulation, or to ID regulation only? If you disagree, please provide reasons why.

How we will update the geographical areas where reg 6 applies

6.59 Reg 6 comes into force on 31 December 2021. By that time, the other LFCs are expected to have completed installation of their fibre networks under the UFB initiative, and Chorus will largely have completed installation of its network. Beyond this point in time, however, Chorus and LFCs may continue to explore opportunities to roll out further fibre network (ie, on a commercial basis, outside of the UFB initiative).

²²¹ Chorus "Submission on Fibre input methodologies – further consultation draft reasons paper" (13 August 2020), paragraph 7.

6.60 The dynamic nature of FFLAS networks requires us to consider how we will continue to give effect to reg 6 and ensure that the appropriate services are subject to either ID regulation only, or to both ID and PQ regulation as the situation changes over time. As with all decisions under Part 6, we must consider how best to give effect to s 166(2) of the Act, that is:

6.60.1 the purposes set out in s 162; and

6.60.2 to the extent we consider it relevant, the promotion of workable competition in telecommunications markets for the long-term benefit of end-users.

6.61 In this section we set out the requirements of the Act regarding deregulation and the means of introducing additional regulation where this might be necessary in future.

Additional regulation and/or deregulation

6.62 As the situation regarding the provision of FFLAS changes over time, so too may the scope of regulation change. There are three ways in which the scope of regulation may change:

6.62.1 **Expansion of FFLAS and increased regulation:** The Minister may recommend that the Regulations are amended where it is considered:

6.62.1.1 any of Chorus' FFLAS currently only subject to ID regulation need to be made subject to PQ regulation also); and/or

6.62.1.2 any other LFCs' FFLAS need to be made subject to PQ regulation in addition to ID regulation.²²²

²²² Addition of further regulation would be achieved by recommending to the Minister amendments to the Regulations, specifically to reg 6 (column 1: persons subject to price quality regulation; and/or column 2: services subject to regulation).

- 6.62.2 **The scope of Chorus' FFLAS that is exempt from PQ regulation changes as a result of changes to LFC networks or changes in the competitive constraints Chorus faces:** As noted at paragraph 6.34 above, the rationale for reg 6 is that Chorus should not be subject to PQ regulation in areas where it faces a competitive constraint from other LFCs' UFB FFLAS. In line with this rationale, our emerging view for PQP1 is informed by considerations of the likely competitive constraints currently in place for Chorus. In particular, these considerations inform our view regarding the form of regulation that should apply to Chorus in areas where it is arguable whether the other LFC has "installed a fibre network under the UFB initiative" (ie, whether Chorus' FFLAS in such areas fall within the exemption from PQ regulation under reg 6). Should the evidence on which our view is based change in future, we may reach a different view on our application of reg 6 and will provide an update of our view accordingly.
- 6.62.3 **Deregulation:** Before the start of each regulatory period (except the first), the Commission must consider whether there are reasonable grounds to start a deregulation review to consider whether:²²³
- 6.62.3.1 certain of Chorus' FFLAS should no longer be subject to PQ regulation, and instead, subject to ID regulation only;²²⁴
 - 6.62.3.2 any FFLAS needs to be removed from regulation under Part 6 altogether.²²⁵

Expansion of FFLAS and increased regulation

- 6.63 It is possible that in future the scope of regulation might need to be increased, for example due to changes in the competitive dynamics between Chorus and LFCs in the FFLAS market. The mechanism for increasing regulation would be through the amendment of reg 6, to provide that either:
- 6.63.1 any of Chorus' FFLAS currently exempt from PQ regulation, and only subject to ID regulation only should be made subject to PQ regulation also); or
 - 6.63.2 any other LFCs' FFLAS should also be made subject to PQ regulation.

²²³ Telecommunications Act 2001, s 210(3).

²²⁴ Telecommunications Act 2001, s 210(1)(a).

²²⁵ Telecommunications Act 2001, s 210(1)(a).

- 6.64 Increasing the scope of regulation could be achieved by recommending amendments to the Regulations in accordance with the requirements set out in s 226, specifically to reg 6 (column 1: persons subject to price quality regulation; and/or column 2: services subject to regulation).

Scope of Chorus' FFLAS that is exempt from PQ regulation changes as a result of changes to LFC networks or new evidence on the competitive constraints that apply to Chorus in the relevant geographical area

- 6.65 The second way in which the scope of regulation may change is as follows.
- 6.65.1 Where changes to other LFC networks mean Chorus' FFLAS is no longer exempt from PQ regulation under reg 6. In these cases, the increased scope of regulation (ie, Chorus' FFLAS now being subject to PQ) arises simply as a result of the application of reg 6, ie, rather than as a result of amending the Regulations.²²⁶
- 6.65.2 Where there is evidence of harm to end-users in areas where it is arguable whether the other LFC has "installed a fibre network under the UFB initiative", we may amend our approach to applying reg 6 in future.
- 6.66 An example where certain Chorus' FFLAS currently exempt from PQ regulation would become subject to PQ regulation would be if another LFC were to decommission its UFB network (or parts of its network) in an area where Chorus had installed FFLAS. In that situation, Chorus' FFLAS may become subject to PQ regulation on the basis that Chorus' FFLAS would no longer be exempt under reg 6.²²⁷
- 6.67 Aware of the possibility of change, we have considered three possible approaches we could adopt to determine which of Chorus' FFLAS are subject to ID regulation only in terms of reg 6 (options A, B and C). Please note that:
- 6.67.1 all options assume that the geographical areas where another LFC has "installed a fibre network under the UFB initiative" is fixed at implementation date and that these areas are not updated over time; and

²²⁶ For completeness, we note that where amending regulations in the ways set out at paragraphs 6.63.1-6.63.2 above, the requirements set out in s 226 regarding the making of regulations under Part 6 of the Act must be met. There is however no requirement to amend the Regulations where the scope of regulation changes simply as a result of changes to LFC networks (meaning the s 226 requirements do not apply). In cases where we intend to alter our approach to implementing reg 6 after PQP1 however, we will consult with interested parties on changes contemplated as part of the PQ process.

²²⁷ Another example may be UFB2 or UFB2+ connections for which deployment is not scheduled to be complete until 2023.

6.67.2 options, A, B and C can be cumulative.

Option A: New Chorus FFLAS installed post-implementation in another LFC's geographical area will automatically be subject to ID only

- 6.68 Any additional FFLAS that Chorus installs within a geographical area where another LFC has installed a fibre network under the UFB initiative after 1 January 2022—the date when reg 6 comes into force—will be exempt from PQ regulation and subject to ID regulation only. We will be able to determine the premises that fall into this category using the SFA database approach.
- 6.69 We consider this approach will be workable given that LFCs' fibre networks installed within their UFB coverage areas will be static after implementation. This will mean our proposed approach will clearly identify new Chorus FFLAS that qualify as ID-only under the reg 6 proviso.
- 6.70 This approach could be complemented by relevant (ID) requirements (which would require Chorus to provide, eg, information on new networks it is constructing within other LFCs' "geographical areas") to allow us to carry out effective monitoring.

Option B: Updates of end-user premises within the SFA database to coincide with each regulatory period

- 6.71 In addition to Option A above, we can carry out a more comprehensive review of end-user premises (eg, within the SFA database) at regular intervals. We could carry this review out in advance of the commencement of each regulatory period.

Option C: Regular updates to coincide with price-quality path reopeners

- 6.72 Option C builds on options A and B but involves updating more frequently than every PQ regulatory reset (eg, on an annual basis). In addition, the change in scope of FFLAS that are subject to PQ regulation would be reflected as an adjustment in the maximum allowable revenue or the weighted average price.²²⁸

Deregulation review under s 210

- 6.73 Section 210 provides that at any time after the implementation date, we may review how FFLAS are regulated under Part 6. The relevant provisions of s 210 of the Act provide:

(1) The Commission may, at any time after the implementation date, review how 1 or more fibre fixed line access services are regulated under this Part if the Commission has reasonable grounds to consider that those services—

(a) should no longer be regulated under this Part; or

²²⁸ The Regulatory Processes and Rules IM draft decision allows the PQ path to be reopened for a regulatory change.

(b) should no longer be subject to price-quality regulation under this Part.

(2) For the purposes of subsection (1), the Commission may, without limitation, describe a service under review with reference to any 1 or more of the following:

(a) the geographic area in which the service is supplied:

(b) the service's end-users:

(c) the service providers who seek access to the service:

(d) the technical specifications of the service:

(e) any other circumstances in which the service is supplied.

(3) The Commission must, before the start of each regulatory period (except the first regulatory period), consider whether there are reasonable grounds to start a review.

(4) A review may consider the following:

(a) whether competition to 1 or more fibre fixed line access services has increased or decreased in a relevant market:

(b) the impact of any increase or decrease on the ability of regulated fibre service providers to exercise substantial market power:

(c) whether the purpose of this Part would be better met if 1 or more fibre fixed line access services—

(i) were no longer regulated under this Part; or

(ii) were no longer subject to price-quality regulation under this Part.

6.74 Section 210 applies to FFLAS regulated under Part 6 generally. In the context of the Regulations specifically, we may carry out a deregulation review under s 210 if we have reasonable grounds to consider that:

6.74.1 FFLAS provided by Chorus and the other LFCs should be deregulated altogether; and/or

6.74.2 there are additional areas (beyond those determined as relevant geographical areas under the reg 6 proviso, and therefore exempt from PQ regulation) where Chorus' FFLAS should be no longer subject to PQ regulation, and rather, subject to ID regulation only.

6.75 Section 210(3) provides that before the start of each regulatory period (except the first regulatory period), we must consider whether there are reasonable grounds to start a review, based on whether the conditions described in paragraph 6.62.3.1, or respectively paragraph 6.62.1.2, above apply.

Emerging view on preferred option

- 6.76 Any of the three options could potentially be adapted to reclassifying premises between PQ and ID regulation in the event that a deregulation review under s 210 results in a recommendation that Chorus' FFLAS in a given area should be removed from PQ regulation (ie, regulated under ID only) or deregulated altogether.²²⁹
- 6.77 To the extent that the other LFCs' rollout under the UFB initiative is likely to be complete before the Part 6 regime implementation on 1 January 2022, our emerging view is to adopt Option A because:
- 6.77.1 the relevant geographical areas in which LFCs have installed FFLAS under the UFB initiative will be static;
 - 6.77.2 this option requires fewer updates and thus, offers more certainty to stakeholders consistent with s 174; and
- it might be simpler and less costly than options B and C to implement, thus reducing the regulatory burden for both the Commission and for stakeholders.

Questions for stakeholders

Q3: Do you agree with our intended approach described above? Please provide reasons for your view. If you disagree, please provide reasons why.

²²⁹ We note that the deregulation review under s 210 applies to FFLAS regulated under Part 6 generally (ie, it is not limited to deregulating FFLAS under reg 6). This means that a deregulation review under s 210 could result in a recommendation that certain FFLAS be removed from PQ regulation or deregulated altogether (and the FFLAS in question may or not coincide with the FFLAS captured under the reg 6 proviso).

Attachment A Proposed approach for amending IMs

IM amendment framework

A1 As part of the process to set ID and PQ regulations, it may be necessary for us to consider amendments to the IMs. 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

A2 This section covers:

A2.1 the statutory context;

A2.2 our powers to amend the IMs;

A2.3 the relationship of amendments as part of the IM Review-cycle to amendments outside this cycle; and

A2.4 the types of amendments we will and will not be making outside the IM Review cycle.

Statutory context

A3 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 under Part 6. To that end, IMs, as far as is reasonably practical, 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 provider: s 176(2)(a). In that way, IMs constrain our evaluative judgements in subsequent regulatory decisions and increase predictability.²³⁰

A4 However, some uncertainty remains inevitable.²³¹ As the Court of Appeal observed (in relation to a judicial review against decisions made in the Part 4 IMs) in 2012: "certainty is a relative rather than an absolute value",²³² and "there is a continuum between complete certainty at one end and complete flexibility at the other".²³³

²³⁰ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 213.

²³¹ *Wellington International Airport Ltd & others v Commerce Commission* [2013] NZHC 3289, para 214.

²³² *Commerce Commission v Vector Ltd* [2012] NZCA 220, para 34.

²³³ *Commerce Commission v Vector Ltd* [2012] NZCA 220, para 60.

- A5 The s 174 purpose is thus primarily promoted by having the rules, processes and requirements set upfront (prior to being applied by regulated providers or ourselves). However, as recognised in sections 181 and 182, these rules, processes and requirements may change. Where the promotion of s 162 or (where we consider it relevant) the promotion of s 166(2)(b) requires amendment to an IM, s 174 does not constrain this. This is because under s 166(2), we must make recommendations, determinations and decisions that we consider best give, or are likely to best give, effect:
- A5.1 to the purpose of s 162, as set out in s 166(2)(a); and
- A5.2 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 set out in s 166(2)(b).
- A6 Section 166(2) governs our decision-making process for all recommendations, determinations and decisions under Part 6 and other purpose statements within Part 6 are likely to be conceptually subordinate.²³⁴
- A7 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).

Powers to amend IMs

- A8 We may amend the 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.
- A9 In deciding whether to exercise our power to consult on amendments to the IMs, we must make the decision that we consider best gives effect to or is likely to best give effect to the s 162 purpose and the promotion of workable competition (where relevant), in addition to the s 174 purpose of the IMs discussed above. Consideration of promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunication services is unique to fibre (s 166(2)(b)) and could affect a decision to consider new IMs.

²³⁴ 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, para 165.

Amendments inside and outside the IM review cycle

- A10 All 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.
- A11 Given the certainty purpose of the 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 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.
- A12 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.²³⁵

Types of amendments outside the IM review

- A13 In past Part 4 resets, the need to balance these competing considerations has led us to focus on two sorts of amendments outside the IM review:
- A13.1 those that support incremental improvements to PQ paths; and
- A13.2 those that enhance certainty about - or correct technical errors in - the existing IMs.
- A14 Conversely, it will not generally be appropriate to consider 'fundamental' changes outside the 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.
- A15 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.²³⁶

²³⁵ 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; and 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.

²³⁶ 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 DPP2 and IPP2 resets for EDBs and Transpower.

A16 In the context of the IMs we have invited views on whether or not there would be a benefit to aligning the statutory IM reviews under Part 4 of the Commerce Act and Part 6 for the Cost of Capital IMs. We also signalled that we are keeping certain parameters relating to the Cost of Capital IMs under review given the potential impact of COVID-19 and we would make a decision on whether any amendments were needed by April 2021.²³⁷ Prior to setting PQP1, this may include reassessment of the cost of capital on a cross-sector basis, as signalled in Chapter 4 of our IMs Further Consultation paper.²³⁸

Status of the RPR IMs

A17 The RPR matters listed under s 176(1)(c) of the Act are not generally ‘fundamental’ in the sense discussed above. Further, they are closely connected to the operation of the PQ regime, so may need to be amended to support incremental improvement. This is consistent with the approach we have taken under Part 4 of the Commerce Act.

A18 On the other hand, the RPR IMs are intended to provide process certainty for providers and end-users (consistent with promoting s 174), so a process to amend them should only be entered into where the benefits in terms of s 166(2) outweigh any detrimental impact on this certainty.

Status of the quality and capex IMs

A19 Our initial view is that the quality dimensions and capex IMs are not ‘fundamental’ in the sense described above and should be treated in a similar way to the RPR IMs.

A20 An exception to this could be the sections of the capex IM which deal with the process for Chorus preparing an expenditure proposal for a regulatory period, as Chorus will be complying with its obligations under these sections during the reset process.

Consideration of introducing new IMs

A21 Our initial view is that no special criteria need apply to the introduction of new IMs outside the IM review process, but that applying the general framework outlined above would in most cases mean such amendments are not appropriate outside an IM review.

²³⁷ Commerce Commission “Fibre input methodologies Further consultation draft – reasons paper” (23 July 2020), Chapter 4.

²³⁸ Ibid.

- A22 As noted above, one of the points of difference of the Fibre regime is the explicit power to introduce IMs that deal with new matters.²³⁹ As such, we have not considered the framework for doing so in Part 4.
- A23 While the Act does not give explicit requirements about when we should (or must) add a new IM, we would only add new IMs if we thought that there was a gap in the mandatory IMs that meant that as a package they did not:
- 6.77.3 best give, or are likely to best give effect to s 166(2)(a) and s 166(2)(b) (where relevant); or
 - 6.77.4 promote sufficient certainty to achieve the purpose of IMs in s 174.

Introducing new IMs outside of the IM review

- A24 As with amendments to existing IMs, we do not consider there is a firm rule against introducing new IMs outside the IM review. However, applying the criteria above, we would be unlikely to do so.
- A25 Firstly, it is difficult to foresee a situation where we would need to introduce an entirely new IM to implement an incremental improvement to PQ or ID regulations, or to correct for errors. Based on Part 4 experience, these kinds of changes have been accommodated with amendments to existing IMs (principally the RPR IMs).
- A26 Secondly, extending the IMs to cover an entirely new topic would in most cases be a fundamental change; one that needed to be considered in light of the scheme of the IMs as a whole, rather than in relative isolation. Furthermore, making such a significant change outside the predictable seven-year cycle may reduce the certainty purpose of IMs.

Context ahead of PQ and ID

- A27 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 and ID setting process. Because of these contextual factors, it is likely that the set of IM amendments that meet our criteria will be larger prior to the first period than in future resets (and compared to recent Part 4 resets).

²³⁹ Telecommunications Act 2001, section 178(2).

Error correction

A28 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. As the fibre IMs are new, there is a greater chance of this being necessary prior to the first reset (as was the case with the IM amendments ahead of the 2014 EDB DPP2 reset).

Implementing PQ and ID approaches

A29 Once we have determined our approach to PQ and ID in greater detail, it may become apparent that IM amendments are necessary to implement an approach to PQ and ID that best gives effect to the s 186 purpose of ID or the s 192 purpose of PQ. We consider this most likely to affect the RPR IMs. For example, it may be necessary to make changes to the IMs to give effect to our approach to the revenue path wash-up.

Short duration of the first regulatory period

A30 Finally, it is worth noting that the first PQ regulatory period is a short one (three years) and so the need to amend the IMs may be less compelling. As the consequences of leaving an IM unamended would only last three years, in some cases, it may be better to defer incremental improvements until the second regulatory period.

Attachment B Potential measures and standards for quality

Table B1 Examples of service levels from existing UFB contracts

Dimension	Metric	Breakdown	Measurement	Target
Availability	Average Downtime	Layer 1	$D = \frac{\sum(U+P)}{\sum E}$	Average Downtime Layer 1 ≤ 2 hours
		Layer 2	D= Downtime U= Unplanned Outage minutes P= Planned Outage minutes E= Number of End-Users Calculated per coverage area	Average Downtime Layer 2 ≤ 30 minutes
Availability	Maximum Downtime	Layer 1	Maximum downtime for each end-user in a month	For standard service level
		Layer 2		Maximum Downtime Layer 1 ≤ 48 hours default service level ≤ 24 hours enhanced service level 1 ≤ 12 hours enhanced service level 2 ≤ 8 hours enhanced service level 3 Maximum Downtime Layer 2 ≤ 12 hours default service level ≤ 12 hours enhanced service level 1 ≤ 8 hours enhanced service level 2
Availability	Maximum Downtime	Layer 1	Maximum downtime for each end-user in a month	For standard service level
		Layer 2		Maximum Downtime Layer 1 ≤ 48 hours Maximum Downtime Layer 2 ≤ 12 hours
Availability	Planned outage		Number of days in advance notice Number of minutes there have been planned outages	Notification ≥ 5 business days
Availability	Unplanned outage		Number of hours to be notified to the RSP Number of minutes there have been planned outages	Notification ≤ 2 hours, 24x7

Dimension	Metric	Breakdown	Measurement	Target
Performance	Frame Delay	Layer 2	<p>The time taken in milliseconds (mS) for a data frame to transit a fibre network between points of ingress and egress</p> <p>CIR: Committed Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point CIR primary ≤ 7 mS CIR secondary ≤ 12mS GPON CIR primary ≤ 7mS CIR secondary ≤ 12mS</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Frame Delay Variation	Layer 2	<p>The variation in frame delay in mS over a time interval</p> <p>CIR: Committed Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point CIR primary ≤ 1mS CIR secondary ≤ 3mS GPON CIR primary ≤ 1mS CIR secondary ≤ 3mS</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Frame Loss Ratio	Layer 2	<p>The portion of frames that are lost between the ingress interface and the egress interface or the fibre network, expressed as a percentage</p> <p>CIR: Committed Information Rate EIR: Excess Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point CIR primary $\leq 0.1\%$ CIR secondary $\leq 0.1\%$ EIR $\leq 2.0\%$ GPON CIR primary $\leq 0.1\%$ CIR secondary $\leq 0.1\%$ EIR $\leq 2.0\%$</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Port Utilisation	Layer 2	<p>The average bandwidth utilised on a Port, expressed as a percentage of the total bandwidth available on that Port, measured over a five-minute interval for each five-minute interval of every day</p>	<p>Port utilisation $\leq 95\%$</p>

Dimension	Metric	Breakdown	Measurement	Target
Ordering	Ordering system availability		Percentage of time the Ordering system is available. P1: Priority 1 P2: Priority 2	System availability $\geq 95\%$ P1 Faults 60 min response, 12 hour restoration P2 Faults 2 hours response, 3 days restoration
Ordering	Pre-qualification Acknowledgement	Layer 1 Layer 2	Acknowledgement of receipt of Pre-qualification order	Acknowledgement receipt ≤ 4 hours
Ordering	Pre-qualification order Completion	Layer 1 Layer 2	Completion of Pre-qualification order	Complete and return information ≤ 4 hours
Provisioning	Time to complete order	Layer 1 Layer 2	Time in days from receipt of an order from the Access Seeker to the time it is ready for use by the End-User.	Layer 2 remote provisioning $90\% \leq 4$ business hours, $100\% \leq 1$ business day Layer 2 with truck roll $100\% \leq 5$ business days
Provisioning	Meet provisioning date	Layer 1 Layer 2	Met provisioning date agreed with Access Seeker and End-User.	Completed by agreed connection date $\geq 75\%$
Provisioning	Time to provision Co-location	Co-location	Time in days to establish a new interconnection point Time in days to expand an existing interconnection point	Time to provision ≤ 20 business days
Provisioning	Time to disconnect FFLAS	Layer 1 Layer 2	Average time taken in days to disconnect a FFLAS service.	75% or more of all disconnections of a Connection due to be made within a month $100\% \leq 1$ business day
Provisioning	Time to change FFLAS service	Layer 1 Layer 2	Average time taken in days to change from one FFLAS service to another with the same Access Seeker	Completed by agreed connection date $\geq 75\%$
Switching	Time to change FFLAS between Access Seekers	Layer 1 Layer 2	Average time taken in days to change a FFLAS service from one Access Seeker to another.	Completed by agree connection date $\geq 75\%$
Faults	Incidence of Faults	Layer 1 Layer 2	Number of faults per 100 connections	To be confirmed
Faults	Time to restore	Layer 1 Layer 2	Average time taken in hours to repair a fault	To be confirmed

Dimension	Metric	Breakdown	Measurement	Target
Faults	Fault report receipt acknowledgement	Layer 1 Layer 2	Acknowledge receipt of each fault report	Provide fault report receipt acknowledgement within 30 minutes of the fault being reported
Faults	Meet notified expected restoration time	Layer 1 Layer 2	Restore fault within notified expected restoration time	Restore within notified time $\geq 90\%$
Faults	Notification of completion of service restoration.	Layer 1 Layer 2	Confirm the completion of service restoration.	Confirmation ≤ 4 hours of the fault being resolved
Faults	Incidence of Faults by severity category	Layer 1 Layer 2	Number of faults for each severity category.	To be confirmed
Faults	Faults system availability		Percentage of time the Faults system is available. P1: Priority 1 P2: Priority 2	System availability $\geq 95\%$ P1 Faults 60 min response, 12 hour restoration P2 Faults 2 hours response, 3 days restoration
Customer service	Time to establish an Access Seeker		Time in days to establish a new Access Seeker to be ready to order FFLAS	RSP established ≤ 20 business days
Customer Service	End-User satisfaction		Survey of End-User satisfaction Installer performance Installation experience Co-ordination by providers Effort required	Satisfaction $\geq 70\%$ for measures within the control of the regulated provider
Customer Service	Missed appointments		Number of appointments missed (rescheduled agreed appointment)	To be confirmed

Table B2 Examples of service levels from existing UFB contracts for potential quality standards for PQ

Dimension	Metric	Breakdown	Measurement	Target
Availability	Average Downtime	Layer 1	$D = \frac{\sum(U+P)}{\sum E}$	Average Downtime Layer 1 ≤ 2 hours
		Layer 2	D= Downtime U= Unplanned Outage minutes P= Planned Outage minutes E= Number of End-Users Calculated per coverage area	Average Downtime Layer 2 ≤ 30 minutes
Availability	Maximum Downtime	Layer 1	Maximum downtime for each end-user in a month	For standard service level
		Layer 2		Maximum Downtime Layer 1 ≤ 48 hours default service level ≤ 24 hours enhanced service level 1 ≤ 12 hours enhanced service level 2 ≤ 8 hours enhanced service level 3 Maximum Downtime Layer 2 ≤ 12 hours default service level ≤ 12 hours enhanced service level 1 ≤ 8 hours enhanced service level 2
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		Layer 2		Maximum Downtime Layer 1 ≤ 48 hours Maximum Downtime Layer 2 ≤ 12 hours
Availability	Planned outage		Number of days in advance notice Number of minutes there have been planned outages	Notification ≥ 5 business days
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Dimension	Metric	Breakdown	Measurement	Target
Performance	Frame Delay	Layer 2	<p>The time taken in milliseconds (mS) for a data frame to transit a fibre network between points of ingress and egress</p> <p>CIR: Committed Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point</p> <p>CIR primary ≤ 7 mS</p> <p>CIR secondary ≤ 12mS</p> <p>GPON</p> <p>CIR primary ≤ 7mS</p> <p>CIR secondary ≤ 12mS</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Frame Delay Variation	Layer 2	<p>The variation in frame delay in mS over a time interval</p> <p>CIR: Committed Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point</p> <p>CIR primary ≤ 1mS</p> <p>CIR secondary ≤ 3mS</p> <p>GPON</p> <p>CIR primary ≤ 1mS</p> <p>CIR secondary ≤ 3mS</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Frame Loss Ratio	Layer 2	<p>The portion of frames that are lost between the ingress interface and the egress interface or the fibre network, expressed as a percentage</p> <p>CIR: Committed Information Rate</p> <p>EIR: Excess Information Rate</p> <p>GPON: Gigabit Passive Optical Network</p>	<p>Point to Point</p> <p>CIR primary $\leq 0.1\%$</p> <p>CIR secondary $\leq 0.1\%$</p> <p>EIR $\leq 2.0\%$</p> <p>GPON</p> <p>CIR primary $\leq 0.1\%$</p> <p>CIR secondary $\leq 0.1\%$</p> <p>EIR $\leq 2.0\%$</p> <p>At least 99% of the frames within the five-minute measurement interval must be within the above target, otherwise the service is to be considered unavailable for that five-minute interval</p>
Performance	Port Utilisation	Layer 2	<p>The average bandwidth utilised on a Port, expressed as a percentage of the total bandwidth available on that Port, measured over a five-minute interval for each five-minute interval of every day</p>	<p>Port utilisation $\leq 95\%$</p>

Attachment C UFB coverage areas by regulated provider in the North Island

