

Chorus' price-quality path for the second regulatory period (2025 – 2028) – final decision

Reasons paper

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Associated documents

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31 August 2023	ISBN 978-1-991085-31-3	Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period
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28 May 2024	ISBN 978- 1 -991287-32 - 8	TAMRP IM Final Decision reasons paper (and accompanying determination)
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13 December 2024		Chorus' PQP2 building block demonstration model – final decisions
13 December 2024		Section 193(2) Chorus compliance notice

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List of abbreviations

Abbreviation	Definition
Act	Telecommunications Act 2001
BBM	Building blocks methodology
Commission	Commerce Commission
Capex	Capital expenditure
CIP	Crown infrastructure partners
CPI	Consumer price index
DFAS	Direct fibre access service
EDB	Electricity distribution businesses
FAN	Fibre access network
FAR	Forecast allowable revenue
FFLAS	Fibre fixed line access service
FLA	Financial loss asset
FSP	Field service provider
FWA	Fixed wireless access
GAAP	Generally accepted accounting practice standards
GPON	Gigabit passive optical network
IAV	Initial asset value
ICP	Individual capex proposal
ID	Information disclosure
IM	Input methodology
Incenta	Incenta Economic Consulting
IT	Information technology
LFC	Local fibre company
Opex	Operating expenditure
MAR	Maximum allowable revenue
NZIER	New Zealand Institute of Economic Research
POI	Point of interconnection
PON	Passive optical network
PONFAS	PON fibre access service
PCS	Price path compliance statement
PQ	Price-quality
PV	Present value
PQP1	Price-quality path for the first regulatory period (2022-2024)
PQP2	Price-quality path for the second regulatory period (2025-2028)
QoE	Quality of experience
QoS	Quality of service
RAB	Regulatory asset base
Raw BBM	Raw building blocks revenue
Regulations	Telecommunications (Regulated Fibre Service Providers) Regulations 2019
RSP	Retail service provider
SBBR	Starting building blocks revenue
TAMRP	Tax-adjusted market risk premium
TCF	Telecommunications forum
UFB	Ultrafast broadband

Abbreviation	Definition
VoLL	Value of lost load
WACC	Weighted average cost of capital
XGS-PON	Ten gigabit symmetrical passive optical network

Executive summary

- X1 This paper outlines our final decisions on Chorus' quality standards and revenue path for the regulatory period from 1 January 2025 to 31 December 2028 (PQP2).
- X2 We are releasing our final price-quality (PQ) decisions in this paper covering:
- X2.1 estimated forecast allowable revenue;
 - X2.2 quality standards; and
 - X2.3 our approach to ensuring Chorus complies with the PQ determination.
- X3 We released our final decisions for Chorus' expenditure allowances for the regulatory period from 1 January 2025 to 31 December 2028 (PQP2) on 22 August 2024. Our final decisions on Chorus' expenditure allowances for PQP2 have been incorporated into our decisions on Chorus' PQ path for PQP2 by way of the building block methodology we use to calculate Chorus' maximum allowable revenue.

Allowable revenue

- X4 We have determined a total forecast allowable revenue of \$3,492.2 million for Chorus over the four years of PQP2.¹ All dollar figures are in present value terms, as at 1 January 2025, unless otherwise stated. This forecast allowable revenue amount is composed of:²
- X4.1 a 'building blocks revenue' amount of \$3,254.9 million;³
 - X4.2 a forecast allowance for pass-through costs of \$70.3 million;⁴ and
 - X4.3 a forecast wash-up amount of \$167.1 million.⁵
- X5 Estimated forecast allowable revenue in nominal dollars is illustrated in Table X1. We have increased Chorus' total forecast allowable revenue by \$189.3 million since the draft decision.

¹ In present value terms as at 1 January 2025. In nominal sum terms this equates to \$4,078.3m.

² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(2).

³ In present value terms as at 1 January 2025, including smoothing. In nominal sum terms this would equate to \$3,801.2m.

⁴ In present value terms as at 1 January 2025. In nominal sum terms this would equate to \$82.0m. Consistent with the Fibre IMs and our proposed PQ determination, Chorus will be able to update these forecast values when demonstrating compliance with the revenue path.

⁵ In present value terms as at 1 January 2025. In nominal sum terms this would equate to \$195.1m.

Table X1 Summary of our PQ final decisions (nominal, \$m)

PQ category	2025	2026	2027	2028
Building blocks revenue	891.5	932.8	970.2	1,006.6
Pass-through costs	19.6	20.2	20.8	21.4
Wash-up amount (smoothed)	45.8	47.9	49.8	51.7
Total	956.9	1,001.0	1,040.8	1,079.7

Building blocks revenue

- X6 The largest component of forecast allowable revenue is 'building blocks revenue'. Building blocks revenue is an amount specified by the Commission in a PQ determination and is composed of the relevant building blocks components.⁶ The building blocks are components that reflect forecasts of Chorus' costs for the regulatory period and certain regulatory adjustments (such as revenue smoothing over the PQP2 period).
- X7 Final key decision input parameters and assumptions for the building block model are set out in Table X2. Our approach for calculating building blocks revenue using various components is set out in Table X3.

Table X2 Key input parameters for the building blocks model

Parameter	Value
Vanilla WACC	7.68%
Post-tax WACC	7.17%
CPI (revaluations)	2025: 2.2% 2026: 2.0% 2027: 2.0% 2028: 2.0%
Allocated real base capex allowance	\$847.7m
Allocated real base connection capex allowance	\$174.1m
Allocated real base opex allowance	\$700.4m

⁶ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 1.1.4(2) – definition of 'building blocks revenue'.

Table X3 Final building blocks revenue components (\$m, nominal)

Component	2025	2026	2027	2028
Total return on capital	255.1	270.4	269.4	266.1
Return on assets (RAB x WACC), CFA	384.6	396.6	404.3	408.5
Return on assets (RAB x WACC), FLA	74.0	63.8	54.6	46.2
Revaluations	-127.1	-116.7	-116.1	-115.3
Ex-ante stranding allowance	6.0	6.0	6.0	5.9
Benefit of Crown finance	-84.9	-81.9	-81.8	-81.7
TCSA allowance	2.5	2.5	2.5	2.4
Opex allowance	197.0	203.6	208.0	210.9
Total depreciation	452.8	447.3	450.8	439.4
Core fibre assets	299.4	310.0	327.5	328.3
Financial loss assets	153.4	137.2	123.3	111.1
Tax allowance	0.0	0.0	28.3	101.6
In-period smoothing	-13.3	11.6	13.5	-11.4
Total	891.5	932.8	970.2	1,006.6

Pass-through costs

- X8 The specification of price and revenue IMs also require an allowance for the recovery of 'pass-through costs' to be included in forecast allowable revenue. Pass-through costs are costs over which Chorus has little or no control and that are appropriate to be passed through to end-users.⁷
- X9 The IMs specify that pass-through costs are:⁸
- X9.1 telecommunications levies under ss 11 and 12 of the Act;
 - X9.2 telecommunications development levies;
 - X9.3 local authority rates; and
 - X9.4 a fixed membership fee relating to, or a fixed amount payable as a member of:
 - X9.4.1 the Utilities Disputes Limited's (UDL) dispute resolution scheme;
 - X9.4.2 the Telecommunications Dispute Resolution Scheme (TDRS); and
 - X9.4.3 any other dispute resolution scheme specified in a PQ determination.

⁷ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.2.

⁸ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.2.

X10 In line with PQP1, our final decision is to not specify any additional dispute resolution scheme costs as pass-through costs for PQP2. This is because we are not aware that Chorus participates in any additional relevant schemes for which a pass-through cost would be required. This is the same as our draft decision.⁹

Wash-up amount

X11 Our final decision is that there should be a smoothed drawdown of the forecast opening wash-up account balance across the four years of PQP2.¹⁰ This is a change from our draft decision, which was for an equal drawdown amount in nominal terms of the forecast opening wash-up balance across PQP2.

Building blocks components

Final decisions on building blocks determined by the IMs

X12 Building block components are largely determined by the application of the fibre IMs:¹¹

X12.1 the components of the return on capital;

X12.2 the revaluations building block that results from the indexation of the RAB; and

X12.3 the regulatory tax allowance.

X13 Within the return on capital, our final decision is to specify a negative “annual benefit of Crown finance building block”, as we did for PQP1. The decision to include this is a matter of judgement in our PQ path decision. The IMs determine how it is calculated.¹²

X14 The regulatory tax allowance is \$0m for 2025 and 2026. This is because Chorus faced tax losses during the pre-implementation period that were not fully recovered in PQP1. These losses are forecast to be fully recovered during PQP2.

⁹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X11].

¹⁰ Chorus supplied a forecast amount for the 12 months ending 31 December 2024 on 6 September 2024. This was required under our notice of 22 December 2021, issued under s221 of the Telecommunications Act 2001. The total Chorus forecast real value of the opening wash-up balance is \$167.1m as at 1 January 2025.

¹¹ See *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clauses 3.3.1 (revaluation), 3.4.1 (taxation) and 3.5.1 to 3.5.11 (cost of capital).

¹² As set out in the process and approach paper, Chorus is expected to commence the repayment of Crown financing during PQP2. This will reduce the outstanding Crown financing balance, and therefore reduce the size of the benefit of Crown financing. The benefit of Crown financing is recognised as a negative building block in the maximum allowable revenue (MAR) calculation. As this amount represents a reduction in the required revenue, reducing the size of the benefit of Crown financing over PQP2 will have the effect of increasing the MAR.

Final decisions on building blocks where we have exercised our judgement

Depreciation

- X15 For core fibre assets, our final decision is to apply tilted annuity depreciation to a subset of these assets¹³ in order to backload depreciation. This is the same approach as put forward by Chorus in its proposal.¹⁴ Our final decision is that where tilted annuity depreciation applies, it will have a tilt rate of +0.35% (real) and there is no change to existing asset lives. This will defer approximately \$256 million of depreciation that would otherwise be recovered within the PQP2 period.
- X16 This has been changed from our draft decision, which was that where tilted annuity depreciation applied it would have a tilt rate of 3.5% (real)¹⁵ and would defer approximately \$267 million of depreciation that would otherwise be recovered within the PQP2 period.¹⁶
- X17 For the remaining core fibre assets, our final decision is to continue using straight-line depreciation under generally accepted accounting practice standards (GAAP) with GAAP-based asset lives, consistent with the default method in clause 3.3.2(3) of the fibre IMs (and the same approach as PQP1).
- X18 For the financial loss asset (FLA), our final decision is to continue to apply the alternative depreciation method that we used for PQP1 involving:
- X18.1 an original asset life of 14.2 years; and
- X18.2 tilted annuity depreciation with a tilt rate of -13%. Retaining this tilt will bring forward \$51.0m that would otherwise be recovered after PQP2.

Revenue smoothing within the period

- X19 Our final decision is to smooth Chorus' revenue within the PQP2 period allowing (though not requiring) Chorus to maintain prices at the real level established at the beginning of PQP2. This is the same approach that we adopted to smoothing in PQP1 and our PQP2 PQ draft decision.¹⁷ We have not identified a reason to change.
- X20 Our final decision involves determining building blocks revenue such that revenue increases by:

¹³ The subset of core fibre assets are splitters, poles, ducts, manholes, cabinets, fibre cables, fibre service lead-ins and optical fibre distribution frames, which we collectively refer to as 'layer 1 communal assets'.

¹⁴ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of approach to MAR smoothing for PQP2 (1 May 2024).

¹⁵ As explained in Attachment A, the draft decision tilt rate was actually stated in nominal terms, not real as originally stated.

¹⁶ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X20].

¹⁷ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [X12]; and Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X23].

- X20.1 forecasts of weighted average demand growth; and
- X20.2 the latest Reserve Bank of New Zealand (RBNZ) CPI forecasts.
- X21 To give effect to our final decision, we have included an additional ‘in-period smoothing’ building block, as we did for PQP1. This has the effect of reducing building blocks revenue in the first and fourth years of the regulatory period by \$13.3 million and \$11.4 million while increasing building blocks revenue in the second and third years by \$11.6 million and \$13.5 million respectively.
- X22 Given the forecast rates of change in CPI and quantity, the resulting smoothing changes annual revenues by the percentages set out in Table X4.

Table X4 Forecast rates of change in revenue implemented via in-period smoothing

Value	2025	2026	2027	2028
Forecast CPI	2.5%	2.0%	2.0%	2.0%
Demand growth	0%	2.6%	2.0%	1.7%
Total	2.5%	4.6%	4.0%	3.8%

Revenue smoothing between the periods

- X23 Our final decision is that revenue smoothing between periods is not required under s 197. This is the same as our draft decision.¹⁸

Approach to the revenue path and wash-up

Revenue cap

- X24 Our final decision is that the revenue cap will require Chorus to set prices such that ‘forecast total fibre fixed line access services (FFLAS) revenue’ is less than or equal to ‘forecast allowable revenue’. This is required by the fibre IMs and the same as our decision for PQP1 and our draft decision.¹⁹
- X25 Our final decision is that Chorus will have to demonstrate that the proposed prices for each regulatory year comply with the forecast allowable revenue cap on a forecast (ex-ante) basis prior to first applying those prices for that regulatory year. This is the same as our draft decision.²⁰

¹⁸ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X27].

¹⁹ Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [X15]; and Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X28].

²⁰ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X29].

Forecast total FFLAS revenue

X26 Our final decision is to require Chorus to demonstrate how it calculates 'total FFLAS revenue' on the basis of prices, forecast quantities and forecasts of 'other FFLAS income'. This is the same as our draft decision.²¹

Forecast allowable revenue

X27 In our final decision, we have specified forecast building blocks revenue using a formula to determine the forecast building blocks revenue for each regulatory year of PQP2, which:

X27.1 sets the forecast building blocks revenue as at 1 January 2025 and applies forecast CPI adjustments and forecast quantity adjustment to determine the revenue required for each regulatory year of PQP2;

X27.2 uses updated forecast (consumer price index) inflation for years beyond 2025; and

X27.3 uses specified forecast changes in quantities.

X28 Our final decision is to require Chorus to update the values of any forecast pass-through costs on an annual basis. This means the costs can be passed through to prices without delay rather than allowing a larger wash-up balance to build-up over PQP2. This is the same as our draft decision.²²

Additional controls on revenue

X29 We have not included any further measures to control revenues. This is the same as our draft decision.²³

Compliance with the revenue path

X30 Our final decision on compliance requirements for the revenue aspects of Chorus' PQ path is to:

X30.1 allow a wash-up of CPI for the first year of the regulatory period (which was the not case for PQP1) and for each subsequent year of the regulatory period (which we did for PQP1). We note that we have set the 'forecast building blocks revenue' for regulatory year 2025 as a nominal smoothed amount as at 1 January 2025 and apply forecast 2025 CPI to determine the nominal revenue value for 2025;

²¹ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X30].

²² Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X32].

²³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X33].

- X30.2 change to a lagged CPI calculation for the revenue path;
- X30.3 retain the same level of certification requirements as specified for PQP1 and set the due date of compliance reporting for the purpose of s 194(2)(e) as follows:
- X30.3.1 for regulatory year 2025, the first regulatory year of PQP2, 31 May 2025;²⁴ and
- X30.3.2 for regulatory years 2026 to 2028, 22 November in the preceding year.²⁵
- X30.4 remove the requirement for the submission of a mid-year price path compliance statement (PCS); and
- X30.5 retain the same approach to the ex-post wash-up information as was used in PQP1.
- X31 Chorus must provide a statement of compliance with the revenue path and provide supporting information to demonstrate compliance. This statement and the supporting information Chorus is required to provide must be certified by at least one director of Chorus.
- X32 The main change from our draft decision is to adopt a lagged CPI calculation for the price path roll forward instead of a forward-looking CPI calculation. We also intend to make some minor changes to the PQP2 wash-up information requirements to clarify and streamline the requirements for Chorus.

Mechanics of the wash-up

- X33 Our approach to the wash-up mechanism is largely set out in the fibre IMs, including the mechanics and scope of the wash-up. The main area where we have applied judgement is in specifying a forecast CPI value for the first year of the period, providing for revenue to be washed-up using actual CPI for all years of the PQP2 period. We did not wash-up for CPI in year 1 of PQP1. Our acceptance of Chorus' proposed alternative depreciation method is intended to also avoid a large wash-up balance building over PQP2, but does not involve any changes to the wash-up mechanism itself. This is the same as our draft decision.²⁶

²⁴ This differs from our requirement for PQP1, where we required the information by 31 March 2022 for the first regulatory year.

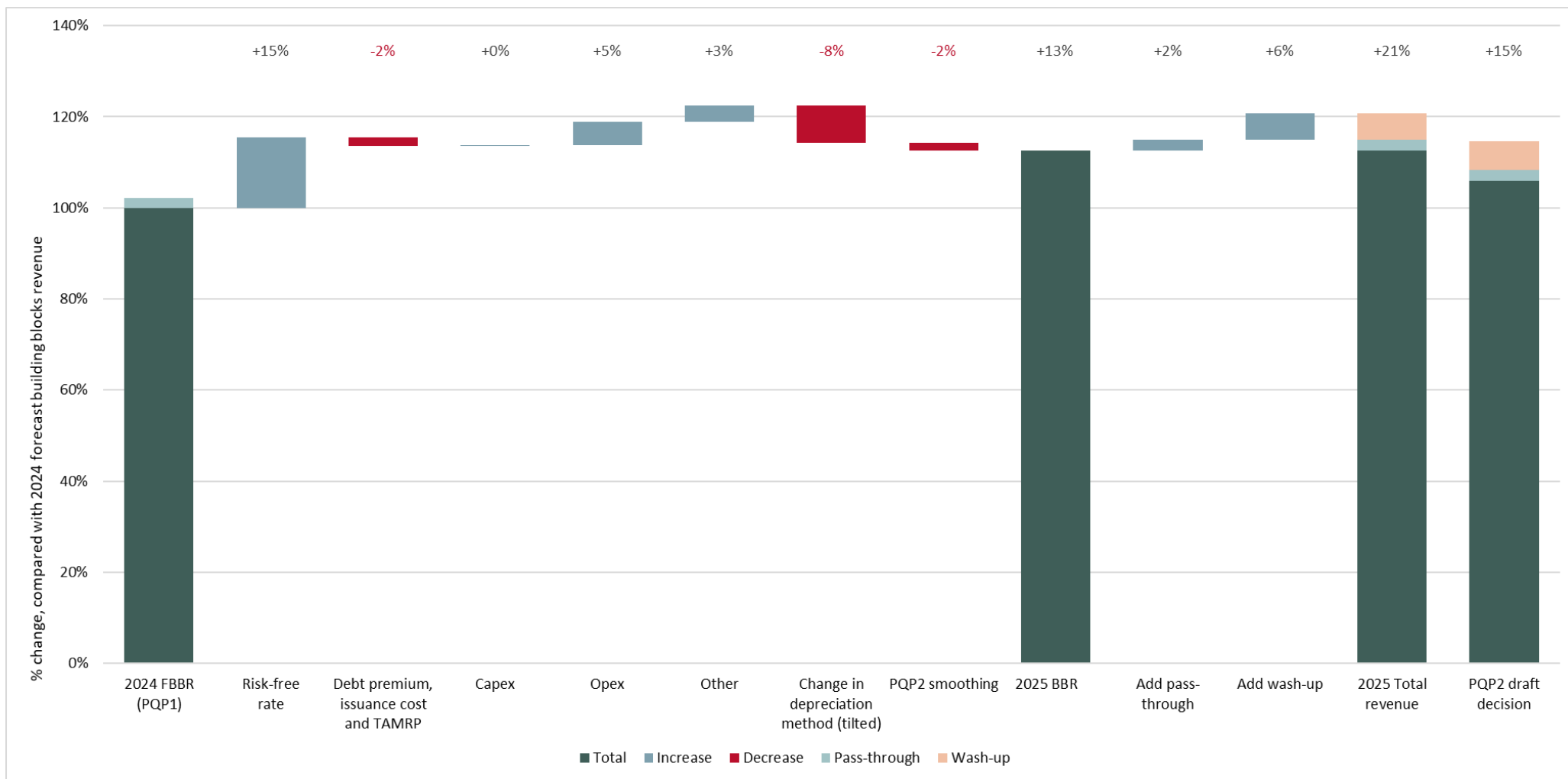
²⁵ This differs from our requirement for PQP1, where we required the information by 30 August of the preceding regulatory year for 2023 and 2024.

²⁶ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X36].

Drivers of change in forecast net allowable revenues

- X34 Figure X1 shows the change in allowable revenue from 2024 (the last year of PQP1) to forecast allowable revenue for 2025 (the first year of PQP2). The change in allowed revenue reflects smoothing within each of the periods, changes in the WACC, higher-than-expected CPI inflation during PQP1, and increases in opex and capex.
- X35 The figure shows a potential growth of 21% in maximum forecast allowable revenue between 2024 and 2025. Note that this is the maximum possible growth in revenue in the first regulatory year of PQP2, however we note that Chorus has already set 2025 prices and price increases range between approximately 3% and 10%, with many services subject to an approximate 5% price rise.

Figure X1 Drivers of change in forecast net allowable revenues between 2024 and 2025



Quality standards

- X36 Our PQP2 quality final decisions represent a change in approach from PQP1.
- X37 We have made these changes based on Chorus' performance and our assessment of the effectiveness of the quality standards during PQP1. Our final quality standards are now more focused on systemic issues that are within Chorus' control and reduce the risk of Chorus breaching as a result of random events.
- X38 We consider our final decision provides Chorus with appropriate incentives to maintain and improve quality during PQP2 to levels that end-users expect for what they are prepared to pay, while minimising the risk of "false breaches" associated with events outside of Chorus's control or statistical anomalies.

Availability quality standards

- X39 For PQP2 our final decision is to set an availability standard for the layer 1 and layer 2 aspects of Chorus' fibre network across each availability POI area. Our final decision is that Chorus must meet an annual assessment threshold for unplanned downtime in each year of the regulatory period. If Chorus exceeds this annual assessment in two consecutive years, this will constitute a breach of the availability assessment for that second regulatory year.

Annual availability assessment threshold

- X40 Chorus complies with the availability assessment for an availability POI area for a regulatory year if its total average net unplanned downtime does not exceed:
- X40.1 for a layer 1 aspect of a fibre network, 57 minutes in that availability POI area in the regulatory year; and
 - X40.2 for a layer 2 aspect of a fibre network, 19 minutes in that availability POI area in the regulatory year.
- X41 This is a change from our PQP2 draft decision which set the availability thresholds at:
- X41.1 80 minutes for a layer 1 aspect of a fibre network;²⁷ and
 - X41.2 17 minutes for a layer 2 aspect of a fibre network.²⁸

²⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X42].

²⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X45].

Availability quality standards

- X42 Chorus complies with the availability quality standards for a regulatory year if it complies with the annual availability assessments in that regulatory year, or has complied with the annual availability assessments in the preceding regulatory year. In other words, exceeding two consecutive annual availability assessments will not comply with the quality standard.
- X43 If Chorus fails to comply with an availability quality standard (ie, non-compliance with two consecutive annual availability assessments) and fails to comply with the equivalent annual availability assessment for a third consecutive regulatory year, it will again breach the quality standard.²⁹
- X44 There is no availability quality standard in the first regulatory year of PQP2 as there will have been no previous qualifier year of exceeding the annual assessment threshold.

Methodology for setting the standards

- X45 Our final decision is to use a binomial test to calculate the annual thresholds for the availability quality standards using the multi-year approach. This is the same as our PQP2 draft decision.³⁰
- X46 We note that our final decision uses a different dataset as an input to this calculation from our draft decision. Our draft decision used a timeseries of data of three years covering July 2020 to 30 June 2023.³¹ Our final decision retains the three-year window but uses more recent data (January 2021 to December 2023), including Chorus' most recent year of data reported under ID (year ending 31 December 2023). This final decision has led to a change in the layer 1 and layer 2 annual availability assessment thresholds since the draft decision. We consider this more recent data set is more representative of Chorus' recent performance.

Calculation of the availability quality standards

- X47 Our final decision is to retain the PQP1 methodology to calculate the availability assessment. This is the same as our PQP2 draft decision.³²

²⁹ For example, exceeding the threshold in year one and year two of PQP2 will result in Chorus breaching a quality standard. If a further exceedance occurs in the following year for the same availability POI area and same service layer, Chorus would again breach that quality standard (ie, it would breach for both year two and year three).

³⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.59].

³¹ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.75].

³² Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X48].

X48 'Average unplanned downtime' for a regulatory year in an availability POI area is calculated in accordance with the following formula:

$$\sum_{i=1}^{12} \frac{\sum NUD_i}{ANAC_i}$$

Where:

NUD means net unplanned downtime for that calendar month in that availability POI area;³³

ANAC means average number of connections for that calendar month in that availability POI area; and

i means the calendar month in the regulatory year, where 1 = January, ..., 12 = December.

Definition for 'net unplanned downtime'

X49 Our final decision is to amend the definition of net unplanned downtime in the PQ determination to measure the period the end-user experiences a cessation of service after the provider has been notified of the outage.

X50 This is a change from our PQP2 draft decision that retained the definition of 'net unplanned downtime' from PQP1.

Geographic differentiation - availability POI areas

X51 Our final decision is to retain the availability POI areas as a basis for geographic differentiation for the availability quality standards. This is the same as our draft decision.³⁴

Exclusions from the standards

X52 Our final decision is to retain from PQP1 the exclusion of the following from the calculation of 'net unplanned downtime':

X52.1 force majeure events; and

X52.2 unplanned downtime caused by faults to non-diverse transport services.

Implementation date

X53 Our final decision is that the availability standard should be in force from the start of PQP2.

³³ Note that we have amended the definition of net unplanned downtime, which is explained below.

³⁴ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X57].

Performance quality standard

- X54 Our final decision is to set a performance standard based on port utilisation. Chorus meets the performance assessment for a port for a calendar month if it does not experience port utilisation, upstream or downstream, equal to or exceeding 90% in any five-minute interval in the calendar month.
- X55 An instance where port utilisation equals or exceeds 90% must be disregarded for the purposes of the performance assessment if it is attributable to a force majeure event.
- X56 Chorus fails the quality standard in any given month if the same port fails to comply with the assessment in that calendar month and the two previous calendar months. If there is a further exceedance of the monthly performance assessment for the same port for a fourth or more consecutive months, it will be seen as a continuation of the same breach. If the same port experienced a non-consecutive breach, this would be assessed as a new breach.
- X57 This is a change from our draft PQP2 decision, which would have treated an exceedance in the fourth month as a new breach.³⁵ There is no performance quality standard in the first two calendar months of the first regulatory year.

Calculation of the performance quality standard

- X58 Our final decision is to use the same methodology to calculate port utilisation as used in PQP1 and as was described in our PQP2 draft decision.³⁶
- X59 ‘Port utilisation’ is calculated as a percentage figure in accordance with the following formula:

$$\frac{\text{octets} \times 8}{5 \times 60 \text{ seconds} \times PS} \times 100$$

Where:

octets means the number of octets at a port, being the greater of the inOctets or the outOctets, measured over the 5-minute interval in accordance with RFC 2863, and includes framing characters, but excludes Ethernet preamble, start from delimiter, and interpacket gaps; and

PS means port speed and is measured in bps.

³⁵ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X63].

³⁶ *Fibre Price-Quality Path Determination 2021* [2021] NZCC 27; and Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X65]-[X66].

X60 As with the PQP1 determination and our PQP2 draft decision, port utilisation measurement includes all physical, virtual and sub-interfaces within the physical ports that are within the regulated provider's fibre network excluding User Network Interface (UNI), External Network-to-Network Interface (ENNI) and passive optical network (PON) ports.

Force Majeure events

X61 Consistent with the availability standard, our final decision is to exclude force majeure events in the calculation of the final performance standard. This will mean Chorus can exclude the impact of these events on port utilisation during PQP2.

X62 Similar to the availability standards, our final decision is to require Chorus to record and provide information to us under s 193 when it has relied on a force majeure event (and the values excluded). This will assist us in monitoring compliance with the performance standard.

X63 This is the same as our draft decision.³⁷

Implementation date

X64 Our final decision is that the performance standard should be in force from the start of PQP2.

Provisioning quality standard

X65 The fibre IMs allow us to set a quality standard for any of the optional quality dimensions, including for the dimension of provisioning.

X66 Our final decision is to not set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension. This is a change from our draft decision.

Other optional dimensions

X67 Our final decision is to not set standards for the optional dimensions of ordering, switching, faults and customer service. This is the same as our draft decision.

Quality incentive scheme

X68 Our final decision is to not introduce a pilot quality incentive scheme or a compensation scheme for PQP2. We will instead continue to consider the need for and design of any such schemes for future PQP resets. This is the same as our draft decision.

³⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X69]-[X70].

Compliance and breach reporting for the quality standards

Compliance reporting

- X69 Our final decision on compliance reporting for the mandatory quality standards is that Chorus must report on all annual assessments at the end of each regulatory year within an annual assessment report. These reporting requirements are set out in the published s 193(2) notice.
- X70 Chorus must provide this statement to the Commission within five months of the end of each regulatory year. This is a change from our draft decision, which had a timeframe of within two months.
- X71 Chorus must also report on whether it has applied the force majeure exclusion during its calculations to establish compliance with the annual availability assessments. Chorus must set out the impact of the removal of this information where it has applied this exclusion.
- X72 We have made some minor changes to information requirements for the annual assessment report to simplify some of the language used in the s 193(2) notice.

Breach reports

- X73 Our final decision is that where any quality standard is breached, Chorus must also provide a 'breach report' to the Commission. In relation to each quality standard, a breach report is due:
- X73.1 for the availability quality standard, within five months of the end of the regulatory year in which the breach occurred; and
- X73.2 for the performance quality standard, within five months of the end of the month during a regulatory year in which the breach occurred.
- X74 This requirement is the same as our draft decision. Separate reporting due dates apply to the availability and performance quality standards as the methodologies use different time periods as the basis for determining whether a breach has occurred (ie, annually compared to monthly).

Chapter 1 Introduction

Purpose of this paper

- 1.1 This paper outlines our final decisions for Chorus' price-quality path for the second regulatory period from 1 January 2025 to 31 December 2028 (PQP2), and sets out the reasons for our final decisions on:³⁸
- 1.1.1 forecast allowable revenue;
 - 1.1.2 quality standards; and
 - 1.1.3 our approach to ensuring Chorus complies with the PQ determination.
- 1.2 This reasons paper is published alongside the final determination and our final s 193 notice containing compliance requirements for PQP2.

Structure of this paper

- 1.3 This paper is structured as follows:
- 1.3.1 Chapter 1 is an introduction;
 - 1.3.2 Chapter 2 sets out our regulatory framework;
 - 1.3.3 Chapter 3 sets out the allowable revenue for PQP2;
 - 1.3.4 Chapter 4 sets out our final decisions and reasons on quality standards for PQP2; and
 - 1.3.5 Attachment A sets out our final decisions on the depreciation of Chorus' regulatory asset base and the smoothing of allowable revenue within and between regulatory periods.
- 1.4 We have described our approach and final decisions on Chorus' compliance requirements during PQP2 in the respective chapters on the revenue path (Chapter 3) and quality standards (Chapter 4).

Process we have followed

- 1.5 The timeline for our process is set out in Table 1.1 below.

³⁸ *Determination of the duration of the second regulatory period for Fibre Price-Quality Path Determination 2024 [2023] NZCC 2.*

Table 1.1 Process for PQP2

Date	Milestone	Description
28 February 2023	Chorus PQP2 information request	We issued a notice to supply information under s 221 of the Act, seeking information necessary to set Chorus' expenditure allowances.
31 August 2023	Process and approach paper	A paper setting out our proposed approach to PQ regulation for the second period, and the process for delivering it.
28 September 2023	Process and approach paper submissions	Submissions received on the process and approach paper.
31 October 2023	Chorus PQP2 expenditure proposal	Chorus submitted its expenditure proposal for PQP2.
16 November 2023	Consultation on Chorus' expenditure proposal	We published a consultation paper on Chorus' expenditure proposal.
11 January 2024	Chorus' expenditure proposal submissions	Submissions received on Chorus' expenditure proposal for the second regulatory period.
2 February 2024	Chorus' expenditure proposal cross submissions	Cross submissions received on Chorus' expenditure proposal for the second regulatory period.
5 February 2024	New information submitted by Chorus	Chorus submitted new information related to its plans to extend the network during PQP2 (a programme it calls 'fibre frontier').
26 March 2024	Draft decision on TAMRP IM	Draft decision on the tax-adjusted market risk premium input methodology.
18 April 2024	Draft decision on Chorus' expenditure allowance for PQP2	Draft decision on Chorus' capex and opex allowances for PQP2.
16 May 2024	Draft decision on Chorus' expenditure allowance for PQP2 submissions	Submissions received on draft decision on Chorus' expenditure allowance for PQP2.
6 June 2024	Draft decision on Chorus' expenditure allowance for PQP2 cross submissions	Cross submissions received on draft decision on Chorus' expenditure allowance for PQP2.
01 July 2024	WACC determination for Chorus PQP2	Determination of the WACC that must be used to set Chorus' allowable revenue for PQP2.
17 July 2024	Draft fibre IM amendments	Draft fibre IM amendments to implement our PQ decisions or correct technical errors.
18 July 2024	Determination of Chorus' PQ path for PQP2 draft decision	Draft decision (and accompanying draft determination) on Chorus' revenue path and quality standards for PQP2.
18 July 2024	Determination of Chorus' PQ path for PQP2 draft decision	Final decision on anchor service review.
15 August 2024	PQ path for PQP2 draft decision submissions	Submissions received on draft decisions on Chorus' PQ path for PQP2.
22 August 2024	Decision on Chorus' expenditure allowance for PQP2	Final decision on Chorus' capex and opex allowances for PQP2.
10 September 2024	PQ path for PQP2 draft decision cross submissions	Cross submissions received on draft decisions on Chorus' PQ path for PQP2.
30 September 2024	Additional information provided by Chorus on revenue path and alternative depreciation	Consultation on additional information on Chorus' revenue path and alternative depreciation for PQP2.
17 October 2024	Amendments to the net unplanned downtime definition for PQP2	Consultation on amendments to the net unplanned downtime definition in PQP2.
21 November 2024	Final fibre IM amendments	Final fibre IM amendments to implement our PQ decisions or correct technical errors.

Date	Milestone	Description
13 December 2024	Determination of Chorus' PQ path for PQP2 final decision (this paper)	Final decision (and accompanying determination) on Chorus' revenue path and quality standards for PQP2.
1 January 2025	Start of PQP2 regulatory period	PQP2 comes into effect.

1.6 We have approached our decisions for PQP2 in two stages, and have held separate consultations on each of the following:

1.6.1 Chorus' expenditure allowances for PQP2; and

1.6.2 Chorus' PQ path for PQP2.

1.7 We published our final decisions on Chorus' expenditure allowances for PQP2 on 22 August 2024.³⁹ The final decisions on expenditure have been used in our final decisions for calculating Chorus' forecast allowable revenue for PQP2 by way of the building block methodology.

1.8 We also ran further rounds of consultation on the following specific issues:

1.8.1 additional information provided by Chorus on the revenue path and alternative depreciation; and

1.8.2 amendments to the net unplanned downtime definition for PQP2.

Material provided alongside this final decisions reasons paper

1.9 The following documents have been published alongside this paper:

1.9.1 a section 170 determination for Chorus' second PQ path;

1.9.2 a section 193(2) Chorus compliance notice;

1.9.3 Chorus' PQP2 building blocks demonstration model - final decisions.

1.10 To implement certain aspects of our final PQ decision, it was also necessary to consider amendments to the IMs. Our final decision on these IM amendments was published on 21 November 2024. These final amendments include changes to the operation of the revenue path wash-up mechanism.

1.11 Our final decision was to amend the fibre IMs as follows:

³⁹ Commerce Commission "Chorus' expenditure allowances for the second regulatory period (2025 – 2028) – Final decision – reasons paper" (22 August 2024).

- 1.11.1 to extend the timeframe under clause 3.7.24 of the fibre IMs to assess an individual capex design proposal from “within one month” to “within two months” of the Commission receiving the proposal; and
- 1.11.2 to amend clauses 2.4.10, 2.4.11 and 3.5.11 to calculate the benefits of Crown financing daily and then add up the daily benefits to arrive at the annual benefit, rather than calculating the benefit annually based on the Crown finance balance on the first day of the disclosure year for ID or on the first day of the regulatory year for PQ.

Chapter 2 Regulatory framework

Purpose and structure

- 2.1 This chapter describes the legal requirements under Part 6 of the Act for determining Chorus' second PQ path and the economic framework we have applied when making our final decisions.

Legal framework

- 2.2 This section sets out the legal requirements and regulatory framework which underpin our final PQ determination and final decisions for PQP2.

Background

- 2.3 We determined Chorus' PQ path for PQP1 on 16 December 2021. Before the end of the current regulatory period, we must make a determination under s 170 of the Act specifying how PQ regulation applies to Chorus during the next regulatory period. A final s 170 determination is published alongside this paper.
- 2.4 This will be the second regulatory period for Chorus. As detailed in our determination dated 28 February 2023, the second regulatory period will run for four years from 1 January 2025 until 31 December 2028.⁴⁰
- 2.5 The purpose of PQ regulation is to regulate the price and quality of FFLAS provided by regulated providers.⁴¹ Regulations made under s 226 of the Act set out that Chorus is subject to PQ regulation for all FFLAS "except to the extent that a service is provided in a geographical area where a regulated fibre service provider (other than Chorus Limited) has installed a fibre network as part of the UFB initiative."⁴² Chorus is currently the only local fibre company (LFC) subject to PQ regulation under Part 6 of the Act.⁴³
- 2.6 During the second regulatory period (from 1 January 2025) Chorus must, as a regulated provider subject to PQ regulation:⁴⁴

⁴⁰ *Determination of the duration of the second regulatory period for Fibre Price-Quality Path Determination 2024 [2023] NZCC 2.*

⁴¹ Telecommunications Act 2001, s 192; see also Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at Attachment D for discussion on the "scope of FFLAS".

⁴² Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6.

⁴³ Telecommunications (Regulated Fibre Service Providers) Regulations 2019, regulation 6. In our reasons paper for PQP1 we set out a framework for the interpretation of regulation 6 and concluded that, from our assessment, we were confident that Chorus interpreted regulation 6 consistently with our interpretation and that Chorus had applied this interpretation correctly in setting the initial RAB - Commerce Commission "Chorus price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Attachment E.

⁴⁴ Telecommunications Act 2001, s 193(1).

- 2.6.1 apply the PQ path set by us in a determination made under s 170 of the Act, which includes:
 - 2.6.1.1 the maximum revenues that Chorus may recover from its PQ FFLAS; and
 - 2.6.1.2 the quality standards that must be met by Chorus;
 - 2.6.2 provide an anchor service if an anchor service has been declared;⁴⁵
 - 2.6.3 provide a direct fibre access services (DFAS) if a DFAS has been declared;⁴⁶
 - 2.6.4 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;⁴⁷ and
 - 2.6.5 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.⁴⁸
- 2.7 The second PQ path must also specify:
- 2.7.1 the regulatory period (1 January 2025 to 31 December 2028);⁴⁹
 - 2.7.2 the date on which the PQ path takes effect (1 January 2025); and
 - 2.7.3 the date or dates by which compliance must be demonstrated.

⁴⁵ 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. See also, the Telecommunications (Regulated Fibre Services) Regulations 2021 which specify anchor broadband and voice services and one direct fibre access service (DFAS) that Chorus must provide to retail service providers.

⁴⁶ 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. See also, the Telecommunications (Regulated Fibre Services) Regulations 2021 which specify anchor broadband and voice services and one direct fibre access service (DFAS) that Chorus must provide to retail service providers.

⁴⁷ 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.

⁴⁸ Telecommunications Act 2001, s 193(1)(b) and s 201.

⁴⁹ *Determination of the duration of the second regulatory period for Fibre Price-Quality Path Determination 2024* [2023] NZCC 2.

Purpose of Part 6 and final PQ determination and decisions

- 2.8 When making our PQ determination and the decisions that form part of it, we must make decisions which best give, or are likely to best give, effect to the purposes of s 162 and, to the extent relevant, the promotion of workable competition in telecommunications markets under s 166(2)(b). We must also comply with the relevant requirements set out in the fibre IMs.
- 2.9 In our final reasons paper for PQP1, we made the following observations about the relationship between the two objectives in s 166(2) of the Act, which we consider still apply:⁵⁰
- 2.9.1 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.
- 2.9.2 Section 166(2)(a) directs us to make decisions that best give effect to the purpose in s 162. This is a mandatory consideration.
- 2.9.3 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 in telecommunications markets for the long-term benefit of end-users of telecommunications services is relevant, we will consider whether a decision has the potential to affect the level of competition in one or more telecommunications markets.
- 2.9.4 Section 166(2) does not establish a hierarchy between the promotion of the two outcomes. Where we consider that the promotion of competition is relevant, we must strive to make the decision that best gives, or is likely to best give effect, to both the promotion of outcomes consistent with workable competition for the benefit of end-users of FFLAS under s 162, and to the promotion of competition in telecommunications markets for the benefit of end-users in those markets under s 166(2)(b).

⁵⁰ Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [2.46], and [2.47]. Chorus submitted on our process and approach paper and stated: “where the purpose statement in section 162 and objective in section 166 conflict, the Commission needs to take a position that best promotes outcomes consistent with workably competitive markets, for the long-term benefits of end-users of FFLAS (i.e. section 162 takes priority)”. We consider our observations in PQP1 set out here, respond to that submission. Commerce Commission “Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 - Requirements for base capital expenditure, connection capex baseline expenditure, and operating expenditure proposals” (16 August 2023); and Chorus “PQP2 Process and Approach” (28 September 2023), at [13]. Note also our discussion of *Wellington International Airport Ltd & Ors v Commerce Commission* [2013] NZHC 3289 in the PQP2 process and approach paper at [3.17].

- 2.10 While all PQ decisions we make must best give, or be likely to best give, effect to the s 166(2) purposes, in certain cases, rather than requiring us to exercise judgement, some of our decisions may only require:
- 2.10.1 the application of the fibre IMs (for instance, determining the cost of capital for the regulatory period) which were determined because they best give, or are likely to best give, effect to the s 166(2) purposes; and
 - 2.10.2 the application of mandatory requirements in the Act.
- 2.11 Where certain PQ final decisions do not require us to exercise judgement, we have not specifically explained those decisions by reference to the s 166(2) purposes. Rather, we have explained those decisions by referencing our specific obligations under the fibre IMs or the Act.
- 2.12 Where our PQ final decisions require us to exercise judgement (for instance, our determination of quality standards that must be met by Chorus), we have explained why those decisions best give, or are likely to best give, effect to the s 166(2) purposes.

Allowable revenues

- 2.13 As a regulated provider subject to PQ regulation, Chorus must from 1 January 2025 apply the PQ path set by us and must not exceed the maximum revenues specified by us.
- 2.14 For PQP2, as for PQP1, we must determine a revenue cap for Chorus and not a price cap.⁵¹ 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.
- 2.15 The fibre IMs set out that “maximum revenues” will be specified in a PQ determination as a revenue cap. Under the revenue cap, in each year of the regulatory period, total FFLAS revenue recovered by Chorus must not exceed its “forecast allowable revenue”.⁵²
- 2.16 In determining forecast allowable revenues which Chorus may recover from its regulated FFLAS we:
- 2.16.1 must apply the fibre IMs to determine the key inputs;

⁵¹ Telecommunications Act 2001, s 195.

⁵² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1.

- 2.16.2 must reflect the actual financing costs incurred by Chorus in respect of Crown financing;
- 2.16.3 must from this regulatory period onwards (until the regulatory periods that start on or after the reset date) apply a wash-up mechanism;
- 2.16.4 must (where “necessary or desirable to minimise any undue financial hardship to a regulated fibre service provider or to minimise price shocks to end-users”) smooth revenues (see s 197 of the Act); and
- 2.16.5 may reduce/increase allowable revenues depending on how Chorus has performed against the quality standards.⁵³

Fibre IMs relevant for maximum revenues

- 2.17 To determine key inputs for the calculation of maximum revenues under the PQ path, the following fibre IMs must be applied:⁵⁴
 - 2.17.1 cost allocation;⁵⁵
 - 2.17.2 asset valuation (including the FLA);⁵⁶
 - 2.17.3 taxation;⁵⁷
 - 2.17.4 cost of capital;⁵⁸
 - 2.17.5 regulatory processes and rules, specifically the specification and definition of prices;⁵⁹ and
 - 2.17.6 the capex IM.⁶⁰

Benefit of Crown financing

- 2.18 In specifying the forecast allowable revenues that Chorus may recover, we must ensure that they reflect, in respect of any Crown financing, the actual financing costs incurred by Chorus (or a related party) in the regulatory period.⁶¹

⁵³ For example, through revenue linked penalties, rewards or compensation schemes.

⁵⁴ Under s 175(b)(ii) of the Act, we must apply the IMs in determining the prices applying to FFLAS.

⁵⁵ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subpart 2.

⁵⁶ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subpart 3.

⁵⁷ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subpart 4.

⁵⁸ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subpart 5.

⁵⁹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subpart 1.

⁶⁰ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, Subparts 7-8.

⁶¹ See s 171 of the Act.

- 2.19 In order to ensure that forecast allowable revenues reflect, in respect of any Crown financing, the actual financing costs incurred by Chorus in the regulatory period, we include a (negative) building block equal to the benefit of Crown financing, as calculated in accordance with the IMs, as explained in paragraph 3.53.

Wash-up mechanism

- 2.20 Over the course of PQP1, the wash-up mechanism has accrued balances for any over- or under-recovery of revenue by Chorus. In determining the PQP2 path, we are required to apply a wash-up mechanism that provides for this accrued balance to be drawn down.⁶² We have specified the scope of the wash-up mechanism and how it will operate in the fibre IMs.⁶³ We have explained our approach to the wash-up mechanism in Chapter 3.
- 2.21 We will issue a s 221 notice to Chorus that specifies the detailed calculations necessary to determine the “wash-up amounts” for each regulatory year of PQP2.

Depreciation

- 2.22 The treatment of depreciation is generally provided for in Subpart 3 of the fibre IMs, clauses 3.3.2 and 3.3.3. The fibre IMs explicitly provide for the Commission to exercise its judgement about whether to apply a different depreciation to that applied in the previous regulatory period.⁶⁴
- 2.23 Our final decision on depreciation is set out in Chapter 3, and in more detail in Attachment A.

Smoothing revenues

- 2.24 In determining our second PQ path, we must smooth revenues over multiple regulatory periods 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.⁶⁵

⁶² Telecommunications Act 2001, s 196.

⁶³ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3, subpart 1.

⁶⁴ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clauses 3.3.2(6).

⁶⁵ Telecommunications Act 2001, s 197.

- 2.25 As we set out in PQP1, we assess price shocks in terms of the rate of increase in ‘allowable revenue’ relative to current revenues. This is because ‘allowable revenue’ is a material determinant of the prices end-users face and this is what we regulate. We have not in general considered the rate of change in any individual price or class of prices because we are required to set a revenue path for PQP2 which does not include regulating prices themselves. We consider other regulatory tools such as pricing disclosures and the regulations in respect of anchor services and DFAS under ss 227 and 228 are the appropriate tools to manage individual price shocks.
- 2.26 In terms of undue financial hardship to Chorus, we note that 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, particularly on willingness to invest.
- 2.27 As in PQP1, our approach to considering undue financial hardship is that the burden of proof for claims of financial hardship lies with the regulated provider.
- 2.28 As set out in Chapter 3, we do not consider Chorus is likely to face undue financial hardship during PQP2 based on our final decisions and the information Chorus has provided to us to date.

Quality standards

- 2.29 Section 192 of the Act provides that the purpose of PQ regulation is to regulate the price and quality of FFLAS provided by regulated providers.
- 2.30 Section 194(2)(c) states that a PQ path must specify the quality standards that must be met by a regulated provider. Section 194(4) also states that these quality standards may be prescribed in any way we consider appropriate (such as targets, bands, or formulae) (as long as we apply the relevant fibre IMs).⁶⁶

Matters that may be included in our PQ determination

- 2.31 A PQ path may include incentives for Chorus to maintain or improve its quality of supply, and those incentives may include (without limitation):
- 2.31.1 penalties which reduce Chorus’ forecast allowable revenues based on whether, or by what amount, it fails to meet the required quality standards;⁶⁷

⁶⁶ Under s 175(b)(ii) of the Act, we must apply the IMs in determining the quality standards applying to FFLAS. The quality dimensions IM is specified in *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Subpart 6 of Part 3.

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

- 2.31.2 rewards which increase Chorus' forecast allowable revenues based on whether, or by what amount, it meets or exceeds the required quality standards;⁶⁸
- 2.31.3 compensation schemes that set minimum standards of performance and require Chorus to pay prescribed amounts of compensation if it fails to meet those standards;⁶⁹ and
- 2.31.4 reporting requirements, including special reporting requirements in asset management plans, if Chorus fails to meet the quality standards.⁷⁰

Fibre IMs relevant to quality standards

- 2.32 In specifying the quality standards that will apply to Chorus, we:
 - 2.32.1 must specify quality standards for the quality dimensions of availability and performance as set out in the fibre IMs;⁷¹ and
 - 2.32.2 may also specify quality standards for one or more of the quality dimensions of ordering, provisioning, switching, faults and customer service as set out in the fibre IMs.⁷²
- 2.33 When specifying quality standards, the fibre IMs also provide for a PQ determination to differentiate by regulated provider, geography, fibre network architecture, PQ FFLAS and class of end-user.⁷³

Declared services

- 2.34 Section 193(1)(b) provides that regulated providers that are subject to PQ regulation must comply with ss 198 to 201. Further, s 215(2)(b) states that failing to comply with ss 198 to 201 constitutes a contravention of a PQ requirement.
- 2.35 The Act provides for regulations made under ss 227 to 229 to declare certain FFLAS as anchor services (s 227), DFAS (s 228) and unbundled fibre services (s 229) (declared services). Once services are declared, ss 198 to 200 provide that regulated providers that are subject to PQ regulation will have to provide the declared services and comply with any prescribed maximum prices and conditions.

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

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

⁷⁰ Telecommunications Act 2001, s 194(3)(d).

⁷¹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.6.1.

⁷² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.6.2.

⁷³ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.6.3.

- 2.36 The Telecommunications (Regulated Fibre Services) Regulations 2021 provides for anchor services and a DFAS. At this time, regulations have not been proposed under s 229 that would declare an unbundled fibre service. When imposed declared services may act as an additional control on the revenues Chorus can earn and the quality of services it provides.

Undertakings under Subpart 2 of Part 4AA

- 2.37 Subject to any modifications under ss 206 and 230, Chorus' supply of PQ FFLAS must also comply with the undertakings it has given under s 156AD (fibre deeds).⁷⁴
- 2.38 The concept of FFLAS is broad enough to cover all of the services supplied under the fibre deeds and therefore Chorus must also supply PQ FFLAS in accordance with the equivalence, non-discrimination and supply obligations under the fibre deeds.

Monitoring compliance with the PQ path, declared services regulations, and geographically consistent pricing

- 2.39 Section 194 sets out that a PQ path must specify the date or dates by which compliance must be demonstrated in accordance with s 193(2).
- 2.40 To monitor compliance with the PQ path, declared services regulations, and the geographically consistent pricing requirements, we may issue a written notice to Chorus requiring it to provide any (or all) of the following:
- 2.40.1 a written statement that states whether it has complied with the PQ path;⁷⁵
 - 2.40.2 a report on the written statement that is signed by an auditor in accordance with any form specified by us;⁷⁶
 - 2.40.3 sufficient information to enable us to properly determine whether a PQ path has been complied with;⁷⁷ and

⁷⁴ Under s 206, on or after the implementation date, Chorus will not be required to achieve price equivalence in relation to the supply of an unbundled layer 1 service to the extent that the service is an input to a service that is subject to a prescribed maximum price under Part 6 that is not a cost-based price. In addition, under s 230, if services are declared under ss 228 and/or 229, then the Governor-General may make regulations discharging a regulated provider from its obligations to supply a service under a s 156AD undertaking. See also our PQP1 final decision for a description of what the Chorus fibre deeds require.

⁷⁵ Telecommunications Act 2001, s 193(2)(a).

⁷⁶ Telecommunications Act 2001, s 193(2)(b).

⁷⁷ Telecommunications Act 2001, s 193(2)(c).

2.40.4 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.⁷⁸

2.41 Our final decision in respect of compliance requirements for geographically consistent pricing is set out in paragraph 3.229.

2.42 A final s 193(2) notice is published alongside this paper.

Enforcement provisions applicable for PQ regulation

2.43 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:⁷⁹

2.43.1 in respect of each act or omission, exceed \$500,000 in the case of an individual; or

2.43.2 \$5,000,000 in the case of a body corporate.

2.44 If the High Court orders a person to pay a pecuniary penalty under s 215 in respect of the contravention of a PQ requirement, the Court may in addition, order the person to pay compensation to any person who has suffered, or is likely to suffer, loss or damage as a result of the contravention.⁸⁰ An application for this order may be made by us or any “aggrieved person”.⁸¹ In proceedings under s 216, the Court may make such orders as to cost as it thinks fit.⁸²

2.45 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:⁸³

2.45.1 grant an injunction restraining any provider of those services from providing them in contravention of the PQ requirement; and

2.45.2 make an order requiring the provider to provide the service in accordance with the PQ requirement applying to them.

2.46 A person commits an offence if:⁸⁴

⁷⁸ Telecommunications Act 2001, s 193(2)(d).

⁷⁹ Telecommunications Act 2001, s 215.

⁸⁰ Telecommunications Act 2001, s 216(1).

⁸¹ Telecommunications Act 2001, s 216(2).

⁸² Telecommunications Act 2001, s 216(5).

⁸³ Telecommunications Act 2001, s 218.

⁸⁴ Telecommunications Act 2001, s 217(1).

- 2.46.1 the person, knowing that particular FFLAS are subject to PQ regulation, intentionally contravenes a PQ requirement in respect of the services; or
- 2.46.2 the person is subject to an order fails to comply with the order.
- 2.47 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.⁸⁵

Economic framework

- 2.48 As part of our fibre IMs decision-making process, we developed an economic framework. We developed the framework to help guide the decisions we made in developing the new regulatory regime for Part 6. We continue to apply this framework. The economic framework relates to all aspects of our economic decision-making in regulating regulated FFLAS.⁸⁶ We applied this to our decision-making for PQP1. We referenced this economic framework in our PQP2 process and approach paper.⁸⁷
- 2.49 The economic framework helps us make individual decisions that are consistent with each other, and that best give effect to the purposes described in s 166(2) of the Act. The economic framework has three components:
- 2.49.1 economic principles - real financial capital maintenance, allocation of risk, and asymmetric consequences of under- or over-investment,⁸⁸
- 2.49.2 an incentive framework - to help us evaluate how the regime may interact with the incentives faced by regulated providers and assist us in identifying risks to end-users,⁸⁹ and
- 2.49.3 an approach to identifying competition issues - to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.⁹⁰

⁸⁵ Telecommunications Act 2001, s 217(2).

⁸⁶ Commerce Commission "Fibre input methodologies: Main final decision – reasons paper" (13 October 2020), Chapter 2; and Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at Chapter 3.

⁸⁷ Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at [3.47]-[3.81].

⁸⁸ Commerce Commission "Fibre input methodologies: Main final decision – reasons paper" (13 October 2020), at [2.272]-[2.316].

⁸⁹ Commerce Commission "Fibre input methodologies: Main final decision – reasons paper" (13 October 2020), at [2.317]-[2.335].

⁹⁰ Commerce Commission "Fibre input methodologies: Main final decision – reasons paper" (13 October 2020), at [2.385]-[2.395].

Real financial capital maintenance

- 2.50 Maintaining real financial capital maintenance (RFCM) is a fundamental goal of our revenue path and wash-up. This is because RFCM is key to maintaining incentives to invest while still limiting excessive profits. We ensure that the combination of decisions we make are consistent with Chorus having the ex-ante expectation of a normal return.
- 2.51 This does not mean, however, that Chorus' allowable revenue in any given year (or even any given regulatory period) needs to perfectly reflect building blocks costs. We have focused on decisions that maintain RFCM on a long-term present value basis. There may be other reasons (such as the need to manage price shocks and undue financial hardship) for us to alter the profile of Chorus' revenue recovery.

Risk allocation

- 2.52 Ideally, we allocate risks to regulated providers or end-users depending on who is most able to manage that risk, unless doing so would be inconsistent with s 166(2) or with other provisions of the Act.
- 2.53 For the revenue path and wash-up mechanism, this is relevant to deciding what risks we do and do not provide wash-ups for. For example, it is not appropriate to provide a wash-up for risks that Chorus is largely able to control (such as connection unit costs).
- 2.54 However, in many cases, risk allocation is not dictated by this principle, as other considerations predominate. In some cases, these are requirements imposed by the Act (such as end-users bearing demand risk via a revenue cap, consistent with s 195).
- 2.55 In making these assessments, we must also consider what risks Chorus is compensated for via the WACC.

Pricing structures

- 2.56 In the process and approach paper, in discussing the application of the economic framework to our PQP2 decisions, we highlighted the incentive framework, and within that discussion, that the Act includes requirements that may result in prices that are not necessarily efficient and price structures that benefits some end-users and disadvantage others.
- 2.57 Examples highlighted in the process and approach paper were that the Act requires that Chorus use geographically consistent pricing, provide an anchor product with a prescribed maximum price, and provide DFAS at a prescribed maximum price.⁹¹

⁹¹ Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at [3.71]-[3.73].

- 2.58 Chorus responded to our discussion of the framework in the process and approach paper, suggesting that we provide a more balanced write-up of the framework, noting that we gave greater weight to regulatory interventions and that we consider changing regulations where they result in inefficient prices.⁹² We responded to Chorus in the reasons paper for the draft expenditure decision.⁹³
- 2.59 We also apply this economic framework in our regulation of the supply of services regulated under Part 4 of the Commerce Act of 1986. In applying the economic framework to the telecommunications sector, we are mindful of the fact that Chorus faces competitive pressures that are not faced by suppliers of services regulated under Part 4 of the Commerce Act.

⁹² Chorus “PQP2 Process and Approach” (28 September 2023), at [4]-[11].

⁹³ Commerce Commission “Chorus’ expenditure allowances for the second regulatory period (2025 – 2028): Draft decision – Reasons paper” (18 April 2024), at [2.41]-[2.44].

Chapter 3 Estimated forecast allowable revenue

Purpose and structure

- 3.1 This chapter sets out our final decisions on the maximum revenue Chorus will be allowed to recover during the PQP2 regulatory period. Our final PQ determination published alongside this paper reflects these final decisions. The chapter is structured as follows:
- 3.1.1 application of our regulatory framework;
 - 3.1.2 estimated forecast allowable revenue for PQP2;
 - 3.1.3 building blocks components;
 - 3.1.4 approach to the revenue path and wash-up;
 - 3.1.5 compliance with the revenue path; and
 - 3.1.6 mechanics of the revenue path.

Application of our regulatory framework

Consideration of s 162/166

- 3.2 All our individual final decisions have been made in support of our aim of determining a revenue path and wash-up mechanism that best gives, or is likely to best give, effect to purposes of s 162 and, to the extent relevant, the promotion of workable competition in telecommunications markets under s 166(2)(b). Each component of our final decisions and its rationale act in combination to produce an overall revenue path and wash-up that we consider best gives, or is likely to best give, effect to the s 166(2) purposes.
- 3.3 However, where the promotion of the purpose of Part 6 or workable competition are determinative for individual decisions, we have identified how they are relevant, and discuss how our final decisions best promote them relative to other realistic alternatives.
- 3.4 In addition to the s 166(2) matters, there are also specific statutory provisions we must give effect to when making decisions about the revenue path and wash-up, specifically:
- 3.4.1 the purpose of PQ regulation (s 192);
 - 3.4.2 the requirements for what a PQ path must specify (s 194);
 - 3.4.3 the requirement to specify maximum revenues and not maximum price or prices (s 195);

- 3.4.4 the requirement to apply a wash-up mechanism for over- or under-recovery during PQP1 (s 196);
 - 3.4.5 the requirement to smooth revenues if, in our opinion, it is necessary or desirable to minimise undue financial hardship to regulated providers or to minimise price shocks to end-users (s 197); and
 - 3.4.6 the requirement to apply the relevant IMs when determining prices (s 175).
- 3.5 Finally, we need to consider the interactions between our decisions on the revenue path and wash-up and the regulations in respect of anchor services and DFAS under ss 227 and 228.

Relevant limbs of the section 162 purpose

- 3.6 In considering how to best give effect to the purpose of Part 6 when making decisions about the revenue cap and wash-up, we are concerned with:
- 3.6.1 Chorus' incentives to invest under s 162(a) – a credible pathway to recovering past and future investments is necessary for Chorus to have ongoing incentives to invest and access to the capital it needs to fund this investment;
 - 3.6.2 Chorus' incentives to improve efficiency under section 162(b) – inclusion of a wash-up for a given component of the revenue path effectively removes Chorus' incentives to manage it, so we need to ensure this does not adversely affect incentives for efficiency; and
 - 3.6.3 limiting excessive profitability under s 162(d) – the revenue path substantially determines profitability over the short term, the wash-up does so over the long-term.
- 3.7 Limb (c) of the purpose statement, allowing end-users to share the benefits of efficiency gains, is less directly relevant to the revenue path and wash-up. However, as discussed in Chapter 2, our obligation to best give effect to the purpose applies to our PQ decision as a whole, and we consider that other aspects of the PQ path, such as determination of a specific revenue path for each regulatory period involving the consideration of efficient expenditure, adequately promote limb (c).

Relevance of the promotion of workable competition in telecommunications markets

- 3.8 We must also promote workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services where relevant. We consider competition is relevant to our revenue path decisions in three ways:

- 3.8.1 the risk that the flow-on impact on Chorus' pricing decisions may affect the ability of fixed wireless access (FWA) providers and unbundled layer 2 providers to compete with Chorus in access markets;
 - 3.8.2 the risk of the wash-up mechanism allowing Chorus to artificially lower the prices of its products in the short term, while remaining whole in present value terms via the wash-up, again threatening competition from FWA providers or unbundled layer 2 providers; and
 - 3.8.3 conversely, the revenue recovery profile we determine should, where possible, provide Chorus the opportunity to compete effectively.
- 3.9 We have not attempted to use the revenue path and wash-up mechanism to eliminate these risks. As a tool that works in the aggregate, the revenue path is not well suited to such a task. Instead, our final decisions have focused on setting the revenue path in a way that avoids distorting pricing where possible.
- 3.10 We consider other tools (such as the pricing and contract disclosures in ID, the declared services, or equivalence and non-discrimination obligations under the fibre deeds) are better suited to managing competition risks from pricing.

Economic principles

- 3.11 Two of our economic principles are relevant to decisions on the revenue cap and wash-up. These are:
- 3.11.1 real financial capital maintenance (RFCM); and
 - 3.11.2 risk allocation.

Real financial capital maintenance

- 3.12 Maintaining RFCM is a fundamental goal of our revenue path and wash-up. This is because RFCM is key to maintaining incentives to invest while still limiting excessive profits. We ensure that the combination of decisions we make are consistent with Chorus having the ex-ante expectation of a normal return.
- 3.13 This does not mean, however, that Chorus' allowable revenue in any given year (or even any given regulatory period) needs to perfectly reflect building blocks costs. We have focused on decisions that maintain RFCM on a long-term present value basis. There may be other reasons (such as the need to manage price shocks and undue financial hardship) for us to alter the profile of Chorus' revenue recovery.

Risk allocation

- 3.14 Ideally, we allocate risks to regulated providers or end-users depending on who is most able to manage that risk, unless doing so would be inconsistent with s 166(2) or with other provisions of the Act.

- 3.15 For the revenue path and wash-up mechanism, this is relevant to deciding what risks we do and do not provide wash-ups for. For example, it is not appropriate to provide a wash-up for risks that Chorus is largely able to control (such as connection unit costs).

Forecast allowable revenue for PQP2

- 3.16 This section discusses our final decisions on forecast allowable revenue, our final decisions on its component parts, and our final decision on whether it is necessary to smooth revenue over multiple periods under s 197 of the Act.
- 3.17 These final allowable revenue decisions are based on the final expenditure decisions that we published in August 2024.⁹⁴
- 3.18 We have determined a total forecast allowable revenue of \$3,492.2 million (present value terms as of 1 January 2025) for Chorus over the four years of PQP2.⁹⁵ This allowable revenue amount is composed of:⁹⁶
- 3.18.1 a 'building blocks revenue' amount of \$3,254.9 million;⁹⁷
 - 3.18.2 a forecast allowance for pass-through costs of \$70.3 million;⁹⁸ and
 - 3.18.3 a forecast wash-up amount of \$167.1 million.⁹⁹
- 3.19 These values are shown on an annual basis in Table 3.1 and are illustrated in Figure 3.1, along with the forecast allowable revenue of \$809 million for calendar year 2024.

⁹⁴ Commerce Commission "Chorus' expenditure allowances for the second regulatory period (2025 – 2028) – Final decision – reasons paper" (22 August 2024).

⁹⁵ In nominal sum terms this equates to \$4,078.3m.

⁹⁶ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(2).

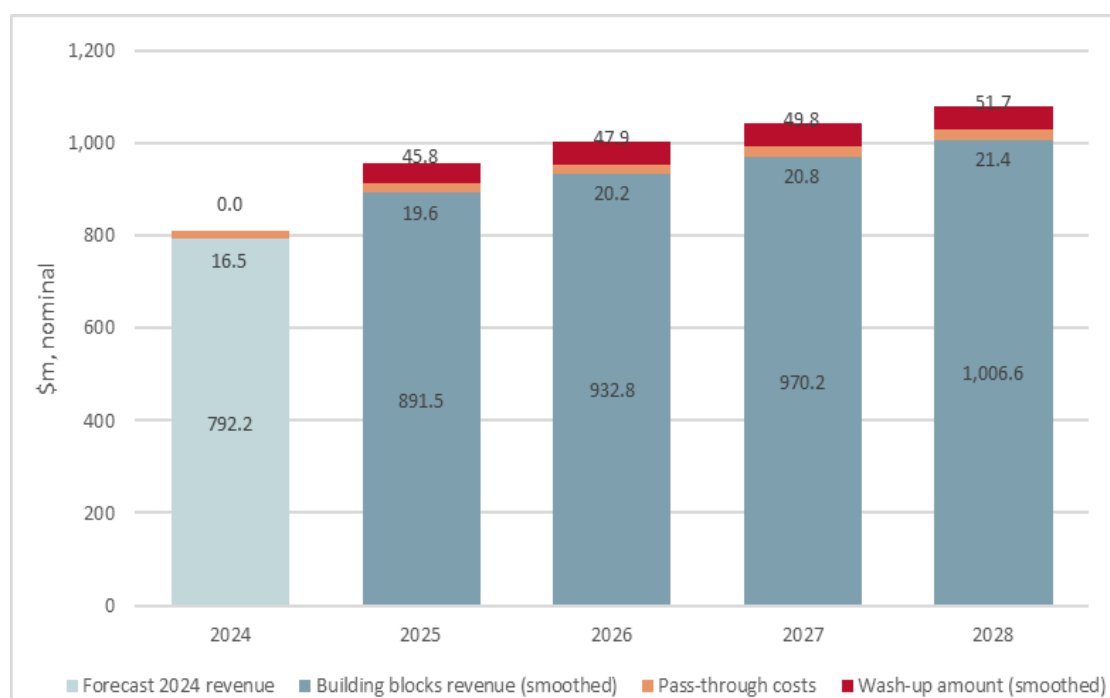
⁹⁷ In present value terms as at 1 January 2025, including smoothing. In nominal sum terms this would equate to \$3,801.2m.

⁹⁸ In present value terms as at 1 January 2025. In nominal sum terms this would equate to \$82.0m. Consistent with the Fibre IMs and our proposed PQ determination, Chorus will be able to update these forecast values when demonstrating compliance with the revenue path.

⁹⁹ As discussed below, the wash-up amount provided for in clause 3.1.1.(5) has been forecast by Chorus for the final decision. This value is the real value as at 1 January 2025. In nominal sum terms this would equate to \$195.1m.

Table 3.1 Components of forecast allowable revenue (\$m nominal)

Component	2025	2026	2027	2028	PQP2 PV
Building blocks revenue	891.5	932.8	970.2	1,006.6	3,254.9
Pass-through costs	19.6	20.2	20.8	21.4	70.3
Wash-up amount	45.8	47.9	49.8	51.7	167.1
Total	956.9	1,001.0	1,040.8	1,079.7	3,492.2

Figure 3.1 Estimated forecast allowable revenue for PQP2¹⁰⁰

Decisions on components of allowable revenue

Building blocks revenue

3.20 The largest component of forecast allowable revenue is ‘building blocks revenue’. Building blocks revenue is an amount specified by the Commission in a PQ determination and is composed of the relevant building blocks components.¹⁰¹ The building blocks are components that reflect forecasts of Chorus’ costs for the regulatory period, and certain regulatory adjustments (such as revenue smoothing over the PQP2 period).

¹⁰⁰ The forecast 2024 revenue is based on Chorus’ compliance statement figures, and actuals will differ. The PQP2 figures assume current forecast of CPI inflation.

¹⁰¹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 1.1.4(2) – definition of ‘building blocks revenue’.

- 3.21 Our methodology for calculating building blocks revenue using various components is set out in Figure 3.3. Key final decision input parameters and assumptions are set out in Table 3.2.

Table 3.2 Key input parameters for the building blocks model

Parameter	Value
Vanilla WACC	7.68%
Post-tax WACC	7.17%
CPI (revaluations)	2025: 2.2%
	2026: 2.0%
	2027: 2.0%
	2028: 2.0%
Allocated real base capex allowance ¹⁰²	\$847.7m
Allocated real base connection capex allowance	\$174.1m
Allocated real base opex allowance	\$700.4m

- 3.22 The building blocks components we have determined for the final decision, and the specific contributions of each of them to the calculation of forecast allowable revenue, are set out in Table 3.3. The final decisions we have made in relation to each building block are discussed in more detail in paragraphs 3.52 to 3.83.
- 3.23 In our draft decision we noted a potential error in the application of the fibre IMs for calculating taxable profit and loss in Chorus' PQP2 model, which might reduce the allowable revenue for PQP2, but for which no adjustment had been made.¹⁰³ After further investigation we have concluded that there was not an error present in the calculation. Chorus also referred to this in its submission, noting that its application of the IMs was correct.¹⁰⁴

¹⁰² The allocated allowances are expressed in constant terms (2022 dollars). See Commerce Commission "Chorus' expenditure allowance for the second regulatory period (2025 – 2028) – Final decision – reasons paper" (22 August 2024). Nominal expenditure figures are set out in Chorus "RT01 – forecast expenditure regulatory template" (22 August 2024), which is published alongside the final decision.

¹⁰³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.22].

¹⁰⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [37]-[38].

Table 3.3 Final building blocks revenue components (\$m, nominal)

Component	2025	2026	2027	2028
Total return on capital	255.1	270.4	269.4	266.1
Return on assets (RAB x WACC), CFA	384.6	396.6	404.3	408.5
Return on assets (RAB x WACC), FLA	74.0	63.8	54.6	46.2
Revaluations	-127.1	-116.7	-116.1	-115.3
Ex-ante stranding allowance	6.0	6.0	6.0	5.9
Benefit of Crown finance	-84.9	-81.9	-81.8	-81.7
TCSA allowance	2.5	2.5	2.5	2.4
Opex allowance	197.0	203.6	208.0	210.9
Total depreciation	452.8	447.3	450.8	439.4
Core fibre assets	299.4	310.0	327.5	328.3
Financial loss assets	153.4	137.2	123.3	111.1
Tax allowance	0.0	0.0	28.3	101.6
In-period smoothing	-13.3	11.6	13.5	-11.4
Total	891.5	932.8	970.2	1,006.6

Pass-through costs

3.24 The specification of price and revenue IMs also require an allowance for the recovery of 'pass-through costs' to be included in forecast allowable revenue. Pass-through costs are costs over which Chorus has little or no control, and that are appropriate to be passed through to end-users.¹⁰⁵

3.25 The IMs specify that pass-through costs are:¹⁰⁶

3.25.1 telecommunications levies under ss 11 and 12 of the Act;

3.25.2 telecommunications development levies;

3.25.3 local authority rates; and

3.25.4 a fixed membership fee relating to, or a fixed amount payable as a member of:

3.25.4.1 the UDL dispute resolution scheme;

3.25.4.2 the TDRS; and

¹⁰⁵ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.2.

¹⁰⁶ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.2.

3.25.4.3 any other dispute resolution scheme specified in a PQ determination.

- 3.26 In line with PQP1, our final decision is unchanged from our draft decision to not specify any additional dispute resolution scheme costs as pass-through costs for PQP2.¹⁰⁷ This is because we are not aware that Chorus participates in any additional relevant schemes for which a pass-through cost would be required. We did not receive any submissions on this decision.
- 3.27 As discussed further in this chapter, Chorus will be required to update the forecast values for pass-through costs when demonstrating compliance with the revenue path, as it has for PQP1.

Wash-up amount

- 3.28 Our final decision is that there should be a smoothed drawdown of the forecast opening wash-up account balance across the four years of PQP2.¹⁰⁸ This is a change from our draft decision, which was for an equal drawdown amount in nominal terms of the forecast opening wash-up balance across PQP2.¹⁰⁹
- 3.29 The IMs also require the inclusion of a ‘wash-up amount’ as part of allowable revenue.¹¹⁰ One purpose of this amount is to allow any accumulated wash-up balances to be added to or subtracted from allowable revenues. There was no wash-up draw down in PQP1, as it was the first period of the PQ regime, and wash-up drawdowns are recoveries or returns from prior regulatory periods.
- 3.30 There is a wash-up opening balance for PQP2 of wash-up amounts built up over PQP1, and a smoothed drawdown of this opening balance across the four years of PQP2 has been factored into the allowable revenue calculation. The forecast wash-up amount has been updated for the final decision to be the sum of the forecast of the wash-up amount for 2024 provided by Chorus, as required by the s 221 notice issued in December 2021, plus the previous year’s actual wash-up values for PQP1.¹¹¹ The draft decision wash-up amount was based on a Commission forecast.

¹⁰⁷ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X11].

¹⁰⁸ Chorus supplied a forecast amount for the 12 months ending 31 December 2024 on 6 September 2024. This was required under our notice of 22 December 2021, issued under s 221 of the Telecommunications Act 2001. The total Chorus forecast real value of the opening wash-up balance is \$167.1m as at 1 January 2025.

¹⁰⁹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X12].

¹¹⁰ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(2)(c).

¹¹¹ Commerce Commission “Notice to supply information to the Commerce Commission under section 221 of the Telecommunications Act 2001 – wash-up information” (22 December 2021).

- 3.31 When we determined the IMs, we considered that the wash-up amount could be used for smoothing of revenues within and between periods.¹¹² As set out in more detail below, our final decision is to implement within-period smoothing by way of a separate building block (see paragraph 3.189). As discussed below, we do not consider inter-period smoothing necessary under s 197 of the Act.
- 3.32 Our high-level approach to the wash-up mechanism is discussed in paragraph 3.140 in this chapter. The details of the mechanism in relation to CPI wash-up are discussed in paragraphs 3.242 to 3.250.

Stakeholder views

- 3.33 Chorus supported the Commission's draft decision to allow a full drawdown of the forecast opening wash-up account balance across the four years of PQP2. Allowing for a more immediate recovery helps avoid concerns that balances may not be recovered.¹¹³
- 3.34 However, Chorus did not support spreading the wash-up balance equally in nominal terms across each year of PQP2. Instead, Chorus preferred the wash-up balance being smoothed to deliver an increasing, CPI-based, profile across PQP2 consistent with the approach for building blocks revenue.¹¹⁴ Chorus sees the benefits of smoothing the wash-up drawdown as providing "a more consistent approach to setting the price path", reducing the size of the apparent step up in revenues in calendar year 25 from calendar year 24, and in helping to address any concerns that the revenue "headroom" below the MAR will be insufficient later in PQP2, when Chorus forecasts the amount of headroom to decline.¹¹⁵
- 3.35 We did not receive any other submissions on the drawdown and smoothing of the wash-up opening balance over PQP2.

Reasons for our final decision

- 3.36 We note Chorus' support for a full drawdown over PQP2 of the forecast opening balance of the wash-up balance and agree that this provides increased confidence that it can be recovered.

¹¹² Commerce Commission "Fibre input methodologies: Main final decision – reasons paper" (13 October 2020), at [9.28].

¹¹³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [8].

¹¹⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [8].

¹¹⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [41].

- 3.37 In terms of smoothing of the wash-up drawdown over each year of PQP2, we acknowledge that this may better support a slightly lower step up in 2025 revenue allowance compared to 2024, is more consistent with the overall smoothing of the revenue path and increases the likelihood that the “headroom” will be sufficient to avoid unduly capping potential revenues towards the end of PQP2.¹¹⁶
- 3.38 There are two potential ways to approach a smoothed drawdown:
- 3.38.1 calculating a smoothed amount as part of the final decision and specifying nominal drawdown amounts for each year of PQP2; or
 - 3.38.2 setting the starting smoothed drawdown amount for 2025 and then specifying a formula in the determination to allow updating of the drawdown amount each year (as we do for the building blocks revenue).
- 3.39 Taking the second approach of specifying a formula in the determination to allow updating of the wash-up drawdown amount each year may lower the wash-up balance. However, relative to the complexity this approach would add, we do not consider it contributes materially to smoothing of the revenue path compared to the first approach.
- 3.40 We have therefore adopted the first approach and calculated a smoothed amount as part of our final decision, specifying each year’s wash-up amount in the determination.

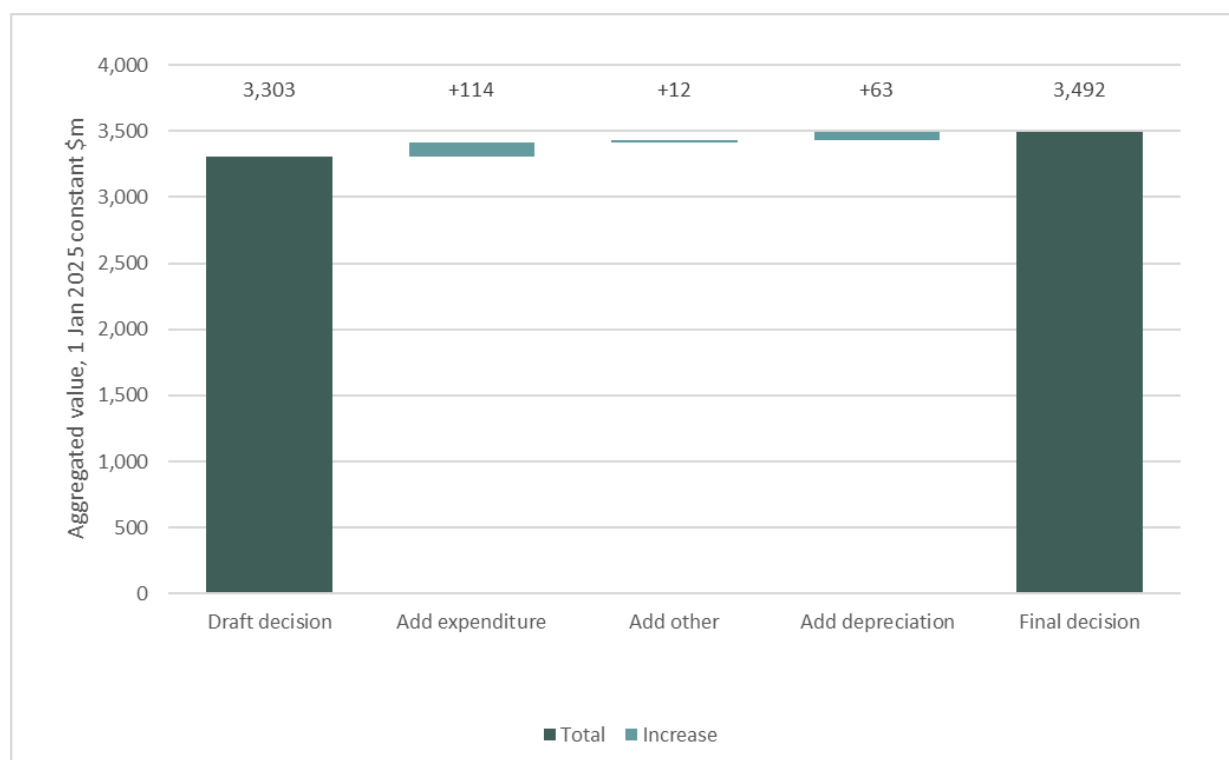
Changes to forecast allowable revenue since our draft decision

- 3.41 This section sets out how forecast allowable revenue has changed since our draft decision and the factors driving that change. These factors fall into the following categories:
- 3.41.1 changes made in our final expenditure decision;
 - 3.41.2 modelling error corrections; and
 - 3.41.3 changes to input values due to the final PQP2 WACC, determined 1 July 2024.
- 3.42 The incremental impacts of changes we have made in our final decision are set out Table 3.4 and Figure 3.2.

¹¹⁶ We further explain this in Attachment A, at [A62]-[A64].

Table 3.4 Drivers of change in forecast allowable revenue

	PQP2 forecast allowable revenue (\$m, 2025 constant)	Incremental change (\$m, constant)	Incremental change (%)
PQ draft decision	3,303	n/a	n/a
Expenditure final decision	3,417	114	3%
Changes in RAB, Crown Financing and other¹¹⁷	3,429	12	0%
Updated depreciation	3,492	63	2%
PQ final decision	3,492	n/a	n/a

Figure 3.2 Changes in allowable revenue from draft to final decision

¹¹⁷ Opening PQP2 RAB now forecast to be higher, Crown Financing benefit is lower due to the amended method in calculating the annual benefit of Crown Financing as set out in our Fibre IM amendment final reasons paper, and minor changes include CPI, additional taxable income and tax.

Base year

3.43 Our final decision is that we have determined disclosure year 2023 as the base year for the purpose of calculating relevant values under the IMs that require the use of a base year.¹¹⁸ This is a change from our draft decision, which used 2022 as the base year, although we signalled an expectation that the base year would be updated to 2023 for the final decision.¹¹⁹

Stakeholder views

3.44 We received one submission on the draft decision.

3.45 Chorus supported our draft decision to determine the disclosure year 2022 as the base year for calculating relevant values under the IMs that require use of a base year and to update the base year to 2023 for our final PQ decision.¹²⁰

Reasons for our final decision

3.46 We consider using the most up to date actual information available for the inputs to the calculation of the MAR best meets the requirements of the Act and the fibre IMs, and which best promotes the purpose of Part 6.

Building blocks components

3.47 This section summarises the final decisions we have made on each of the major building block components that make up 'forecast building blocks revenue'.

3.48 It begins by giving a brief summary of the building blocks methodology. It then discusses the values we have used for each component and finishes by discussing specific building blocks where we have had to exercise our judgement about the values that we consider meet the criteria in s 166(2) of the Act. Finally, it describes how we have implemented this model in practice.

Building blocks methodology

3.49 Building blocks are the forecast efficient costs and other components that are added together to form a regulated provider's allowable revenue. A stylised version of the building blocks methodology is shown in Figure 3.3. These components are unchanged from our draft decision (although the values of the components have changed).

¹¹⁸ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 1.1.4.

¹¹⁹ Commerce Commission "Chorus' price-quality path for the secondary regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.34].

¹²⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [43]. However, Chorus in its submission requested that we discuss the modelling implications with Chorus to ensure this can be implemented in practice.

Figure 3.3 Stylised key building blocks equations



3.50 The inputs to building blocks revenue highlighted in red are those we must exercise our judgement on as part of the PQ setting process. In determining these values for our final decisions, we have made decisions that we consider best give effect to the purpose in s 162, consistent with s 166(2)(a), and (where relevant) the promotion of workable competition, consistent with s 166(2)(b).

- 3.51 The inputs highlighted in blue are largely determined by the IMs, and only require us to apply the relevant input methodologies.

Final decision on building blocks determined by the IMs

- 3.52 As illustrated above, the following building block components are largely determined by the application of the fibre IMs:¹²¹
- 3.52.1 the components of the return on capital;
 - 3.52.2 the revaluations building block that results from the indexation of the RAB; and
 - 3.52.3 the regulatory tax allowance.
- 3.53 Within the return on capital, our final decision, unchanged from our draft decision, is to specify a negative “annual benefit of Crown finance building block”, as we did for PQP1. The decision to include this is a matter of judgement in our PQ path decision, and how it is calculated is determined by the IMs.¹²² We did not receive any submissions on this decision.
- 3.54 The regulatory tax allowance for the final decision is \$0 million for 2025 and 2026. This is because Chorus faced tax losses during the pre-implementation period that were not fully recovered in PQP1. These losses are forecast to be fully recovered during PQP2.

Final decision on key building blocks where we have exercised our judgement

- 3.55 This section discusses our final decision on:
- 3.55.1 disposed assets;
 - 3.55.2 depreciation;
 - 3.55.3 revenue smoothing within the PQP2 period; and
 - 3.55.4 revenue smoothing between periods under s 197 of the Act
- 3.56 The section also sets out how we implement the building blocks model.

¹²¹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clauses 3.3.1 (revaluation), 3.4.1 (taxation) and 3.5.1 to 3.5.11 (cost of capital).

¹²² As set out in the process and approach paper, Chorus is expected to commence the repayment of Crown financing during PQP2. This will reduce the outstanding Crown financing balance, and therefore reduce the size of the benefit of Crown financing. The benefit of Crown financing is recognised as a negative building block in the maximum allowable revenue (MAR) calculation. As this amount represents a reduction in the required revenue, reducing the size of the benefit of Crown financing over PQP2 will have the effect of increasing the MAR.

Final decision on disposed assets

3.57 Forecast values of disposed assets are removed from the PQ RAB during the ‘roll-forward’ illustrated above. Chorus has not forecast any asset disposals during PQP2, so our final decision is not to include any.

Reasons for our final decision

3.58 We received no stakeholder submissions on this point. Our final decision is unchanged from our draft decision, as Chorus has not forecast any asset disposals.¹²³

Final decision on depreciation

3.59 Under the fibre IMs, we have discretion about what depreciation method to apply, including consideration of a different method to the previous regulatory period.¹²⁴ The IMs allow that after the first regulatory period we may apply a different depreciation method to that applied in the previous regulatory period where we are satisfied that, for the purpose of the PQ path, the new depreciation method would:¹²⁵

3.59.1 better promote the purpose of Part 6;

3.59.2 where relevant, best gives, or is likely to best give, effect to s 166(2)(b) of the Act; and

3.59.3 where relevant, be consistent with the Commission’s smoothing of prices or revenue under s 197 of the Act.

3.60 For core fibre assets, our final decision is to apply tilted depreciation to a subset of these assets, in order to backload depreciation.¹²⁶ This is the same approach as put forward by Chorus in its proposal for an alternative depreciation method.¹²⁷ Our final decision is that tilted annuity depreciation will have a real tilt rate of +0.35% and there is no change to existing asset lives. This will defer approximately \$256 million of depreciation that would otherwise be recovered within the PQP2 period.

¹²³ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.45].

¹²⁴ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.3.2(6).

¹²⁵ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.3.2(6). In PQP1 we applied an alternative depreciation as provided for in clause 3.3.2(5) of the Fibre IMs for the FLA.

¹²⁶ The subset of core fibre assets are splitters, poles, ducts, manholes, cabinets, fibre cables, fibre service lead-ins and optical fibre distribution frames, which we collectively refer to as ‘layer 1 communal assets’.

¹²⁷ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of approach to MAR smoothing for PQP2 (1 May 2024); also see Attachment A, paragraph A5 for further explanation of application of an alternative depreciation method.

- 3.61 For the remaining core fibre assets, our final decision is to continue using straight-line depreciation under GAAP with GAAP-based asset lives, consistent with the default method in clause 3.3.2(3) of the fibre IMs (and the same approach as PQP1).¹²⁸
- 3.62 For the FLA, our final decision is to continue to apply the alternative depreciation method that we used for PQP1 involving:
- 3.62.1 an original asset life of 14.2 years; and
 - 3.62.2 tilted annuity depreciation with a tilt rate of -13%.
- 3.63 Chorus is currently recovering the FLA via depreciation and also receives a return on capital related to the value of the FLA that remains in the RAB each year. Over time both amounts are declining. However, for PQP2 the FLA depreciation alone is \$525 million, which is more than the amount of depreciation that has been backloaded using tilted annuity depreciation under the final decision.
- 3.64 The forecast allowable revenue related to recovery of the FLA is declining over time. As the FLA depreciation reduces it will be possible to recover the backloaded depreciation without an associated material increase in the total allowable revenue, as increased depreciation on core fibre assets will replace FLA depreciation. This will help avoid a potential price shock for end-users. To the extent that future end-users will face price increases from our decision to tilt depreciation on a subset of core fibre assets, there will be an offsetting reduction in prices from reduced FLA depreciation which remains frontloaded.
- 3.65 Submissions on our depreciation decision and the reasons for our final decision are set out in Attachment A. Chorus supported our draft decision. 2degrees (in its cross submission) also supported our draft decision to smooth prices for end-consumers by deferring depreciation, but was concerned that this does not result in future price shocks. We also received submissions on a letter from Chorus, which we published for comment, where Chorus set out an update to its preferred revenue path and alternative depreciation for PQP2. These submissions are discussed in more detail in Attachment A.
- 3.66 While the use of a tilted annuity for the subset of core fibre assets is unchanged from our draft decision, we have changed the tilt rate and the amount of depreciation, tax and indexation deferred for our final decision.¹²⁹

¹²⁸ Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [6.58]-[6.59].

¹²⁹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [X22].

Final decision on revenue smoothing within the period

- 3.67 Our final decision, which is unchanged from our draft decision, is to smooth Chorus' revenue within the PQP2 period allowing (though not requiring) Chorus to maintain prices at the real level established at the beginning of PQP2.¹³⁰ This is the same approach to smoothing that we adopted in PQP1, as we have not identified a reason to change.¹³¹
- 3.68 Our final decision involves determining building blocks revenue such that revenue increases by:
- 3.68.1 forecasts of weighted average demand growth; and
 - 3.68.2 the latest RBNZ CPI forecasts.
- 3.69 Given the forecast rates of change in CPI and quantity, the resulting smoothing changes annual revenues by the percentages set out in Table 3.5.
- 3.70 To give effect to our final decision, we have included an additional 'in-period smoothing' building block, as we did for PQP1. This has the effect of reducing building blocks revenue in the first and fourth years of the regulatory period by \$13.3 million and \$11.4 million while increasing building blocks revenue in the second and third years by \$11.6 million and \$13.5 million respectively.
- 3.71 We may smooth revenue *within* a regulatory period using an additional building block, under the definition of "building blocks revenue" in the fibre IMs.¹³² We may smooth within the period on its own, or alongside applying an alternative depreciation method or smoothing revenue between multiple periods.

¹³⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [X23].

¹³¹ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [3.32].

¹³² See definition of "building blocks revenue" in *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 1.14(2); and Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [3.35].

Table 3.5 Forecast rates of change in revenue implemented via in-period smoothing

Value	2025	2026	2027	2028
Forecast CPI	2.5%	2.0%	2.0%	2.0%
Demand growth	0.0%	2.6%	2.0%	1.7%
Total	2.5%	4.6%	4.0%	3.8%

Stakeholder views

- 3.72 Spark's submission provided feedback on how the Commission might promote predictable wholesale prices through the second regulatory period.¹³³ Spark noted that our draft decision does not set out what the assumed baseline price increases and demand are prior to the application of deferral of depreciation, nor the sensitivity of future prices to variances between expected and actual demand.¹³⁴
- 3.73 2degrees, in its cross submission, also expressed support for the Commission to provide guidance on anticipated price increases (ie, baseline price increases) and price sensitivity to key variables such as demand.¹³⁵
- 3.74 Spark also suggested, with support from 2degrees in its cross submission, that the Commission consider further how it might promote transparency and certainty by, for example, setting out how the Commission might curb any future price increases outside the expected range.¹³⁶
- 3.75 Chorus, in its cross submission, responded to Spark's request for the Commission to provide guidance on expected price increases over PQP2, the impact of variations in demand on prices and the suggestion that the Commission might curb future price increases.¹³⁷

¹³³ Spark "Commission draft decision on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [2].

¹³⁴ Spark "Commission draft decision on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [4].

¹³⁵ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 1.

¹³⁶ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [6]; and 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 1.

¹³⁷ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [24].

- 3.76 Chorus noted that “the intent of a revenue cap is to set an overall allowance that is reasonable and gives Chorus flexibility within the cap to adjust prices in an efficient manner. It is outside the scope of the revenue cap decision for the regulator to specify the prices that would apply within the cap (noting there is separately regulated anchor product pricing)”. Chorus stated that regulatory guidance or restrictions would undermine the cap and add further complexity.¹³⁸
- 3.77 Chorus agreed that there is uncertainty relating to future fibre demand and says that given “(t)he NZ broadband market is competitive” its pricing will be influenced equally by uncertain pricing of competing products. It saw publishing any forecasts relating to medium-term product pricing as untenable due to the required confidentiality around such forecasts. It also viewed the fact that it has voluntarily delayed recovery of a portion of its revenue allowance for PQP2 as mitigating against any calls to further restrict its revenue cap.¹³⁹

Reasons for our final decision

- 3.78 In terms of what the potential baseline price increases would be if an alternative depreciation method to defer some core fibre asset depreciation was not undertaken, the baseline MAR figures set out at Table A1 provide some insight. This suggests the 2025 smoothed MAR would be approximately 27% above the forecast allowable revenue for 2024 of \$809 million. Once forecast demand growth is accounted for between 2024 and 2025, the potential average price increase is approximately 22% to 25%. We note this is a potential price increase, based on an undiminished MAR (ie, continued application of straight-line depreciation to all core fibre assets). As explained at A17, Chorus forecasts that this level of MAR is likely to lead to a material build-up of the wash-up balance, as it is unlikely to achieve its full allowable revenue.
- 3.79 No submissions specifically commented on the smoothing approach and the use of forecast CPI and demand growth to achieve smoothing.
- 3.80 We consider smoothing Chorus’ revenue within the PQP2 period allowing, though not requiring, Chorus to maintain prices at the real level established at the beginning of PQP2 complies with the requirements of the Act and the fibre IMs, and best promotes the purpose of Part 6.

¹³⁸ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [25].

¹³⁹ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [26]-[27].

Responses to other Spark and 2degrees points

- 3.81 Under Part 6, our role is to promote the s 162 purpose through PQ regulation. Although this addresses Chorus' overall revenues throughout each regulatory period, it does not extend to direct control of the pricing decision made by Chorus during the regulatory period. Therefore, we note that some of the concerns raised by stakeholders fall outside the scope of our regulation. The Commission is not currently best placed to undertake scenario modelling of the potential impacts to prices of variations in demand.¹⁴⁰
- 3.82 The variations in the overall average price due to demand changes, all else being equal, can be calculated from the information provided. We note that end-user pricing is determined, in part, by the decision of retail service providers, so any inferences drawn on the wholesale price may not translate directly into end-user pricing at the retail level.
- 3.83 In terms of the Commission curbing future price increases that may be outside the expected range, we note, as does Chorus in its cross submission, that the Commission does not directly regulate prices, apart from the anchor service price. Chorus must provide a forecast prior to the start of a regulatory year demonstrating that its revenue forecast does not exceed the MAR. Beyond this and the anchor service price, Chorus has the freedom to set prices as it sees fit.

Final decision on revenue smoothing between periods under s 197

- 3.84 For the purposes of s 197 of the Act, our final decision is that we do not consider it necessary or desirable to smooth revenue across two or more regulatory periods to minimise any undue financial hardship to Chorus, or to minimise price shocks for end-users. This is unchanged from our draft decision.¹⁴¹

¹⁴⁰ We note that retail service providers (RSPs) are potentially in a better position to forecast demand, especially given the potential impacts of fixed-wireless access services. Some RSPs who also offer fixed-wireless access services will no doubt be considering what they might do with respect to the future pricing of those services, and those decisions will in turn influence demand for Chorus' wholesale services.

¹⁴¹ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.58].

- 3.85 We assess price shocks in terms of the rate of increase in ‘allowable revenue’ relative to current revenues. This is because ‘allowable revenue’ is what we regulate, and changes in its level is a material determinant of the prices end-users face. We have not in general considered the rate of change in any individual tariff or class of tariffs because we are required to set a revenue path for PQP2 which does not include regulating prices themselves. We consider other regulatory tools such as pricing disclosures and the regulations in respect of anchor services and DFAS under ss 227 and 228 are the appropriate tools to manage individual price shocks.
- 3.86 We consider our final decision on depreciation sufficiently manages price shocks to end-users when combined with within-period revenue smoothing.
- 3.87 We also do not consider we need to act to minimise any potential undue financial hardship. Chorus has proposed, via an updated alternative depreciation profile that takes account of updated information and Chorus’ latest fibre revenue forecast, a reduction in the forecast allowable revenue for PQP2. We have included Chorus’ proposed alternative depreciation approach as part of the final decision, and we consider Chorus would not propose an approach that led to financial hardship.¹⁴² In our approach, the burden of proof for claims of financial hardship lies with the regulated provider. We do not consider Chorus is likely to face undue financial hardship during PQP2 based on our final decision and the information Chorus has provided to us.
- 3.88 We do not consider the likely increase in forecast allowable revenue, after application of the final decision on tilted depreciation to certain core fibre assets, relative to current forecast revenues at the end of PQP1 would be large enough to lead to a price shock. Since our draft decision, Chorus has completed consultation on price rises from 1 January 2025 and published the finalised 2025 pricing information.¹⁴³ The information we have reviewed indicates price rises for Chorus’ wholesale plans of between approximately 3% and 10%, with many services subject to an approximate 5% price rise.¹⁴⁴ We do not consider these increases will represent a price shock in the current environment and note that prices were previously adjusted in October 2023.

¹⁴² Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024), at [7].

¹⁴³ See [Chorus “Confirming fibre pricing from 1 January 2025” \(25 September 2024\)](#).

¹⁴⁴ We note that other price rises not directly related to wholesale plans have also been implemented, such as an approximate 33% increase to the no fault found fee.

- 3.89 There is a material step up in allowable revenue for 2025 compared to 2024. The final decision has significantly increased the forecast allowable revenue level compared to the draft decision. This is due to changes in input factors, the major one being that the final expenditure decision increased Chorus' allowable expenditure level.¹⁴⁵ As explained above, the application of an alternative depreciation approach for a subset of core fibre assets has reduced the MAR from the level that it would otherwise have reached.
- 3.90 As for the draft decision, Chorus has indicated it is not guaranteed to be able to fully price up to the allowable revenue across PQP2.¹⁴⁶ As noted above, prices have now been set for 2025.

Stakeholder views

- 3.91 We received three submissions on revenue smoothing between periods under s 197.
- 3.92 Chorus submitted that it supported our draft decision that revenue smoothing between periods is not required under s 197.¹⁴⁷
- 3.93 Spark also submitted regarding the promotion of a predictable price path for retailers and consumers.¹⁴⁸ The submission does not specifically disagree with our smoothing decision, including the decision not to smooth revenue between periods. However, it does raise questions on the impacts to wholesale and retail prices of the draft decision.

¹⁴⁵ See Commerce Commission "Chorus' expenditure allowances for the second regulatory period (2025 – 2028) – Final decision – reasons paper" (22 August 2024).

¹⁴⁶ Chorus notes that it is not guaranteed to be able to price to its MAR due to competition constraints, anchor service pricing and other constraints that reduce its ability to meet customer demands (for example geographically consistent pricing) so the proposed smoothing option seeks to match the amount of depreciation it can recover to the prices the market can accommodate (leaving sufficient headroom to incentivise Chorus to seek further growth opportunities). Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of approach to MAR smoothing for PQP2 (1 May 2024), at [10(b)]. Chorus' 24 September 2024 letter, as noted above, updated the alternative depreciation profile to take account of updated information and Chorus' latest fibre revenue forecast.

¹⁴⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [42].

¹⁴⁸ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at 1.

- 3.94 Spark stated that it is unclear from the draft decision what price increases retailers and end-users are likely to see over the four-year PQP period. It specifically referred to the draft decision to defer \$267 million of depreciation that reduces the total size of revenue increases within PQP2 and the lack of information on the assumed baseline price increases and demand.¹⁴⁹ It further referred to price increases proposed by Chorus for 2025 that were being consulted upon at that time. Spark says that it is unclear whether the 1 January price increases are expected to bridge the gap between current revenues and PQP2 MAR, or whether it should expect future catchup price increases.¹⁵⁰
- 3.95 2degrees noted the concern that Spark has about the potential size of the price increases that the approximately 17% increase in net allowable revenue under the draft decision might allow. It also agreed with Spark it is difficult to predict the Commission's anticipated PQP2 price path.¹⁵¹
- 3.96 2degrees stated that it would be useful for the Commission to test different rates of depreciation deferral and the impact on prices for end-consumers. It suggested other rates of deferral may contribute to smoothing prices and avoiding price shocks.¹⁵² Other aspects of 2degrees cross submission in relation to price smoothing and minimisation of price volatility are outside the scope of the PQ decision.¹⁵³ Chorus noted that while there is, under the draft decision, an implied 17% increase in net allowable revenue, this is a notional increase, and "does not reflect expected price changes by Chorus". It said that the fibre price changes to take effect on 1 January 2025 have already been consulted on. We note the prices for 2025 have now been confirmed (see paragraph 3.88). Chorus stated the price increases consulted on "amount to considerably less than 17% and Chorus is contractually prevented from increasing prices for a product more than once every 12 months".¹⁵⁴

¹⁴⁹ Spark also refers to a lack of information on the sensitivity of future prices to variances between expected and actual demand. We have addressed this point above.

¹⁵⁰ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [4]-[5].

¹⁵¹ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 1.

¹⁵² 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 2.

¹⁵³ 2degrees raises the issue of the Commission adopting a different approach to the setting of WACC. This is not within the scope of the PQ decision, and we do not address it further. See 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 2.

¹⁵⁴ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [23].

Reasons for our final decision

- 3.97 When considering the potential average price increases retailers and end-users are likely to see over the four-year PQP period, the best indication is the MAR. The final decision figures set out at Table 3.1 outline the MAR over all four years of PQP2 and the annual increase in the MAR driven by forecast inflation and changes in demand (see Table 3.5).¹⁵⁵
- 3.98 Spark and 2degrees contended that it is difficult, from the draft decision, to predict our “anticipated PQP2 price path”. We disagree with that perspective and consider that Table 3.1 of the draft decision, which sets out components of forecast allowable revenue in nominal terms, clearly articulates the draft MAR levels for PQP2.¹⁵⁶ For the final decision the anticipated changes in MAR levels for each regulatory year are clear from Table 3.1, and the MAR provides an indication of potential changes in average prices.
- 3.99 Chorus has indicated that it does not expect to be able to attain its MAR for 2025 (it says that “The CY25 price increase that was consulted on was also lower than draft decision MAR for that year”).¹⁵⁷ Given the 2025 pricing is set and is not expected to result in Chorus achieving its 2025 MAR, neither the 2025 price increases or subsequent ones are expected to bridge the gap between current forecast revenues and the final PQP2 MAR as set out in Table 3.1.
- 3.100 This does not necessarily mean that materially higher (“future catchup”) price increases should be expected in PQP2, but Chorus may seek to raise prices in 2026 to 2028 more substantially than in 2025. We note, as outlined in paragraph 3.64, the decrease in the depreciation of the FLA in future will offset increasing depreciation on the selected core fibre assets subject to backloading of depreciation.
- 3.101 Based on the submissions we received on our draft decision, our reasons as set out above and our consideration of the final MAR, our final decision is to confirm our draft decision that revenue smoothing between periods is not required under s 197.¹⁵⁸ We note that neither of the submissions from Spark or 2degrees suggested a specific alternative method for smoothing the MAR between regulatory periods.

¹⁵⁵ The MAR for each year is set to increase by forecast inflation and demand, so prices, on average will increase by the rate of inflation if demand forecasts are reasonably accurate.

¹⁵⁶ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at 47.

¹⁵⁷ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024), at [13]. We understand this to mean that the combination of the proposed prices consulted on and the volumes for 2025 forecast by Chorus will still not allow it to achieve its 2025 MAR.

¹⁵⁸ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.58].

Implementing the building blocks model

- 3.102 To implement the calculations set out in Figure 3.3 above, we have used a building blocks model developed for Chorus by consultants Analysys Mason. This model uses the outputs of Chorus' IAV RAB and opex models as inputs.
- 3.103 The model uses our final decision on commissioned assets, operating expenditure, depreciation, and in-period revenue smoothing as inputs to calculate the estimated forecast building blocks revenue values we cite in this paper.¹⁵⁹
- 3.104 Chorus has also provided a model that calculates the impacts of the alternative depreciation, that is the tilted annuity depreciation applied to a subset of core fibre assets, on various building block components. We have used the outputs of this model to determine the final building block revenues.
- 3.105 The Commission has also developed a 'demonstration' model, which applies the same building blocks methodology (except for the application of cost allocation and depreciation, the outputs of which are taken from the Chorus model). We have used this model as a crosscheck on the results from the Chorus model, to test it for accuracy. This model, containing actual values at an aggregate level, has been published on our website.

Stakeholder views

- 3.106 Chorus submitted that in our demonstration model for the draft decision "Other Temporary Differences (opex)" are depicted as negative numbers (instead of positive numbers).¹⁶⁰ However, in the worksheet "Calc", Other Temporary Differences (opex) are incorrectly included in the calculation of regulatory taxable income, before tax losses utilised. Subtraction operators should be added. The net effect of these two corrections on the results is zero.¹⁶¹
- 3.107 In response to this submission, we have replaced "Other Temporary Differences (opex)" with pass-through costs plus leases and re-arranged the tax-related calculations to better align with the ID Schedule (for example, see Schedule 2 Report on Regulatory Profit). This addresses the issue that pass-through costs are not a temporary difference, and we have ensured the figures have the correct sign.

¹⁵⁹ A particular driver of change between the draft and final PQ decisions has been the revised figures resulting from the final expenditure decision in August 2024.

¹⁶⁰ Commerce Commission "Chorus Fibre Price-Quality Regulation Price-quality path from 1 January 2025 - 31 December 2028 (PQP2) Demonstration Model" (18 July 2024).

¹⁶¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [81].

Approach to the revenue path and wash-up

- 3.108 This section sets out our final decision on the revenue cap and wash-up that will apply during PQP2.
- 3.109 The regulatory framework chapter (chapter 2) discusses the underlying legal and economic framework for our final decision.

Summary of the proposed approach to the revenue cap

- 3.110 The purpose of the revenue cap is to limit the revenue that Chorus earns under s 192 of the Act (the purpose of PQ regulation). We must determine a revenue path that complies with the requirements of the Act and the fibre IMs, and which best promotes the purpose of Part 6 and (where relevant) workable competition in telecommunications markets for the long-term benefit of end-users.

Basis for the revenue cap

- 3.111 Our final decision, which is unchanged from our draft decision, is that the revenue cap will require Chorus to set prices such that ‘forecast total FFLAS revenue’ is less than or equal to ‘forecast allowable revenue’.¹⁶² This is required by the fibre IMs and consistent with our decision for PQP1.¹⁶³
- 3.112 For each regulatory year, our final decision is that Chorus will have to demonstrate that the proposed prices comply with the forecast allowable revenue cap on a forecast (ex-ante) basis prior to first applying those prices for that regulatory year.
- 3.113 We did not receive any submissions on this decision, which implements the requirements of the fibre IMs.

Forecast total FFLAS revenue

- 3.114 Our final decision is to require Chorus to demonstrate how it calculates ‘total FFLAS revenue’ on the basis of prices, forecast quantities and forecasts of ‘other FFLAS income’. This will enable transparent assessment of whether the forecasts used are ‘demonstrably reasonable’ and allow for calculation of the wash-up balance at the end of PQP2.¹⁶⁴ This is consistent with our decision for PQP1.¹⁶⁵ ‘Forecast total FFLAS revenue’ is defined by the fibre IMs, so we have not exercised judgement about its definition in this final decision.

¹⁶² Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.71].

¹⁶³ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(1); and Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [3.49].

¹⁶⁴ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clauses 3.2.1(5)(a); 3.3.1(3)(a); and 3.4.1(3)(a) require that forecasts used are demonstrably reasonable.

¹⁶⁵ Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [3.51].

Stakeholder views

- 3.115 Chorus noted that clause (2) of Schedule 3 of the draft PQ determination requires it to use a demonstrably reasonable forecast of the quantities and other FFLAS income for the regulatory year to which prices will apply. It recommended a clarification is added to make it clear that the forecast of quantities and other FFLAS income that must be used is the forecast used for the pricing decision.¹⁶⁶
- 3.116 Chorus further set out an example of submitting a price compliance statement on 22 November and how this reflects a pricing decision made in late September and consulted on around July. It stated that the forecast of quantities and other FFLAS income used in the compliance statement should be those used for the pricing decision. If this is not the case, it said it risks breaching its price path due to changes in the quantity forecast since prices were set.¹⁶⁷

Commission response

- 3.117 This point is not related to changing the decision regarding forecast total FFLAS revenue. Rather Chorus seeks clarification of the requirements.
- 3.118 We consider the requirements are clear:
- 3.118.1 when setting prices, Chorus must calculate its forecast total FFLAS revenue by preparing and using a demonstrably reasonable forecast of the quantities and other FFLAS income for the regulatory year to which the forecast prices will apply (see Schedule 3(2) of the Fibre PQ path determination 2024); and
- 3.118.2 the notice to supply compliance statements requires that Chorus must provide schedules that reflect the prices, forecast quantities, and forecast other FFLAS income used in the calculation of forecast total FFLAS revenue.¹⁶⁸
- 3.119 There is a clear requirement to use the forecast quantities for the compliance schedule that were used in the calculation of forecast total FFLAS revenue.

¹⁶⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [75].

¹⁶⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [76].

¹⁶⁸ Commerce Commission "Notice to supply information to the Commerce Commission under section 193(2) of the Telecommunications Act 2001 – Compliance statements for the second regulatory period" (13 December 2024).

Forecast allowable revenue

- 3.120 Forecast allowable revenue is defined by the fibre IMs, but there is scope for judgement in how we calculate this in a PQ path in specifying ‘building blocks revenue’.
- 3.121 In our final decision for PQP2, which is unchanged from our draft decision, we have specified forecast building blocks revenue using a formula to determine the forecast building blocks revenue for each regulatory year of PQP2, which:¹⁶⁹
- 3.121.1 sets the smoothed forecast building blocks revenue as at 1 January 2025 and applies forecast CPI adjustments and forecast quantity adjustments to determine the nominal forecast allowable revenue required for each regulatory year of PQP2;
- 3.121.2 uses updated forecast (consumer price index) inflation for years beyond 2025; and
- 3.121.3 uses specified forecast changes in quantities.
- 3.122 Our final decision is to require Chorus to update the values of any forecast pass-through costs on an annual basis.

Reasons for our final decision

- 3.123 We did not receive any submissions on this topic and our final decision is unchanged from our draft decision. The use of this formula allows for the implementation of the smoothing mechanism, as set out above, increasing revenue by forecast inflation and demand.
- 3.124 Updating pass-through costs annually will ensure that these costs are passed through to prices without delay and will help avoid a larger than necessary wash-up balance building up.

Additional controls on revenue

- 3.125 We have considered whether any additional controls on Chorus' revenue are justified in addition to the ordinary revenue path, such as:¹⁷⁰
- 3.125.1 a limit on Chorus' ability to accrue a wash-up balance by choosing to under-recover its revenue voluntarily;
- 3.125.2 a catastrophic demand risk cap in the event of a sudden loss of demand; or

¹⁶⁹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.75].

¹⁷⁰ Commerce Commission “Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period” (31 August 2023), at [5.59].

3.125.3 a limit on the rate of increase of Chorus' 'total FFLAS revenue' in addition to the profile implied by the revenue cap.

3.126 Our final decision is to not apply or introduce any additional controls on Chorus' revenue beyond the conventional revenue path for PQP2, and none of these measures are specified in the fibre IMs.

3.127 This is unchanged from our draft decision.¹⁷¹

Stakeholder views

3.128 We received one submission from Chorus on the draft decision. It supported our draft decision not to apply or introduce any additional controls on Chorus' revenue beyond the conventional revenue path for PQP2.¹⁷²

3.129 Chorus submitted that additional controls add complexity and cost, and the existing regulatory framework sufficiently mitigates risks to incentives and competition.¹⁷³

Reasons for our final decision

3.130 Additional controls add complexity and a higher degree of specification. We consider additional controls should only be used where they are necessary because the conventional revenue path does not sufficiently mitigate (or creates) risks to incentives or competition. We consider our final decision on the revenue path sufficiently mitigates risks to incentives and competition, so applying additional controls on revenue would not better promote the Part 6 purpose or competition in telecommunications markets.

3.131 Our final decision is to confirm our draft decision of not applying or introducing any additional controls on Chorus' revenue beyond the conventional revenue path for PQP2 for the reasons set out in the draft decision.¹⁷⁴

3.132 We specifically deal with one aspect of additional controls, a limit on undercharging, as Chorus submitted on this issue.

Limit on undercharging

3.133 We have not applied a limit on the wash-up accrual based on potential undercharging to Chorus in PQP2.

¹⁷¹ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.78].

¹⁷² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [50].

¹⁷³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [50].

¹⁷⁴ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.80]-[3.86].

- 3.134 A limit on undercharging could be appropriate if we considered Chorus was likely to deliberately under-recover revenue to under-price its competitors, as the wash-up of under-recovered revenue in the PQ path could give Chorus an inappropriate advantage. However, a limit on undercharging is not required as it is unlikely that Chorus would seek to voluntarily under-recover even further revenue allowances (given the deferral of some depreciation charges).
- 3.135 The Act requires us to specify maximum revenue rather than maximum prices for PQP2.¹⁷⁵ We may set additional controls on revenue, but we cannot consider any controls on prices within the PQ path.
- 3.136 Chorus remains able to compete on price terms with other products such as FWA broadband. However, we are aware of the risks to end-users that might arise from inefficient pricing structures, including potentially anti-competitive pricing, and we will continue to monitor prices using our ID powers.¹⁷⁶

Stakeholder views

- 3.137 Chorus noted that, as Mobile Network Operators (MNOs) operate and build mobile networks for their mobile businesses, these mobile networks will continue to exist even without fixed wireless services. It therefore contended that a wash-up does not create a risk to competition, as MNOs would be able to re-enter the broadband market at any time.¹⁷⁷
- 3.138 We did not receive any other submissions on this topic.

Reasons for our final decision

- 3.139 We observe that the fact mobile networks will exist even without fixed wireless service demand means, as we set out above, that an undercharging limit to prevent the creation of a larger wash-up, is unnecessary. Undercharging is unlikely to lead to a sustainable advantage, even if it did lead to a short term reduction in FWA broadband customers.

¹⁷⁵ Telecommunications Act 2001, s 195.

¹⁷⁶ Any interested person can access the information we publish that is disclosed to us by regulated fibre providers, including Chorus, on our [website](#).

¹⁷⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [35].

Summary of our approach to the wash-up mechanism

3.140 Our approach to the wash-up mechanism is largely set out in the fibre IMs, including the mechanics and scope of the wash-up.¹⁷⁸ How the wash-up is calculated is set out at clause 3.1.1 of the fibre IMs.¹⁷⁹ The main area we have applied judgement about the wash-up mechanism in our PQP2 final decision is in specifying a forecast CPI value for the first year of the period, providing for revenue to be washed-up using actual CPI for all years of the PQP2 period. We did not wash-up for CPI in year 1 of PQP1. Our acceptance of Chorus' proposed change to use an alternative depreciation method will also avoid a large wash-up balance building over PQP2, but this does not involve any changes to the wash-up mechanism itself.

Stakeholder views

3.141 Chorus submitted that it expected we would publish a section 221 notice for wash-up information as part of the PQP2 decision.¹⁸⁰ Chorus also recommended that we consult on the terms of this notice before it is finalised to avoid any impractical changes to the wash-up notice.¹⁸¹

3.142 We acknowledge Chorus' suggestion. We drafted a s 221 notice and sought Chorus' feedback on it. We expect to issue the notice early next year.

Final decision on the structure of the revenue path

3.143 This section covers the fundamental design of the revenue path, and specifically how we have applied the requirements in the fibre IMs.

Final decision

3.144 As required by the fibre IMs and as required for PQP1, the revenue cap will be based on requiring that in each year of the regulatory period:¹⁸²

3.144.1 forecast total FFLAS revenue¹ must be less than or equal to; and

3.144.2 forecast allowable revenue.

¹⁷⁸ Commerce Commission "Fibre input methodologies main 2021 amendments: final decision – Final reasons paper" (29 November 2021), at Chapter 4; and *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(3)-(12).

¹⁷⁹ Section 196 of the Telecommunications Act requires us to apply a wash-up mechanism that provides for any over- or under-recovery of revenue in the previous period. This must be applied in a present value-neutral manner and may be calculated in "the manner that the Commission thinks fit" over one or more future periods.

¹⁸⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [28].

¹⁸¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [29].

¹⁸² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(1).

Reasons

3.145 Our final decision is the unchanged from our draft decision.¹⁸³ This approach is prescribed by the IMs. Given it is prescribed, we did not expect, and did not receive any submissions on this.

Final decision on calculating 'forecast allowable revenue'

3.146 As laid out in the fibre IMs, 'forecast allowable revenue' is composed of:¹⁸⁴

3.146.1 building blocks revenue;

3.146.2 pass-through costs; and

3.146.3 a wash-up amount.

3.147 The fibre IMs give the Commission discretion about how these are implemented in particular about how 'building blocks revenue' and the 'wash-up amount' are specified.

Final decision

3.148 Our final decision is to retain the approach used for PQP1 to implement the requirements in the fibre IMs. To support our decision on pass-through costs, treatment of CPI, and the slope of the revenue path. We:

3.148.1 calculated the Raw building blocks revenue (Raw BBR) for each year of the regulatory period;¹⁸⁵

3.148.2 solved for the present value of all of the annual Raw BBR as at the start of 2025;

3.148.3 solved for a nominal smoothed amount, SBBR, as at the start of 2025 (as explained in paragraph 3.175 below); and

3.148.4 specified forecast building blocks revenue for each year of the price path by using the following formulae:¹⁸⁶

$$FBBR_{2025} = SBBR \times (1 + \Delta CPI_{2025}) \times (1 + \Delta Q_{2025})$$

$$FBBR_{2026} = FBBR_{2025} \times (1 + \Delta CPI_{2026}) \times (1 + \Delta Q_{2026})$$

¹⁸³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.89].

¹⁸⁴ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1.

¹⁸⁵ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1.

¹⁸⁶ Under s 164 of the Act, "prices" (which includes revenues) may be specified by reference to a formula by which specific numbers are derived.

$$FBBR_{2027} = FBBR_{2026} \times (1 + \Delta CPI_{2027}) \times (1 + \Delta Q_{2027})$$

$$FBBR_{2028} = FBBR_{2027} \times (1 + \Delta CPI_{2028}) \times (1 + \Delta Q_{2028})$$

Where:

$FBBR_t$ is 'forecast building blocks revenue' for the regulatory year t;

$SBBR$ is \$870,228,000 being nominal smoothed building blocks revenue at the start of regulatory year 2025;

$(1+\Delta CPI_t)$ is the change in CPI for the regulatory year t;

$(1+\Delta Q_t)$ is the forecast change in quantities for the regulatory year t, using the annual quantities provided for each regulatory year.

- 3.149 We have changed the specification of building blocks revenue for each year from a single equation at draft decision to specific equations for each year of PQP2 in the final determination, and as set out above. This has been done to make the calculation clear and avoid any ambiguity.
- 3.150 Using the formula for 2025 allows us to specify the real value of 2025 building blocks revenue from the outset of the regulatory period (as at 1 January 2025) that – consistent with our final decision below on treatment of CPI – enables the path to move in line with forecast inflation and growth in forecast demand to provide recovery of the net present value (NPV) of total BBR revenues over PQP2.¹⁸⁷
- 3.151 The change in quantities factor is analogous to the “X-factor” used when regulating revenues under Part 4 of the Commerce Act, in that it specifies the real slope of the revenue path. We have labelled it ‘change in quantities’ as it better reflects the basis of the decision. The values are different for years two to four of the revenue path and reflect our decision on in-period smoothing discussed below. The rates in our final decision are unchanged from those in the draft decision. The rates are:
- 3.151.1 0% in year one (2025);
- 3.151.2 2.56% in year two (2026);
- 3.151.3 1.96% in year three (2027); and
- 3.151.4 1.72% in year four (2028).

¹⁸⁷ While we expect revenue to be constant in real terms on a per-user basis over the regulatory period, we are adjusting by forecast CPI and using forecast growth. This means actual revenues per user over the regulatory period may not be constant in real terms by the extent of CPI and volume forecast inaccuracy.

Stakeholder views

- 3.152 We did not receive any submissions on the calculation of 'forecast allowable revenue' as set out in the draft decision.
- 3.153 Chorus submitted that the formula depicted at paragraph (1) of Schedule 1 of the draft determination contained an error in the definition of SBBR.¹⁸⁸ The final zero of the draft nominal smoothed building blocks revenue at the start of regulatory year 2025, as stated in the draft determination, was missing a zero.¹⁸⁹

Reasons for our final decision

- 3.154 Our final decision is the unchanged from our draft decision. This decision, which is aligned to our PQP1 decision, is an implementation one, and is necessary to implement other policy decisions that we consider best give effect to the criteria in s 166(2) of the Act.
- 3.155 We have checked the final determination to ensure the definition of SBBR is correctly stated.

Final decision on treatment of pass-through costs

Final decision

- 3.156 As for PQP1, our final decision is that Chorus must prepare 'demonstrably reasonable' forecasts of pass-through costs for the regulatory year when calculating forecast allowable revenue.
- 3.157 Differences between these forecasts and the actual costs Chorus faces over the regulatory year are accounted for via the wash-up, as discussed below.

Stakeholder views

- 3.158 We did not receive any submissions on the treatment of pass-through costs.

Reasons for our final decision

- 3.159 Our final decision is unchanged from our draft decision.¹⁹⁰ This final decision is one that we consider best gives effect to the intention of the fibre IMs. This is to ensure that the most up to date values for these costs are passed through to prices as intended.

¹⁸⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [77].

¹⁸⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [78].

¹⁹⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.97].

- 3.160 Were the values of pass-through costs likely to have a significant impact on allowable revenue, for revenue stability reasons we would consider fixing these values in advance. However, as they are only a minor component of total forecast allowable revenue, we do not consider this necessary in PQP2, and this final decision is aligned with our PQP1 decision.

Final decision on treatment of CPI inflation

- 3.161 The revenue path is required to be specified in nominal terms.¹⁹¹ As the costs Chorus will face, and the value of the revenue it receives from access seekers will be nominal dollars, we need to make allowance for inflation when specifying the revenue path.
- 3.162 This use of CPI is distinct from the forecast CPI used to determine revaluations.

Final decision

- 3.163 Our final decision is that, as for PQP1, the revenue path will initially be determined based on RBNZ forecasts of CPI inflation available as at the end of May 2024.¹⁹² This will determine building blocks revenue in year 1 of the regulatory period (via the smoothing building block discussed below).
- 3.164 This is unchanged from our draft decision.¹⁹³
- 3.165 The timing of the forecast CPI used to smooth the revenue path practically matches the timing of the forecast CPI that was used to forecast input cost inflation.
- 3.166 Over the course of the revenue path, building blocks revenue will then increase based on forecast CPI inflation.¹⁹⁴

Stakeholder views

- 3.167 We received one submission from Chorus on the draft decision. Chorus supported our draft decision that the revenue path will initially be determined based on RBNZ forecasts of CPI inflation.¹⁹⁵

¹⁹¹ See definitions of “forecast total FFLAS revenue” and “total FFLAS revenue” at *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 1.1.4.

¹⁹² [RBNZ “Monetary Policy Statement May 2024” \(22 May 2024\)](#).

¹⁹³ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.103].

¹⁹⁴ Per Schedule 1 of the Chorus Price-quality determination, the specific value of CPI is a four-quarter weighted average of CPI. CPI is defined by reference to the Fibre IMs.

¹⁹⁵ Chorus “Submission on Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision” (15 August 2024), at [62].

- 3.168 Chorus supported this approach if we decide to use forecast CPI rather than lagged CPI (although using forecast CPI is not Chorus' preference).¹⁹⁶

Reasons for our final decision

- 3.169 In exercising judgement in making this decision we have considered:
- 3.169.1 the impact of forecast inflation risk on Chorus' incentives and ability to invest, promoting s 162(a); and
- 3.169.2 the impact of inflation risk on profitability, as variations from forecast inflation may create windfall gains, contrary to s 162(d).
- 3.170 We do not consider the promotion of workable competition relevant to this decision.
- 3.171 We consider this decision best promotes the purpose of Part 6 per s 166(2)(a) relative to the realistic alternatives we have identified. The choice and timing of the calculation of the forecast CPI that is used to smooth the revenue path within the period is not defined by the IMs, and we consider that the forecast CPI we use, and its timing, should match our forecasts of input cost inflation.¹⁹⁷
- 3.172 Matching the timing of these forecasts means that Chorus' and consumers' exposure to forecast inflation risk from the input cost building blocks and smoothing of the revenue path is limited. This allows for expected inflation in the revenue path that is sufficient to cover inflation in input costs, and hedges the inflation forecast risk.
- 3.173 Conceptually, a 'CPI plus Q' revenue path restricts revenues from increasing each year by more than CPI plus a quantity factor to account for forecast growth on Chorus' network.
- 3.174 More specifically, in the unsmoothed/smoothed building blocks revenue model we have applied for the final decision, the 'forecast building blocks revenue' for 2025 is based on a nominal smoothed amount for 2025 as at 1 January 2025. The 'forecast building blocks revenue' for each subsequent year of the regulatory period is defined by reference to the prior year, with a CPI and quantity adjustment.
- 3.175 RFCM is achieved, according to the simultaneous equations:

$$\textit{Smoothed } BBR_{t+1} = \textit{Smoothed } BBR_t \times (1 + \Delta CPI_t) \times (1 + Q_t)$$

¹⁹⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [62].

¹⁹⁷ Noting that there was a mismatch in the forecast CPI applied for the draft expenditure decision and that used for the draft PQ decision, but the forecasts of input cost inflation have been updated for the final expenditure decision to be practically aligned with the final PQ decision.

and

$$NPV_{WACC_v}(Smoothed\ BBR_t)_{t=1}^4 = NPV_{WACC_v}(Raw\ BBR_t)_{t=1}^4$$

- 3.176 This ensures the area under the smoothed revenue path equals the sum of the unsmoothed building block costs, in NPV terms.
- 3.177 Unlike the Part 4 electricity distribution businesses (EDB) IMs, the fibre IMs do not determine the approach to forecasting inflation when setting a price or revenue path.¹⁹⁸ We must therefore decide which CPI index to use and on what timing basis.
- 3.178 We have identified two options for the choice of CPI index:
- 3.178.1 RBNZ inflation forecast for CPI, as we use in Part 4; and
- 3.178.2 ‘market-based’ inflation forecasts.
- 3.179 As we did for PQP1, we continue to consider that the RBNZ inflation forecast for CPI is a suitable starting point for revenue smoothing given it is:
- 3.179.1 reliable as it not produced by a private company (unlikely to be biased);
- 3.179.2 an enduring publication (unlikely to be discontinued); and
- 3.179.3 the same forecast series used in the WACC determination when setting a price or revenue path.
- 3.180 In practice, our approach is similar to that in the EDB IMs:
- 3.180.1 we use forecasts based on the RBNZ’s forecasts of inflation issued as part of the Monetary Policy Statement, consistent with the forecast CPI we use for input cost inflators;¹⁹⁹
- 3.180.2 for the out-years, beyond where RBNZ forecasts are available, we assume a linear reversion to the RBNZ inflation target of 2%; and
- 3.180.3 then on a yearly basis from year two, the original CPI forecast value is replaced with an updated CPI forecast. This determines the forecast allowable revenue for each year.²⁰⁰

¹⁹⁸ Compare for example the *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, Part 3 Subpart 1 Specification of Price and Revenues (3.1.1) to the *Electricity Distribution Services Input Methodologies Determination 2012*, as amended on 13 December 2023, Part 3 Subpart 1 Specification of price clauses 3.1.1(7)-(8).

¹⁹⁹ Unlike Part 4, however, these would not necessarily be determined at the same time as the determination of the weighted average cost of capital (WACC).

²⁰⁰ This requires Chorus to use the CPI stipulated for each quarter in Statistics New Zealand’s ‘All Groups Index SE9A’ for the relevant year when calculating the revenue wash-up draw down amount.

Final decision on the real slope of the revenue path

3.181 In addition to having the revenue path move in line with CPI, we also ‘slope’ the revenue path relative to CPI. This determines the ‘real’ slope of forecast allowable revenues over the period. The analogous concept in PQ regulation under Part 4 of the Commerce Act is the “X-factor”.

Final decision

3.182 For PQP2, as we did for PQP1, our final decision is to slope the revenue path in line with forecast aggregate growth in demand for Chorus’ services. This is unchanged from our draft decision.²⁰¹

3.183 Note that this forecast will not be updated for actual demand for the purposes of determining forecast allowable revenue. To do so would in effect create a price path, as Chorus would be bearing demand risk, contrary to s 196 of the Act.

Stakeholder views

3.184 We did not receive any submissions on the draft decision to slope the revenue path in line with forecast aggregate growth in demand for Chorus’ services.

Reasons for our final decision

3.185 As was the case for PQP1, where network demand is still forecast to grow, we consider a revenue path that grows in line with demand best promotes the long-term benefit of end-users. This approach means that average revenue per customer will be approximately constant over the regulatory period, allowing (though not requiring) prices to be relatively stable.

3.186 Additionally, this is consistent with the price terms of the declared service. The anchor services can increase at the rate of CPI inflation, so aligning the shape of the revenue path to volume growth makes it easier for Chorus to increase the anchor service prices at the rate of inflation.

Final decision on achieving in-period revenue smoothing

3.187 Given the decision above about CPI and the real slope of the path, we must consider how to give effect to this in-period smoothing of allowable revenue.

3.188 Note that this is distinct from the between-period revenue smoothing that we must consider where it is necessary to avoid price shocks or undue financial hardship.²⁰² As discussed in paragraphs 3.84 to 3.89 above, we do not consider either of these are at risk of occurring.

²⁰¹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.119].

²⁰² Telecommunications Act 2001, s 197.

Final decision

3.189 Our final decision, which is unchanged from our draft decision, is to determine an additional ‘in-period smoothing’ building block, as we did in PQP1.²⁰³ The value of this smoothing building block is determined by the nominal difference between the ‘raw’ building blocks revenue and the smoothed amounts that result from applying the simultaneous equations in paragraph 3.175 above.

Stakeholder views

3.190 We did not receive any submissions on this decision.

Reasons for final decision

3.191 This decision is a pure implementation decision necessary to give effect to other decisions we consider promote the Part 6 purpose.²⁰⁴ As such, we have chosen this approach as we consider it:

3.191.1 transparent; and

3.191.2 simple to implement.

Compliance with the revenue path

Final decision on compliance requirements for the revenue path

3.192 Our final decision on compliance requirements for the revenue aspects of Chorus’ PQ path is to:

3.192.1 allow a wash-up of CPI for the first year of the regulatory period (which was the not case for PQP1) and for each subsequent year of the regulatory period (which we did for PQP1). We note that we will set the ‘forecast building blocks revenue’ figure for regulatory year 2025 based on a nominal smoothed amount as at 1 January 2025 and apply forecast 2025 CPI to determine the nominal revenue value for 2025;

3.192.2 change to a lagged CPI calculation for the change in CPI used as part of calculating the forecast building blocks revenue;

3.192.3 retain the same level of certification requirements as specified for PQP1 and set the due date of compliance reporting dates for the purpose of s 194(2)(e) as follows:

²⁰³ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.125].

²⁰⁴ This “in-period smoothing” building block is not required under the fibre IMs but will operate as a “building block component” under the definition of “building blocks revenue” under the fibre IMs. *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, definition of “building blocks revenue” in clause 1.1.4(2).

3.192.3.1 for regulatory year 2025, the first regulatory year of PQP2, 31 May 2025,²⁰⁵ and

3.192.3.2 for regulatory years 2026 to 2028, 22 November in the preceding year.²⁰⁶

3.192.4 remove the requirement for the submission of a mid-year PCS; and

3.192.5 retain the same approach to the ex-post wash-up information as was used in PQP1.

3.193 The only change from our draft decision is to adopt a lagged CPI calculation for the price path roll forward. We discuss stakeholder views and the reasons for our final decision on compliance requirements after the following section on how compliance is demonstrated.

Final decision on demonstrating compliance with the revenue path

3.194 Published alongside this reasons paper is a final s 193(2) notice setting out the requirements to demonstrate compliance with the revenue path. We did not receive any submissions on the draft s 193(2) notice.

Final decision

3.195 Our final decision is that Chorus must provide a statement of compliance with the revenue path and provide supporting information to demonstrate compliance. This statement and the supporting information Chorus is required to provide must be certified by at least one director of Chorus.

3.196 These requirements continue the approach taken for PQP1, which we have found provides sufficient information to support assessment of compliance.

Definition of forecast total FFLAS revenue

3.197 As part of the information necessary to determine whether the price path has been complied with, our final decision is that we will continue to require, as part of the information demonstrating compliance, that 'forecast total FFLAS revenue' (FTFR) be broken down into its component parts. Specifically, Chorus must provide the information used to calculate FTFR in accordance with the formula:

$$FTFR = \sum_i (P_i - D_i) \times FQ_i + FOFI$$

²⁰⁵ This differs from our requirement for PQP1, where we required the information by 31 March 2022 for the first regulatory year.

²⁰⁶ This differs from our requirement for PQP1, where we required the information by 30 August of the preceding regulatory year for 2023 and 2024.

Where-

i is each tariff;

P is the corresponding price for that tariff;

D is any discount to the price;

FQ is the relevant forecast quantity; and

FOFI is forecast other FFLAS income.

3.198 This continues the approach taken for PQP1, which we have found provides sufficient information to demonstrate ex-ante compliance.

Dates when annual pricing compliance statements are due

3.199 As required by s 194(2)(e), our final determination (published alongside this paper) sets out the dates by which compliance with the PQ path must be demonstrated. We discuss our final decision on the dates by which compliance must be demonstrated below starting at paragraph 3.201.²⁰⁷

3.200 We have specified other compliance requirements in the final s 193(2) notice published alongside this paper, rather than incorporating them as part of the s 170 PQ determination.

Final decision

3.201 Our final decision is that the annual pricing compliance statement is due by 31 May 2025 for regulatory year 2025, and by 22 November for regulatory years 2026-2028. This will allow approximately 20 working days prior to the normal commencement of the holiday period.

3.202 This is the unchanged from our draft decision.²⁰⁸

Background

3.203 The s 193 notice in PQP1 required Chorus to submit annual price path compliance statements. These statements confirm Chorus' compliance with the price path for the regulatory year in question and due dates are set out in the PQ determination.²⁰⁹

²⁰⁷ Section 194 of the Act sets out that a price-quality path must specify the date or dates by which compliance must be demonstrated in accordance with s 193(2).

²⁰⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.135].

²⁰⁹ See clause 7.2 of the PQ determination. The statements must also include schedules reflecting the prices, forecast quantities, and forecast other FFLAS income used in the calculation of forecast total FFLAS revenue.

3.204 The current requirements for PQP1 are:²¹⁰

3.204.1 in respect of regulatory year 2022, no later than 31 March 2022;

3.204.2 in respect of regulatory years 2023 and 2024, no later than 30 August of the preceding regulatory year; and

3.204.3 except when the information has already been provided under clause 9.1.1(a) or (b), at least 30 working days before the date on which Chorus intends to change the price(s) of an existing FFLAS product, or to introduce a new FFLAS product that is in all material respects the same as an existing FFLAS product.

3.205 Chorus announced on the 10 April 2024 that it was moving from a 1 October date for implementing price changes to 1 January. Chorus noted:²¹¹

This change reflects Chorus' desire to simplify processes, by aligning future pricing adjustments with the start of the next regulatory period from 1 January 2025, and an expectation that regulated fibre revenues will be constrained by the MAR of about \$809 million for calendar year 2024.

3.206 For the first year of a regulatory period, Chorus proposed that a pricing compliance statement be required within six months of the start of that regulatory year to give sufficient time for Chorus to adjust FFLAS prices to ensure compliance, if necessary, compared to by 31 March in PQP2.²¹²

3.207 Alternatively, it has suggested that the Commission would need to make the final PQ decision sufficiently early that Chorus has time to consult with customers and notify a price change for the start of the first regulatory year, or the Commission would need to commit to not requiring Chorus to reduce revenues in the first year of PQP2. This is because, it says, the current plan to determine the price-quality path for Chorus in late calendar year 2024 does not give Chorus enough time to adjust prices to comply with the new MAR in time for the start of PQP2.²¹³

²¹⁰ *Fibre Price-Quality Path Determination 2021* [2021] NZCC 27. Chorus must also provide a compliance statement in respect of quality standards. The due date for this statement is currently no later than six months after the end of regulatory years 2022, 2023, and 2024.

²¹¹ See [NZX "Chorus Q3 FY24 Connections Update" \(10 April 2024\)](#).

²¹² Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [5.3].

²¹³ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [17].

3.208 For the following years in PQP2, Chorus requested the due dates of no later than 31 December prior to the regulatory year in question.²¹⁴

Stakeholder views

3.209 We received one submission from Chorus on compliance requirements. Chorus submitted that the proposed price compliance statement timeframes for 2025 and other years of PQP2 are not ideal:²¹⁵

3.209.1 Chorus considered that 31 May 2025 is manageable for PQP2 but should be reconsidered for PQP3.²¹⁶ Chorus submitted that for future regulatory periods, if it was expecting the Commission's PQ decision to be published in December and to require a reduction in prices, a 31 May compliance deadline would be very challenging.²¹⁷ It suggested that a date for the PQ compliance statement of 30 June would better allow a price setting and consultation process to be carried out;²¹⁸

3.209.2 Chorus suggested a compliance statement due date of 31 December should be applied as it is consistent with the approach for EDBs and allows more time for Chorus to prepare;²¹⁹

3.209.3 Chorus stated that requiring a price compliance statement on or around 22 November would reduce the amount of time Chorus has to produce a compliance statement and go through the necessary assurance steps after pricing is confirmed to RSPs;²²⁰ and

²¹⁴ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [5.3].

²¹⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at 13-14.

²¹⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [64].

²¹⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [66].

²¹⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [66].

²¹⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [67].

²²⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [70].

3.209.4 Chorus said it would prepare and provide the compliance statement to the Commission in mid-December, and the statement will reflect pricing decisions taken several months earlier. It saw no reason to believe that an immediate response to a compliance statement is necessary or would deliver a rapid benefit for end-users.²²¹

3.210 We did not receive any submissions on the level of certification requirements or on the approach to the ex-post wash-up information.

Reasons for our final decision

3.211 We set out in our draft decision that we considered Chorus' proposal to change the due date for the compliance statement to be reasonable, given its move from October to January for the implementation of price changes. The current PQP1 deadline, based on a 1 October price change implementation date, requires submission of the PCS approximately one month prior to that date, on 30 August. Therefore, a similar timeframe (ie, approximately a month prior), now that the price change implementation date has changed (see 3.2055), is reasonable.

3.212 Chorus suggested that the revised timeframe for the pricing compliance statement be 31 December for PQP2 regulatory years other than year 1 (see 3.2088). We do not consider that reasonable or practical. Given the usual Christmas and summer holiday impacts, both Chorus and the Commission are likely to have minimal resources available to prepare and consider the statement at this time of the year. We therefore considered 22 November, which will allow approximately 20 working days prior to the normal commencement of the holiday period, to be a practical deadline, and that was the deadline set at draft decision.

3.213 We acknowledge Chorus' submission, but we consider that for the 2025 compliance statement, it is appropriate to maintain the due date of 31 May 2025.

3.214 We do not consider that Chorus has presented persuasive evidence for the requirement of an additional month to be able to demonstrate compliance. For its price rises on 1 January 2025, Chorus began consultation on pricing in July 2024 and announced final pricing on the 25 September 2024. Chorus commenced this consultation prior to the determination of both the final expenditure and PQ decision, demonstrating that it considered it had sufficient information to do so at that time despite not having those final decisions.

3.215 If Chorus was facing the prospect of a reduction in price, as it postulates in its submission, we will consider whether any changes are required for PQP3 when it is determined.

²²¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [69].

- 3.216 With respect to subsequent compliance statements (post 2025) due on 22 November in the prior year, we note that Chorus indicated that the compliance statement will reflect pricing decisions taken several months earlier than December.²²² Given the process undertaken in 2024 for 2025 price setting, it is likely that the pricing will be set by late September. While Chorus still has to produce a compliance statement and go through the necessary assurance steps after pricing is confirmed to RSPs, it is unclear why the period for this might require more than the approximately two months allowed by the 22 November deadline, especially considering that the process could commence after finishing consultation but prior to announcing a final price in September.
- 3.217 We consider the timeframes outlined are adequate for completion of the process by the 22 November deadline. We also consider it prudent to allow the Commission time to review the compliance statement prior to the commencement of the new regulatory year, and that this is in the best interests of end-users.

Mid-year pricing compliance statements due to price changes

Final decision

- 3.218 Our final decision is that a mid-year PCS will not be required for PQP2.
- 3.219 This is unchanged from our draft decision.²²³

Background

- 3.220 In PQP1 Chorus has been required to demonstrate compliance with the annual revenue cap if FFLAS prices are revised for part of a regulatory year. The PQP1 PQ determination requires submission of a new pricing compliance statement if Chorus intends to:
- 3.220.1 change the price of an existing FFLAS product; or
 - 3.220.2 introduce a new FFLAS product that is materially the same as an existing FFLAS product. The intention is to demonstrate compliance with the annual revenue cap if FFLAS prices are revised for part of a regulatory year.
- 3.221 Chorus has indicated that its move to a 1 January cycle for customer pricing purposes, together with the restriction in its customer contracts on increasing prices more than once in any 12-month period, means that annual price increases for PQP2 will be captured in the annual PCS.

²²² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [69].

²²³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.146].

- 3.222 Chorus said that:²²⁴
- 3.222.1 material price changes for any product have not occurred outside its annual pricing cycle;
 - 3.222.2 any changes that have occurred have been de minimis and not included any core FFLAS products;
 - 3.222.3 disclosure of prices for all products occurs in advance of prices taking effect so will be transparent to interested persons; and
 - 3.222.4 the preparation of a new PCS involves considerable administrative effort and costs, including the re-forecasting of affected product quantities and director certification by Chorus, plus costs incurred by the Commission in receiving the PCS.
- 3.223 Chorus therefore recommended not requiring a mid-year PCS as it saw no benefits to end-users of demonstrating compliance under a mid-year PCS, and it creates compliance costs.²²⁵

Stakeholder views

- 3.224 We received one submission from Chorus on the draft decision. Chorus supported our draft decision to remove the requirement for the submission of a mid-year PCS.²²⁶
- 3.225 Chorus considered that our draft decision is a sensible improvement as it will reduce the compliance burden on Chorus with no adverse impact on end-users.²²⁷

²²⁴ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [20].

²²⁵ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [22].

²²⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [71].

²²⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [71].

- 3.226 Chorus submitted that the annual price increases for PQP2 will be captured in the annual PCS.²²⁸ Chorus also considered that material price changes have not occurred outside Chorus' annual pricing cycle and disclosure of prices for all products occurs in advance of prices taking effect so will be transparent to interested persons.²²⁹

Reasons for our final decision

- 3.227 In terms of Chorus' recommendation to remove the requirement for a mid-year pricing compliance statement, we note that its rationale suggests a requirement for one would be rare and it considers the costs outweigh the benefits. We agree that it would be rarely required, and we do not consider the benefits of requiring a mid-year statement will outweigh the costs.
- 3.228 Our final decision is to confirm our draft decision of not requiring the submission of a mid-year PCS during PQP2 for the reasons set out above.

Compliance with geographically consistent pricing (s 201)

Final decision

- 3.229 Our final decision is to retain the requirements set out in paragraphs 3.232.1 to 3.232.6, but to only require reporting to be submitted annually by 31 January for each regulatory year of the second regulatory period.
- 3.230 This is unchanged from our draft decision.²³⁰

Background

- 3.231 In PQP1, we have required Chorus to provide information to demonstrate it has complied with s 201 of the Act twice per annum. Section 201 requires that Chorus must, regardless of the geographic location of the access seeker or end-user, charge the same price for providing fibre fixed line access services (FFLAS) that are, in all material respects, the same.²³¹ Our approach to s 201 of the Act is laid out in our 2021 guidance.²³²

²²⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [72].

²²⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [73].

²³⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [3.153].

²³¹ Commerce Commission "Notice to supply information to the Commerce Commission under section 193(2) of the Telecommunications Act 2001 – Compliance statements for the first regulatory period" (16 December 2021).

²³² Commerce Commission "Geographically consistent pricing: Guidance on our intended approach to s 201 of the Telecommunications Act 2001" (30 September 2021).

- 3.232 For PQP1 Chorus has been required to provide the Commission with the following information for Half-year 1 (1 January to 30 June) by 31 July and in respect of Half-year 2 (1 July to 31 December) by 31 January for each regulatory year of the first regulatory period:
- 3.232.1 a summary of the incentives Chorus has offered, including which regulated FFLAS the incentives apply to, the design principles, the criteria for, and structure of the incentives;
 - 3.232.2 copies of Chorus offer documents that set out the details of each of the incentives as offered to retail service providers;
 - 3.232.3 a summary of the processes Chorus has taken to ensure that its prices charged for FFLAS, including any incentives, comply with s 201;
 - 3.232.4 a statement on whether Chorus has complied with s 201;
 - 3.232.5 if Chorus has not complied with s 201, the reasons for the non-compliance; and
 - 3.232.6 a certificate in the form specified in the notice, signed by at least one director of Chorus.
- 3.233 Chorus has indicated in its submission on our process and approach paper that:²³³

The requirement for twice-yearly director certification of information demonstrating compliance with the geographically consistent pricing obligation is entirely disproportionate to the risk of harm to end-users. It should not be carried through into PQP2. Instead, compliance should be monitored using pricing disclosures.

Stakeholder views

- 3.234 We received one submission from Chorus on the draft decision. Chorus submitted that it supported our draft decision to only require annual (rather than six monthly) reporting of compliance with section 201 of the Act.²³⁴
- 3.235 Chorus submitted that our draft decision would reduce reporting costs without reducing our ability to monitor compliance with the geographically consistent pricing requirement.²³⁵

²³³ Chorus "PQP2 Process and Approach" (28 September 2023).

²³⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [74].

²³⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [74].

Reasons for our final decision

- 3.236 We have considered three questions in relation to the demonstration of s 201 compliance:
- 3.236.1 Should we require additional compliance statements beyond the pricing disclosures under ID (ie, retain specific requirements outside of ID as we did for PQP1)?
- 3.236.2 If so, should we maintain the director certification requirement for the compliance statement?
- 3.236.3 Should we keep it twice-yearly or reduce the frequency to yearly?
- 3.237 As we stated in our 2021 guidance on s 201, Chorus bears responsibility for ensuring that its pricing decisions comply with the requirements of s 201. We have the power to issue a written notice requiring Chorus to provide a written compliance statement and other relevant information to enable us to monitor Chorus' compliance with s 201.²³⁶
- 3.238 With regard to ID, we do not consider that pricing disclosures on their own give enough information for us to sufficiently assess s 201 compliance. We consider the current compliance disclosures as required for PQP1 remain appropriate. The content Chorus is required to produce to demonstrate compliance is not unreasonable and we would expect that Chorus would have this information readily available as part of its normal business operations.
- 3.239 While director certification of the s 201 compliance disclosures creates a compliance cost, we consider this level of assurance is appropriate and necessary to underpin a meaningful and effective compliance requirement. Requiring director certification is consistent with our broader approach to compliance for regulated entities by ensuring that proper governance and oversight underpins statements of regulatory compliance.
- 3.240 We consider that the benefit from twice-yearly reporting is marginal and comes at material added costs for Chorus (with Chorus' cost ultimately borne by consumers) and the Commission. We therefore consider reducing reporting to annually will be a more efficient approach at an appropriate level for monitoring compliance with this section of the Act. There has not to date been any evidence that the increased reporting is addressing specific risks beyond what can be achieved with annual reporting.

²³⁶ Telecommunications Act 2001, s 193(2).

- 3.241 Our final decision is to confirm our draft decision of retaining the requirements set out in paragraphs 3.232.1 – 3.232.6 but only requiring reporting to be submitted annually by 31 January for each regulatory year of the second regulatory period.

Mechanics of the revenue path

Extending the CPI wash-up mechanism to include year 1 of a regulatory period

- 3.242 The fibre IMs set out at clause 3.1.1(11) what actual allowable revenue means for a regulatory year. This includes at 3.1.1(11)(f), the difference between (i) any forecast CPI values referred to in a PQ determination for the purposes of calculating forecast allowable revenue under subclause (2) for that regulatory year; and (ii) the corresponding actual CPI values for that regulatory year.²³⁷
- 3.243 The fibre IMs therefore allow for a wash-up of inflation to be included in actual allowable revenues. For this to be implemented, the PQ determination will need to specify the forecast CPI for the relevant regulatory years (including year 1).²³⁸

Final decision

- 3.244 Our final decision for setting 2025 revenue is to set a smoothed revenue allowance that will allow a wash-up of allowable revenue for the impact of inflation for the first year of a regulatory period when inflation differs from expected inflation by including forecast 2025 inflation in the determination.²³⁹

Background

- 3.245 On 20 December 2023, Chorus wrote to us to “recommend changes to the mechanics of the revenue path that applies to it for PQP2, in order to address some unexpected outcomes and complexities we have experienced in PQP1”.²⁴⁰ One recommendation in the letter was to extend the CPI wash-up mechanism to include year 1 of a regulatory period.²⁴¹

²³⁷ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(11)(f); and Schedule 1 of *Fibre Price-Quality Path Determination 2021* [2021] NZCC 27.

²³⁸ This is different to Part 4 where the IMs are more detailed on how the CPI wash-up is to operate.

²³⁹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(11)(f).

²⁴⁰ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [1].

²⁴¹ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [5].

- 3.246 Implementing a wash-up for year 1 of the regulatory period was an issue that was raised by Chorus in relation to PQP1, as the price path was set with a fixed revenue allowance for regulatory year 2022. It should be noted that the determination calculates the revenue allowances for the other years of PQP1 via the use of a forecast CPI, so the difference between the forecast and actual CPI for those years is already washed-up for.
- 3.247 Chorus submitted on our Part 4 IM review that the wash-up for actual compared to expected inflation should be applied to the first year of the period, not just the subsequent years.²⁴² In our final decision on the IM Review for Part 4, we accepted that while the absence of a first year wash-up is not inconsistent with ex-ante RFCM, suppliers face the risk in particular periods where expected inflation may be significantly different to actual inflation. Our final decision on the IM Review for Part 4 was to expand the wash-up of inflation to include the first year of the period for electricity distribution and gas transmission businesses.²⁴³

Stakeholder views

- 3.248 Chorus supported our draft decision to allow a wash-up of CPI for the first year of the regulatory period, and for each subsequent year of the regulatory period.²⁴⁴ Chorus considered that this ensures a consistent allocation of inflation risk between Chorus and end-users over a regulatory period.²⁴⁵

Reasons for our final decision

- 3.249 We have considered allowing for a CPI wash-up for the change between forecast and actual for the first year of PQP2, as we already do (and will continue to do) for subsequent years. For the reasons outlined in the IM review, we consider this change is justified. We note that while the fibre IMs allow us to wash-up for inflation for the first year of a regulatory period, they don't direct us to provide a wash-up.

²⁴² Incenta Economic Consulting "Options to address the gap in CPI inflation correction" (11 July 2022).

²⁴³ Commerce Commission "Financing and incentivising efficient expenditure during the energy transition topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [4.111]-[4.116].

²⁴⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [63].

²⁴⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [63].

- 3.250 Our final decision, which is unchanged from our draft decision, is that the first year of PQP2 should be treated the same as the other years in terms of applying an inflation wash-up.²⁴⁶ This better promotes the Part 6 purpose by washing-up for the impact of actual inflation to ensure that Chorus and consumers do not face the risk in year 1 of the period in the same way as the inflation risk is washed-up for across the rest of the period.
- 3.251 In order to allow for this wash-up in PQP2 our final decision is to set the MAR for 2025, the first year of PQP2, differently to the way we set it for 2022. For 2022, we set a specific nominal figure (see paragraph 3.255 below).

Inflation measure in revenue path roll forward

Final decision

- 3.252 The Act requires us to wash-up any over-recovery or under-recovery of revenue by Chorus in a present value neutral manner but allows us discretion in how we implement the wash-up mechanism.²⁴⁷ The specification of price IM of the fibre IMs provides for us to specify whether forecast inflation values will be used in the wash-up, and what forecast values will be used, when we make a PQ determination.²⁴⁸
- 3.253 Our final decision, which is a change from our draft decision, is to change to a lagged CPI calculation for the revenue path (ie, for $FBBR_t$, the forecast building blocks revenue for regulatory year t), where the numerator is based on CPI values in the preceding regulatory year to the one in question and the denominator is based on the CPI values in the regulatory year that precedes the regulatory year in question by two years.²⁴⁹

Background

- 3.254 In its December 2023 letter, Chorus also suggested adopting a lagged measure of CPI for pricing compliance purposes in PQP2 (using actual CPI for the year ending June in the calendar year in which the PCS is submitted).²⁵⁰

²⁴⁶ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.169].

²⁴⁷ Telecommunications Act 2001, s 196.

²⁴⁸ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.1.1(11)(f).

²⁴⁹ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [3.172]. We note that, as the updated ΔCPI_t calculation must be undertaken before 30 June of regulatory year $t-1$, the calculation will still involve some forecast values for particular quarters.

²⁵⁰ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [5].

- 3.255 For PQP1 we specified the ‘forecast building blocks revenue’ for regulatory year 2022 as \$676,000,000 in the PQ determination.
- 3.256 In order to roll forward the ‘forecast building blocks revenue’ for years after 2022, we specified the following formula in the PQ determination, which defines forecast building blocks revenue for the next year t , $FBBR_t$ as:²⁵¹

$$FBBR_{t-1} \times (1 + \Delta CPI_t) \times (1 + \Delta Q_t)$$

where—

$FBBR_{t-1}$ is ‘forecast building blocks revenue’ for the previous regulatory year;

ΔCPI_t is the change in CPI calculated in accordance with paragraph 3.257; and

ΔQ_t is the forecast changes in quantities given in the determination for 2023 and 2024

- 3.257 The calculation of ΔCPI_t was in accordance with the following formula:

$$\Delta CPI_t = \frac{CPI_{Mar,t} + CPI_{Jun,t} + CPI_{Sep,t} + CPI_{Dec,t}}{CPI_{Mar,t-1} + CPI_{Jun,t-1} + CPI_{Sep,t-1} + CPI_{Dec,t-1}} - 1$$

- 3.258 In this formula:

$CPI_{q,t-n}$ is the CPI for the quarter ending in q in the 12-month period n years prior to regulatory year t .

- 3.259 For PQP2, Chorus requested that we change from a forward-looking CPI calculation, where the numerator is based on the regulatory year in question and the denominator is the preceding regulatory year to a backward-looking calculation. That is, a change from CPI_t / CPI_{t-1} to CPI_{t-1} / CPI_{t-2} in the formula for ΔCPI_t above.
- 3.260 Chorus contended that the unexpectedly high inflation environment for PQP1 has shown that the inflation forecasts used to update MAR in-period for pricing compliance purposes can become materially out of step with pricing expectations established with its fibre customers and by the market.²⁵²

- 3.261 It stated that this arises because of a mismatch between:

²⁵¹ For 2023, $FBBR_{t-1}$ was the set amount of \$676,000,000. Our final decision is to change the setting of the 2025 amount to incorporate the impact of forecast 2025 CPI, so for 2025 we will set a defined amount as at 1 January 2025 that is multiplied by forecast 2025 CPI and has a revenue date adjustment factor to determine the $FBBR_{t-1}$ for the 2026 calculation. See further explanation above.

²⁵² Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [9].

- 3.261.1 the MAR being updated each regulatory year in the PQ pricing compliance statement using the most recent Reserve Bank forecasts of annual CPI (January - December of the following year); and
- 3.261.2 commercial fibre prices are generally expected to increase by lagged actual CPI (July – June of the year prior), consistent with the anchor service price cap.
- 3.262 Chorus contended that while differences between forecast and actual CPI on MAR are eventually washed-up, the in-period MAR changes that rely on Reserve Bank forecasts can be insufficient to accommodate commercial fibre price adjustments calculated using actual lagged CPI – leading to the situation described in Chorus’ letter where price increases expected by the market have been deferred.²⁵³
- 3.263 This, Chorus indicated, makes fibre pricing less predictable for it and its customers. Chorus also stated that the inconsistency between a forecast CPI used for updating the MAR in-period, and a lagged CPI used for updating the anchor service price cap creates practical difficulties and unexpected outcomes.
- 3.264 As an alternative to the change to a backward-looking calculation recommendation, Chorus suggested a mechanism where an in-period draw down of the wash-up balance can be achieved to avoid unnecessary pricing constraints caused by CPI forecasting and to help avoid price shocks (up or down) at the following reset if a large wash-up balance is developed.

Previous reasoning for our draft decisions

- 3.265 When we reached our draft decision, as we noted in PQP1, we considered that the forward-looking approach reduces complexity and promotes workability without detriment to s162. We did not consider that a change to a backward-looking approach would better promote the purpose of Part 6.
- 3.266 Our PQP1 draft decision on the MAR specified the ΔCPI_t formula on a backward-looking basis.²⁵⁴ Chorus submitted on this formula and requested that it be changed to the forward-looking version that was ultimately adopted for the final decision. Chorus explained its reasoning for this change in its submission.²⁵⁵

²⁵³ Letter from Ian Ferguson (Regulatory and Policy Affairs Manager, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of improvements to price path mechanics for PQP2 (20 December 2023), at [2].

²⁵⁴ See *Draft Fibre Price-Quality Path Determination 2021* [2021] NZCC XX, Schedule 1 (noting that the formula was later identified to be in error and requiring the addition of “-1”).

²⁵⁵ See Chorus “Submission on price-quality path draft decision” (8 July 2021), section B, B8 and B9.

- 3.267 Chorus said that using the previous year's actual CPI result, which the formula did at that time, would mean that "Chorus will be guaranteed to under-recover the PV of its forecast MAR during PQP1".²⁵⁶
- 3.268 This is because the previous year's inflation is not a good indication of the current year's inflation. Further, as the 2022 MAR was a set figure that incorporated 2022 inflation, and we would then use 2022 inflation to adjust the 2022 MAR to get the allowable 2023 MAR, we essentially use the one figure twice. Chorus then said that this lagged approach would be inconsistent with real FCM.
- 3.269 In making the change to the formula for the PQP1 final decision we said that:
- 3.269.1 we agreed with Chorus that RFCM requires consistency between the present value of the building blocks model and the PV of smoothed revenues across the regulatory period;
- 3.269.2 however, we noted that the forecast approach is not necessarily the only approach and that other approaches using a lagged rate of inflation for revenue smoothing could also ensure RFCM on a long-term PV basis; and
- 3.269.3 while RFCM does not require that Chorus' allowable revenue in any given year (or even any given regulatory period) needs to perfectly reflect building blocks costs, the forecast (ie, forward-looking) approach may better align the two as well as reducing complexity and promoting workability without detriment to s 162.
- 3.270 Chorus did not engage with its previous position advocating the forward-looking approach in the calculation of the CPI delta component and why it now prefers the originally proposed approach in its December 2023 letter.

²⁵⁶ See Chorus "Submission on price-quality path draft decision" (8 July 2021), at B8.

- 3.271 We noted at our draft decision the proposal to reduce the PQP2 MAR below what it otherwise might be, using tilted depreciation. In setting the MAR for the draft decision, based on Chorus' pricing and revenue projections, there appeared to remain some latitude for expected revenues to increase and remain within the allowable MAR, such that variances between lagged CPI and forward-looking CPI are unlikely to cause a binding constraint on Chorus' ability to lift prices. This suggested that the forward-looking approach was unlikely to pose a problem in terms of where price increases expected by the market need to be deferred in PQP2. This approach, of allowing some headroom above Chorus' current revenue projections so as to not to constrain the MAR for PQP2 via depreciation to such an extent that it was likely to prevent price increases in line with market expectations, would also mean that an in-period draw down of the wash-up balance mechanism is not required for PQP2 (see paragraph 3.264).
- 3.272 Further, we noted the smoothing mechanism will initially act to decouple increases in forecast allowable revenue from CPI, given the revenue change between 2024 and 2025 is not directly linked to lagged CPI. This will mean potential price increases may be out of step with market expectations based solely on the past year's CPI change.

Stakeholder views

- 3.273 We received one submission on the draft decision on this issue from Chorus. It did not support our draft decision to use a forward-looking measure of CPI for the revenue path.²⁵⁷ Chorus submitted that:
- 3.273.1 it agrees there are theoretical benefits of using a forecast CPI for adjusting prices for regulatory years;²⁵⁸ but
- 3.273.2 there are practical impacts of the mismatch between the inflation rates applied to the anchor product and the MAR overall during PQP1,²⁵⁹ and
- 3.273.3 although the problem during PQP1 is less likely to reoccur for PQP2, there is still value in implementing the right settings for future regulatory periods.²⁶⁰

²⁵⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [59].

²⁵⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [54].

²⁵⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [55].

²⁶⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [58].

- 3.274 Chorus also submitted that, for the period between June 2019 and December 2023, the 18-month lagged inflation was on average closer to actual inflation than the forecast.²⁶¹
- 3.275 Chorus noted that using lagged CPI does not change the long-run level of allowable revenue, as the revenues will be washed-up with respect to actual CPI for the regulatory year.²⁶² The only impacts are the size of the wash-up and simplifying the pricing arrangements by ensuring MAR and anchor product price can increase at the same rate.²⁶³
- 3.276 Therefore, Chorus submitted that it recommends using lagged CPI for rolling forward the price path for PQP2.

Reasons for our final decision

- 3.277 We have made a change in our final decision, to a lagged CPI calculation for the revenue path, where the numerator is based on the preceding regulatory year to the one in question and the denominator is the regulatory year that precedes the regulatory year in question by two years.
- 3.278 We recognise that during PQP1 the mismatch between forecast inflation used to roll forward the price path and the lagged inflation used to update the anchor service price cap and market expectations of price changes resulted in a larger wash-up balance than would have been the case if we had used lagged inflation to roll forward the price path.
- 3.279 The use of lagged inflation to roll forward the price path will naturally keep increases in the MAR more closely aligned with the annual increase in the anchor service price cap and market expectations of price increases, resulting in a smaller expected wash-up balance at the end of the regulatory period.
- 3.280 As we noted in our draft decision, the choice of inflation forecast used to roll forward the price path does not have implications for RFCM. This is because the errors in the inflation forecast used to roll forward the price path are washed-up.
- 3.281 We note that our lagged approach still contains forecast elements. The June, September and December quarterly figures for the year prior to the regulatory year will only be available as forecasts at the time the Δ CPI is determined.

²⁶¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [60].

²⁶² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [61].

²⁶³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [61].

Chapter 4 Quality

Purpose and structure

- 4.1 This chapter sets out our final decision on quality standards for PQP2 and explains the reason for them. Our final PQ determination published alongside this paper reflects these final decisions. The chapter is structured as follows:
- 4.1.1 application of the regulatory framework;
 - 4.1.2 availability quality standards (mandatory dimension);
 - 4.1.3 performance quality standard (mandatory dimension);
 - 4.1.4 provisioning quality standard (optional dimension);
 - 4.1.5 other optional dimensions; and
 - 4.1.6 incentive schemes.

Application of our regulatory framework

- 4.2 In coming to our final decision, we have applied the relevant fibre IMs and requirements under the Act and have considered whether the final decision promotes the purpose of Part 6 of the Act.²⁶⁴ In principle, our decisions promote the Act by incentivising Chorus to provide services at a quality that end-users want and are prepared to pay for under s 162(b).
- 4.3 Quality standards should incentivise Chorus to deliver service quality and costs to end-users like those that exist in a workably competitive market. This requires that the quality standard should be high enough to satisfy the user quality of experience (QoE) requirement but not so high as to drive costs above what would be expected in a workably competitive market.²⁶⁵
- 4.4 To avoid incurring excessive costs there are two requirements:
- 4.4.1 the standard must not be too high; and
 - 4.4.2 the definition of a breach must not expose Chorus to an unreasonable risk of an inadvertent breach. To do that, it must be cognisant of the nature (probability distribution) of the quality metrics being managed.

²⁶⁴ Where judgement is required on any of our final decisions, we have explained how our decisions best promote s 166 and s 162 of the Act.

²⁶⁵ Quality of experience (QoE) is defined by the International Telecommunications Union's Standardisation Sector (ITU-T) as "the overall acceptability of an application or service, as perceived subjectively by the end-user" [here](#).

- 4.5 In setting quality standards, we aim to incentivise Chorus to operate and maintain the network to achieve the desired level of performance. As far as practicable, we are seeking to set quality standards that identify failures of management and investment processes and avoid breaches being triggered by random variation. We have the ability to exercise enforcement discretion in assessing breaches of quality standards.

Availability quality standards

- 4.6 The fibre IMs require the Commission to determine quality standards for the mandatory quality dimensions of availability.²⁶⁶
- 4.7 For PQP1, we determined an 'average net unplanned downtime' metric for the mandatory availability dimension with the following quality standards:²⁶⁷
- 4.7.1 the average net unplanned downtime for layer 1 must not exceed 160 minutes in a given availability POI area in a regulatory year; and
 - 4.7.2 the average net unplanned downtime for layer 2 must not exceed 40 minutes in a given availability POI area in a regulatory year.

Final decision

- 4.8 Our final decision is to set availability quality standards for the layer 1 and layer 2 aspects of Chorus' fibre network across each availability POI area.
- 4.9 The availability standard does not apply in the first regulatory year of PQP2. In order to comply with the availability quality standard, Chorus must either comply with the annual availability assessment in the relevant year, or have complied with the standard in the preceding year. In other words, exceeding two consecutive annual availability assessments will not comply with the quality standard.
- 4.10 We set out the full details of our final decision below.

Annual availability assessment

- 4.11 Chorus complies with the availability assessment for an availability POI area for a regulatory year if its total average net unplanned downtime does not exceed:
- 4.11.1 for a layer 1 aspect of a fibre network, 57 minutes in that availability POI area in the regulatory year; and
 - 4.11.2 for a layer 2 aspect of a fibre network, 19 minutes in that availability POI area in the regulatory year.

²⁶⁶ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 2.5.1.

²⁶⁷ *Fibre Price-Quality Path Determination 2021 [2021]* NZCC 27.

4.12 This is change from our PQP2 draft decision which set the availability thresholds at:²⁶⁸

4.12.1 80 minutes for a layer 1 aspect of a fibre network; and

4.12.2 17 minutes for a layer 2 aspect of a fibre network.

Availability quality standards

4.13 Chorus complies with an availability quality standard in a regulatory year if it does not exceed the availability threshold in that regulatory year (annual availability assessment). Chorus also complies with the standard if it exceeds the annual assessment threshold in a regulatory year but did not exceed it in the preceding regulatory year.

4.14 If Chorus fails to comply with an availability quality standard (ie, non-compliance with two consecutive annual availability assessments) and fails to comply with the equivalent annual availability assessment for a third consecutive regulatory year, Chorus will again breach the quality standard.²⁶⁹

4.15 Chorus cannot breach the availability standard in the first regulatory year of PQP2 as there will have been no previous qualifier year of exceedance. However, Chorus must report its performance for the first regulatory year as part of the first annual availability assessment and this assessment is considered within the first quality standard assessment period (ie, the first two regulatory years of PQP2). This means that Chorus can breach each availability quality standard a maximum of three times for a specific service layer (layer 1 or layer 2) within a single geographic location (availability POI area) over the four regulatory years of PQP2.

4.16 This overall approach to determining the availability quality standard for PQP2 is the same as our draft decision.²⁷⁰

²⁶⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.9]-[4.12].

²⁶⁹ For example, exceeding the threshold in year one and year two of PQP2 will result in Chorus breaching a quality standard. If a further exceedance occurs in the following year for the same availability POI area and same service layer, Chorus would again breach that quality standard (ie, it would breach for both year two and year three).

²⁷⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.8]-[4.14].

Methodology for setting the standards

- 4.17 Our final decision is to use a binomial test to calculate the annual thresholds for the availability quality standards using the multi-year approach to target a probability of breaching the standard of 0.5%.²⁷¹ This is the same as our PQP2 draft decision.²⁷²
- 4.18 We note that our final decision uses a different dataset as an input to this calculation, which we consider is more representative of Chorus' recent performance. Our draft decision used a three-year timeseries of data covering July 2020 to 30 June 2023. Our final decision retains the three-year window but uses more recent data (January 2021 to December 2023), including Chorus' most recent year of data reported under ID (year ending 31 December 2023).

Calculation of compliance with the availability assessment

- 4.19 Our final decision is to retain the PQP1 methodology used to calculate compliance with the annual downtime level thresholds.²⁷³ This is the same as our PQP2 draft decision.
- 4.20 This methodology was used to determine compliance with the annual PQP1 availability quality standards. With the shift to the multi-year approach for PQP2, this methodology is now used to measure Chorus' performance against annual availability assessments.
- 4.21 'Average net unplanned downtime' for a regulatory year in an availability POI area is calculated in accordance with the following formula:

$$\sum_{i=1}^{12} \frac{\sum NUD_i}{ANAC_i}$$

Where:

NUD means net unplanned downtime for that calendar month in that availability POI area;

ANAC means average number of connections for that calendar month in that availability POI area; and

²⁷¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [114]. See Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.59]-[4.67] for the explanation of binomial test.

²⁷² Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.60]-[4.61].

²⁷³ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final Decision – Reasons Paper" (16 December 2021).

- i means the calendar month in the regulatory year, where 1 = January, ..., 12 = December.

- 4.22 Note that we have amended the definition for ‘net unplanned downtime’ that is used in the methodology above to calculate compliance with the annual downtime level thresholds. This is described in the following section.

Change in the definition for ‘net unplanned downtime’

- 4.23 Our final decision is to:

- 4.23.1 amend the definition of net unplanned downtime to mean reported unplanned downtime minus the length of time an access seeker or end-user experiences an outage to their PQ FFLAS attributable to:

- (a) a force majeure event; or
- (b) non-diverse transport services;

- 4.23.2 introduce a new definition for reported unplanned downtime that means the length of time that a connection has an outage, but excluding any time before Chorus receives an outage notification in respect of that connection; and

- 4.23.3 introduce a new definition for outage notification that means a notification of an outage to a connection submitted to Chorus by an access seeker or end-user that gives Chorus sufficient information to identify the connection.

- 4.24 This is a change from our PQP2 draft decision that retained the definition of ‘net unplanned downtime’ from PQP1.

Geographic differentiation

- 4.25 Our final decision is to retain the availability POI areas as a basis for geographic differentiation for the availability quality standards. This is the same as our PQP2 draft decision.²⁷⁴

Exclusions from the standards

- 4.26 Our final decision is to retain the exclusion of the following from the calculations of net unplanned downtime from PQP1:

- 4.26.1 force majeure events; and

²⁷⁴ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [4.31]-[4.33].

4.26.2 unplanned downtime caused by faults to non-diverse transport services.

4.27 This is the same as our PQP2 draft decision.²⁷⁵

Differentiation by layer

4.28 Our final decision is to retain the separate levels of downtime (and quality standards) for layer 1 and layer 2. This is the same as our PQP2 draft decision.²⁷⁶

Implementation date

4.29 Our final decision is that availability quality standards enter into force from the start of PQP2. This is the same as our PQP2 draft decision.²⁷⁷

Other PQP1 availability standard parameters to use in PQP2

4.30 Our final decision retains certain defined terms relevant to the availability quality standards in the determination from PQP1. The full list of defined terms are set out in the final PQP2 determination.

Stakeholder views

4.31 We received submissions from Chorus and One NZ on our proposed availability quality standards for PQP2.²⁷⁸ We also received cross submissions from Chorus and 2degrees.²⁷⁹

²⁷⁵ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.18.1]-[4.18.3].

²⁷⁶ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.34].

²⁷⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.36].

²⁷⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024); and One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024).

²⁷⁹ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024); and 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024).

Methodology for setting the standard

- 4.32 Chorus supported the intention of the draft standard to focus on identifying systemic quality issues and on reducing the probability that random variations are caught by the standards.²⁸⁰ It noted that it supports a 'two consecutive years' standard for availability as a means of ensuring only systemic breaches are captured, and recognised that the Commission's intention when establishing the thresholds using a binomial test was to target a probability of breaching the standard of 0.5%.²⁸¹
- 4.33 Chorus accepted our draft layer 1 threshold of 80 minutes provided we make no material change to the definition of 'outage'.
- 4.34 However, it raised concerns that using a binomial test does not produce a robust threshold for all availability POI areas.²⁸²
- 4.35 Chorus did not support the reduction in the layer 2 threshold to 17 minutes.²⁸³ Chorus submitted the draft availability standard of 17 minutes per year per availability POI area would require an immediate step change improvement in fault response (since a change to network reliability has a much longer lead time). In its opinion, the draft standard would not be achievable, even without the proposed change to the outage definition.
- 4.36 Chorus instead recommended the layer 2 availability standard be set to at least 20 minutes if availability POI areas are used based on its historic layer 2 performance. Chorus outlined its method in Appendix 1 of its submission. In summary, the method:²⁸⁴
- 4.36.1 calculates the standard deviation in annual performance at each availability POI using the same 3 years of performance the Commission applied in its setting of the performance targets;
 - 4.36.2 assumes the expected performance at each availability POI is the national average observed over the three years the Commission analysed, which was 6.65 minutes; and

²⁸⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [20].

²⁸¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [114].

²⁸² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at 22-23.

²⁸³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [112].

²⁸⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [249].

- 4.36.3 calculates the likelihood that the Commission's proposed performance target would be observed in any given availability POI, using the two estimates of the standard deviation, and assuming that performance is normally distributed around the expected value.
- 4.37 Using its method, Chorus found that the probability of exceeding the Commission's proposed threshold of 17 minutes was greater than the intended 7.1% in nine of the 23 availability POI areas but if the threshold is raised to 20 minutes, then the number of availability POI areas where the probability of exceedance is greater than 7.1% falls to 3 availability POI areas.²⁸⁵
- 4.38 One NZ supported the reduction in downtime levels (ie, threshold) as proposed in our draft decision.²⁸⁶ 2degrees supported this point in its cross submission.²⁸⁷

Multi-year approach for the standards

- 4.39 Chorus supported the use of exceedances in two consecutive regulatory years as the new standard for establishing a breach of the availability quality standards.²⁸⁸
- 4.40 One NZ recommended that a separate one year standard is implemented alongside the two-year standard.²⁸⁹ 2degrees supported this in its cross submission.²⁹⁰
- 4.41 Chorus' cross submission responded to One NZ and re-affirmed its support for the two-year assessment period, noting:²⁹¹

Returning to a single year approach, as One NZ suggests, would require a multiple event threshold and an increase to the threshold.

The Commission's methodology for establishing the thresholds, targeting a 0.5% chance of breaching in a single year, would require the limits to be set at 150 minutes for layer 1 and 41 minutes for layer 2, in the absence of a multi-event threshold.

²⁸⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [251]-[252].

²⁸⁶ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [2].

²⁸⁷ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 2.

²⁸⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [19].

²⁸⁹ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [3].

²⁹⁰ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 2.

²⁹¹ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [5]-[6].

Definition of outages

- 4.42 Chorus submitted that, for regulatory purposes, it does not measure the duration of an outage before it is reported to Chorus and that there is no consistent industry approach to how self-identified outages are included in unplanned downtime.²⁹²
- 4.43 Chorus also submitted that it has been reporting for PQP1 and ID using end-user reported faults, and that self-identified outages should not be included, as it would require time to consult with the industry and for reporting to be then developed for regulatory purposes.²⁹³

Change in the definition of 'net unplanned downtime'

- 4.44 We received submissions on this topic from Chorus, Enable and Spark. All three supported the Commission's approach to adjusting how we define net unplanned downtime for PQ purposes, rather than making a change to the definition of outage in the fibre IM.²⁹⁴
- 4.45 Chorus and Enable both noted that the Commission should, outside of PQP2, further consider the definition of outages and work with industry to achieve a workable version.²⁹⁵
- 4.46 Spark noted that LFC networks currently maintain good reliability, and as such it was reasonable to exclude self-reported outages given the costs and impact of having to integrate these into reporting.²⁹⁶ Chorus also submitted a clarification on the definition of outage notification, which it considered better reflects the policy intent.²⁹⁷

Geographic differentiation

- 4.47 Chorus re-emphasised its PQP2 expenditure proposal recommendation that availability standards be set against Chorus Service Areas (CSAs) rather than availability POI areas to disaggregate the standard across the country.²⁹⁸

²⁹² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [96].

²⁹³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [91].

²⁹⁴ Enable "Submission on Definition of net reported downtime consultation" (29 October 2024); Chorus "Submission on amendment to net unplanned downtime definition" (31 October 2024); and Spark "Fibre PQP2 Change to definition of net reported downtime" (31 October 2024).

²⁹⁵ Enable "Submission on Definition of net reported downtime consultation" (29 October 2024); and Chorus "Submission on amendment to net unplanned downtime definition" (31 October 2024), at [8].

²⁹⁶ Spark "Fibre PQP2 Change to definition of net reported downtime" (31 October 2024), at [3].

²⁹⁷ Chorus "Submission on amendment to net unplanned downtime definition" (31 October 2024), at [6].

²⁹⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [84.5].

- 4.48 Chorus contended that our draft decision to not use CSAs “declined Chorus a key tool in managing performance against the measure – alignment of measurement to areas of management.”²⁹⁹
- 4.49 Chorus stated its aim in recommending the use of CSAs is to ensure the efficient management of performance against the quality standard, not about reducing overhead as suggested in our draft reasons paper. Chorus disputed the recommendation to use CSAs is to reduce reporting regulatory burden or that performance would be masked using CSAs.
- 4.50 Chorus emphasised it was only recommending CSAs be used for assessing performance against the availability quality standards and not moving away from the use of POIs for reporting performance (availability) under fibre ID. Chorus considered full transparency of its performance would still be provided through ID disclosure at the geographic level of POI areas.
- 4.51 Further, Chorus objected to comments in our draft decision paper that noted that it was in Chorus’ power to update CSA geographic boundaries in future negotiations with its service companies. In doing so, Chorus noted that it had already renegotiated its field service contracts to seek the most efficient outcomes and questioned what analysis supported our concern it could rearrange its field service arrangements to support regulatory compliance which it considered would be a less efficient operating model.
- 4.52 One NZ and 2degrees supported our draft decision to retain the current availability POI areas as a basis for geographic differentiation for the availability quality standards.³⁰⁰
- 4.53 Additionally, One NZ noted:

We agree that aggregating some of the availability POI areas as proposed by Chorus creates a risk that issues would be masked by the increased degree of averaging, potentially resulting in worse fibre connectivity standards for some end-users.

Other key submission points

- 4.54 One NZ supported our draft decision to not limit the number of possible breaches in any regulatory year.³⁰¹

²⁹⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [119].

³⁰⁰ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [4]; and 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 3.

³⁰¹ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [5].

- 4.55 Chorus recommended that the timeframe for the annual assessment report should remain at six months after the end of the regulatory year in order to provide sufficient time for compilation, audit and certification.³⁰² Chorus noted that:³⁰³

Six months after the end of the regulatory year is the standard that applies to Chorus in PQP1, and firms regulated under Part 4 of the Commerce Act have five months in which to provide its annual compliance assessment report. The draft decision does not present any rationale as to why Chorus should be treated differently.

- 4.56 Chorus also submitted that it had concerns with overlapping reporting requirements between the annual report and the breach report.³⁰⁴ It recommended that we rationalise the annual assessment report and breach report, recognising that if a breach occurs in a regulatory year and has been reported in a breach report, the assessment would not need to contain information about Chorus' response to the breach.³⁰⁵

Reasons for our final decision

- 4.57 We consider that our final decision on the PQP2 availability standards will provide the following benefits compared to the PQP1 standards:

- 4.57.1 improved detection of potential systemic issues as they develop while allowing Chorus time to address them;
- 4.57.2 further encouragement for Chorus to improve efficiencies; and
- 4.57.3 better incentive for Chorus to deliver a quality of service that end-users now expect to receive based on historical outage data (by availability POI area).

- 4.58 The reasons for our final decision are set out below in the following sub-sections:

- 4.58.1 methodology for setting the standard;
- 4.58.2 response to Chorus' methodology;
- 4.58.3 calculation of downtime thresholds for PQP2;
- 4.58.4 change in the definition of net unplanned downtime;

³⁰² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [143].

³⁰³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [142].

³⁰⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [140].

³⁰⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [143].

4.58.5 geographic differentiation;

4.58.6 implementation date; and

4.58.7 other decisions.

Methodology for setting the standard

4.59 We consider that our final decision allows the standards to be set at threshold levels that represent the performance that end-users have come to expect (set based on historical data) and provides Chorus with time to address any emerging systemic issues in support of s 162(b). Our expectation is that all measurement areas should have similar performance.

4.60 Our standard is designed to improve transparency of systemic issues by reducing the probability of false positives that may otherwise result in a breach. In determining an availability quality standard, we considered that it should:

4.60.1 incentivise consistency of user experience over all measurement areas;

4.60.2 employ one national standard; and

4.60.3 not distinguish between urban and other areas.

4.61 Our final decision is to use a multi-year approach, where Chorus will breach an availability quality standard if it exceeds the annual downtime threshold in two consecutive regulatory years.³⁰⁶ The thresholds are applied to each availability POI area separately and are based on the cumulative monthly average net unplanned downtime per connection over one regulatory (calendar) year.

4.62 Exceedances of the annual downtime threshold are expected to occur with a constant mean rate and independently of the time passed since the previous event. Exceedances not following this pattern (statistical characteristic) are likely to indicate a systemic problem that a prudent and efficient network operator ought to address.

4.63 We therefore consider a breach under our multi-year approach (exceedance of the availability threshold in two consecutive years) is less likely to be triggered by random events and instead much more likely to be symptomatic of a systemic failure. This is intended to motivate Chorus to operate and build the network to a level of performance that reflects end-user demands (s162(b)).

³⁰⁶ For example, exceeding the threshold in year one and year two of PQP3 will result in a breach of the quality standard. If a further exceedance occurs in the same availability POI area and same service layer, Chorus would again breach the quality standard (for year two and year three).

- 4.64 With the two-year assessment period, there may be a perception that performance issues will persist for longer compared to PQP1. While the standard is assessed over two regulatory years, Chorus is still required to report annually on its performance against the downtime thresholds (annual availability assessments). This report is also due five months after the end of each regulatory year, compared to six months for PQP1. Chorus must also publish annual ID reporting five months after the end of each regulatory (disclosure) year, which provides stakeholders with timely information on Chorus' performance against various measures of the quality dimensions, including availability.
- 4.65 Year 3 is the first year in which Chorus will be required to report on compliance with the standard during PQP2. However, we note that we will be able to gauge Chorus' performance against the annual availability assessments in the first report due during regulatory year two of PQP2. In general, we also expect regulated businesses to engage with us in a timely manner where they consider potential non-compliance is likely to occur, especially when the cause is likely to be a systemic issue.
- 4.66 One NZ recommended that a separate one year standard is implemented alongside our final multi-year standard. We note that:
- 4.66.1 If we applied our methodology to a one year standard and maintained the same probability of failure as PQP1, the thresholds would be similar to PQP1, as Chorus recognised in its submission.³⁰⁷
 - 4.66.2 We acknowledge that an additional availability standard set on an annual basis could prevent some instances of one-off harm not picked up by the proposed approach and may allow faster regulatory intervention (and it would enable a standard to apply to the first regulatory year of PQP2).
 - 4.66.3 We agree with Chorus that the combination of tightening of the availability thresholds while assessing a breach as exceeding the limit in two consecutive years would better support quality service delivery to end-users than using a single year breach approach in conjunction with significantly higher thresholds.
 - 4.66.4 We consider there may be double jeopardy concerns with having two standards that would apply to the same year (ie, an annual standard and our final multi-year standard).

³⁰⁷ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [5]-[7].

- 4.66.5 The multi-year approach is a reasonably significant departure from the approach used in PQP1.³⁰⁸ At this stage in our process, we are also conscious of adding further complexity (and potentially unnecessary cost to Chorus) to PQP2 standards without adequate rationale and supporting evidence. However, we acknowledge merit in the point raised by One NZ and will consider this when developing the availability quality standards for PQP3.
- 4.67 The PQP2 regulatory period is four years in length and applying the multi-year approach may mean there are reduced incentives on Chorus to maintain an appropriate level of unplanned downtime in the final year of the period (year four). This situation will arise in the availability POI areas where Chorus does not exceed the annual availability assessment in year three of PQP2, and there is therefore no possibility it will breach the quality standard in year four.
- 4.68 For Chorus to have the same incentives during year four in this scenario, there would need to be an equivalent quality standard (and annual assessment) that applies in year one of PQP3. While we cannot set a quality standard for year one in PQP3 in the PQP2 determination, it would be possible for us to set a standard in the PQP3 determination that recognises Chorus' performance against the annual availability assessment in year four of PQP2. Thus, year four would act as a qualifier to whether Chorus breaches the standard in year one of PQP3. This would ensure the same level of incentives on Chorus to maintain appropriate levels of quality for year four of PQP2 and is something we will consider ahead of PQP3.
- 4.69 Chorus raised a concern that our approach to determining PQP2 allowances before the PQ determination would create a risk that expenditure allowances are either too high or too low to fund the investment needed to meet that quality standard.³⁰⁹
- 4.70 We note that the technical aspects of the final PQP2 availability standards are fundamentally the same as PQP1 (eg, using an annual downtime target measure, separate standards for layer 1 and layer 2 services, availability POI areas as a basis for geographic differentiation). The methodology also retains a similar probability of failure to PQP1 to maintain quality of service, and so would not require additional material expenditure than forecast. We consider the risk of a breach of PQP2 standards to be similar to that for PQP1. As such, we consider that our final decision on the availability quality standards will not expose Chorus to any material risk that expenditure allowances are set too high or too low to comply with the quality standard.

³⁰⁸ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final Decision – Reasons Paper" (16 December 2021), at [7.99]-[7.100].

³⁰⁹ Chorus "PQP2 Process and Approach" (28 September 2023), at [22].

- 4.71 We consider our methodology sets the availability standards such that the purpose of s 162(b) is met by providing the level of availability that end-users expect.

Rationale for selected methodology

- 4.72 Our final decision uses a statistical approach (a binomial test) and historical data from Chorus to determine the net average unplanned downtime thresholds at a level that end-users have come to expect while maintaining a probability of randomly breaching the standard consistent with PQP1 (ie, 0.5%).
- 4.73 Chorus' submission raised concerns that using a binomial test does not produce a robust threshold for all availability POI areas.³¹⁰ Chorus also proposed an approach that we have considered in the section immediately below.
- 4.74 The analysis is based on the distribution of annual availability results from the set of availability POI areas in which each availability POI area has equal weight. The threshold is determined by the shape of the cumulative distribution function derived from these results. The tail of the distribution that determines the threshold is dominated by the poorest performing availability POIs. Consideration is not given to the average downtime experienced by end-users or the average of the downtime results for the availability POI areas. The modelling assumes that by limiting the worst performing availability POIs the overall performance will continue to remain acceptable. The threshold has been set so that the risk of a false positive, namely a breach caused by random variations, is no more than 0.5%.
- 4.75 The probable number of exceedances was modelled with a binomial test as the appropriate approach for a pass/fail test of this nature.
- 4.76 The binomial distribution is defined by two parameters:
- 4.76.1 n is the number of years – in this case $n = 2$;
- 4.76.2 x is the number of exceedances required – in this case $x = 2$;
- 4.76.3 p is the probability of an exceedance in a single year – which we need to calculate from the binomial equation:

$$P(x: n, p) = \frac{n!}{x!(n-x)!} p^x (1 - p)^{n-x} = 0.005$$

Where:

$P(x: n, p)$ is the probability of x exceedances in n years when the probability of an exceedance in any year is p .

³¹⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [5].

- 4.77 Our objective is to estimate the probability of an exceedance in one year, given that the probability of two exceedances over two years is required to be 0.005 (0.5%). We assume a binomial distribution where $n = 2$, $x = 2$.
- 4.78 Solving the binomial equation for p where the probability of two exceedances in two years is 0.005 gives:
- 4.78.1 the probability of exceeding the threshold in a single year must be $p = 0.071$ (7.1%); and
- 4.78.2 the probability of no exceedance in a year is $1 - p = 0.929$ (92.9%).
- 4.79 Based on historical average downtime data obtained from Chorus (using January 2021 to December 2023 availability POI areas), and applying the probability of not exceeding the threshold of 92.9%, this gives the following thresholds:
- 4.79.1 layer 1 – 57 minutes per year; and
- 4.79.2 layer 2 – 19 minutes per year.
- 4.80 We consider that exceeding these thresholds twice in two consecutive years is a good indication of a failure to manage the fibre network as it demonstrates a pattern that an efficient network operator ought to address in support of s 162(b).
- 4.81 We consider our methodology sets the availability standards such that the purpose of s 162(b) is met by providing the level of availability that end-users expect.

Breach of the availability standards

- 4.82 We consider that any breach of the final standards, is statistically more likely to be due to systemic failure rather than random variation in performance. We consider that the final exceedance thresholds (annual assessments) will incentivise Chorus to provide the level of service end-users have come to expect. A breach will occur in year 2 where there has been an exceedance of the annual assessment threshold in year 2 and an exceedance of the annual threshold in year 1. We consider this will allow Chorus to develop efficient solutions to address any issues year to year, all in support of s 162(b).
- 4.83 Furthermore, we observe that performance over the year can be highly variable month to month and may risk exposing the regulated business to breaches due to random variations (as well as systemic failures). Due to this, the PQP1 availability standards carried a generous allowance for random variation, which has resulted in a relatively high threshold.

- 4.84 We consider that our final standard mitigates the risk of Chorus breaching due to random variations in performance that are substantially outside of its control (ie, not necessarily systemic). Chorus must exceed the annual assessment thresholds in two consecutive years to constitute a breach. As noted in paragraph 4.72, we have set downtime thresholds at a level that end-users have come to expect while maintaining a probability of randomly breaching the standard consistent with PQP1 (ie, 0.5%).
- 4.85 Our final standard will therefore allow us to use a statistical basis to lower the annual downtime level (threshold) to better reflect end-users' current service availability expectations, while further increasing the likelihood of detecting systemic failures.

Potential consequences of our final decision on availability standards

- 4.86 While we consider that our final decision drives significant benefits, we note there are some potential consequences of adopting it.
- 4.87 While we do not think it will materially impact the benefits driven by the standard, we acknowledge that the methodology has some weaknesses, which we consider applied equally or to greater extent to the PQP1 standard:
- 4.87.1 The PQ standard has no power to ensure that the average availability performance experienced by users remains constant or improves. It is possible that the standard could result in an outcome where the performance of the best performing availability POI areas could marginally degrade with no impact to the risk of the threshold being breached.
- 4.87.2 The threshold is based on the worst performing availability POI areas and so there is a risk of locking in this performance with no incentive to improve performance over time. As noted above, performance could worsen for some end-users without the threshold being breached.
- 4.87.3 It assumes that the current performance of the network can be maintained, that it is reasonable to do so and is acceptable to end-users.
- 4.88 We also note that any breach assessment would consider the Commission's enforcement criteria of seriousness of conduct, extent of detriment (harm), and public interest in the matter. Factors considered within the criteria include the length of time taken for the business to come back into compliance, and any continued harm because of ongoing non-compliance.³¹¹

³¹¹ [Commerce Commission "Enforcement criteria"](#).

- 4.89 We are aware that a similar two-out-of-three multi-year measure was implemented for EDBs in the past. This was removed in DPP3 because changes the Commission made to the definition and settings for the reliability standards meant an annual standard for DPP3 could still manage the risk of false positives and negatives but enable more timely detection of problems.³¹²
- 4.90 Our final standard is designed to reduce the probability of false positives resulting in breaches to improve transparency of systemic issues. We consider that it allows the standards to be set to levels that give the performance that end-users have come to expect and provides Chorus with time to address any emerging systemic issues in support of s 162(b).
- 4.91 We also note that both Chorus' proposal and the Independent Verifier's report indicated that Chorus has a strong appetite for breach avoidance, as it is driven by its commercial incentives and market competition to maintain a level of FFLAS downtime acceptable to end-users. Reputational impacts of breaching quality standards are also likely to be a consideration for Chorus.
- 4.92 Based on our analysis of information currently available, we consider the benefits of our final decision outweigh these potential (and perceived) consequences by setting the level of the standards such that the purpose of s 162(b) is met by providing the level of availability that end-users expect.

Response to Chorus' methodology

- 4.93 Chorus' submission raised the concern that the binomial test used for our draft availability decision does not produce a robust threshold for all availability POI areas.³¹³ While Chorus accepted our draft layer 1 threshold of 80 minutes, it did not support our draft decision that set the layer 2 threshold to 17 minutes. In its opinion our draft layer 2 threshold is too ambitious and would not be achievable.³¹⁴
- 4.94 Instead, Chorus recommended a layer 2 threshold of 20 minutes using an alternative method that it outlined in its submission.³¹⁵ Chorus' method assessed the likelihood of a performance threshold being observed in any given availability POI area using estimates of the standard deviation in actual performance in each availability POI area, and assuming performance to be normally distributed.

³¹² Commerce Commission "Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision – Reasons paper" (27 December 2019), at [7.35]-[7.36].

³¹³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at 22-23.

³¹⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [112].

³¹⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at Appendix 1.

- 4.95 The problem with developing a threshold test is the importance of high fidelity for the tail of the distribution – neither normal nor lognormal result in a statistically sound fit. For this reason, we chose to use the actual cumulative distribution from the historical data in our analysis discussed at paragraph 4.74. A much larger sample of data (with a greater number of exceedances) would be required to identify a good mathematical model for the distribution for each availability POI area.
- 4.96 The standard deviations for each availability POI area calculated by Chorus rely on a sample size of only three which results in a very large margin of error.
- 4.97 As an example, the Ashburton availability POI has a standard deviation of 6.29.³¹⁶ We undertook a Chi square test shows there is a 90% confidence that the population standard deviation is between 3.63 and 27.76. Such a wide range undermines the confidence in calculated results.
- 4.98 We consider Chorus' calculation of standard deviation contains some flaws.³¹⁷ Standard deviation calculations rely on all samples coming from a random process with constant parameters. This is not the case with the layer 2 downtime data which shows distinct changes over time, possibly related to the completion of the build phase and maturing of operational processes. The data from the last two or three years exhibit a much higher mean downtime when compared with earlier periods indicating changes in the random process.
- 4.99 Further, we question Chorus' assumption of a probability distribution for each availability POI area. It is based on a mean equal to the national average, but uses a standard deviation for each availability area estimated using that availability area's sample mean. For Chorus' assumption to be valid it would need to demonstrate that the national average is suitable for each POI area with a reasonable confidence and calculate the POI standard deviation as the deviation from the national mean not the sample mean.
- 4.100 Consequently, we are not satisfied that the assumptions underlying the results set out in Table 1 of Chorus' submission are accurate and sufficiently robust for the purpose of determining an availability standard.

Calculation of downtime thresholds for PQP2

- 4.101 A comparison of our draft and final decision for downtime thresholds applying the methodology for setting availability quality standard is shown below:

³¹⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at Appendix 1.

³¹⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at Table 1.

- 4.101.1 for layer 1 standards, a move from 80 minutes to 57 minutes; and
- 4.101.2 for layer 2 standards, a move from 17 minutes to 19 minutes.
- 4.102 Our final decision incorporates a more recent dataset (ending 31 December 2023) which we consider better represents Chorus' performance with respect to the PQP1 regulatory regime. This dataset is based on calendar years (2021 – 2023), which aligns with Chorus' regulatory years and includes three years' worth of data which is consistent with our draft PQP2.³¹⁸ This is the main driver of the change in the level of the availability standards between the draft and final decision.
- 4.103 After considering Chorus' submission (including its alternative calculation methodology) and response to our s 221 notice included in its ID and PQ reporting, we have recalculated the draft decision thresholds for layer 1 and layer 2 because we consider this will better promote s 162.
- 4.103.1 Chorus submitted that a layer 2 threshold of 17 minutes per year per availability POI area is too ambitious and would require an immediate step change improvement in fault response.³¹⁹
- 4.103.2 It also submitted that it has reported and assessed compliance with availability quality standards using customer reported downtime only (ie, where downtime is the time between the fault being reported by the RSP and the fault being notified to the RSP as restored). Chorus stated that this is because the standards were set using historical downtime figures reported to CIP under the UFB contract which included reported downtime only.³²⁰
- 4.103.3 However, in response to our s 221 on how Chorus applies the definition of an outage, Chorus stated that, as part of its contractual relationship with CIP prior to January 2022, its data on reported downtime included substantial network events (seven events in three years) as well as downtime from reported outages.³²¹
- 4.104 Our approach for the final decision retains the three-year data window but is time shifted to provide a more representative stable sample of data by:

³¹⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.64].

³¹⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [112].

³²⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [96].

³²¹ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) on Chorus' response to the s 211 notice – Interpretation and implementation of the IM outage definition (20 September 2024), at [4].

- 4.104.1 aligning the window with Chorus' regulatory year;
 - 4.104.2 moving the three-year period from starting 1 July 2020 to starting 1 January 2021; and
 - 4.104.3 incorporating Chorus' latest ID data on average net unplanned downtime.
- 4.105 It uses Chorus' disclosure year 2023 reporting (year ending 31 December 2023) which was required to be published by 31 May 2024. Due to the timing, this information was not available to us when making our draft decision.
- 4.106 Incorporating ID data and using calendar years (January to December) has allowed us to use the most current data, which we consider better represents the current performance of the network, which we consider Chorus should maintain during PQP2.
- 4.107 Incorporating Chorus' ID data (calendar years) has allowed us to use the most current publicly available data. We consider this better represents Chorus' current performance and therefore, the quality of service that end-users have come to expect and likely continue to demand in PQP2.³²²
- 4.108 There is a significant degree of variation in layer 1 average net unplanned downtime and this is largely driven by high average net downtime from a few availability POI areas. We consider the data we have used to calculate the final standard is less variable and representative of Chorus' historical availability performance and expected performance during PQP2.
- 4.109 We consider that our final decision on the threshold for layer 2 also best meets the purpose of s 162(b). We consider our decision also sufficiently addresses Chorus' concern that an annual downtime level of 17 minutes is too stringent for PQP2. While we disagree with the appropriateness of the methodology applied by Chorus, we note that the output of our methodology (19 minutes) is closer to Chorus' recommended downtime (20 minutes) than our draft decision.

Layer 1 analysis

- 4.110 Applying the most recent data to the methodology has resulted in a change of the layer 1 threshold from 80 minutes in our draft decision to 57 minutes, which is more representative of Chorus' recent medium-term performance (January 2021 – December 2023).

³²² Telecommunications Act 2001, s 162(b).

- 4.111 Data from January 2021 to December 2023, indicates there may have been six exceedances and one breach for layer 1 using the new standard. We do not consider this indicative of potential breaches. It does not account for the likelihood that Chorus would have modified its performance after the initial exceedance that would have led to a breach.
- 4.112 Layer 1 average downtime data was the most volatile and, as shown in Table 4.1, after comparing various time windows, the 80-minute threshold from the draft decision is not representative of more recent performance that consumers have come to receive.

Table 4.1 Threshold calculations

Basis of threshold calculation	Layer 1 Threshold (minutes)	Layer 2 Threshold (minutes)
Draft decision July 2020 - June 2023 (3 years)	80	17
Jan 2020 – December 2023 (4 years)	56	18
July 2021 - June 2023 (2 years)	45	18
Jan 2021 - Dec 2023 (3 calendar years)	57	19
Jan 2022 - Dec 2023 (2 calendar years)	48	20

- 4.113 There appears to have been a reduction in the variation of layer 1 average net unplanned downtime over the period from January 2022 to December 2023. After reviewing Chorus' submissions and s 221 response that followed, we note that the data used for our draft decision analysis (from July 2020 to June 2023), included a period of high variation for some availability POI areas, which risks overstating Chorus' representative performance. We consider that the three-year period from January 2021 to December 2023 is more representative of performance end-users are likely to experience under PQ.

4.114 The variation seen in layer 1 data could be due to the inclusion of substantive network events as noted in Chorus' response to the s 221.³²³ The reported downtime data used to report compliance against the availability standard for PQP2 will be based on end-user reporting only (refer to paragraph 4.103.2). Therefore, we consider that changing the data set used to calculate the standard from our draft decision means that the data used to calculate the standard will be:

4.114.1 more closely aligned with the way the data will be measured for compliance purposes during PQP2; and

4.114.2 more stable and representative of Chorus' historical availability performance and expected performance during PQP2.

Layer 2 analysis

4.115 Applying the new standard to historical data from January 2021 to December 2023 indicates there may have been four layer 2 exceedances and one breach. All things held equal, applying the standard to historical data can provide some insight into testing how well Chorus may perform in the future. However, we do not consider this indicative of potential breaches, particularly with the multi-year approach for PQP2 as it does not account for the incentive on Chorus to modify its performance after the initial exceedance to avoid a breach.

4.116 There has been an increase in average net unplanned downtime for layer 2 over the period from January 2022 to December 2023. The three-year window of data used for our draft decision analysis (from July 2020 to June 2023) understates the mean unplanned downtime that currently occurs. Applying our methodology to the period January 2021 to December 2023 has therefore resulted in the increase from 17 minutes in our draft decision to 19 minutes. We consider this is more reflective of performance that consumers currently receive, and is therefore appropriate for PQP2.

Change in the definition of net unplanned downtime

4.117 Our final decision is to amend the definition of net unplanned downtime in the PQ determination to measure the period the end-user experiences a cessation of service after the provider has been notified of the outage.

³²³ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) on Chorus' response to the s 211 notice - Interpretation and implementation of the IM outage definition (20 September 2024), at [2].

- 4.118 Our final decision reflects submissions received on our proposed IM amendment to change the definition of outage to address prior stakeholder feedback that the current definition was unworkable.³²⁴ We conducted an additional consultation on an alternate mechanism to address these issues for PQP2.³²⁵
- 4.119 In summary, our final decision is to address the issues with defining outages in PQP2 by limiting the scope of net unplanned downtime to measure the period the end-user experiences a cessation of service after the provider has been notified of the outage.
- 4.120 Based on Chorus' submission on the workability of our draft fibre IM decision, we consider that it is more appropriate to make a change in the PQ determination to exclude self-reported outages (which was the central workability concern of the current definition of outage). We think that the definition of an outage for the purposes of the Fibre IMs should include the full duration of an outage from the point at which a consumer experiences a loss of service until the service is restored, regardless of the point an LFC is notified of the outage, to retain flexibility for the future and avoid unintended consequences.
- 4.121 We agree with Chorus that including self-reported faults may provide a more accurate measure of unplanned downtime. We also agree this would require industry consultation and significant changes to systems and processes, and a flow-on amendment to the availability standard levels that would not be possible for PQP2.
- 4.122 Our final decision therefore changes the definition for net unplanned downtime. This means that, for the purposes of compliance with the quality standards for PQP2, Chorus continues to report average net unplanned downtime using only reported outages. This is consistent with Chorus' approach in PQP1, ensuring continuity of the data set for PQ purposes, and still ensures that Chorus has incentives to deliver the quality services for the long-term benefit of consumers.³²⁶
- 4.123 For PQP3, we expect to consider the extent to which outages identified by regulated providers' network surveillance systems are included in setting quality standards.

³²⁴ Commerce Commission "Proposed expenditure, revenue and quality-related amendments to the Fibre input methodologies ahead of the price-quality path for Chorus' second regulatory period (2025-2028): Draft reasons paper" (17 July 2024).

³²⁵ Commerce Commission "Fibre PQP2 Change to definition of net reported downtime: Consultation Paper" (17 October 2024).

³²⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024).

Replacing outage with fault in the PQ determination

- 4.124 As part of our final decision on net unplanned downtime, we are also replacing fault (defined as an unplanned outage plus performance degradation) with outage, to simplify the definition. This eliminates the need for a specific exclusion of performance degradation which was present in PQP1 to prevent perceived double jeopardy arising from a separate port utilisation (performance) quality standard.³²⁷

Geographic differentiation

- 4.125 Our final decision is to retain availability POI areas to geographically differentiate communities of end-users.
- 4.126 We consider it would not be in the long-term interests of end-users for Chorus' performance to be assessed geographically based on CSAs rather than availability POI areas. The averaging of downtime (availability) across the proposed CSAs is unlikely to reflect the actual level of downtime end-users demand or experience (eg, the aggregation of nine South Island availability POIs into two CSAs).
- 4.127 We consider CSAs will not:
- 4.127.1 achieve better outcomes consistent with a workably competitive market for the long-term benefits of end-users (s 162); or
 - 4.127.2 provide sufficient incentives under s 162(b) of the Act to improve efficiency and supply fibre fixed line access services (FFLAS) of a quality that reflects end-user demands.
- 4.128 In reaching our final decision we considered:
- 4.128.1 The disaggregation of the Auckland availability POI area across four CSAs (Auckland North, Auckland Central, Auckland South, and Northland). However, in the absence of information to the contrary, we doubt there would be a material differences in performance across at least three of the proposed disaggregated Auckland areas - Auckland North, Auckland Central, Auckland South - as we consider these areas to be substantially parts of a homogenous metropolitan area (ie, a community of end-users) that share similar service demands and restoration challenges; and
 - 4.128.2 The proposed aggregation of non-Auckland availability POI areas into fewer CSA areas:

³²⁷ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [7.123].

- 4.128.2.1 the Whangarei availability POI area remains assigned to Northland CSA, along with a proposed addition of part of the Auckland availability POI area;
 - 4.128.2.2 the remaining twelve North Island availability POI areas would need be assigned across five CSAs; and
 - 4.128.2.3 the nine South Island availability POI areas would need to be assigned to two CSAs.
- 4.128.3 We expect such aggregation of availability POI areas would mask (ie, average out) performance issues that would be observed at an availability POI area level to the potential detriment of end-users, and consequently Chorus would be less incentivised to supply a FFLAS of a quality that reflects end-user demands in line with s 162(b) of the Act.
- 4.128.4 Chorus submitted that availability POI areas would in fact prioritise areas that have fewer connections when calculating net average downtime. However, we note:³²⁸
- 4.128.4.1 we acknowledged and addressed this issue when setting the PQP1 availability POI areas by reducing the number of POI areas from 26 to 23;
 - 4.128.4.2 we have not seen evidence to suggest that further aggregating end-user connections (end-user communities) by geography, compared to PQP1, would have any significant long-term benefit to end-users; and
 - 4.128.4.3 we are not convinced that Chorus' CSA proposal would better address its concerns as the variance in the number of connections across all availability POI areas is less than the variation across the CSAs proposed by Chorus.
- 4.129 Therefore, our final decision is to retain availability POI areas to geographically differentiate communities of end-users.

Implementation date

- 4.130 Our final decision is that the availability standards should apply from the start of PQP2.

³²⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [117].

- 4.131 Chorus' submission on the proposed availability quality standards recommended that a transition period be implemented if we amended the IM definition of "outage" in line with our draft decision.³²⁹ Chorus considered that the updated definition would broaden the outages captured by the standard, and it would therefore require sufficient time to upgrade its systems and processes to be able to comply with the standard.
- 4.132 We consider that the final standard is not materially different to PQP1 (with respect to the technical elements and the IM definition of 'outage') and therefore, a transition period for Chorus to be able to comply with the standard is not justified.
- 4.132.1 We acknowledge that the levels and compliance for the availability standard have changed but the underlying data collected and method of calculation have not changed. While Chorus may require some internal development for monitoring and compliance, we do not consider this rises to the level (against the existing baseline) where a transition period is justified.
- 4.132.2 As set out in the final decision IM reasons paper, we decided to retain the existing IM definition and intend to undertake further work on this matter in the future.³³⁰ We have instead amended the definition of net unplanned downtime in the PQ determination such that it is consistent with Chorus' reporting for average net unplanned downtime in PQP1.
- 4.132.3 Further, in the first year Chorus cannot breach the standards and it will need to report on whether it has exceeded the annual assessments five months into the second regulatory year.

Other decisions

- 4.133 We have retained certain draft decisions for our final decision where we did not receive any material feedback during consultation.
- 4.134 Our final decision is to retain the separate levels of downtime (and quality standards) for layer 1 and layer 2, as required in PQP1.³³¹ We remain of the view that having separate standards applying for layer 1 and layer 2 recognise that layers of the network perform differently and are susceptible to different levels and types of disruption to end-users.

³²⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [109].

³³⁰ Commerce Commission "Expenditure, revenue and quality-related amendments to the Fibre input methodologies ahead of the price-quality path for Chorus' second regulatory period (2025-2028): Final reasons paper" (21 November 2024), at [4.23].

³³¹ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final Decision – Reasons Paper" (16 December 2021).

- 4.135 Our final decision retains certain defined terms in the determination relevant to the PQP2 availability standards from the PQP1 determination. The full list of defined terms are set out in the final determination.
- 4.136 We are not satisfied that changing or amending these parameters would better promote the s 162 purpose. Furthermore, we received no submissions on this point.

Performance quality standard

- 4.137 The fibre IMs require a PQ determination to specify a quality standard for the mandatory quality dimension of performance.³³²

Final decision

- 4.138 Our final decision for the performance quality dimension is to set a ‘port utilisation’ metric as set out in the final determination published alongside this reasons paper.
- 4.139 We set out the full details of our final decision below.

Monthly performance assessment

- 4.140 Chorus meets the performance assessment for a port for a calendar month if the port does not experience port utilisation, upstream or downstream, equal to or exceeding 90% in any five-minute interval in the calendar month.
- 4.141 For the purposes of the performance assessment, an instance where port utilisation equals or exceeds 90% must be disregarded if it is attributable to a force majeure event. This will mean Chorus can exclude the impact of these events on port utilisation during PQP2.

Performance quality standard

- 4.142 Our final decision is that Chorus fails the quality standard in a month if the same port fails to comply with the assessment in that calendar month and the two previous calendar months.³³³ If there is a further exceedance of the monthly performance assessment for a fourth or more consecutive months for the same port, it will be seen as a continuation of a single breach. If the same port then experienced a non-consecutive breach, this would be assessed as a new breach.

³³² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.6.1(1).

³³³ Chorus will fail the quality standard in month three if it exceeds the monthly performance assessment in month three, two and one for the same port. This is because the first two months of exceedance are qualifiers for the third month, resulting in a breach of the availability standard in month three.

- 4.143 This is a change from our draft PQP2 decision where Chorus exceeded the threshold in a fourth consecutive month, this would have constituted an additional breach (being for months 2, 3 and 4).³³⁴
- 4.144 There is no performance quality standard in the first two calendar months of the first regulatory year.

Calculation of the performance quality standard

- 4.145 Our final decision is to use the same methodology to calculate port utilisation as used in PQP1.³³⁵
- 4.146 ‘Port utilisation’ is calculated as a percentage figure in accordance with the following formula:

$$\frac{\text{octets} \times 8}{5 \times 60 \text{ seconds} \times PS} \times 100$$

Where:

Octets means the number of octets at a port, being the greater of the inOctets or the outOctets, measured over the 5-minute interval in accordance with RFC 2863, and includes framing characters, but excludes Ethernet preamble, start from delimiter, and interpacket gaps; and

PS means port speed and is measured in bps.

- 4.147 The port utilisation measurement includes all physical, virtual and sub-interfaces within the physical ports that are within the regulated provider’s fibre network excluding User Network Interface (UNI), External Network-to-Network Interface (ENNI) and passive optical network (PON) ports.

Number of breaches

- 4.148 Our final decision is there is no limitation on the number of breaches in a regulatory year.

³³⁴ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [4.121].

³³⁵ *Fibre Price-Quality Path Determination 2021* [2021] NZCC 27.

Geographic differentiation

4.149 Our final decision is that there is no geographic differentiation. The PQP1 final decision paper outlined our reasons for not including a separate standard for different geographic areas in the definition of the performance standard. We consider those reasons still apply.³³⁶

Force majeure events

4.150 Consistent with the availability standard, our final decision is to exclude force majeure events in the calculation of the final performance standard. This will mean Chorus can exclude the impact of these events on port utilisation during PQP2.

4.151 Our final decision is to use the definition of force majeure set out in the final determination published alongside this reasons paper.³³⁷

Implementation date

4.152 Our final decision is that the final performance standard should enter into force from the start of PQP2.

Stakeholder views

4.153 We received submissions from Chorus, One NZ, 2degrees and Spark on our performance draft decision.

4.154 Chorus accepted our draft decision to set the port utilisation threshold at 90% with a failure of the standard after three consecutive months, provided that:³³⁸

4.154.1 as technology standards change the Commission should reconsider the threshold level for future regulatory periods;³³⁹ and

4.154.2 the percentage of ports qualification of 0.12%, as applied in PQP1 is reintroduced in tandem; or

4.154.3 a minimum elapsed time between exceedances before a breach occurs is included.

³³⁶ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021).

³³⁷ *Fibre Price-Quality Path Determination 2024* [2024] NZCC 34.

³³⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [145.1].

³³⁹ In Chorus' opinion this is because the probability that end-users will experience performance deterioration where a 100Gbps aggregation link is at 90% utilisation is lower than where a 1Gbps link is at 90% utilisation, see Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [148].

- 4.155 Chorus was concerned that the application of the proposed standard would create disproportionate financial penalties and that individual port issues could not be resolved within three months.³⁴⁰
- 4.156 Chorus considered that an exclusion for congestion caused by equipment failure would be appropriate since the absence of such an exclusion means the standard includes a measure of reliability rather than performance.³⁴¹
- 4.157 One NZ and 2degrees supported retaining the 90% threshold as raising it to 95% would increase the risk of end-users being exposed to an unacceptable level of fibre service performance in their respective submission and cross submission.³⁴²
- 4.158 Spark suggested the Commission consider including PON optical line terminal ports as this is “where congestion is most likely to occur” given up to 32 end-users would be sharing 2.5Gbps capacity.³⁴³

Reasons for our final decision

- 4.159 We consider our final decisions provide for a definition of a mandatory performance standard for PQP2 that promotes the Part 6 purpose (s 166 and s 162).
- 4.160 The reasons for our final decision are set out below in the following sub-sections:
- 4.160.1 methodology;
 - 4.160.2 time to respond to an exceedance;
 - 4.160.3 interarrival times for exceedances;
 - 4.160.4 extraneous events;
 - 4.160.5 number of breaches;
 - 4.160.6 90% port utilisation threshold;
 - 4.160.7 force majeure events exclusion in the standard; and

³⁴⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [145.3].

³⁴¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [167].

³⁴² One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [6]; and 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 3.

³⁴³ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [8]-[9].

4.160.8 implementation date.

Methodology

- 4.161 Our final decision is that the same port experiencing an exceedance for three consecutive months represents a deterioration in quality that is likely an indication of inadequate network capacity planning or management that may lead to a deterioration in user experience.
- 4.162 We consider that a single five-minute period with an average utilisation above 90% is unlikely to have a noticeable impact on most applications if it is a single random data event (ie, a spike in traffic). However, a sequence of consecutive months exhibiting that behaviour is more likely to indicate a port with inadequate capacity in need of augmentation and a systemic issue in adequate capacity planning.
- 4.163 However, it is reasonable to assume that if a port has exceeded for three months in a row that a further breach would be unnecessary in the fourth and subsequent months as it would likely have the same cause that has not been rectified. We would treat the first breach in a regulatory year as a breach and subsequent months as exacerbating factors contributing to the seriousness of the breach.
- 4.164 Our final decision is therefore that if a specific port continues to exceed the threshold for a fourth or more consecutive months, then this will be considered as a continuance of a single breach.
- 4.165 We do not consider it appropriate to include the PON ports in the standard for PQP2 as Spark suggested as we have insufficient information at this time to assess or establish a quality standard on this dimension. However, whether we should include PON ports as a separate category of ports to monitor under ID is something that could be considered when we next conduct a review of the reporting requirement under ID.

Time to respond to an exceedance

- 4.166 We consider that two months provides an appropriate amount of time to enable Chorus to rectify poor port utilisation performance with an emergency remedial upgrade as referenced by Chorus in its submission.³⁴⁴ We understand Chorus begins planning for an upgrade when a port reaches at or above 70% port utilisation and so any ports that peak over 90% should already have an upgrade planned that could be brought forward.³⁴⁵ In the context of the capacity management scheme that Chorus has described these events should be very rare.

³⁴⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [159]-[161].

³⁴⁵ [Chorus "Congestion Free Networks: Technical white paper" \(September 2016\)](#).

- 4.167 Assuming ports are managed to control the risk of a breach there should be no need to initiate emergency augmentation projects when a single breach occurs. We would expect normal capacity management practise sufficient to manage the risk. The intent of the standard is to encourage consistent management of port utilisation. Rapid unplanned actions are a sign that this may not be occurring.
- 4.168 If emergency augmentation is deemed necessary for some reason, we would expect that normal planning activities would have ensured that any multi-year projects would already have been initiated in a timely way consistent with Chorus' intent to augment ports at or above 70% port utilisation. This should eliminate the risk of long delay for emergency augmentation.
- 4.169 We observe that the Australian wholesale operator nbn co (NBN) has a similar port utilisation standard whereby three exceedances of 90% for a continuous period of 30 minutes or more on at least 3 separate days within a 30-day rolling window constitute a breach and rectification is required within 15 days. This constitutes a window from first exceedance to rectification of 45 days and suggests that rapid rectification is not unreasonable.³⁴⁶

Interarrival times for exceedances

- 4.170 Chorus has also recommended in its submission introducing a minimum elapsed time between exceedances to address the issue raised around the inadequate time to remedy emerging issues.³⁴⁷ We understand Chorus is concerned, for example, about the same port exceeding the threshold in the last day of a month, again in the first day of the next month and then in the third month, which would trigger a breach.
- 4.171 We have considered the distribution of interarrival times for exceedances when multiple exceedances occur on a single port.
- 4.172 Historical data indicates that interarrival times for exceedances in a single cluster average 64 days for non-handover ports. Assuming exceedances are random, the risk of two additional exceedances occurring in a 30-day window after a first exceedance is only 2%. The chance of this spanning three consecutive months is very low. Given the low frequency of initial exceedance events the probability of such a combination is negligible.³⁴⁸

³⁴⁶ [NBN "Service Levels Schedule: Ethernet Product Module Wholesale Broadband Agreement" \(1 December 2023\)](#), at [14].

³⁴⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [163].

³⁴⁸ For a breach to occur in a 30-day window as suggested by Chorus, the first and last events would have to fall in 31 January and 1 March for a 30 day interval to cause a breach. Slightly longer intervals have more ways of breaching but most combinations of exceedances within shortened intervals are unlikely to fall in such a way as to cause a breach.

- 4.173 We therefore conclude that Chorus' concerns do not require a change to the standard. The risk of a breach occurring in a short interval of time and requiring Chorus to mount an emergency response is negligible.

Extraneous events

- 4.174 Chorus has indicated that large unforeseen spikes in demand and the impact that these events have on its compliance are a key concern with the PQP1 performance standard. The Independent Verifier also raised this concern in its final report. The PQP1 standard was breached in 2022 due to an increase in peak demand caused by the Fortnite game upgrade where six ports exceeded the 90% threshold.
- 4.175 Such events are a normal part of the data environment, and are a regular feature of most game platforms, anticipated by users, and often scheduled in advance. The problem is not forecasting the demand but assessing whether it is prudent for Chorus to provide capacity for such short duration events, when to do so could significantly reduce the overall utilisation of the network.
- 4.176 Our final decision is intended to filter out the rare one-off events that drive occasional spikes in traffic such as the Fortnite update and some other external events.
- 4.177 We consider requiring Chorus to not exceed the threshold in one month as well as the two preceding months allows Chorus to focus on identifying and addressing systemic quality issues and reduces the probability that random variations in performance are caught by the standard, that are beyond its reasonable control. We consider this is more in keeping with promoting the Part 6 purpose.

90% port utilisation threshold

- 4.178 Our final decision is to retain the 90% port utilisation threshold from the performance standard used in PQP1.³⁴⁹ We consider 90% port utilisation is the right measure as it will capture deteriorating performance before consumers are adversely affected, giving the best effect to s 162(b).
- 4.179 It can be challenging to determine the level of port utilisation at which end-users experience a loss in QoE.³⁵⁰ Packet loss is a widely used measure for determining a loss in QoE and packet loss has been traditionally experienced when port utilisation is high.

³⁴⁹ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [7.207].

³⁵⁰ Quality of experience (QoE) is defined by the International Telecommunications Union's Standardisation Sector (ITU-T) as "the overall acceptability of an application or service, as perceived subjectively by the end-user" [here](#).

- 4.180 Our analysis suggests port utilisation levels above 90% or 95% for certain ports would lead to very low packet loss. As Transmission Control Protocol congestion control algorithms improve, the level of packet loss should fall and becomes less effective as an indication of end-user QoE. However, there is reason to believe that user experience is still affected in the absence of high packet loss. In absence of evidence to support a change to the 95% threshold, we consider a cautious approach to increasing port utilisation is required.
- 4.181 We agree with Chorus' recommendation that in preparation for future regulatory periods we further consider how changes in technology impact the performance of ports with high utilisation.³⁵¹
- 4.182 In our PQP1 final decision, we indicated that:³⁵²
- 4.182.1 90% port utilisation will capture deteriorating performance before end-users are adversely affected;
 - 4.182.2 Chorus itself applies 90% port utilisation as a default threshold for planning capacity augmenting and its investment decisions;³⁵³
 - 4.182.3 Vodafone, now One NZ had submitted that customers would experience some degradation at over 80%; and
 - 4.182.4 we considered a 90% threshold created a meaningful incentive for Chorus to continue investing in network capacity, consistent with s 162(a), in addition to promoting incentives for Chorus to continue to deliver service at a level of quality that meets end-user demand (s 162 (b)).
- 4.183 We continue to consider these reasons remain valid for PQP2.

Force Majeure events exclusion in the standard

- 4.184 We consider that it is reasonable and consistent with the availability standard to exclude force majeure events if they cause a breach of the performance standard.

³⁵¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [145.1].

³⁵² Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [7.211]-[7.226].

³⁵³ [Chorus "Congestion Free Networks: Technical white paper" \(September 2016\)](#), at 7.

- 4.185 A force majeure event may contribute to an exceedance of the threshold for a port. We do not consider that it is appropriate to consider force majeure events as instances of exceedance as these are not indicators of any systemic issues and could therefore contribute to a false positive breach of the standard. As with Chorus' example of asset failure, it may take several months to overcome an event to re-balance traffic, depending on the resilience of the affected part of the network.
- 4.186 Chorus agreed with the exclusion of force majeure events as it largely addresses its concerns of equipment failure and supports the standards incentive to invest prudently and efficiently rather than investment in additional levels of redundancy and resilience to protect against events that are low probability and would not be cost effective.³⁵⁴
- 4.187 Chorus indicated it continues to believe that equipment failure relates to reliability rather than performance. The Independent Verifier did not accept that an all-cause equipment failure exclusion is appropriate given Chorus has control over its equipment and should accept responsibility for its reported performance subject to the occurrence of force majeure events.³⁵⁵ We agree that prudent investment would provide the reliability to achieve the desired performance, and our final decision is not to include an equipment failure exclusion.

Implementation date

- 4.188 Our final decision is that the performance standard comes into force from the start of PQP2 as it is not materially different to PQP1.
- 4.189 The underlying data collected and calculation of port utilisation have not changed from PQP1 and close monitoring of port capacity is part of Chorus' asset management plan.

³⁵⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [168].

³⁵⁵ Synergies Economic Consulting "Independent verification report – Chorus' PQP2 expenditure proposal (CY2025-2028)" (31 October 2023), at [97].

Compliance and breach reporting

Final decision

Annual assessment reports

- 4.190 Our final decision on compliance reporting for the mandatory quality standards is that Chorus' must report on all annual assessments at the end of each regulatory year within an annual assessment report.³⁵⁶ These reporting requirements are set out in the published s 193(2) notice.³⁵⁷
- 4.191 The purpose of the report is to monitor Chorus' performance against the annual assessments (and therefore the quality standards) set out in the PQ determination. Each report must demonstrate Chorus' performance against the availability and performance quality assessments.
- 4.192 Chorus must provide this report to the Commission within five months of the end of each regulatory year. This is a change from our draft decision, which had a timeframe of within two months.³⁵⁸
- 4.193 Where an availability or performance assessment has been exceeded, Chorus must provide the Commission with information about the exceedance and a description of any actions Chorus intends to undertake to mitigate future exceedances with respect to the same availability POI area or port (as applicable).
- 4.194 Chorus must also report on whether it has applied the force majeure exclusion during its calculations to determine compliance with the annual availability and performance assessments. Where it has applied this exclusion, Chorus must set out the impact of the removal of this information.
- 4.195 We have also simplified some of the language used in the s 193(2) notice for the annual assessment reporting requirements.

Breach reports

- 4.196 Where any quality standard is breached, Chorus must also provide a 'breach report' to the Commission. In relation to each quality standard, a breach report is due:
- 4.196.1 for the availability quality standard, within five months of the end of the regulatory year in which the breach occurred; and

³⁵⁶ Telecommunications Act 2001, s 193(2).

³⁵⁷ Commerce Commission "Notice to supply information to the Commerce Commission under section 193(2) of the Telecommunications Act 2001 – Compliance statements for the second regulatory period" (13 December 2024).

³⁵⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.28].

4.196.2 for the performance quality standard, within five months of the end of the month during a regulatory year in which the breach occurred.

4.197 This requirement is the same as our draft decision. Separate reporting due dates apply to the availability and performance quality standards as the methodologies use different time periods as the basis for determining whether a breach has occurred (ie, annually compared to monthly).

Stakeholder views

4.198 Chorus recommended that the timeframe for the annual assessment report should remain at six months after the end of the regulatory year in order to provide sufficient time for compilation, audit and certification.³⁵⁹ Chorus noted that:³⁶⁰

Six months after the end of the regulatory year is the standard that applies to Chorus in PQP1, and firms regulated under Part 4 of the Commerce Act have five months in which to provide the annual compliance assessment report. The draft decision does not present any rationale as to why Chorus should be treated differently.

4.199 Chorus also submitted that it had concerns with overlapping reporting requirements between the annual report and the breach report:³⁶¹

There is also a great deal of overlap between the requirements of a breach report and quality standard compliance report. Chorus would be required to provide a breach report (where a breach has been identified to have occurred). The breach report requires Chorus to provide similar information but is provided five months after the occurrence of the breach.

4.200 Chorus recommended that we rationalise the annual assessment report and breach report, recognising that if a breach occurs in a regulatory year and has been reported in a breach report, the assessment would not need to contain information about Chorus' response to the breach.³⁶²

Reasons for our final decision

Annual assessment report and breach report requirements

4.201 We consider that the benefits of the requirements for the annual assessment report and breach report outweigh potential compliance burden impacts on Chorus.

³⁵⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [143].

³⁶⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [142].

³⁶¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [140].

³⁶² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [143].

- 4.201.1 Due to the revised threshold levels for availability and performance, we acknowledge that Chorus is more likely to exceed the thresholds compared to the levels used for the PQP1 annual standards. However, we note that the multi-period approach is theoretically expected to reduce the overall number of breaches of the standard and therefore, costs associated with a breach (such as preparing and disclosing a breach report). Compared to PQP1, the multi-period approach is expected to reduce the number of false positives (and their associated costs) and incentivise Chorus' to improve performance after an exceedance has occurred to minimise the probability of it breaching a standard.
- 4.201.2 We note that the annual assessment report obligations also require additional information from Chorus compared to PQP1. However, we consider the resulting compliance costs to be proportionate as the volume of information required is primarily based on the number of exceedances in a regulatory year. Our view is that this information is required to effectively monitor Chorus' compliance with the quality standards given the move to a multi-period approach for PQP2.
- 4.201.3 While we recognise the additional requirement for PQP2 for Chorus to report on when it has relied on excluding force majeure events in determining compliance with both mandatory quality standards, we consider this will require limited cost as Chorus ought to have this information readily available.
- 4.201.4 We have retained from PQP1 both the single annual compliance report approach and a breach report requirement where there is a breach of the standard only (and not the annual assessments).
- 4.202 Our final decision is that this annual assessment report must be provided within five months of the end of each regulatory year. Our draft decision was that this report is due within two months of the end of each regulatory year.³⁶³
- 4.203 Chorus submitted that it would require six months as sufficient time for information complication, audit and certification processes and noted that this was the timeframe for the PQP1 compliance statement.

³⁶³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.28].

- 4.204 We accept that Chorus requires more than two months to prepare this information for disclosure, including internal sign-off and assurance processes. However, we consider that five months is an appropriate length of time for Chorus to prepare and disclose the annual assessment report. This aligns with the regulatory reporting requirement for compliance statements for EDBs under Part 4.³⁶⁴
- 4.205 We consider that this move to five months addresses Chorus' concern while balancing more timely reporting compared to PQP1 (six months) to better support compliance monitoring with the availability quality standards over longer assessment period.
- 4.206 Chorus also raised issues with duplication in the type of information required by the annual reporting requirement and the breach report requirement. It recommended that we rationalise the assessment report and breach report, recognising that if a breach occurs in a regulatory year and has been reported on in a breach report, the assessment would not need to contain information about Chorus' response to the breach.³⁶⁵
- 4.207 We have not changed our draft decision in response to Chorus' submission that the assessment report would not need to contain information about Chorus' response to a breach, as this would be covered in the breach report. We consider that this is appropriate because the concern raised by Chorus relates to the duplicate information (in response to an exceedance) provided in both reports and to the extent that this information is the same, the cost for Chorus to compile this information for the annual assessment report ought to be minimal.
- 4.208 We also note that, for the performance quality standard, a breach report must be provided to the Commission in advance of the annual assessment report (unless the month of the breach is the final month of the regulatory year). While this is no longer the case for the availability quality standards, it still applies to the performance quality standard and is the same approach used in PQP1 for both mandatory quality standards.
- 4.209 We consider that aligning the due dates for the availability breach report and availability annual assessment report will provide some efficiencies to Chorus in reporting against these two requirements.

³⁶⁴ *Electricity Distribution Services Default Price-Quality Path Determination 2020* [2019] NZCC 21, clause 11.4(a).

³⁶⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [143].

- 4.210 We have also made some refinements to the requirements in the s 193 for the annual assessment reports, which we think will benefit Chorus by clarifying and streamlining its reporting requirements. We have modified the scope of information required to be disclosed if there is an exceedance of an annual assessment to focus on the reasons behind that specific exceedance (for example, the specific availability POI area for the availability annual assessment) and whether any work has been undertaken in response to the exceedance.
- 4.211 Due to the multi-period approach for PQP2, we acknowledge that not all exceedances indicate that remedial work is required. We accept that in certain cases, events beyond Chorus' reasonable control that do not qualify as force majeure may result in an exceedance. In these situations, action in response to an exceedance may not necessarily be required. A breach report will be required if there is a further consecutive exceedance, which we consider may indicate a systemic issue.
- 4.212 We note that Chorus can seek exemptions from obligations to the s 193 notice to supply information by written notice.

Treatment of breaches – Availability

- 4.213 For our final decision on the availability quality standards, we have decided not to limit the number of breaches that Chorus can experience during PQP2. This means that the theoretical maximum number of breaches is 46 at each assessment.³⁶⁶
- 4.214 We proposed not to limit the number of breaches at our draft decision and stakeholders that submitted on this point supported our decision.³⁶⁷

Treatment of breaches – Performance

- 4.215 For our final decision on the performance quality standard, we have decided to consider exceedances in the fourth or more consecutive months (which would represent a systemic issue) as a continuation of a single breach, rather than exceedances with respect to a separate breach. This has the effect of reducing the potential number of breaches during PQP2 from our draft decision.
- 4.216 In reaching this decision, we considered the concerns raised by Chorus that multiple breaches will expose it to multiple penalties.³⁶⁸ We observe that:

³⁶⁶ There are three assessments of the quality standards in total for PQP2. At each assessment, Chorus can theoretically breach twice (separately for Layer 1 and Layer 2) in each Availability POI area (23 areas).

³⁶⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.107]; One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [5]; and 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 3.

³⁶⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [22].

- 4.216.1 based on historical data, the risk of multiple breaches is small, and Chorus has not provided data that demonstrates support for its submission;
- 4.216.2 where breaches have been observed, the pattern suggests atypical management of the port which is representative of the behaviour that the breach test is intended to capture; and
- 4.216.3 Chorus' suggestion of reintroducing the percentage of ports approach from PQP1 (0.12% of ports rather than individual ports) is arbitrary, as there is no data to guide the level at which a threshold for breach should be set and would undermine the methodology of the standard.
- 4.217 We do not consider that the final PQP2 performance quality standard represents a substantive change in regulatory burden compared with the PQP1 equivalent standard. As noted above, Chorus has currently only breached the PQP1 performance standard once and we do not consider the standard set as part of our final decision will lead to significant increase in breaches and therefore regulatory burden.
- 4.218 Chorus is concerned that the standard would mean it is possible for it to breach in theory many thousands of times in a regulatory year and at its extreme up to 66,000 times resulting in up to a third of a trillion dollars in penalties.³⁶⁹
- 4.219 The risk of multiple simultaneous breaches in situations when network capacity is well managed is low.
- 4.220 We consider the scenario described by Chorus is very unlikely. Handover ports have less capacity than the Chorus network and so it should not be possible to overload all links simultaneously.
- 4.221 Historical data suggests there would have been only one breach over the 37 months from January 2018 to January 2021. Chorus submitted that this was an atypical management of a port relating to one customer. There is no historical evidence to support the risk of multiple breaches occurring in a single regulatory year.
- 4.222 In relation to the decision to not limit breaches on the availability quality standards, we consider that limiting breaches is more appropriate for the performance quality standard for PQP2. Along with our reasoning above, the standard applies at a more granular level compared to the availability standard. The availability standard applies at a service level (layer 1 or layer 2) within an availability POI area, whereas the performance standard applies to a port level.

³⁶⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [154]-[155].

- 4.223 In assessing a breach of a quality standard, we undertake analysis and decide on an appropriate and proportionate enforcement response, which will consider the extent to which Chorus has exceeded the standard and the harm caused to consumers.³⁷⁰ In the event factors beyond Chorus' control were driving excessive breaches, we could consider this when determining the appropriate enforcement response. Relative to PQP1, the PQP2 standard reflects mature network management and is focused on ensuring Chorus maintains performance.
- 4.224 The application of our regulatory framework is not intended to expose Chorus to an unreasonable risk of a random breach beyond its reasonable control. We have had regard to the trade-off with complexity and regulatory burden when considering the appropriate level of certainty provided by the standard.
- 4.225 If Chorus breaches the performance quality standard, it is required to provide a breach report only in response to when the breach first occurs (ie, the breach report must be disclosed within five months of the end of the month in which non-compliance with the standard occurred). Where further consecutive exceedances occur (ie, continuation of a single breach), we expect to use our statutory powers to ascertain the full extent of the non-compliance as part of any compliance assessment.
- 4.226 A compliance assessment and any enforcement response would consider our enforcement criteria of seriousness of conduct, extent of detriment (harm), and public interest in the matter. Factors considered within the criteria include reasons for the exceedances, the length of time taken for the business to come back into compliance, and any continued harm because of ongoing non-compliance.³⁷¹
- 4.227 We expect the cooperation of regulated businesses when considering our application of the enforcement criteria. This includes providing information to us relating to the extent of consumer harm due to ongoing non-compliance.

Provisioning quality standard

- 4.228 The fibre IMs allows us to set a quality standard for any of the optional quality dimensions, including the dimension of provisioning.³⁷²

³⁷⁰ [Commerce Commission "Enforcement Response Guidelines"](#).

³⁷¹ [Commerce Commission "Enforcement criteria"](#).

³⁷² *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.6.2(1).

- 4.229 For PQP1, we decided not to set a quality standard for any of the optional quality dimensions.³⁷³ In our PQP2 process and approach paper we noted that we intended to reassess optional dimensions for quality standards, and highlighted that we would consider implementing a quality standard for the dimension of provisioning for PQP2.³⁷⁴

Final decision

- 4.230 Our final decision is to not set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension for PQP2. This is a change from our draft PQP2 decision which was to set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension.³⁷⁵
- 4.231 Provisioning is something we intend to consider when we next conduct a review of the reporting requirements under ID.

Stakeholder views

- 4.232 We received submissions from Chorus, Spark, Vector and One NZ in response to our draft decision to introduce a provisioning quality standard, and received cross submissions from Chorus and 2degrees.³⁷⁶

Chorus – provisioning quality standard

- 4.233 Chorus opposed our draft decision to implement a provisioning quality standard.³⁷⁷
- 4.234 Chorus submitted that a provisioning quality standard is not needed given:³⁷⁸
- 4.234.1 the commercial incentives and competition (particularly from 5G fixed wireless) that it already faces;
 - 4.234.2 the falling number of new customer connections;
 - 4.234.3 its improved provisioning performance; and
 - 4.234.4 high customer satisfaction results in its most recent survey.

³⁷³ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [7.69].

³⁷⁴ Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at [7.30]-[7.31].

³⁷⁵ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.189].

³⁷⁶ Submissions on our draft PQ decision can be found [here](#). Cross submissions on our draft PQ decision can be found [here](#).

³⁷⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [14]-[15] and [176].

³⁷⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [176].

4.235 Chorus was concerned that we are proposing to introduce a provisioning quality standard when we had indicated in our draft that:³⁷⁹

There is little stable historical data on which to base our draft decision on the level of the provisioning standard.

4.236 Chorus indicated that, given the scale of penalties it could face by breaching the standard, it would expect a prudent regulator to be cautious about introducing a standard where data is uncertain and unstable.³⁸⁰ It also commented on the level of risk and uncertainty that we were proposing to impose on it without full analysis and understanding of the information.

4.237 Chorus considered that we had not followed the best regulatory practice by introducing the new provisioning quality standard, particularly as the standard was intended to improve performance rather than prevent the degradation of performance.³⁸¹

4.238 Chorus found it difficult to understand why we had proposed to implement a provisioning quality standard now, because the number of new connections is reducing, and it is facing increasing competition from 5G fixed wireless.³⁸²

Chorus – rebates

4.239 Chorus provided feedback in submissions that our description and treatment of rebates is incorrect.³⁸³

4.240 Chorus submitted that all of its layer two services use the Bitstream Service Level Terms which include an obligation for it to pay rebates where it does not meet an agreed date.³⁸⁴

4.241 Chorus further submitted that the layer 1 Service Level Terms also require a rebate payment when Chorus reschedules and misses its commitments.³⁸⁵

³⁷⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [16].

³⁸⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [16].

³⁸¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [14] and [180].

³⁸² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [182].

³⁸³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [186].

³⁸⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [186].

³⁸⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [189].

- 4.242 Chorus therefore considered that rebates for missed appointments are a superior mechanism than a provisioning quality standard because:³⁸⁶
- 4.242.1 they establish a financial incentive to improve and maintain provisioning performance; and
 - 4.242.2 this is the best remedy to address the consumer harm caused by poor provisioning performance as a service credit is paid to the affected customer.
- 4.243 In contrast to the rebates that Chorus is already subject to, it found the draft quality provisioning standard to be complex, annual, based on proportions and divided into unequal and arbitrary geographic areas.³⁸⁷ Chorus found it difficult to understand how it would track performance against the standard and does not believe it would create any incentive to improve performance or enhance any existing incentive.
- 4.244 Chorus considered that overlaying further consequences that would be introduced from the proposed quality provisioning standard would not have any positive effect.³⁸⁸ It indicated that it would instead risk the excessive prioritisation of provisioning at the expense of other quality areas, and inefficient overprovisioning of the technicians.

Chorus – historical provisioning performance

- 4.245 Chorus considered that the method we used for assessing its historical provisioning performance is inappropriate and inaccurate.
- 4.246 Chorus indicated that, by using data from October 2022 to December 2022, we are assessing its performance during a period which is not representative of its long-term performance before or after the period.³⁸⁹ Between 2022 and 2023 Chorus suffered an unanticipated technician shortage because of the removal of Covid travel and visa restrictions compounded by extreme weather events such as Cyclone Gabrielle.

³⁸⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [190]-[190.2].

³⁸⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [191].

³⁸⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [192].

³⁸⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [195]; and see Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.235]-[4.253] for our analysis of historical provisioning data.

- 4.247 Chorus also considered that we inappropriately used a mix of data from Schedule 19(i): Provisioning and Schedule 19(v): Customer Service in creating Table 4.1 from our draft PQ decision.³⁹⁰ Chorus submitted that the analysis we conducted was based on taking the missed appointment disclosure from Schedule 19(v) but has not compared this to the total number of appointments from the same schedule. Instead, we used a proxy for the total number of appointments by using the total number of layer 1 and layer 2 connections (excluding intact connections and transport services). Chorus does not understand why we did this, considering it believes Schedule 19(v) contains data on both components.

Chorus – customer satisfaction

- 4.248 Chorus submitted that customer satisfaction in relation to provisioning is improving and is not as problematic as we suggested.
- 4.249 Customer satisfaction for installations that require a truck roll has increased from [] in October 2022 to [] in July 2024.³⁹¹ Chorus also submitted that over a similar period complaints about it to the Telecommunications Dispute Resolution Scheme (TDRS) have declined.³⁹² []. Historically, Chorus has been included in between [] of all TDRS complaints (which includes complaints about all RSPs and LFCs). In the 2022/23 year this was higher at [], but Chorus considers this to be atypical due to the adverse factors outside of its control (ie, the technician shortage and adverse weather events). However, for the six-month period from 1 July 2023 to 31 December 2023, the complaints including Chorus fell to [] of all TDRS complaints, despite the scheme widening in July 2023.

Chorus - costs and future fibre investment

- 4.250 Chorus submitted that the introduction of the proposed provisioning quality standard creates costs and unanticipated outcomes for future fibre investment.
- 4.251 Chorus noted that meeting the new standard would create additional costs, especially if it is applied on an availability POI area basis.³⁹³ In small areas the number of provisioning appointments is very low so in order to meet the draft provisioning quality standard it would need to increase the technician resource above efficient levels (ie, the technicians would normally not have enough work but would need to be available to meet the requirements of the standard).

³⁹⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [196]-[198].

³⁹¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [202].

³⁹² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [203]-[206].

³⁹³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [210].

4.252 Chorus submitted that the draft quality provisioning standard may also disincentivise further expansion of the fibre network.³⁹⁴ Any new fibre areas will be in lower density rural areas, where technicians will be required to travel relatively further distances. Therefore, it is likely that in these areas there will be an increased risk of breaching the provisioning standard, which it says it will need to take into account for future investment decisions.

Chorus – Information disclosure

4.253 Chorus believes that the draft quality provisioning standard has not been established based on Chorus' historical performance as it cannot be calculated from the information that it provides under the information disclosure regime.³⁹⁵

4.254 Given the lack of data Chorus recommended that enhanced disclosure requirements be implemented before any provisioning quality standard is introduced. It believes this would provide greater transparency and accountability of Chorus' provisioning performance.³⁹⁶ This in turn would drive improved provisioning performance.

4.255 Furthermore, because ID amendments can be implemented at any point during a regulatory period, it believes that if we instead implemented enhanced disclosure requirements, we would be able to have additional time to consult on any additional requirements.³⁹⁷

Chorus – implementing the provisioning quality standard

4.256 Chorus considered that any provisioning quality standard would need to be more carefully designed to make sure it can be practically implemented and only capture issues within its control.³⁹⁸

4.257 Chorus noted that there are several issues with the draft provisioning quality standard that would need to be resolved prior to implementation.

³⁹⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [211].

³⁹⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [212]-[213].

³⁹⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [18] and [214].

³⁹⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [216].

³⁹⁸ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [17].

- 4.258 The first issue is geographic disaggregation to availability POI areas. Chorus disagrees with our approach in the draft decision where we use the availability POIs as the level of geographic disaggregation. It considers any standard should be a national standard.³⁹⁹ This is because:⁴⁰⁰
- 4.258.1 it will avoid the risk of areas with few connections breaching the standard simply because the connection volumes are so small;
 - 4.258.2 the penalties and consequences that it may face if an appointment is missed in a POI with a low volume of connections would be disproportionate to the impact; and
 - 4.258.3 the copper withdrawal process will exacerbate this issue because of the practicalities of resourcing small populations spread over a large area.
- 4.259 The second issue is that Chorus believes that applying a provisioning standard of 85% of rescheduled connections and 80% for connections met could create perverse incentives for it in respect of connecting customers for the first time.⁴⁰¹
- 4.260 Therefore, Chorus considered that the standards should apply cumulatively to all provisioning requests where reschedules are in Chorus' control. This means that performance that exceeds the standard for connections on the first appointment would offset the rescheduled connection standard.⁴⁰²
- 4.261 The third issue that Chorus raised was inclusions and exclusions for the definition of connection request and rescheduled connection. Chorus believes that, while the draft quality provisioning standard identifies some exclusions on the basis of things being outside of its control (eg, excluding reschedules made by customer requests or because the customer is not home), if a provisioning standard is set it recommends that we should expand exceptions from the standard.⁴⁰³
- 4.262 Chorus also noted that the definition of end-user requires further consideration.⁴⁰⁴ This is because it undertakes installations that are not requested by an RSP.

³⁹⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [220].

⁴⁰⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [220]-[222].

⁴⁰¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [225]-[228].

⁴⁰² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [232].

⁴⁰³ Chorus provides a list of exceptions in its sub, see Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [237]-[238.3].

⁴⁰⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [239].

- 4.263 Chorus also noted that PONFAS does not involve an appointment with an end-user/premises occupant.⁴⁰⁵ It considers that these orders could be excluded from any provisioning standard.
- 4.264 The fourth issue relates to the multiple years rule. Chorus believes that if we implement a provisioning standard that we apply a 'two consecutive years' rule, as we proposed for the availability standard, to ensure that we address systemic issues rather than one-off events.⁴⁰⁶
- 4.265 The fifth and final issue that Chorus raised is the implementation date. Chorus supports a transition period before the quality standard comes into effect.⁴⁰⁷ The transition period should be determined at a workshop but should be at least 12 months to allow it sufficient time to update its systems and manage the standard at the proposed availability POI level.

Spark

- 4.266 Spark supported our work on Chorus' provisioning performance.⁴⁰⁸ However, it considered that we may want to augment our approach by:⁴⁰⁹
- 4.266.1 Making sure the correct rescheduling code is used for the provisioning quality standard. Compliance with these codes has been an ongoing issue for its teams and basing a standard on them may add to the compliance issues.
- 4.266.2 Monitoring the number and proportion of multiple reschedules. Repeat reschedules is the most consistent and annoying issue for its customers. Spark sees multiple reschedules occurring over two phases:
- 4.266.2.1 the build phase where a failure to resolve an issue causing delays to building the network results in multiple reschedules; and
- 4.266.2.2 once the consent and build is complete, the actual install may be rescheduled multiple times.

⁴⁰⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [241].

⁴⁰⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [242].

⁴⁰⁷ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [244].

⁴⁰⁸ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [13].

⁴⁰⁹ Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [14]-[14.d].

- 4.266.3 Monitoring the number and proportion of missed appointments. Spark states that missed appointments is an ongoing concern for its customers.
- 4.266.4 Monitoring the overall time it takes to connect a customer.
- 4.267 Chorus cross submitted on the concerns raised by Spark around rescheduling codes and commented that:⁴¹⁰
- 4.267.1 It conducts daily spot checks to verify the correct rescheduling code is used.
- 4.267.2 The consent and build phase does not involve customer appointments, which means there is no 'reason code' that it could use to show what is an acceptable and unacceptable reason for a delay. Measuring the delays during the build and consent phases are not as simple as suggesting it is either a customer or Chorus driven reschedule.
- 4.267.3 It has to pay a penalty for every reschedule not driven by a customer after the consenting and build phases have been completed.
- 4.267.4 The suggestion of monitoring the overall time to deliver a working fibre service is already done through the monthly median provisioning time by POI in Schedule 19(i).
- 4.268 2degrees also cross submitted on the points raised by Spark, and supported us considering augmenting the proposed measure by monitoring the number and proportion of multiple reschedules, missed appointments and overall time to deliver a working fibre services to customers.⁴¹¹

Vector Fibre

- 4.269 Vector supported our draft decision to introduce a quality provisioning standard.⁴¹²

⁴¹⁰ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [11]-[14].

⁴¹¹ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 3.

⁴¹² Vector Fibre "Submission on the draft determination and reasons paper for Chorus' price-quality path for the second regulatory period (2025-2028) (Draft Decision)" (15 August 2024), at [3].

- 4.270 It considered that given the feedback provided by itself and other RSPs on our process and approach paper, it is clear that provisioning service levels under the UFB agreements are ineffective.⁴¹³ It indicated, and as we explain in paragraph 4.212 of our draft decision, Chorus is only required to use reasonable efforts to meet median cycle times (30 days for simple and 65 days for complex orders). Vector therefore believed that a mandatory regulated provisioning standard is required to address this problem.
- 4.271 However, in Vector's view, the proposed provisioning quality standard would not sufficiently address its and other access seekers' concerns because:⁴¹⁴
- 4.271.1 It does not require Chorus to meet objectively set regulated timeframes for provisioning PONFAS and other FFLAS.
- 4.271.2 Under the service level terms for layer 1 services Chorus will be able to have much longer cycle time for access seekers compared to provisioning times to itself for layer 2 services. As we noted in paragraph 4.213 of our draft decision, all requests for layer 1 services are treated as complex orders and are combined with the bitstream service complex orders for the purpose of measuring cycle times. It has previously explained that this is the key mechanism used by Chorus to limit competition for layer 1 services.
- 4.271.3 The key issue with Chorus' provisioning performance is not mainly related to where a "truck roll" is required. It is that Chorus has the ability to set and implement provisioning times that materially favour its layer 2 business at the expense of layer 1 access seekers.
- 4.271.4 Commercial incentives for Chorus to provision services in a timely manner do not assist with the layer 1 service problems. This is because Chorus has incentives to make it more difficult to access layer 1 services compared to layer 2 services.
- 4.272 Vector urged us to reconsider the alternative provisioning standard approach to promote competition and innovation for the benefit of consumers.⁴¹⁵ Vector believes it is critical for the provisioning standard to specify a number of days by which different categories of connection must be delivered.

⁴¹³ Vector Fibre "Submission on the draft determination and reasons paper for Chorus' price-quality path for the second regulatory period (2025-2028) (Draft Decision)" (15 August 2024), at [4]-[6].

⁴¹⁴ Vector Fibre "Submission on the draft determination and reasons paper for Chorus' price-quality path for the second regulatory period (2025-2028) (Draft Decision)" (15 August 2024), at [7]-[7(d)].

⁴¹⁵ Vector Fibre "Submission on the draft determination and reasons paper for Chorus' price-quality path for the second regulatory period (2025-2028) (Draft Decision)" (15 August 2024), at [11].

4.273 It indicated that, as it had previously submitted, if we are concerned about whether we can set a time to provision at a suitable level, then we should focus on the relativity between the different services rather than the absolute provisioning times.⁴¹⁶ For example, Vector believes that PONFAS and DFAS are sufficiently similar services that they should therefore have the same mandated times.

4.274 Chorus cross submitted on Vector's comments and stated:⁴¹⁷

4.274.1 Setting absolute timeframes for provisioning is likely to lead to inefficiencies because establishing a provisioning standard that required a reserve of technicians (even if that were possible) in order to maintain performance in the case of any spike in order volumes or change in trend.

4.274.2 Differences in the relative provisioning time of different fibre services does not impact whether it is delivering fibre services of a quality which reflects the demand of end-users and is something that could reasonably be expected in a workably competitive market. Accordingly, setting a quality standard to adjust this would not advance the purpose of Part 6, but is instead likely to impose costs on the end-user.

4.275 2degrees cross submitted on Vector's submission and agreed that the provisioning standard should:⁴¹⁸

Specify, in some form, a number of days by which different categories of connection must be delivered.

One NZ

4.276 One NZ supported our draft decision to introduce a quality provisioning standard.⁴¹⁹

4.277 However, One NZ noted that:⁴²⁰

It is not clear how the Commission intends to distinguish between reschedules initiated by the end-user vs Chorus. For the provisioning quality standard to be effective, it is critical that it is accompanied by a robust governance framework to ensure that end-user driven reschedules are genuinely initiated by the end-user rather than Chorus.

⁴¹⁶ Vector Fibre "Submission on the draft determination and reasons paper for Chorus' price-quality path for the second regulatory period (2025-2028) (Draft Decision)" (15 August 2024), at [13]-[14].

⁴¹⁷ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [17]-[18].

⁴¹⁸ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 3.

⁴¹⁹ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [7].

⁴²⁰ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [9].

4.278 One NZ also supported the provisioning quality standard coming into force at the start of the PQP2 regulatory period.⁴²¹ Complaints data from the TDRS, that was referenced in our draft decision, indicate that installation delays continue to be a major pain point for end-users. This is also reflected in One NZ's customer complaints data. Therefore, the provisioning standard should come into force at the start of the PQP2 regulatory period to incentivise Chorus to improve its performance on installations as soon as possible.⁴²²

Reasons for our final decision

4.279 We consider our final decision to not set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension for PQP2, promotes the Part 6 purpose (s 166 and s 162) of the Act.

4.280 We consider that ID is a more proportionate response to addressing concerns with Chorus' provisioning performance. Additionally, we consider an ID approach is initially preferable as it helps us build a better knowledge base, acknowledges existing constraints and measures on Chorus provisioning performance and implementation issues with a provisioning standard. Therefore, it is something we intend to consider when we next conduct a review of the reporting requirements under ID.

4.281 Reasons for our final decision are set out below in the following sub-sections:

4.281.1 why we are no longer implementing a provisioning quality standard;

4.281.1.1 Chorus' improved provisioning performance; and

4.281.1.2 falling connections for Chorus' FFLAS network;

4.281.2 why we intend to consider future ID amendments for provisioning data;

4.281.2.1 our views on stakeholder feedback regarding Chorus' performance and support for a PQ standard; and

4.281.2.2 we propose to monitor Chorus' provisioning performance over PQP2.

⁴²¹ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [10].

⁴²² Note that Chorus in their cross submission responded to the provisioning comments from One NZ and Spark together. Therefore, Chorus' response to Spark above from paragraph 4.267 to 4.267.4 is also relevant to the comments made by One NZ.

Why we are no longer implementing a provisioning quality standard

- 4.282 As explained above in paragraph 4.230, our final decision is to not set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension for PQP2.
- 4.283 This is different from our draft decision which was to set a quality standard for meeting the agreed connection date for the time to provision metric under the provisioning quality dimension, as set out in the draft determination published alongside the draft reasons paper.⁴²³
- 4.284 After considering submissions on draft decisions and updated provisioning data, we have changed our view on the need for a new provisioning standard.

Chorus' improved provisioning performance

- 4.285 The core reason for no longer pursuing a provisioning quality standard in PQP2 is Chorus' improved provisioning performance. Chorus in its submission highlights that it has seen improved provisioning performance since the transitional ID data and fibre ID data from 2022.⁴²⁴
- 4.286 Chorus further notes that we have inappropriately used a mix of data from Schedule 19(i): Provisioning and Schedule 19(v): Customer Service in our draft report to create Table 4.1 in the draft decision.⁴²⁵ We agree with Chorus and have taken into account performance data in our final decision analysis. However, we used the mix of data in the draft because we had limited historical data to work with at the time and wished to compare the relative performance of the different LFCs.
- 4.287 Looking at the fibre ID data from 2023 (which was not available at the time of the draft decision) compared to the transitional ID data and fibre ID data from 2022 analysed in our draft report, Chorus' provisioning performance has clearly improved.⁴²⁶

⁴²³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.189].

⁴²⁴ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [200]-[201].

⁴²⁵ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [196]-[198].

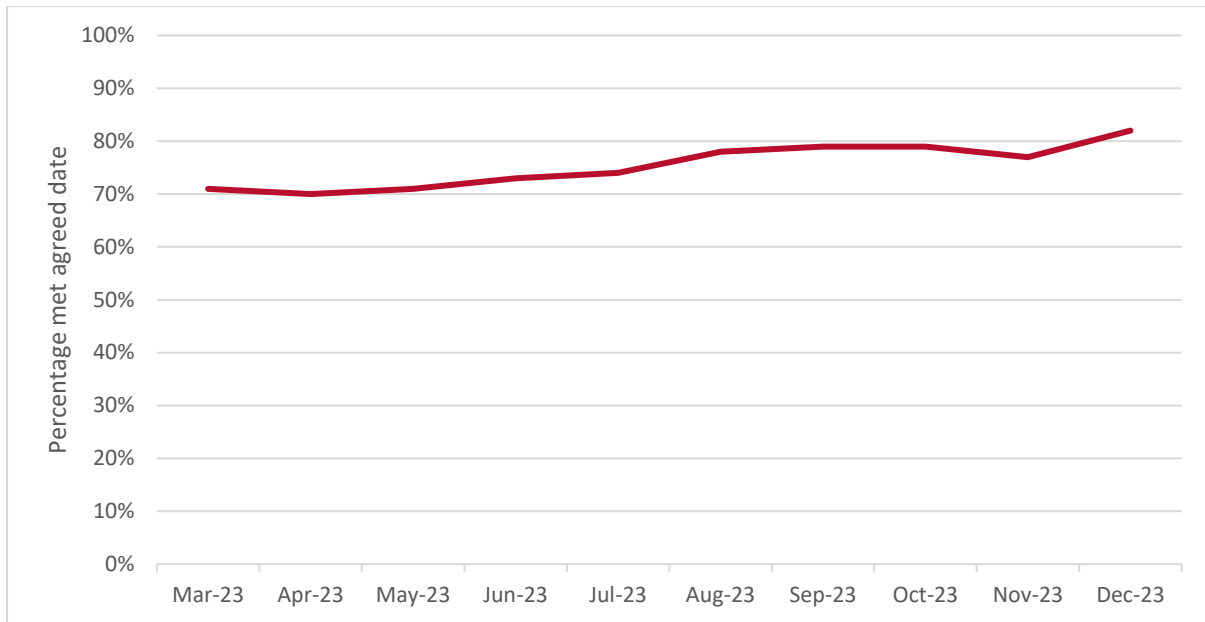
⁴²⁶ See the ID disclosures from [Chorus](#).

- 4.287.1 In our draft report we found significant variation in the median time to provision for simple FFLAS, especially in Auckland, Christchurch and Whangarei.⁴²⁷ Looking at the 2023 fibre ID data the median time to provision for simple FFLAS in these same regions improves over 2023 especially in the second half of the year after severe weather events and technician shortages subsided. The median time to provision simple FFLAS for Chorus from July 2023 to December 2023 ranges as follows:
- 4.287.1.1 Auckland region: 13.8 days to a peak of 16.5 days;
- 4.287.1.2 Christchurch region: 10.1 days to a peak of 12.6 days; and
- 4.287.1.3 Whangarei: 17.2 days to a peak of 35.3 days.
- 4.287.2 Chorus' met provisioning appointment performance in relation to layer 1 and layer 2 services has improved over 2023. Using data from ID Schedule 19(v): Customer Service, the met provisioning appointments improved from 87.2% in October 2022 to 93.3% in December 2023, in line with the historical performance of other LFCs. There was a slight drop in the met provisioning appointments from January 2023 to May 2023 but this was likely caused by extreme weather events and technician shortages, rather than poor performance by Chorus.
- 4.287.3 The average monthly missed provisioning appointment rate per 100 connections (simple and complex) provisioned has decreased over 2023 to 19.2 in December from a high of 88.3 in March.
- 4.287.4 The percentage of connections provisioned (including all connection types in ID Schedule 19(i)) that met the agreed date trended upwards from October 2022 at 93.98% to December 2023 at 98.15%.
- 4.288 In our draft decision, we highlighted that our analysis indicated that issues with Chorus' provisioning performance primarily relates to where a 'truck roll' is required.⁴²⁸ However, the percentage of connections that required a truck roll and met the agreed date increased from 71% in March 2023 to 82% in December 2023.⁴²⁹ See Figure 4.1 below:

⁴²⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.241].

⁴²⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.218].

⁴²⁹ See the ID disclosures from [Chorus](#).

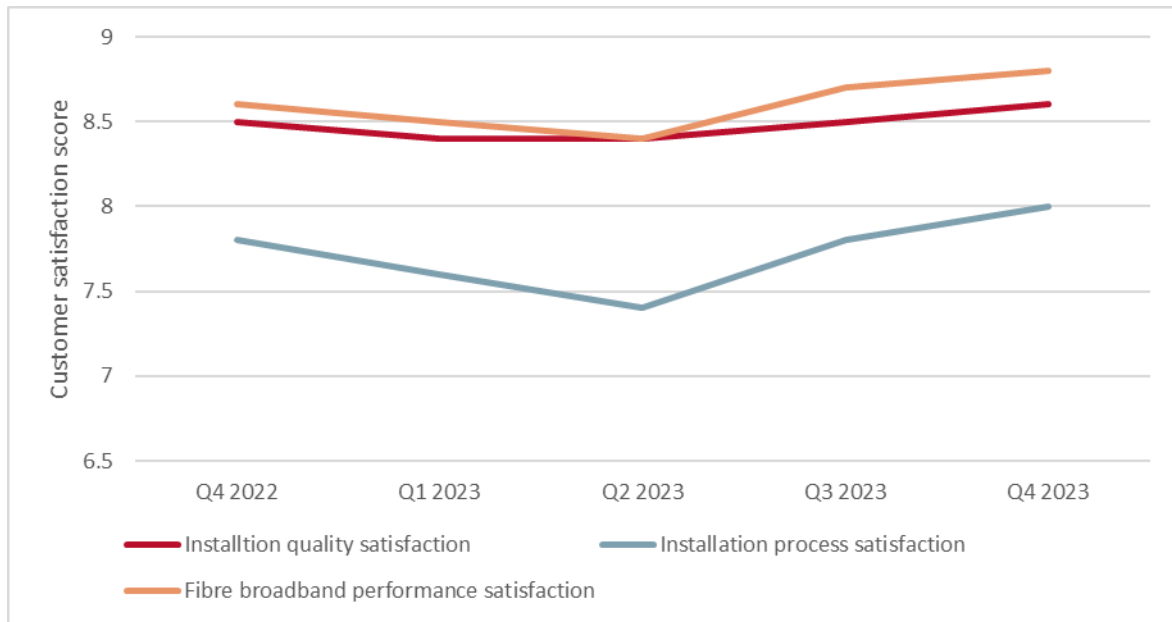
Figure 4.1 Percentage of connections that required a truck roll and met the agreed date

4.289 Chorus' improved provisioning performance can also be seen in the improvements in customer satisfaction.

4.290 As explained above in paragraph 4.249, Chorus' submission on our draft report highlighted that customer satisfaction for installations that require a truck roll has increased from October 2022 to July 2024.

4.291 We can also see slight improvements in customer satisfaction for all installation types looking at data from ID Schedule 19(v): Customer Satisfaction.⁴³⁰ In the graph below we can see that customer satisfaction around installation quality, the installation process and fibre broadband performance dropped slightly from Q4 2022 to Q2 2023 but then increased through to Q4 2023 to levels slightly above that in Q4 2022.

⁴³⁰ See the ID disclosures from [Chorus](#).

Figure 4.2 Chorus' provisioning customer satisfaction results⁴³¹

Falling connections for Chorus' FFLAS network

- 4.292 As highlighted in paragraph 4.234.2 Chorus sees decreasing new customer connections as a key reason why we should not implement a provisioning quality standard.⁴³² In our review of provisioning and the submissions we received on our draft decision, we agree that falling new customer connections (particularly given the forecast level of fall) supports not implementing a provisioning quality standard. This is because of the falling magnitude of provisioning as an issue and statistical volatility of having a standard apply to areas with small and declining number of installations.
- 4.293 Chorus' business operations have fundamentally changed since the rollout of UFB. UFB programmes have extended fibre coverage to 87% of the New Zealand population with new customer connections declining over time and are forecast to continue to do so. Chorus' role is continuing to shift to being more focused on managing the assets and the network instead of connecting customers to it. While provisioning is still important, its magnitude is going to continue to decrease.

⁴³¹ Note that the customer satisfaction results for the installation quality, installation process and fibre broadband performance are scored out of 10.

⁴³² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [14].

- 4.294 Chorus, in “Our Fibre Plans,” explain that their PQP2 forecast shows the monthly growth in connections continuing a downward trajectory.⁴³³ Furthermore, looking at the volume of PQ FFLAS connections, all connection types (except Hyperfibre) have been trending downward since 2019 and are forecast to continue to do so.⁴³⁴
- 4.295 Additionally, Chorus submitted that connection volumes would be so low in some POI areas that it would be likely to breach the standard and face consequences disproportionate to the impact on consumers.⁴³⁵
- 4.296 We agree that for some of the POIs this could be true as the connections are indeed low, and are likely to continue to decline over time as Chorus’ new connections fall leading to the met appointment provisioning performance in certain areas to be statistically volatile. For example, using data from ID Schedule 19(i) that Chorus has published for the 2023 calendar year shows the following POI areas could be specifically susceptible:⁴³⁶
- 4.296.1 Ashburton only had 1694 connections provisioned;
 - 4.296.2 New Plymouth only had 539 connections provisioned;
 - 4.296.3 Oamaru only had 1233 connections provisioned; and
 - 4.296.4 Whanganui only had 78 connections provisioned.

Why we intend to consider future ID amendments to provisioning requirements

- 4.297 We acknowledge the evidence presented by Chorus and more recent data showing improved provisioning performance and falling connections which supports not implementing a provisioning quality standard for PQP2. However, we acknowledge the support for the provisioning standard by RSPs and ongoing concerns about Chorus’ provisioning performance. Therefore, we intend to consider provisioning when we next conduct a review of the reporting requirements under ID.
- 4.298 We intend to consider future ID amendments to provisioning because of:
- 4.298.1 our views on stakeholder feedback regarding Chorus’ performance and support for a PQ standard; and
 - 4.298.2 that we see a case to continue monitoring provisioning performance over PQP2.

⁴³³ Chorus “Our Fibre Plans” (31 October 2023), at [3.10.5].

⁴³⁴ Chorus “RT04 – connection capex regulatory template” (22 August 2024).

⁴³⁵ Chorus “Submission on Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision” (15 August 2024), at [214].

⁴³⁶ See the ID disclosures from [Chorus](#).

Our views on stakeholder feedback regarding Chorus' performance and support for a PQ standard

- 4.299 There was stakeholder support for our draft decision to implement a provisioning quality standard. One NZ, Spark and Vector submitted on our draft PQ decision supporting our draft decision to implement a provisioning quality standard for PQP2. 2degrees provided a cross submission on the points raised by other submitters supporting our draft decision to implement a provisioning quality standard. Chorus was the only submitter that did not support our draft decision to implement a provisioning quality standard.
- 4.300 We acknowledge that the majority of stakeholders supported our draft decision and RSPs highlighted that Chorus' provisioning performance had been an issue for their customers. However, due to Chorus' improved provisioning performance over 2023 and the falling number of new connections, we consider that implementing a provisioning quality standard is no longer a proportionate response to addressing the concerns raised in our draft decision and by RSPs. However, the concerns raised by submitters is a reason why we intend to consider provisioning when we next review the reporting requirements under ID.
- 4.301 The stakeholder submissions from Spark, One NZ and Vector are detailed above from paragraphs 4.266 to 4.278. Our response to some of the points raised by submitters are outlined below.

Spark

- 4.302 In its submission Spark recommended that we monitor the number and proportion of multiple reschedules and missed appointments and the overall time it takes to connect a customer.
- 4.303 As provisioning is something we intend to consider when we next conduct a review of the reporting requirements under ID, these recommendations can be considered when we carry out this work.

Vector

- 4.304 Vector submitted that RSP feedback demonstrates that it is clear the provisioning service levels under the UFB agreements are ineffective.
- 4.305 We consider that the stakeholder feedback and provisioning data discussed above indicate that there is still room to improve Chorus' provisioning performance above that seen under the current commercial arrangements.
- 4.306 Vector urged us to reconsider the alternative provisioning standard approach to specify a number of days by which different categories of connections must be delivered.

4.307 As we have determined that our final decision is to not implement a provisioning quality standard we have not given any further consideration to the alternative provisioning approach. However, we believe that the time to provision metrics are something that can be considered when we next conduct a review of the reporting requirements for provisioning under ID.

One NZ

4.308 One NZ submitted that it is not clear how we would distinguish between reschedules initiated by Chorus vs the end-user. For the provisioning quality standard to be effective we need to ensure that end-user driven reschedules are genuinely initiated by the end-user rather than Chorus.

4.309 While we are no longer implementing a provisioning quality standard, this is something that we can consider when we next conduct a review of the reporting requirements under ID.

We propose to monitor Chorus' provisioning performance over PQP2

4.310 While we have acknowledged above that Chorus' provisioning performance has improved and that this has caused us to change our draft decision, we see a case for further monitoring of Chorus' provisioning performance to incentivise Chorus to retain its recent improvements and to deliver provisioning experiences that end-users want.

4.311 We can see from looking at data from 2022 and 2023 that Chorus' performance, although improved, is still lagging behind other regulated providers in certain areas:⁴³⁷

4.311.1 Chorus had the highest percentage of provisioning appointments missed for each month from October 2022 to August 2023.

4.311.2 Chorus had nearly double the weighted quarterly average median provisioning time across layer 1 and layer 2 complex new connections, simple new connections and intact (truck roll required) connections than Enable and Northpower for the quarter ending December 2022 and March 2023.

4.311.3 Chorus' weighted quarterly average median provisioning time across layer 1 and layer 2 complex new connections, simple new connections and intact (truck roll required) connections remained above 50 days for the quarters ending June 2023 and September 2023.

⁴³⁷ See the ID disclosures from [Chorus](#), [Tuatahi](#), [Enable](#) and [Northpower](#). See the fibre performance visualisations on our website [here](#).

4.311.4 Chorus had the lowest customer satisfaction scores for installation process satisfaction and installation quality satisfaction compared to Tuatahi, Enable and Northpower from Q4 2022 to Q4 2023. There is one exception to this where in Q2 2023 Chorus' installation quality satisfaction (8.4) was higher than Enable's (8.2).

4.312 Furthermore, as we explained in our draft decision:⁴³⁸

We acknowledge that there is little stable historical data on which to base our draft decision on the level of the provisioning standard.

4.313 While we do now have updated ID data from Chorus which we have used to reach our final decision, we still have little stable historical data (only five quarters from Q4 2022 to Q4 2023) on Chorus' provisioning performance on which to base our final decision. This means that while we can observe an improvement in Chorus' provisioning performance we are not able to determine whether this is temporary or a permanent improvement, and what may happen in the future. The lack of data creates some uncertainty around Chorus' future provisioning performance.

Other optional dimensions

4.314 The fibre IMs allows us to set a quality standard for any of the other optional quality dimensions of ordering, switching, faults, or customer service.⁴³⁹

4.315 For PQP1, we decided not to set a quality standard for any of the optional quality dimensions.⁴⁴⁰ In our PQP2 process and approach paper we stated that we intended to reassess optional dimensions for quality standards.⁴⁴¹

Final decision

4.316 Our final decision is not to set standards for the optional dimensions of ordering, switching, faults or customer service. This is the same as our draft decision.⁴⁴²

Stakeholder views

4.317 We received submissions from One NZ in response to our draft decision to not set standards for the optional dimensions of ordering, switching, faults or customer service.⁴⁴³

⁴³⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.227].

⁴³⁹ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 2.52.

⁴⁴⁰ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [7.69].

⁴⁴¹ Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at [7.30].

⁴⁴² Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.267].

⁴⁴³ Submissions on our draft PQ decision can be found [here](#).

- 4.318 We also received a cross submission from Chorus.⁴⁴⁴
- 4.319 One NZ remains of the view that a customer service quality standard would drive customer service improvements that the Commission's broader retail service quality work is focused on.⁴⁴⁵ One NZ also supports the alternative that we suggested where changes to the customer satisfaction ID requirements may allow for better transparency to Chorus' customer service. One NZ recommends that we implement the proposed changes.
- 4.320 Chorus cross submitted on the points raised by One NZ. Chorus commented that the potential changes that we noted in our draft decision would require further consideration as part of any ID process.⁴⁴⁶ As with any ID measures, the benefits of the proposed measures need to outweigh the costs of collecting and collating them and that they advance the purposes of Part 6.
- 4.321 Chorus also believes that if these changes were being considered a change that stakeholders may find informative would be to disaggregate customer satisfaction scores by RSP.⁴⁴⁷

Reasons for our final decision

Ordering, switching and faults

- 4.322 Our final decision is to not introduce any further optional standards for the following reasons:
- 4.322.1 ordering and switching - there are currently no ID requirements for these dimensions and our analysis does not suggest that a quality standard is warranted. As set out in the PQP2 process and approach paper, these are largely automated; and
- 4.322.2 faults - although we have limited usable data, our analysis of Chorus' faults performance generally under ID did not reveal any major concerns (ie, Chorus' performance seems consistent with industry, aside from concerns we were already aware of in the Northland region).
- 4.323 Submissions received on the PQP2 process and approach paper, and draft decision, did not suggest or recommend that the Commission should set standards in any of these areas.

⁴⁴⁴ Cross submissions on our draft PQ decision can be found [here](#).

⁴⁴⁵ One NZ "One NZ submission on the draft decision on Chorus' expenditure allowance for PQP2" (15 August 2024), at [11].

⁴⁴⁶ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [20].

⁴⁴⁷ Chorus "Cross-submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (10 September 2024), at [21].

- 4.324 We remain of the view that, for PQP2, quality standards for the optional quality dimensions of ordering, switching and faults are not warranted, and the range of other regulatory tools, in particular ID regulation, and external factors such as FWA competition, are sufficient to produce outcomes for the long-term benefit of end-users.

Customer service

- 4.325 Based on customer service data reported under ID, Chorus' performance was consistent with industry, aside from its performance around the installation process. In that regard, we note:⁴⁴⁸
- 4.325.1 Chorus' customer satisfaction score for the installation process was 77% on average over 2023. The TCF fibre installation code contains a target of 80% for a similar measure; and
- 4.325.2 Chorus often had the highest number of missed appointments per 100 connections provisioned (simple and complex) per month from October 2022 to December 2023. However, we note there have been significant improvements made by Chorus from June 2023 to December 2023 such that their performance is broadly equivalent to Tuatahi First Fibre.
- 4.326 We consider that these results show customers are less satisfied with Chorus' provisioning process than the quality of its installations or other aspects of customer service.
- 4.327 However, we note that potential changes to the customer satisfaction ID requirements may allow for better transparency of Chorus' customer service. This can be something we consider when we next conduct a review of the reporting requirements under ID regulation. For example, we may consider:
- 4.327.1 more detailed customer satisfaction questions; and
- 4.327.2 disclosure of the distribution of the 1 – 10 scoring of end-users' customer satisfaction for better analysis and cross-sector comparability.
- 4.328 We note that One NZ supports proposed changes to the customer satisfaction ID requirements that may allow for better transparency to Chorus' customer service. However, we agree with Chorus' cross submission in terms of needing to give it further consideration as part of a process to review the reporting requirements under ID.

⁴⁴⁸ See the ID disclosures from [Chorus](#), [Tuatahi](#), [Enable](#) and [Northpower](#).

Quality incentive scheme

4.329 In our PQP2 process and approach paper we consulted on whether to introduce an incentive or compensation scheme for PQP2 to help us formulate a final decision.⁴⁴⁹

Final decision

4.330 Our final decision is to not introduce a pilot quality incentive scheme or a compensation scheme for PQP2. This is the same as our draft decision.⁴⁵⁰ We will instead continue to consider the need for and design of any such schemes for future PQP resets.

Stakeholder views

4.331 We received submissions from Chorus in response to our draft decision to not introduce a pilot quality incentive scheme or a compensation scheme for PQP2.⁴⁵¹

4.332 Chorus agrees with our draft decision. It states that uncertainty regarding the willingness to pay and a need to avoid further complexity in an already complex regime.⁴⁵² It supports not implementing such incentive mechanisms unless they are clearly justified and would deliver net benefits.

Reasons for our final decision

4.333 We have reached our final decision for the following reasons:

4.333.1 limited relevant data and information is available to assess the need for, and to design and implement, a quality incentive scheme or compensation scheme; and

4.333.2 further analysis is required on the benefits of an incentive scheme or compensation scheme.

4.334 Further analysis of each reason is provided below.

Limited relevant data and information to support design of an incentive or compensation scheme

4.335 We consider setting a quality incentive scheme or compensation scheme without sufficient relevant information at this time could result in unintended outcomes.

⁴⁴⁹ Commerce Commission "Fibre price-quality regulation – Proposed process and approach for the 2025-2028 regulatory period" (31 August 2023), at [3.35].

⁴⁵⁰ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.280].

⁴⁵¹ Submissions on our draft PQ decision can be found [here](#).

⁴⁵² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [247].

- 4.336 To design and implement a quality incentive scheme to incentivise Chorus to operate at a quality that reflects its costs and meet end-user demands (including the WTP), we require sufficient and relevant data through ID reporting and other sources.
- 4.337 Limited data is currently available through ID reporting in the fibre ID determination and other sources on end-user demands. We currently have only a year and three months of relevant ID data and a lack of targeted information on current end-user demands for quality services. Gathering additional data and evidence (including end-user information through customer surveys) may assist to ensure any future response is workable and will drive the right behaviours from suppliers. It would take time to gather more information to assist with the design and implementation of a scheme.
- 4.338 We have no measure of the Value of Lost Service (VoLS) on which to base an incentive scheme at this time. VoLS is one way to determine the willingness to pay for end-users to avoid an outage. Customer surveys are used to estimate the Value of Lost Load (VoLL) in the electricity sector and could be employed in a similar manner for fibre. The estimation of VoLL is a substantial undertaking - it is not necessarily a single number but can have many dimensions, such as the length of the outage, day of the week, time of day, customer type, and the consumption level of the customer.
- 4.339 In submissions on the PQP2 process and approach paper:
- 4.339.1 Spark recommended that, “the Commission initially focus on making wholesale service quality information available to providers as it is unclear where the key concerns lie and what initiatives would be most effective in promoting wholesale services”;⁴⁵³ and
- 4.339.2 Chorus favoured a “low-powered or shadow scheme” to reduce the impact of any issues caused by data quality and reflecting data limitations.⁴⁵⁴
- 4.340 We therefore consider that we need to source additional relevant data and information to underpin the policy design of a quality incentive scheme (or compensation scheme). If such a scheme is not well-designed and evidence-based, it may be unworkable. It is not desirable to cause perverse outcomes or unintended consequences. Contractual compensation incentive schemes are already in place for some aspects of Chorus performance.

⁴⁵³ Spark "Fibre price-quality regulation: process and approach for the 2025-2028 regulatory period" (28 September 2023), at 3.

⁴⁵⁴ Chorus "PQP2 Process and Approach" (28 September 2023), at 30-31.

- 4.341 In the PQP2 process and approach paper, we noted an alternative to an incentive scheme would be a compensation scheme. The compensation scheme would set minimum standards of performance and require Chorus to pay prescribed amounts of compensation if it fails to meet those standards. Chorus could be required to pay compensation to access seekers and/or end-users for failing to meet a target quality level. As above, it will be useful to have the additional data and information to ensure we progress and develop workable regulation that aligns with ss 162 and 166 of the Act.
- 4.342 We note Chorus' view in its submission on the PQP2 process and approach paper that creating a compensation scheme would duplicate the arrangements already in place contractually and could effectively create a double penalty for the same or similar service failures. Chorus' Service Agreement Service Level Terms have core service rebates where there is one month's rental fee each time a service level is not achieved.⁴⁵⁵
- 4.343 Given the other issues outlined above with implementing an incentive scheme at this time, we think that further work would need to be done to investigate the implications of current Chorus arrangements.

Further analysis required on the benefits of an incentive or compensation scheme

- 4.344 A quality incentive scheme would potentially impose costs and administrative burden on both Chorus and others in the sector. We would therefore not seek to impose regulation without further analysis of the benefits from an incentive scheme.
- 4.345 As discussed in our draft PQ decision, while some stakeholders supported the principle of a quality incentive scheme, stakeholders identified some of the key challenges with implementing a scheme.⁴⁵⁶ In particular, we agree with Spark's feedback on our process and approach paper that greater clarity is needed on the areas a scheme would target and the effectiveness of specific interventions.
- 4.346 We consider quality incentive or compensation schemes could have a role in future resets. However, we consider further work is required to determine the value from such schemes and ensure they are worth the investment.

⁴⁵⁵ Chorus "PQP2 Process and Approach" (28 September 2023), at [122]. Also see [Chorus "Chorus UFB Services Agreement: UFB Services Agreement Bitstream Services: Service Level Terms for Bitstream Services" \(October 2020\)](#), at 19-20.

⁴⁵⁶ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [4.294]-[4.295].

Attachment A Depreciation and smoothing revenue

Purpose and structure of this attachment

- A1 This attachment sets out our final decision on the depreciation of Chorus' regulatory asset base and the smoothing of allowable revenue within and between regulatory periods.
- A2 This attachment covers the detail of:
- A2.1 our final decision to change the depreciation method applied to some of Chorus' core fibre assets;⁴⁵⁷
 - A2.2 our final decision to continue using straight-line depreciation under GAAP with GAAP-based asset lives for the remaining core fibre assets; and
 - A2.3 our final decision for the FLA to apply the same alternative depreciation method that we applied in PQP1.⁴⁵⁸

Legal framework

- A3 The treatment of depreciation for PQ purposes is generally provided for in Subpart 3 of the fibre IMs, clauses 3.3.2 and 3.3.3. However, the fibre IMs explicitly provide for the Commission to exercise its judgement about whether to apply a different depreciation method for some or all fibre assets when determining a PQ path.
- A4 In PQP1 we maintained the default GAAP depreciation for the core fibre assets (in accordance with clause 3.3.2(3) of the fibre IMs) and applied an alternative depreciation method and asset life for the FLA (consistent with clause 3.3.2(5) of the fibre IMs).
- A5 Clause 3.3.2(6) of the fibre IMs sets out that we may apply a different depreciation method to that applied to the previous regulatory period if we are satisfied, for the purposes of the PQ path, that the new depreciation method would:
- A5.1 better promote the purpose of Part 6 of the Act;
 - A5.2 where relevant, best give, or be likely to best give, effect to s 166(2)(b) of the Act; and
 - A5.3 where relevant, be consistent with the Commission's smoothing of prices or revenue under s 197 of the Act.⁴⁵⁹

⁴⁵⁷ We also explain how our decision on depreciation for a subset of core fibre assets interacts with our revenue smoothing decisions discussed in Chapter 3.

⁴⁵⁸ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [6.3.2].

⁴⁵⁹ See *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.3.2.

Why Chorus has applied for an alternative depreciation method

- A6 Chorus applied for and we adopted an alternative depreciation method for the FLA in PQP1. In seeking an alternative depreciation method for the FLA in PQP1, Chorus raised concerns that forecast allowable revenue might curtail its revenue growth in PQP1 without the alternative depreciation approach. The alternative method frontloaded depreciation for the FLA in PQP1 and sought to ensure forecast allowable revenue for PQP1 did not curtail revenue growth driven by FFLAS uptake, maintaining flat real revenue per end-user. In adopting this approach, we considered it maintained incentives to invest, while helping to mitigate stranding risk.⁴⁶⁰
- A7 Chorus raised concerns ahead of PQP2 that it was constrained in its ability to increase prices and that it would not be able to achieve revenue close to the PQP2 MAR, based on forecasts and assuming the same settings we applied PQP1.⁴⁶¹ Available forecasts for inflation and the cost of capital, combined with the expected exhaustion of Chorus' historic tax losses and the accelerated depreciation of the FLA, meant that multiple building blocks components of revenue could see an upward step change at the beginning of PQP2.
- A8 In our draft decision, we explained that Chorus provided a report from Incenta to support its request for an alternative depreciation method. We also summarised concerns set out in the Incenta report in relation to the potential PQP2 MAR and our review of the concerns discussed by Incenta.⁴⁶²
- A9 Our draft decision concluded that a change to the depreciation method for a portion of Chorus' core fibre assets to reduce the MAR to a level that is more likely achievable, which was Chorus' preferred option, was simpler and maintained a greater certainty than other options for dealing with a forecast under-recovery of the MAR.⁴⁶³

⁴⁶⁰ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [6.89.3].

⁴⁶¹ Incenta Economic Consulting "Smoothing of revenue for RP2" (April 2024), at [3].

⁴⁶² Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), [A37]-[A41].

⁴⁶³ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), [A42]-[A44].

Final decision to change the depreciation method for a subset of core fibre assets

- A10 Our final decision is to change the depreciation method for a subset of core fibre assets to tilted annuity depreciation with a tilt rate of +0.35% (real) and asset lives consistent with GAAP. The relevant assets are splitters, poles, ducts, manholes, cabinets, fibre cables and optical fibre distribution frames, which we collectively refer to as ‘layer 1 communal assets’.⁴⁶⁴ Layer 1 assets typically are long lived (with asset lives of 15 to 50 years) and are less at risk of becoming stranded than layer 2 assets (which typically have lives of less than 10 years). The lower stranding risk of these assets therefore means the backloaded depreciation is more likely to be recoverable in future.
- A11 The depreciation method determines the amount of the RAB that Chorus can recover each year through regulated revenue. This is a material input to the forecast allowable revenue we set for Chorus’ PQ path. Our final depreciation decision defers \$256 million of depreciation, \$94 million of tax and \$8 million of indexation that would otherwise be recovered within PQP2 and adds \$31 million of return on investment due to the higher RAB balances resulting from delayed depreciation.
- A12 While the use of a tilted annuity for these assets is unchanged from our draft decision, we have changed the tilt rate and the amount of depreciation, tax and indexation deferred for our final decision.⁴⁶⁵ The change in the tilt rate and the amount of MAR deferred is explained below.
- A13 We consider our final decision to change the depreciation method for some core fibre assets to defer revenue beyond PQP2 better promotes the Part 6 purpose than the alternative of continuing to use straight-line depreciation and allowing a large wash-up balance to build-up over PQP2.⁴⁶⁶ The relevant assets are splitters, poles, ducts, manholes, cabinets, fibre cables and optical fibre distribution frames, which we collectively refer to as ‘layer 1 communal assets’. Applying a different depreciation method to that applied in PQP1 for these specific core fibre assets better promotes incentives to invest under s 162(a) and best gives, or is likely to best give, effect to s 166(2)(b) of the Act as it is not inconsistent with what we would expect in a workably competitive market.

⁴⁶⁴ The full list of categories is set out in the Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of approach to MAR smoothing for PQP2 (1 May 2024), at appendix 1.

⁴⁶⁵ Commerce Commission “Chorus’ price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper” (18 July 2024), at [A6].

⁴⁶⁶ Clause 3.3.2(6) of the fibre IMs allows, after the first regulatory period, a different depreciation method to be applied for a regulatory period to that applied in the previous regulatory period if the Commission is

A14 In PQP1 all core fibre assets were depreciated using straight-line depreciation, which reduces the asset value by the same amount each period. If this approach was applied for PQP2, the resulting smoothed maximum allowable revenue (SMAR) would be as shown in Table A1.⁴⁶⁷ It can be seen that continuation of straight-line depreciation for all core fibre assets results in a materially higher MAR for PQP2 than the final decision (see “Final decision FAR” total in Table A1 and also Table 3.1).

Table A1 Components of forecast allowable revenue when straight-line depreciation is applied to all core fibre assets (baseline SMAR)(\$m)

Component	2025	2026	2027	2028	PQP2 PV
Building blocks revenue	967.8	1,012.7	1,053.2	1,092.7	3,533.3
Pass-through costs	19.6	20.2	20.8	21.4	70.3
Wash-up amount	45.8	47.9	49.8	51.7	167.1
Total	1,033.1	1,080.8	1,123.8	1,165.8	3,770.7
Final decision FAR	956.9	1,001.0	1,040.8	1,079.7	3,492.2

A15 The alternative tilted approach varies annual depreciation over time, while maintaining the existing asset life. Our final decision to apply tilted depreciation to a subset of core fibre assets will lower depreciation in PQP2 below that which is currently applied under a straight-line approach, and depreciation in future years will be gradually increased, becoming higher than a straight-line approach over time, so that the asset is fully depreciated over its existing life.

A16 Depreciation reduces the RAB value of assets and deferring depreciation in the way set out in our final decision (ie, the titled annuity approach) will slow down the decline in the overall RAB value of a subset of existing assets that the tilted annuity approach is applied to. Our final decision will mean that the RAB value (under the tilted depreciation approach) will be higher than it would have been under a straight-line approach by the amount of deferred depreciation. The slower recovery of the assets under the tilted approach avoids the need for a higher MAR and stores the unrecovered value in the RAB against the specific assets that titled depreciation is applied to.

satisfied, for the purposes of a price-quality path, that the new depreciation method- (a) better promotes the purpose of Part 6 of the Act; (b) where relevant, best gives, or is likely to best give, effect to s 166(2)(b) of the Act; and (c) where relevant, is consistent with the Commission’s smoothing of prices or revenue under s 197 of the Act.

⁴⁶⁷ Commerce Commission “Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper” (16 December 2021), at [6.3.1].

- A17 Continuing to apply straight-line depreciation across all core fibre assets would mean reliance is placed totally on the wash-up balance to deal with any material under-recovery of the MAR, which will build-up if Chorus does not achieve its full allowable revenue in a regulatory year, and which Chorus forecasts is likely under this depreciation approach. We consider our final decision to apply tilted depreciation for certain core assets is better aligned to a competitive market approach, where a “wash-up” account balance is not available to capture under-recovered amounts of revenue. Any wash-up built up in PQP2 is then recovered over a future regulatory period, as only the pre-existing wash-up balance at the start of the PQP2 period is available for draw down during this period.
- A18 Allowing a large wash-up balance to accrue would lead to greater uncertainty about future pricing/revenue profiles. If the wash-up balance is used to provide for a significant and foreseeable gap between the revenue Chorus can realistically earn (achievable revenue) and the MAR, it is likely to build-up to a material amount that may become increasingly difficult to manage the recovery of, over the future periods. A higher RAB balance will help facilitate a more orderly future recovery.

Stakeholder views

Submissions on our draft decision

- A19 We received two submissions on our draft decision on this topic, both supporting the draft decision.⁴⁶⁸
- A20 Chorus supported our draft decision of applying tilted depreciation to a subset of core fibre assets.⁴⁶⁹ Chorus welcomed our draft decision to change the depreciation method for a subset of core fibre assets to tilted annuity depreciation and asset lives consistent with GAAP.⁴⁷⁰ Chorus submitted that this is a pragmatic solution that will enable the revenue path to be set at a reasonable level that incentivises growth while avoiding the build-up of an excessive wash-up balance over PQP2.⁴⁷¹

⁴⁶⁸ While Spark did not specifically address the use of alternative depreciation, it did note that deferring \$267m of depreciation was expected to reduce the total size of revenue increases within PQP2. However, it said the draft decision did not set out what the assumed baseline price increases and demand are (from which the deferral was calculated) nor the sensitivity of future prices to variances between expected and actual demand. See Spark "Commission draft decisions on Chorus' quality standards and revenue path for the second regulatory period" (15 August 2024), at [3]-[4].

⁴⁶⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [44.1].

⁴⁷⁰ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [45].

⁴⁷¹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [11].

- A21 Chorus noted that our draft decision applies the tilt rate it applied in its demonstration model but considered that the tilt rate may need to be reviewed once the final expenditure decision is available.⁴⁷²
- A22 Chorus says the draft decision lists granular asset categories in Schedule 5 of the draft determination, reflecting Chorus' in principle proposal. While it agrees with the list, it says its inclusion in the final determination will not allow for the introduction of new BBM asset categories in future (as those categories would then have different asset lives for the same types of asset), and would over-complicate regulatory modelling. It recommends that the list is simplified in the final determination to allow for such changes. It recommends this is done by changing the list to a higher-level list of asset categories.⁴⁷³
- A23 2degrees (in its cross submission) also supported our draft decision to smooth prices for end-consumers via deferring depreciation, with the caveat that the deferral is managed in a way that does not result in future price shocks.⁴⁷⁴

Submissions on Chorus' 24 September 2024 letter

- A24 On 25 September 2024 we published a letter from Chorus relating to Chorus' price-quality path for PQP2. In that letter Chorus set out an update to its preferred revenue path, to be delivered through alternative depreciation for PQP2.⁴⁷⁵
- A25 Chorus proposed a revised alternative depreciation profile to that previously submitted for the draft decision based on its review of the alternative depreciation approach, taking account of updated information and its latest fibre revenue forecast.⁴⁷⁶

⁴⁷² Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [47].

⁴⁷³ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [49]. The categories being L1 Cabinets, L1 Duct, L1 Fibre Cable, L1 Fibre Service Leadins, L1 Manholes, L1 OFDF, L1 Poles and L1 Splitter.

⁴⁷⁴ 2degrees "Chorus' Price-Quality Path for PQP2 (2025-2028): Commerce Commission 2degrees Cross Submission" (September 2024), at 2.

⁴⁷⁵ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024).

⁴⁷⁶ For example, the revised proposal used updates for key inputs, including the confirmed PQP2 cost of capital and CPI forecast, the final expenditure allowances, the final forecast wash-up balance for PQP1 and CY23 Information Disclosure inputs.

- A26 Chorus said the recommended alternative depreciation profile submitted in September 2024 would deliver a PQP2 MAR within a range that is \$40m to \$70m above the draft decision for each year of PQP2.⁴⁷⁷
- A27 It also said that, while the draft PQP2 determination stated that the tilt rate was 3.5% real, the test bed model, (used to support the draft decision), applied a 3.5% nominal tilt rate. We acknowledge that the tilt rate stated in the draft decision was based on a nominal calculation, not a real one as the draft determination stated.⁴⁷⁸
- A28 We received submissions from Spark and Chorus on the letter. Spark said it understood that Chorus proposes to update its original estimate for finalised inputs and to add headroom to the modelled MAR each year for new revenue opportunities.⁴⁷⁹
- A29 Spark commented on a lack of transparency in the proposal, with key information being redacted. It saw issues with Chorus' proposed MAR headroom overlay and said it was unclear how the overlay relates to the BBM revenue forecasting process and that it could be a substantive change to the regulatory framework. Spark suggested the proposal needed standalone consideration and should be considered by the Commission in early 2025.⁴⁸⁰
- A30 Spark's key points were that it thought that the change:
- A30.1 appears to add more headroom so the in-period MAR is no longer a revenue and pricing constraint, which may be a fundamental change to the regulatory framework;
 - A30.2 may foreclose competition in potentially competitive markets via an untested "new revenue opportunity" that in practice foreclosed a potentially competitive bypass and/or commercial partnering opportunity in the market; and
 - A30.3 results in adding a headroom overlay to maximised in-period revenues, which appears to deviate from the approach set out in the original regulatory decision whereby the Commission determines an efficient MAR within and across regulatory periods, ensuring efficient costs are recovered over time.

⁴⁷⁷ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024), at [9].

⁴⁷⁸ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024), at footnote 4.

⁴⁷⁹ Spark "Chorus' price quality path letter with revised depreciation proposal" (7 October 2024), at [3].

⁴⁸⁰ Spark "Chorus' price quality path letter with revised depreciation proposal" (7 October 2024), [4]-[5].

- A31 Spark is concerned that the proposed approach may imply significant price increases over the four-year period and ask that the Commission be more transparent relating to forecast modelled price increases and volumes. Spark says this proposal highlights the risk of further price increases. It reiterates that it is difficult to predict wholesale price increases over the remainder of the regulatory period and that the Commission should provide guidance on how it sees the MAR flowing through to wholesale prices over the regulatory period, and any mitigations it may apply.
- A32 Chorus' said its submission provided additional information about the recommended tilt rate and its potential impact on prices that was not available at the time of drafting its letter and that it may be of assistance to interested parties in considering the PQP2 MAR.⁴⁸¹
- A33 It noted that the final PQ decision will reflect:⁴⁸²
- A33.1 the Commission's final expenditure decision and the impact of the change to the base year from 2022, used in the draft PQ decision, to 2023; and
- A33.2 that the final expenditure decision allowed for an additional \$98m of opex and \$37m of capex in nominal terms compared to the draft expenditure decision, which leads to an increase in the total allowable revenue for PQP2.
- A34 Chorus said it has confirmed to the Commission that it considers the appropriate tilt rate to be 0.35% in real terms (equivalent to 2.6% nominal) based on the most up to date information. The impact of using this tilt rate would mean more than \$300m of depreciation is deferred to future pricing periods in nominal terms, similar to the draft decision.⁴⁸³
- A35 Chorus further notes that it:⁴⁸⁴
- A35.1 published its FFLAS pricing for the year beginning 1 January 2025 on 25 September 2024. The price increases for Chorus' wholesale plans ranged between approximately 3% and 10%, with many services subject to an approximate 5% price rise. The weighted average price change is

⁴⁸¹ Chorus "Submission on Chorus' price-quality path letter – additional information" (7 October 2024), at [4].

⁴⁸² Chorus "Submission on Chorus' price-quality path letter – additional information" (7 October 2024), at [6].

⁴⁸³ Chorus "Submission on Chorus' price-quality path letter – additional information" (7 October 2024), at [7].

⁴⁸⁴ Chorus "Submission on Chorus' price-quality path letter – additional information" (7 October 2024), at [9]-[10].

substantially lower than the 17% increase implied by the draft decision MAR for 2025;

A35.2 has contracts with retail service providers that preclude price increase more than once every 12 months and its prices for CY 2025 will not be affected by the final PQ decision; and

A35.3 will continue to set future pricing subject to consultation and that it considers pricing will be constrained by competition.

A36 We received one cross submission from Chorus, responding to selected points made in Spark's submission. It says:⁴⁸⁵

Spark appears to believe that Chorus is seeking additional revenue - above the MAR – to that which would be set in normal circumstances. This is not the case. Neither the Commission's draft PQ decision, nor our recent recommendation, advocates for a MAR that is greater than we would be allowed through the standard building blocks methodology (plus pass-throughs and wash-ups) on an unadjusted basis.

A37 Chorus says the updated MAR (before any adjustment is applied) is significantly higher than the draft decision as a result of the final expenditure allowances and updated base year inputs. It has compared this updated MAR to its own updated revenue forecasts for the period and determined a recommended tilt rate for the alternative depreciation approach that will provide what it considers to be an acceptable level of headroom between its revenue forecasts and the smoothed MAR.⁴⁸⁶

Our reasons for our final decision to change the depreciation method

Better meets the purpose of Part 6

A38 Our final decision is to tilt the depreciation on a specific subset of core fibre assets. The specific assets are splitters, poles, ducts, manholes, cabinets, fibre cables and optical fibre distribution frames, which are collectively referred to as 'layer 1 communal assets'. The decision to apply a tilted depreciation to these assets is unchanged from our draft decision, though the rate of tilt and the resulting amount of building block elements that have backloaded recovery differs from the draft decision.⁴⁸⁷

⁴⁸⁵ Chorus "Cross submission on Chorus' price-quality path letter – additional information" (16 October 2024), at [3].

⁴⁸⁶ Chorus "Cross submission on Chorus' price-quality path letter – additional information" (16 October 2024), at [5].

⁴⁸⁷ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [A6]-[A7].

- A39 We consider changing the depreciation method for some core fibre assets under clause 3.3.2(6) better meets the Part 6 purpose than continuing to apply the depreciation method used in PQP1.⁴⁸⁸ We consider the most relevant limb of the purpose of Part 6 is s 162(a) (incentives to invest), particularly regarding the impact of how asset stranding risk is managed.
- A40 The likelihood that an investment in an asset will be recovered is directly linked to the depreciation approach chosen for that asset. Investment in assets with a higher stranding risk will be encouraged by a shorter asset life for depreciation and potentially front-loading of depreciation to reduce the risk over time that stranding will cause a financial loss. This was part of the rationale we applied to the change to the FLA depreciation method in PQP1.⁴⁸⁹
- A41 If Chorus significantly under-recovers its MAR in PQP2, the wash-up balance will contain a mix of unrecovered costs, such as opex, depreciation and return on capital. This balance will be an undifferentiated ‘lump’ of unrecovered costs, similar to the FLA. Assets would continue to depreciate in value in the RAB while the corresponding revenue accumulates in the wash-up balance and is not yet recovered.
- A42 Our understanding of Chorus' perspective is that the impact of any future potential deregulation on the wash-up balance is uncertain and that uncertainty may disincentivise investment.⁴⁹⁰ The retention of the unrecovered value of assets in the RAB rather than in a wash-up also ensures the stranding allowance will be calculated based on the unrecovered value.
- A43 We agree that recovery of the wash-up balance is uncertain and that a build-up of a large balance may disincentivise future investment, contrary to s 162(a). These disincentives to invest, if we adopt the capture of material amounts of unrecovered MAR in the wash-up account, are:
- A43.1 the current lack of determinative rules around the treatment of a wash-up balance if deregulation were to occur;
 - A43.2 a lower ability to adopt further risk mitigation strategies, such as increasing the depreciation of specific higher stranding risk assets while slowing the depreciation of lower stranding risk assets; and

⁴⁸⁸ *Fibre Input Methodologies Determination 2020*, as amended on 28 June 2023, clause 3.3.2(6)(a)

⁴⁸⁹ Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [6.42]-[6.47].

⁴⁹⁰ Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [9.39.1].

- A43.3 the effective deferral of a recovery of depreciation across all assets, regardless of the level of stranding risk, when unrecovered returns are captured in the wash-up account.⁴⁹¹
- A44 Our final decision is consistent with the proposed alternative depreciation method put forward by Chorus. With its proposed alternative method, Chorus provided a report from Incenta.⁴⁹² In setting out why the alternative method should be applied to the layer 1 communal assets, Incenta says that this subset of core fibre assets face significantly lower stranding risk than other core fibre assets or the FLA. In support of the alternative depreciation method, Incenta therefore proposes, for consistency, retaining the same depreciation settings for the assets that are exposed to more material stranding risk (ie, a negative tilt for the FLA and straight-line depreciation for other, non-communal core fibre assets), and so focusing the adjustment to depreciation (ie, deferral) on the remainder of the assets.⁴⁹³
- A45 We agree that the subset of core fibre assets targeted for adjusted depreciation are of lower stranding risk, and that targeting a slowing of recovery of these assets therefore provides better incentives to invest under s 162(a) and is not inconsistent with what we would expect in a workably competitive market. The layer 1 assets, such as manholes, ducts and fibre cables have much longer lives compared to layer 2 assets, which are often electronics.
- A46 We consider that changing the depreciation method for a subset of core fibre assets better promotes incentives to invest under s 162(a) of the Act, than maintaining our depreciation approach from PQP1 and allowing a large wash-up balance to build-up. We consider the two options have an equivalent effect in promoting the other limbs of the purpose of Part 6, as they are present value-equivalent, and neither is expected to influence Chorus' pricing decisions during PQP2.

⁴⁹¹ For example, the wash-up will on average contain a portion of the FLA depreciation allowance for the period in question.

⁴⁹² Incenta Economic Consulting "Smoothing of revenue for RP2" (April 2024).

⁴⁹³ Incenta Economic Consulting "Smoothing of revenue for RP2" (April 2024), at [75(b)].

The final decision on the revised tilt rate and deferred MAR

- A47 As noted above, Chorus submitted an update to its preferred revenue path, to be delivered through alternative depreciation for PQP2. We sought submissions on the 24 September 2024 letter in which Chorus outlined its view at that time on the changes. Chorus noted that, due to final modelling adjustments, the recommended revenue path may change slightly from the figures in the letter, but no material shift was likely.⁴⁹⁴
- A48 In its letter, Chorus referred to a “headroom”. While the context for the headroom was more clearly explained in redacted parts of the letter, it simply appeared as a row title of the bottom row of a table in the letter that compared for each year of PQP2 the recommended MAR to the draft decision MAR, the “no tilt” MAR⁴⁹⁵ and Chorus revenue forecast.
- A49 This headroom line in fact showed the difference between the recommended MAR and Chorus’ revenue forecast. We referred to this concept in our draft decision, and it is explained in this final decision at A63 below. The “headroom” is designed to ensure that Chorus has incentives to seek further growth opportunities, by enabling it to earn higher revenue.
- A50 To be clear, as Chorus noted in its cross submission (see A37), the headroom means we are not seeking to reduce the PQP2 MAR to be equivalent to Chorus’ current PQP2 revenue forecast, which would be difficult to achieve exactly in any case. The headroom means that Chorus can overachieve its current forecasts without hitting a MAR cap, given the MAR has already been reduced via alternative depreciation below what it would otherwise be.
- A51 Table A2 summarises the change in smoothed revenues between the draft and final decision. The final decision when compared to the draft decision has a slightly lower amount of backloading of depreciation beyond PQP2, a more material reduction in the tax building block and a slightly higher amount of indexation for PQP2.⁴⁹⁶

⁴⁹⁴ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) confirming the preferred revenue path, to be delivered through alternative depreciation (24 September 2024), at footnote 5.

⁴⁹⁵ That is the base smoothed MAR that would normally result if no tilt to core fibre asset depreciation was applied, though noting it still included tilted FLA depreciation.

⁴⁹⁶ Indexation is a building block that is deducted from the revenue requirement. Higher indexation is the result of a higher average RAB, given lower depreciation.

Table A2 Comparison of smoothed draft and final MAR decision (\$m)⁴⁹⁷

Component	2025	2026	2027	2028	PQP2 PV Total
Draft decision SMAR	908.0	947.4	983.1	1,017.9	3,302.9
Final decision SMAR	956.9	1,001.0	1,040.8	1,079.7	3,492.2
Change between draft and final	48.9	53.5	57.7	61.7	189.3

A52 In its submission on the Chorus letter of 24 September 2024, Spark raised concerns that:⁴⁹⁸

there are issues with Chorus' proposed MAR headroom overlay. It's unclear how the overlay relates to the BBM revenue forecasting process and could be a substantive change to the regulatory framework.

A53 Spark raised a concern that the proposal is to add headroom to the calculated MAR.⁴⁹⁹ This is not the case, as explained above at A5A500. The MAR is calculated and then reduced via the deferral of MAR recovery using an alternative tilted depreciation of selected core fibre assets.⁵⁰⁰

A54 As Chorus points out in its 24 September 2024 letter and again in its submission on its September 2024 letter (see A35), the FFLAS prices for 2025 have now been set, and Chorus says it is contractually prevented from increasing prices more than once every 12 months. As set out above at paragraph 3.88, prices are set to rise between approximately 3% and 10%, with many services subject to around a 5% price increase.

A55 The test bed model used to support the draft decision applied a 1.47% real tilt rate. As noted above at A27, the draft determination and draft decision incorrectly referred to the nominal rate of 3.5% as the real rate. The tilt rate of the selected core fibre assets for the final decision is 0.35%. We note that it has been identified that the Chorus model upon which the draft decision was based contained a referencing error, which has been corrected for the final decision. The change from a real tilt rate of 1.47% to 0.35% has been influenced by the correction of this error, so the two figures are not directly comparable.

⁴⁹⁷ Note that the "total" figures are present value (PV). The PV of the draft decision SMAR here is slightly different to that reported in Table 3.1 of the draft decision due to our use of the updated WACC determined, in July 2024.

⁴⁹⁸ Spark "Chorus' price quality path letter with revised depreciation proposal" (7 October 2024), at [5].

⁴⁹⁹ Spark "Chorus' price quality path letter with revised depreciation proposal" (7 October 2024), at [6].

⁵⁰⁰ See also Chorus' response at A366.

The promotion of workable competition

- A56 We consider the promotion of workable competition under s 166(2)(b) of the Act is a relevant consideration in our assessment of depreciation methods. Competition between Chorus and other market participants could be impacted if an alternative depreciation method influences Chorus' pricing, depending on the level of revenue Chorus is likely to be able to achieve in PQP2.
- A57 Our final decisions result in a MAR that is consistent with the approach to revenue that Chorus has requested.⁵⁰¹ We consider our final decision will or is likely to best promote workable competition in the telecommunications market. Our final decision allows Chorus to appropriately apply prices to target achievement of its MAR. Given the significant price increases that would be required without the application of the tilted depreciation, Chorus would likely build-up a large wash-up balance and could face disincentives to maintain investment due to the uncertainty of future recovery. Chorus still has incentives to not undercut prices of FWA competitors given those competitors do not require FWA sales to maintain a market presence for their mobile networks. This means we are not concerned that our final decision would cause Chorus to have an inappropriate advantage in the market by under-cutting its competitors' prices and recovering the difference in revenue in the future.⁵⁰²
- A58 Chorus' estimate of achievable revenue is the best estimate available to us, and we note Chorus has updated its forecast in the information submitted in September 2024. If this estimate is unbiased or overstated, then our recommended change to the depreciation method will not constrain Chorus' pricing and is not likely to impact competition in the market. If the estimate of achievable revenue is understated, our recommended change to the depreciation method could negatively impact competition in the short term by allowing Chorus to undercut its competitors, but this would balance out in future periods as the alternative depreciation method is present value neutral. Moreover, Chorus' MAR and pricing will still be significantly impacted by the recovery of the FLA, which represents losses incurred during the UFB build phase. This recovery of past losses has significantly greater impact than the change in depreciation approach for a selection of core fibre assets.

⁵⁰¹ Letter from Ian Ferguson (Head of Economic Regulation, Chorus) to Keston Ruxton (Manager, Fibre, Commerce Commission) recommendation of approach to MAR smoothing for PQP2 (1 May 2024), at [10(b)].

⁵⁰² We note that Chorus has been able to set prices in PQP1 that it believes are appropriate to meet competition from FWA at the entry level end of the market, and we expect it will be able to do this in PQP2, with or without the application of tilted depreciation to a subset of core fibre assets.

- A59 The Commission is not in the best position to forecast future demand and the associated revenue that can be generated from that demand. We consider Chorus' forecasts of demand and revenue to be reasonable and consider that Chorus has incentives to provide an unbiased best estimate and not understate its achievable revenue. Chorus faces disincentives for over-recovering revenue from penalties associated with a reduction in future revenues such that excessive returns are recovered through the wash-up mechanism, and little to no incentive to deliberately under-recover revenue given the risk of asset stranding from slower RAB recovery. An under forecast of potential revenue would mean Chorus would be unable to fully exploit its current ability to earn a reasonable return and may lead to un-forecast costs from increased demand that it may not recover.
- A60 Incenta has noted that the revenue constraint that is used to calibrate Chorus' depreciation will be a forecast, and actual revenue may be higher or lower than that forecast. This leads to a risk, when the PQP2 MAR is reduced by tilting depreciation, that Chorus in fact does better than forecast and the reduced MAR then constrains Chorus' actual revenue. Constraining Chorus' revenue to a level below what the market will bear may disincentivise investment, at a time when possibly existing demand is higher than forecast because higher cash flows are not available to support the growth.
- A61 Without the depreciation adjustment, any actual revenue above current forecasts is unlikely to be an issue, as it would simply reduce the currently expected increase in the wash-up balance. However, if the MAR was to be reduced to such an extent that it left little room for error in Chorus' current revenue forecasts, then it could cap revenues that otherwise were available to Chorus.
- A62 Capping revenues that are otherwise available and that would have been below the level of an unadjusted PQP2 MAR would not meet the requirement to best give or be likely to best give effect to s 166(2) - the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services. This is because it will artificially constrain the current recovery of Chorus' investment to below that which is available from existing customers. This in turn would be likely to artificially lower current market prices, while raising them in the future.
- A63 Incenta has suggested, and we agree, that any tilt should still allow a reasonable degree of "headroom". That is, the reduction in the MAR, after smoothing is applied, still leaves a reasonable amount of potential revenue above Chorus' current forecast.⁵⁰³

⁵⁰³ Incenta Economic Consulting "Smoothing of revenue for RP2" (April 2024), at [75(a)].

- A64 We have adopted this approach in coming to our final decision and consider that the smoothed MAR is consistent with allowing Chorus to appropriately manage its pricing to obtain its full revenue potential for PQP2, including if demand growth is higher than it forecast, or inflation is higher than forecast.
- A65 Our final decision to adopt tilted depreciation for a subset of core fibre assets also helps to reduce the step change in allowable revenue between 2024 and 2025. The reduction in the PQP2 MAR as a result of backloading depreciation decreases the smoothed allowable revenue for 2025 compared to the alternative of continuing to use straight-line depreciation for all core fibre assets.
- A66 A further risk raised by Incenta was that of locking in a tilt rate decision at the draft decision, prior to the determination of final MAR inputs. For example, both the PQP1 wash-up balance forecast and the expenditure inputs have changed for the final decision, and a change to the tilt rate has been required.⁵⁰⁴ We note that the final decision is in two parts. Firstly, the final decision to adopt tilted depreciation, and secondly the final decision on the degree of the tilt. The degree of the tilt has changed for the final decision, based on revised MAR inputs.

Our decision on alternative depreciation is consistent with our smoothing of prices

- A67 As set out in Chapter 3, we do not consider it necessary or desirable to smooth revenues to minimise any undue financial hardship to Chorus, or to minimise price shocks to end-users under s 197 of the Act, in the present circumstances. We discuss this further at paragraphs 3.84 to 3.90.
- A68 Accordingly, clause 3.3.2(6)(c) of the fibre IMs is not a relevant consideration for us in assessing whether to apply a different depreciation approach for PQP2. In any event, we consider our approach to adopt a different depreciation method is consistent with our decision not to smooth under s 197 of the Act.

Determination definition of layer 1 communal assets

- A69 We agree with Chorus' concern that the draft determination, in Schedule 5, was too granular in the definition of layer 1 communal assets. We have therefore, in the final determination, revised the asset categories. A layer 1 communal asset is a core fibre asset of one of the following types that is used to provide layer 1 services:

A69.1 Cabinets;

A69.2 Duct;

⁵⁰⁴ Incenta Economic Consulting "Smoothing of revenue for RP2" (April 2024), at [75(b)].

- A69.3 Fibre Cable;
- A69.4 Fibre Service Lead-ins;
- A69.5 Manholes;
- A69.6 Optical Fibre Distribution Frame;
- A69.7 Poles; and
- A69.8 Optical Splitters.

A70 The highly granular definition in the draft did not allow for the introduction of new BBM asset categories and would over-complicate regulatory modelling. For example, we acknowledge that new categories to cope with newly forecast assets will be required to supplement existing categories due to differing asset lifetimes. This would require ongoing revisions to the granular categories for no benefit when compared to simply having a less granular definition.

Final decision for the remaining core fibre assets

- A71 For the remaining core fibre assets, our final decision is to continue using straight-line depreciation under GAAP with GAAP-based asset lives, consistent with the default method in clause 3.3.2(3) of the fibre IMs. No alternative approach has been applied for under clause 3.3.2(6).
- A72 This is unchanged from our draft decision.⁵⁰⁵

Stakeholder views

- A73 We received one submission on this topic. Chorus supported our draft decision to continue using straight-line depreciation under GAAP with GAAP-based asset lives for the remaining core fibre assets, consistent with the default method in clause 3.2.2(3) of the fibre IMs.⁵⁰⁶

Reasons for final decision

- A74 Our final decision is to confirm our draft decision of continuing using straight-line depreciation under GAAP with GAAP-based asset lives for the remaining core fibre assets for the reasons set out above.

⁵⁰⁵ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [A45].

⁵⁰⁶ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [44.2].

Final decision for the financial loss asset

- A75 For the FLA, our final decision is to apply the same alternative depreciation method that we applied in PQP1, which is tilted annuity depreciation with a tilt rate of -13% with an asset life of 14.2 years.
- A76 Our final decision for the FLA is that it will remain the same as in PQP1, using the tilted annuity method to front-load depreciation. We consider that the same depreciation approach as applied in PQP1 for the FLA should continue to be applied and that no alternative depreciation method would better promote the purpose of Part 6, noting that the Commission is not altering depreciation to smooth revenues and prices under clause 3.3.3 of the fibre IMs. This is because our final decision better manages the risk of asset stranding for the FLA than a depreciation method consistent with GAAP, as discussed in our reasons paper for our PQP1 decision.⁵⁰⁷
- A77 This is unchanged from our draft decision.⁵⁰⁸

Stakeholder views

- A78 We received one submission on this topic. Chorus supported our draft decision to apply the same alternative depreciation method adopted for PQP1 to the FLA.⁵⁰⁹

Reasons for final decision

- A79 Our final decision is to confirm our draft decision of applying the same alternative depreciation method that we applied in PQP1 for the FLA, which is tilted annuity depreciation with a tilt rate of -13% with an asset life of 14.2 years, for the reasons set out above at A76.

⁵⁰⁷ Note that the FLA is considered to have a higher asset stranding risk than other assets. See Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision – Reasons paper" (16 December 2021), at [6.89.1].

⁵⁰⁸ Commerce Commission "Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision – Reasons paper" (18 July 2024), at [A46].

⁵⁰⁹ Chorus "Submission on Chorus' price-quality path for the second regulatory period (2025 – 2028) – draft decision" (15 August 2024), at [44.3].