PUBLIC

ISBN: 978-1-997321-58-3

COMMERCE COMMISSION NEW ZEALAND
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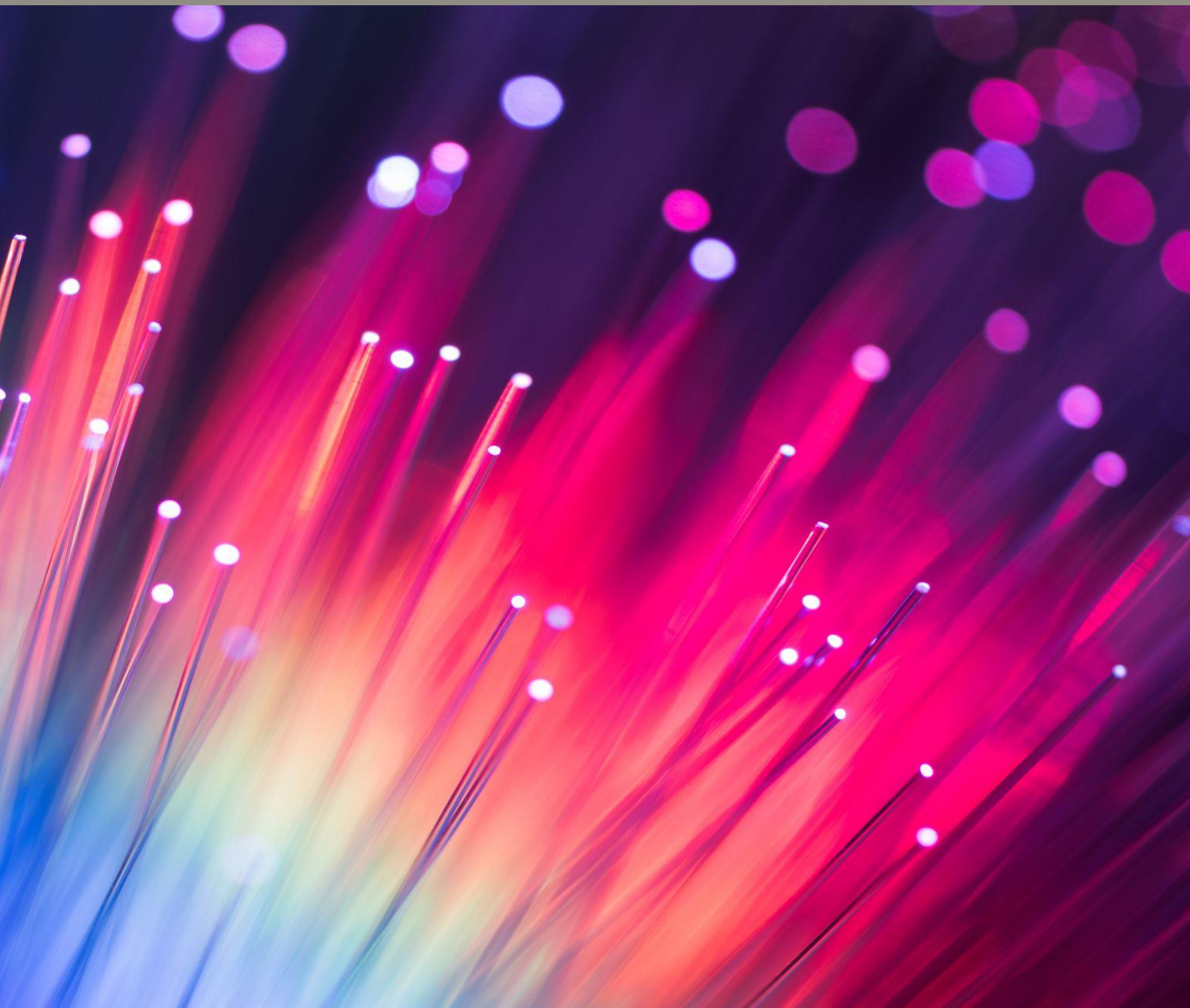
Fibre input methodologies review 2027

Issues paper (Tranche 2)

4 August 2026



Associated documents

Publication date	Reference	Title
4 August 2026		Fibre IM Review (Tranche 2) Issues paper. Asset Beta R-code – 4 August 2026
10 March 2026	978-1-991414-70-0	Fibre Input Methodologies – Decision-making framework paper
10 July 2025	978-1-99-133274-5	Fibre input methodologies review 2027 – Issues paper (Tranche 1)
27 March 2025		Open letter on Fibre Input Methodologies Review
27 March 2025		Notice of Intention – Cost of Capital Review for Electricity Lines Services, Gas Pipeline Services, and Specified Airport Services
27 March 2025		Notice of Intention – Fibre Input Methodologies Review 2027

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Executive summary

X1 This paper sets out the key issues identified for consideration in Tranche 2 of the Fibre Input Methodologies **(IMs)** Review. It describes the issues we have identified to date and provides an opportunity for stakeholders to provide input.

Our initial view remains that the fibre input methodologies are largely fit for purpose

X2 The IMs establish the key rules, processes, and requirements that apply to the regulation of fibre services under Part 6 of the Telecommunications Act 2001 (**the Act**). They provide certainty to regulated suppliers, access seekers, and end-users about how the regulatory regime will operate.

X3 The regulatory framework has supported efficient investment in fibre infrastructure while protecting the long-term interests of end-users in terms of price and quality. The fibre IMs are based largely on the input methodologies used for other regulated infrastructure sectors under Part 4 of the Commerce Act, which have been tested over multiple regulatory cycles, appeals, and reviews. The benefits of these previous reviews were incorporated into the design of the fibre IMs, and they are therefore in a relatively mature state.

X4 For this reason, we are prioritising improving how the regime operates in practice, rather than on questions of fundamental design. We continue the focus of our review on the areas of highest value to end users of fibre services, and where we see that the IMs provide the best option for addressing issues identified.

The tranched approach to this IM Review

X5 We are required to review the fibre IMs at least every seven years. This is the first review since the IMs were determined in 2020.

X6 We are conducting this review in two tranches.

X6.1 **Tranche 1** focused on issues that we needed to address for Chorus to prepare and submit its proposal for a price-quality path reset. A summary of timelines and key documentation and the focus areas considered in the Tranche 1 decision are provided in Attachment A.

X6.2 **Tranche 2** encompasses any fibre IMs not considered in Tranche 1, including fibre-specific cost of capital matters.

X7 In Tranche 1 we sought to simplify and streamline elements of the framework to remove unnecessary cost and complexity while maintaining strong protections for consumers.

X8 In Tranche 2, we will continue to focus on areas where targeted amendments could improve regulatory certainty (such as clarifying expectations for the operation of reopeners and individual capital expenditure proposals) and to incorporate lessons learned from PQP2 and other regulated sectors.

Topics covered by this paper

X9 This paper discusses the following topics for the Fibre IM Review:

X9.1 capital expenditure; and

X9.2 fibre specific cost of capital IMs.

X10 The R code for asset beta, equity beta and leverage estimation is published alongside this paper.

X11 The focus of this paper is to discuss the complex/important issues relevant to Tranche 2 on which we seek stakeholder feedback.

X12 A high-level summary of the issues for each topic area is set out in Table X1.

X13 We are at different stages of thinking for different topics. Our level of understanding for each topic is based on work we have previously done in that area and on stakeholder submissions on our previous work; it is not necessarily an indication of relative importance or priority.

Table X1 Overview of the Tranche 2 issues

Chapter	Topic	Issues
2	Fibre specific cost of capital IMs	• Equity beta and asset beta • Leverage ratio • The benchmark credit rating • Weighted average cost of capital (**WACC**) percentile • Standard error of the WACC • Asset stranding risk • Spread premium (and the term credit spread differential) • Reasonableness checks
3	Capital expenditure – price path reopeners	• Definition of a reopener event (lead time) • Reopener events (time limits and expenditure eligibility) • Definition of a reopener event (definition of additional net costs) • Reopener thresholds (materiality thresholds) • PQ path reopener for approved individual capex proposals (**ICPs**)
4	Capital expenditure – further issues relating to Individual Capex proposals	• Individual capex proposals – amending ICP conditions to apply incentives for non-delivery of outputs/outcomes • Individual capex ringfencing
5	Other issues/amendments	• Value of commissioned assets and related party transactions • Crown financing if a sale of government securities occurs • Treatment of FFLAS wash-up account balance following deregulation or sale

X14 We developed this list of Tranche 2 issues following initial consideration of:

X14.1 matters already identified by the Commission and stakeholders in previous fibre processes (such as the PQP2 process and related targeted IM amendments);

X14.2 changes made to the Part 4 IMs that could also be applicable to the fibre IMs; and

X14.3 submissions on our Fibre IM Review (Tranche 1) publications and focus areas discussed in our March 2025 Open Letter.

Seeking views on our Tranche 2 Issues paper

X15 When providing feedback on this paper, it would be helpful for stakeholders to:

X15.1 provide feedback on the priority we should give to the Tranche 2 topics and any new issues identified;

X15.2 identify other topics and issues not covered in this paper or Tranche 1 and explain which IMs they relate to;

X15.3 consider our decision-making framework objectives, including the requirement on the Commission to promote the Part 6 purpose and other statutory decision-making considerations, when preparing their submissions; and

X15.4 provide details of alternative approaches to resolve any issues raised with the IMs along with supporting evidence of why those alternatives should be preferred, including considerations and challenges they would like us to consider.

X16 Details on how to make a submission are set out in Attachment B. The closing date for submissions is **5pm on 1 September 2026**. We will publish public versions of submissions and invite cross submissions by **5pm on 22 September 2026**.

Next steps

X17 When considering Tranche 2 issues we will apply the Fibre IM Review decision-making framework.[1] This includes making decisions that promote the purpose of Part 6 of the Act (s 162) and the purpose of input methodologies (s 174), or both. Under s 162 and s 166(2), we are required to consider whether the proposed amendments promote the long-term benefit of end-users (that is, consumers of fibre fixed line access services) and, to the extent we consider it relevant, the promotion of workable competition in telecommunications markets generally (that is, consumers of telecommunications services that are not limited to fibre fixed line access services).

X18 Our work programme for 2025 to 2028 (the end of PQP2) includes a mix of mandatory work required by statute and discretionary work that we consider will improve and evolve the way we regulate the sector. We will continue to prioritise efforts across the wider fibre work programme on the areas of highest value to end-users of fibre services, taking into account statutory timelines.

X19 After considering submissions and cross submissions on this paper against our Fibre IM Review framework and the wider work programme, we expect to have a clearer understanding of the issues to take forward in this tranche of the IM Review. The project timeline is set out in Attachment A.

[1] Commerce Commission "Fibre input methodologies – Decision-making framework paper" (10 March 2026).

Chapter 1 Overview of the fibre input methodologies review 2027

Input methodologies are the upfront rules designed to promote certainty about how we regulate

1.1 Input methodologies (**IMs**) are the upfront rules, processes and requirements of regulation set under Part 6 of the Telecommunications Act (**Part 6**) and apply to:

1.1.1 Chorus, which is subject to price-quality and information disclosure regulation under Part 6; and

1.1.2 the other local fibre companies: Enable, Northpower, and Tuatahi, that are subject to information disclosure regulation only.

1.2 The purpose of IMs, set out in s 174 of the Telecommunications Act 2001 (**the Act**) is to promote certainty for suppliers and consumers in relation to the rules, requirements, and processes applying to regulation.

1.3 We make reference in this paper, where relevant to consideration of the Part 6 IMs, to IMs for suppliers of electricity lines services, gas pipeline services, and specified airport services – which are also subject to price-quality and/or information disclosure regulation – that are set under Part 4 of the Commerce Act 1986 (**Part 4**).

1.4 The purpose of IMs, set out in s 174 of the Telecommunications Act 2001 (**the Act**) is to promote certainty for suppliers and consumers in relation to the rules, requirements, and processes applying to regulation.

We are required to review the input methodologies every seven years

1.5 Section 182(1) of the Act requires us to review the IMs no later than seven years after their date of publication, and after that, at intervals of no more than seven years. This is the first review of the fibre IMs.

1.6 We have taken a tranched approach to this review of the fibre IMs.

1.6.1 Tranche 1 focused on issues that we needed to address for Chorus to prepare and submit its proposal for a price-quality path reset. A summary of timelines and key documentation and the focus areas considered in the Tranche 1 decision are provided in Attachment A.

1.6.2 Tranche 2 includes any other aspects of the fibre IMs, including fibre-specific cost of capital matters.

1.7 We expect to publish our final decision on fibre IMs (Tranche 1) issues later in August 2026. This paper deals with Tranche 2 of the fibre IM review.

1.8 We completed our second review of the Part 4 IMs in December 2023. However, as part of the current IM Review under Tranche 1, we have reviewed elements of the cost of capital fibre IM alongside the relevant Part 4 cost of capital IMs, so that our approach is aligned as far as possible. Our draft decision on the common cost of capital IMs was set out in a separate reasons paper and consultation has closed.2 We are currently considering submitter feedback on the draft decision package for the common cost of capital IM review that was carried out in parallel with Tranche 1.

1.9 Tranche 2 of the fibre IM review (including cost of capital matters) deals only with the fibre IMs and does not include the IMs that apply to other suppliers regulated under Part 4.

What we are aiming to achieve

Our initial view is that the input methodologies are largely fit for purpose

1.10 The fibre IMs are based largely on the Part 4 sector IMs. The fundamentals of the IMs have been tested over multiple rounds of initial setting, appeals, and review across the Part 4 sectors. The benefits of these previous reviews have been incorporated into the design of the fibre IMs. Therefore, the fibre IMs are relatively mature compared to the Part 4 IMs at the same point in their development.

1.11 Our starting point is that they are generally working well and that the fibre regime is doing its job of encouraging fibre providers to innovate and to invest efficiently in critical national infrastructure while protecting the interests of consumers in terms of price and quality. As with Tranche 1, we intend to focus tranche 2 of our review on the areas of highest value to end-users of fibre services and where we see that the IMs provide the best option for addressing issues identified.

Application of our decision-making framework and overarching objectives

1.12 To reach our Tranche 2 draft decision, we will apply the Fibre IM Review decision-making framework.[3] This framework is largely the same as the framework we applied for the 2023 Part 4 IM Review. It is an enduring frame of reference for engaging with our processes and considering our decisions in the current and future Fibre IM Reviews.

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[2] Commerce Commission "Common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) – Draft decision reasons paper" (10 March 2026).

[3] Commerce Commission "Fibre input methodologies – Decision-making framework paper" (10 March 2026).

1.13 Our decision-making framework for reviews of the fibre IMs is not mechanistic. Rather, it is a conceptual framework to guide and explain our decision-making. We consider this strikes the right balance between prescription and flexibility. The framework is deliberately framed at a general level. This is to provide guidance in as many situations as possible and because we cannot foresee all situations and potential changes.

1.14 When making a decision, we will be guided by the three overarching objectives set out in the Decision-making Framework paper:[4]

1.14.1 promoting the considerations in section 166(2) more effectively;

1.14.2 promoting the IM purpose in s 174 more effectively (without detrimentally affecting the promotion of the s 166(2) considerations); and

1.14.3 significantly reducing compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 166(2) considerations).

[4] Ibid, at [3.6.1]-[3.6.3].

Chapter 2 Fibre specific Cost of Capital IMs

2.1 We are reviewing the fibre cost of capital IMs in two tranches.[5]

2.2 In Tranche 1 we considered the methodology that is common to both Part 6 and Part 4. We published our draft decision on those common cost of capital IMs on 10 March 2026 and are in the process of reaching our final decision in light of the submissions we received.

2.3 We are now considering the parameters specific to fibre in the second tranche. Based on our experience with the cost of capital IMs, our initial view is that our fundamental approach to the cost of capital is sound and works well for Part 6.

2.4 Therefore, we consider that we should focus our efforts on the most critical issues, where new arguments or evidence is raised, and update the parameters with the most recent market evidence. We would like to ensure that the changes we make can result in a better estimate of the cost of capital. The more accurate our estimate of the WACC for fibre, the better we are able to promote the purpose of Part 6 of the Telecommunications Act.

2.5 We provide information on each of the following topics:

2.5.1 equity beta and asset beta;

2.5.2 leverage ratio;

2.5.3 credit rating;

2.5.4 standard error of WACC;

2.5.5 WACC percentile;

2.5.6 the value of the spread premium (and the term credit spread differential);

2.5.7 reasonableness checks; and

2.5.8 asset stranding risk.

2.6 We had identified fibre specific cost of capital IMs for consideration in the Tranche 2 of the fibre IM in our Open Letter and Fibre IM (Tranche 1) issues paper.[6] Stakeholder submissions on those documents included some comments on the issues in this paper, which are incorporated into our discussion of the relevant topics.

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[5] Commerce Commission "Open letter on Fibre Input Methodologies Review" (27 March 2025), at 5; and Commerce Commission "Fibre input methodologies review 2027 – Issues paper (Tranche 1)" (10 July 2025), at [4.8].

[6] Commerce Commission "Fibre input methodologies review 2027 – Issues paper (Tranche 1)" (10 July 2025), at 71-72.

Overview of cost of capital

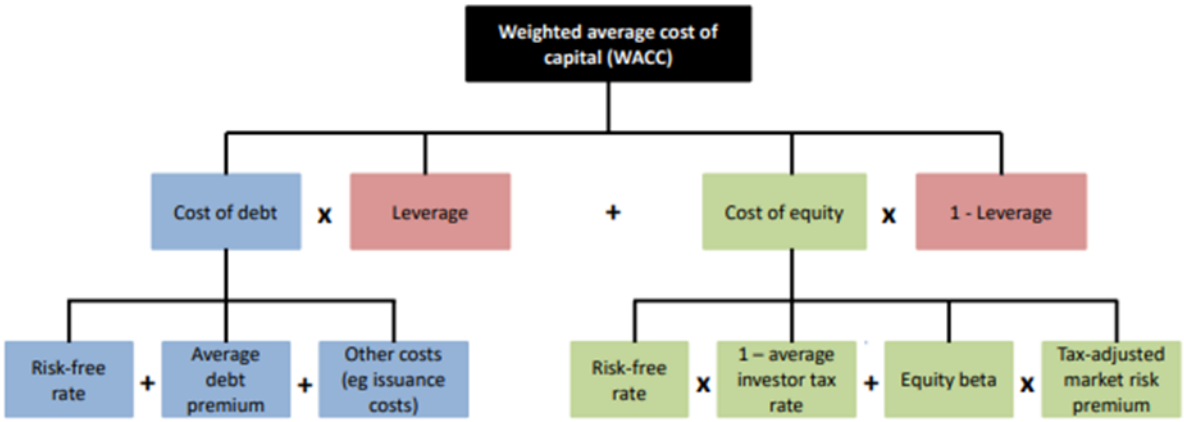
2.7 The WACC is a key input to building block regulation. For price quality (**PQ**)-regulated businesses, the WACC is the allowed rate of return on regulated assets. For information disclosure (**ID**)-regulated businesses, the WACC is the benchmark used to assess profitability.

2.8 The cost of capital is the financial return investors require from an investment given its risk. Investors have choices and will not invest unless the expected return is at least as good as the return they would expect to get from a different investment of similar risk. We must estimate the actual cost of capital as it is not observable. The cost of capital IMs seek to specify rules for the calculation of a reasonable and commercially realistic cost of capital given investors' exposure to risk.

2.9 The cost of capital IMs have two parts. The first part sets out the methodology for estimating the WACC. The second part concerns the term credit spread differential (**TCSD**). The TCSD is an allowance to compensate regulated businesses that issue longer-term debt than the benchmark term. It is a separate part of the cost of capital IMs because it is compensated through cashflows and only applies to qualifying firms.

2.10 Our approach to estimating the WACC has remained largely unchanged since it was developed in the original IMs for Part 4 in 2010. We used this same methodology when we established the fibre cost of capital IMs in 2020. Our approach to estimating the WACC is set out in Figure 2.1.

Figure 2.1 Components of vanilla WACC



2.11 We estimate the cost of equity and the cost of debt and then calculate the WACC using an appropriate weighting based on leverage. The cost of debt is estimated using a risk-free rate, debt premium, and debt issuance and associated costs. The cost of equity is estimated using the simplified Brennan-Lally capital asset pricing model (**SBL-CAPM**).[7]

How the identified issues link to our statutory purposes

2.12 In reaching our decisions on the cost of capital IMs, we are aiming to estimate a cost of capital that will achieve the statutory purposes and promote certainty for regulated suppliers and end-users in relation to the rules, requirements, and processes applying to regulation under both regulatory regimes.

2.13 We consider that the most relevant outcomes of the statutory purposes for the cost of capital IMs are:

2.13.1 that regulated fibre service providers have incentives to innovate and to invest, including in replacement, upgraded, and new assets;[8] and

2.13.2 that regulated fibre service providers are limited in their ability to extract excessive profits.[9]

2.14 Reaching our best estimate of each of the WACC parameters will help to ensure the objectives in the statutory purposes are balanced and promoted appropriately.

2.15 The issues discussed are important for us to consider as part of this review so that we can consider the cost of capital parameters together and determine parameters and methodologies that reflect a reasonable, and commercially realistic, cost of capital given investors' exposure to risk.

2.16 We consider that the best estimate of the cost of capital provides an expectation of a return which can attract the investment necessary to compete for both the regulated providers and their potential competitors, at the least cost to end-users.

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[7] For explanation on SBL-CAPM, see our previous Cost of capital reasons paper: Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.32]-[6.36].

[8] Telecommunications Act 2001, s 162(a).

[9] Telecommunications Act 2001, s 162(d).

Equity beta estimation

2.17 Beta is a measure of exposure to systematic risk. Systematic risk measures the extent to which the returns on a company fluctuate relative to the equity returns in the stock market as a whole. If an investment had no systematic risk (i.e., it would show no correlation with returns on the market), its equity beta would be zero. If an investment in the equity of a company is of average risk, the equity beta will be 1. This means that the premium over the risk-free rate that equity investors expect will be the same as the average for the overall market (the tax-adjusted market risk premium (**TAMRP**)).

2.18 As the cost of capital is intended to be forward-looking, forward-looking betas are required. As there is no reliable way to forecast betas, we assume that historic beta estimates are indicative of future betas. Historic estimates of average betas are used as beta is expected to be relatively stable over time. However, firm-specific and sectoral-wide characteristics can change over time, introducing a trade-off between using the most up-to-date data in this estimation, and the stability of having a sample over a longer-term.

2.19 For firms with traded stocks, the equity beta for the firm can be estimated directly from the historical returns on those stocks, relative to the market's return. As the equity beta is influenced by a firm's leverage, it is generally converted into an asset beta for the purpose of estimating an average asset beta for a sample of firms.

2.20 Equity beta is a key parameter in our estimate of the cost of equity. We use a six-step process to estimate equity beta.[10]

2.20.1 **Step 1**: identifying the sample of firms.

2.20.2 **Step 2**: estimating the equity beta for each firm in the sample.

2.20.3 **Step 3**: de-levering each equity beta to get an asset beta.

2.20.4 **Step 4**: calculating the average asset beta for the sample.

2.20.5 **Step 5**: applying any adjustments for regulatory differences or systematic risk to the average asset beta for the sample.

2.20.6 **Step 6**: re-levering the average asset beta for the sample to an equity beta estimate using the average leverage of the comparator set.

2.21 Our initial view is that the six-step approach is still fit for purpose. We are re-estimating the equity beta (and leverage ratio) to reflect more up-to-date information.

[10] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.416].

2.22 We consider the key issues related to the estimation of beta are:

2.22.1 the selection of comparator set;

2.22.2 whether there has been a structural change in the betas and leverage ratios in the post-Covid-19 period; and

2.22.3 the use of the average leverage of the comparator set.

2.23 We expand on these issues in the following sections. We are interested in stakeholder views on these and any other issues which may have impacts on beta estimation.

Our current weighted average cost of capital settings

2.24 The current Fibre IM specifies an equity beta of 0.7 for all regulated providers. This estimate is the result of applying an asset beta of 0.5 and a leverage of 29%.

2.25 We apply the same equity beta to both PQ and ID regulated providers.

Beta estimation sub-issue #1 – the selection of the comparator set

2.26 The first step of the beta estimation process is identifying the sample of firms. Ideally, the comparator set should include firms with the same characteristics as those the Commission regulates in New Zealand. However, it is difficult to identify a representative comparator set due to the lack of comparators that provide only fixed fibre line access service (**FFLAS**). Telecommunications companies generally provide a range of services, and of those that provide network services, it is difficult to find companies that can be regarded as 'pure play' FFLAS providers.

2.27 When we initially set the 2020 Fibre IMs, we considered whether we should use a large or a small comparator set when estimating the beta. We considered a large comparator set can improve statistical reliability and reduce the influence of outliers.

2.28 When reaching the final comparator set, we considered that we should apply some criteria to filter the sample so that the resulting sample can provide credible and relevant comparators for purposes of estimating the equity beta.

2.29 Previously we asked external consultants to apply our original beta calculation methods (including the six steps above) to calculate the equity beta, asset beta and leverage using updated information, but not to provide advice on the appropriate values .[11] As part of this review, we use the 2020 final comparator set as a starting point and have undertaken preliminary analysis following the same process (i.e., apply the 2020 method and remove the delisted firms) in order to assist stakeholders with their submissions on this topic. The results are provided in Attachment C.

[11] See the recent 2023 Part 4 IM Review where we asked CEPA to apply the 2016 method to calculate the equity beta, asset beta and leverage using updated information. Link.

Our current weighted average cost of capital settings

2.30 We currently use a large comparator set of 56 domestic and international companies.

2.31 We have used the following filters and adjustments in the past to ensure the comparator set is comparable and reliable.

2.31.1 **Negative leverage**. Given our concerns about some of the firms using negative leverage to offset risks specific to their particular market, we excluded the firms with negative leverage from our comparator set.

2.31.2 **Liquidity indicators**. We considered the extent that we remove firms with liquidity concerns. In the past, we have used bid-ask spreads and free-floating percentage as two liquidity indicators. [12, 13]

2.31.3 **Market comparability**. We considered whether the firms from less-developed countries and from secondary emerging market under the FTSE Equity Country Classification[14] should be excluded due to different market comparability.

2.31.4 **Adjustment for bias**. We would like to have a comparator set which represents the risk and business models of FFLAS providers in New Zealand. Due to the difficulty of finding a perfect comparator set, we considered whether the mobile tower companies and satellite operators (which operate in a similar market to regulated providers) should be included in the comparator set or given any weight. Their inclusion could provide some balance to the sample (eg offset firms with higher exposure to systematic risk than would be expected of a provider of FFLAS). We also considered the appropriate weighting on the inclusion of vertically integrated firms in the comparator set. They might bias the average beta above what would be expected for a FFLAS provider.

2.32 When we reached our decision on the final comparator set when setting up the 2020 Fibre IM, we agreed with CEPA on its initial filtering criteria to exclude firms that:[15]

2.32.1 are not from New Zealand, the UK, North America, continental Europe, Japan, Singapore and South Korea;

2.32.2 are non-network owners;

2.32.3 have market capitalisation less than US $100 million;

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[12] Bid-ask spread is the difference between the highest price a buyer is willing to pay (bid) and the lowest price a seller is willing to accept (ask), with a narrower spread indicating greater liquidity.

[13] Free-floating percentage is the proportion of a company's outstanding shares that is freely available for trading by the public, with a higher free-floating percentage indicating greater share liquidity.

[14] FTSE classifies markets into four tiers: developed markets, advanced emerging markets, secondary emerging markets, and frontier markets.

[15] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.420.1].

2.32.4 have less than two years trading history;

2.32.5 have more than 50% of revenue from sources outside their main country of operation;

2.32.6 derive a large share of their revenue from outside the telecommunications sector;

2.32.7 have large bid-ask spread;

2.32.8 have a very high leverage; and

2.32.9 do not have both equity beta and leverage data.[16]

2.33 We also made some further adjustments to CEPA's revised sample, including:[17]

2.33.1 adding firms which were classified as renewable energy equipment providers or data centres, as they are reasonable comparators for regulated providers; and

2.33.2 including firms from eastern Europe but excluding firms from Turkey due to the high market risk premium.

Our initial view

2.34 Our initial view is that we should use the 2020 final comparator set as a starting point. We also consider the above criteria and adjustments remain appropriate. To move away from our current approach, we would need to be persuaded by robust reasoning and evidence. Based on our preliminary analysis presented in Attachment C, we welcome stakeholder views on any proposed additions or removals of the firms (except for removing the delisted firms) should be applied.

Beta estimation sub-issue #2 – whether there has been a structural change in the betas and leverage ratios in the post-Covid-19 period

2.35 Step 4 of the beta estimation process is to calculate the average asset beta for the sample. A particular issue that is relevant for step 4 is how we estimate the average of the comparator set and whether we include or exclude the Covid-affected period.

2.36 During the 2023 Part 4 IM Review, we noted that the Covid-19 pandemic has had a significant impact on equity markets. In particular, it affected the demand for airport services, and the appropriate treatment of this impact became a key issue in the review.

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[16] CEPA added seven telecommunications tower owners and two satellite operators to the sample.

[17] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.426]-[6.432].

2.37 In theory, the Covid-19 pandemic and associated shift to remote work patterns may have caused a structural shift in the risk of providing FFLAS services. If this is the case, forward-looking asset and equity betas may differ materially from estimates based on historical data from prior to the Covid-19 pandemic. We are considering whether this has implications for the appropriate sample period used to estimate these parameters.

Our current weighted average cost of capital settings

2.38 We currently use five-yearly estimates for the periods 2009-2014 and 2014-2019 and use both weekly and four-weekly estimates.

2.39 We currently do not apply any adjustment for regulatory differences or systematic risk differences. In 2020, we considered this issue and, based on the evidence available at the time, decided not to make specific adjustments to the average asset beta from the comparator sample.[18]

Our initial view

2.40 Our standard approach when we set the Fibre IMs in 2020 is to use the average of the last two five-year periods of estimates. Our initial view is that our current standard approach remains appropriate.

2.41 We have provided the updated beta estimates and leverage in Attachment C based on the updated original comparator set we adopted in 2020 and applied our standard approach. We found that:

2.41.1 The raw equity beta is 0.63 for the average of the last two five-year periods.

2.41.2 The asset beta has decreased from 0.5 in the 2020 final decision to 0.39 for the average of the last two five-year periods.

2.41.3 The leverage has increased from 29% in the 2020 final decision to 33% for the average of the last two five-year periods.

2.41.4 The equity beta has decreased from 0.7 in the 2020 final decision to 0.58 for the average of the last two five-year periods.

2.42 We also compare the results of the pre-Covid, Covid-affected, and post-Covid periods in Attachment C. It is unclear what effect, if any, Covid had on the estimates. We welcome stakeholder views on this information.

[18] Ibid, at [6.509].

Beta estimation sub-issue #3 – the use of the average leverage of the comparator set

2.43 We recognise that the issue of 'leverage anomaly' exists when using the SBL-CAPM. Leverage does not affect a firm's WACC in a tax-neutral environment because the cost of capital reflects the riskiness of cash-flows, rather than how these are divided between equity and debt investors.

2.44 However, when the SBL-CAPM is used to estimate the cost of equity (in conjunction with the simplified beta leverage formula), and the cost of debt includes a positive debt premium, the resulting WACC estimate increases with leverage. This situation is not unique to SBL-CAPM. Overseas regulators, such as UK Competition and Markets Authority (**CMA**) (which uses the classic CAPM) and AER (which uses Sharpe-Lintner CAPM) also face the same issue.

2.45 In 2020 we identified two possible options to overcome this anomaly:[19]

2.45.1 use the average leverage of the sample of comparator firms to estimate the equity beta; or

2.45.2 use a non-zero debt beta.

2.46 A debt beta measures a firm's systematic risk associated with borrowing, and is measured by the sensitivity of the returns on corporate debt to movements in returns on the market portfolio of all assets.

2.47 We recognise that most overseas regulators adopt the second option which is using a notional leverage with a non-zero debt beta to resolve this leverage anomaly. For example:

2.47.1 AER in its recent 2026 draft RORI decision has maintained its notional leverage of 60% and adopted a debt beta of 0.1 to adjust the difference in gearing between Australian network service providers and international firms in the comparator set;

2.47.2 Queensland Competition Authority (**QCA**) in its recent 2024 Rate of return review adopted a debt beta of 0.12 with a notional leverage around 60% on the basis that the average gearing of firms in QCA's industry samples tends to be materially different from the benchmark level of gearing that it assumes for many of the firms subject to its regulatory regime;[20, 21] and

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[19] Ibid, at [6.601]-[6.610.2].

[20] QCA does not prescribe a single leverage ratio for all entities it regulates. In its recent Rate of return review, it notes that Australian regulators have historically used leverage ratio between 50% and 60%. In its recent Rural irrigation price review 2025–29 for Seqwater, it adopted a notional leverage of 60%. Queensland Competition Authority "Rural irrigation price review 2025-29: Seqwater – Final report" (January 2025), at 38.

[21] Queensland Competition Authority "Rate of return review: version 4" (September 2024), at 92.

2.47.3 Ofgem in its 2024 RIIO-3[22] framework uses a notional leverage of 60% with a debt beta of 0.075.[23]

Our current weighted average cost of capital settings

2.48 We currently adopt an estimate of leverage of 29% (based on the average of the comparator set) with a zero debt beta.

2.49 We noted in 2020 that the use of a non-zero debt beta is theoretically better than using average leverage. In particular, when the comparator set contains limited pure-play FFLAS firms, using the average leverage of the comparator set may not be an appropriate representation of the leverage of the benchmark FFLAS firm. However, we recognised that there are practical difficulties in accurately estimating debt beta and notional leverage.

2.50 Therefore, we decided to use the average leverage of the comparator set for re-levering the average asset beta for the sample to an equity beta estimate in our 2020 final decision.[24]

Our initial view

2.51 As mentioned in paragraph 2.47, we observe that most overseas regulators adopt a non-zero debt beta due to their use of a notional leverage that differs from the average of the comparator set. However, instead of using a notional leverage, our approach is to use a leverage based on the average leverage of the comparator sample. Our starting point is that assuming that all firms have the same debt beta, our approach remains appropriate as it produces the same WACC regardless of whether a zero or non-zero debt beta is assumed.[25]

2.52 We have presented the preliminary analysis on the average leverage of the updated comparator set based on our 2020 approach in Attachment C. Table C2 shows that the average leverage of the updated comparator set for the last two five-year periods has increased from 29% to 33%. Table C3 shows that the leverage has increased from 29% during the pre-Covid periods to 39% during the post-Covid periods. We welcome stakeholder views on this topic.

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[22] RIIO-3 stands for Revenue = Incentives + Innovation + Outputs for the third iteration of Ofgem's price control mechanism.

[23] Ofgem "RIIO-3 Sector Specific Methodology Decision – Finance Annex" (18 July 2024), at [3.209] and [3.221].

[24] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.616].

[25] Commerce Commission "Input methodologies review decisions – Topic paper 4: Cost of capital issues" (20 December 2016), at footnote 189.

Credit rating

2.53 Credit ratings are an indication of a borrower's creditworthiness. The higher the rating, the less the likelihood of default.

2.54 We consider that an efficient operator would seek to maintain an appropriate investment grade credit rating to ensure satisfactory access to debt capital markets at reasonable costs. Standard and Poor's (**S&P**) minimum long-term credit rating considered to be investment grade is BBB-.

2.55 We will consider the appropriate credit rating for FFLAS services providers in light of the latest information as part of this review. We note that any changes to the benchmark credit rating will affect the estimated spread premium (TCSD) value as we discuss later in the paper.[26]

Our current weighted average cost of capital settings

2.56 We currently set a service-wide notional target credit rating using the S&P long-term credit rating of BBB to estimate the cost of capital for the supply of FFLAS by regulated providers.

2.57 This applies in relation to both PQ and ID regulation.

2.58 We considered that there are two main approaches to set the credit rating:

2.58.1 use a service-wide notional estimate; or

2.58.2 use the regulated provider's actual credit rating.

2.59 Our preferred approach in 2020 was to use a service-wide notional credit rating. We considered that if regulated providers' actual credit ratings were used, they may have less incentive to maintain an appropriate credit rating given the increased costs associated with a lower credit rating would be partially compensated through the WACC, leading to potentially adverse implications for end-users.[27]

2.60 In particular, if the actual credit rating were used, such regulated providers would have a reduced incentive to maintain their credit rating at a prudent level, which could be detrimental to the long-term benefit of end-users by raising the risk of bankruptcy and increasing their cost of capital as the costs would be at least partially passed on to consumers.[28]

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[26] If we decided to retain the TCSD allowance.

[27] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.351].

[28] Ibid, at [6.352].

2.61 We considered two options for setting the notional service-wide benchmark credit rating.[29]

2.61.1 **Option 1: 'comparator set approach'** – estimating the average credit rating of the comparator set in the asset beta comparator set and applying it as the service-wide notional target credit rating, possibly with an adjustment on a defined basis.

2.61.2 **Option 2**: **'notional credit rating approach'** – selecting a target credit rating through judgement to reflect an appropriate level of credit default risk, while also having regard to the results from the comparator set, and applying this as the service-wide notional target credit rating.

2.62 Our preferred approach in 2020 was to set a service-wide notional target credit rating value. We considered:[30]

2.62.1 only the notional approach ensures that the benchmark credit rating does not fall below investment grade in the future;

2.62.2 there is no precise mapping between the credit rating of an entity and its leverage;

2.62.3 leverage is one element of the factors which determine a credit rating; and

2.62.4 it would be practically difficult to implement a benchmark credit rating solely from the comparator set, due to the limited credit rating data.

Our initial view

2.63 Our initial view is that the current notional target credit rating of BBB remains appropriate given the reasons above. We welcome stakeholder views on the following questions:

2.63.1 if there is any evidence warrant a change from the notional credit rating of BBB; and

2.63.2 how the notional credit rating should be aligned with leverage?

[29] Ibid, at [6.355]-[6.355.2].
[30] Ibid, at [6.369.1]-[6.369.4].

Weighted average cost of capital percentile

2.64 We cannot observe the WACC so we must estimate it. Nor do we know in retrospect what the WACC has been. Hence, our mid-point WACC is subject to uncertainty and mis-estimation risk.

2.65 A WACC uplift is appropriate where the long-term costs to end-users from under-estimating the WACC are higher than from over-estimating the WACC. As explained in our 2020 Fibre IM reasons paper:[31]

2.65.1 under-estimating the WACC can impact on incremental investment given the return afforded to investors will be less than required to compensate them for putting their capital at risk. The costs of this are somewhat offset by lower prices to end-users but we would expect this to be overall harmful to end-users and contrary to promoting the outcome in s 162(a) of the Act of regulated providers having incentives to innovate and invest; and

2.65.2 over-estimating the WACC can lead to over-investment and to end-users facing higher prices than they need to. This can be mitigated to some extent by the benefits flowing from that over-investment, but we would expect this to be overall harmful to end-users and contrary to promoting the outcome in s 162(d) of the Act of regulated providers being limited in their ability to extract excessive profits.

2.66 Where the net costs of a WACC mis-estimation causing over-investment or higher returns are expected to be less than under-investment, it would be in the long-term benefit of end-users to allow an uplift to the WACC and would better balance the outcomes in s 162(a) and (d) of the Act. For example, in the 2023 Part 4 IM Review, we decided to allow a WACC uplift to the 65th percentile for electricity distribution businesses (**EDBs**) and Transpower. This is to mitigate the risk of under-investment relating to service quality generally and contributing to major supply outages, in particular.[32]

Our current weighted average cost of capital settings

2.67 We currently use the mid-point estimate of the WACC for the purposes of PQ regulation of regulated FFLAS.

2.68 For ID regulation of regulated FFLAS, we publish the mid-point of the WACC and the standard error.

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[31] Ibid, at [6.646.1]-[6.646.2].

[32] Commerce Commission "Cost of capital topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [6.21].

2.69 We previously looked at this topic area when we set the Fibre IMs in 2020. We also examined this issue when we reviewed the Part 4 IMs in 2023. At that time, we reduced the WACC percentile for EDBs and Transpower from the 67th to the 65th, and reduced the WACC percentile for gas pipeline businesses (**GPBs**) from the 67th to the mid-point.[33]

2.70 Our starting point in 2020 was that the mid-point of the WACC provides for an expectation of a normal return over time. As such, it adequately compensates investors for placing their capital at risk while providing regulated FFLAS at the expected cost to end-users.

2.71 We then examined whether evidence of asymmetric costs of under-investment should lead us to mitigate this risk through selecting a percentile of the WACC above the mid-point because it is in the long-term benefit of end-users.

2.72 Our reasons in 2020 showed that we considered the potential benefits that could flow to end-users from a higher than mid-point WACC do not outweigh the costs they would face from the uplift.[34]

2.72.1 The gradual and visible expected consequences of under-investment in regulated FFLAS, the potential mitigation of the risk of any under-investment due to potential competition and asset stranding (albeit small), the availability of alternatives, and the relative newness of the regulated FFLAS networks mean that the expected scale of costs to end-users from under-investment appears an order of magnitude less than the costs they would face from a higher than mid-point WACC.

2.72.2 If, over the course of time, under-investment or the risk of under-investment becomes apparent in terms of resilience or quality or expansion, we consider that we have more targeted and cost effective tools for end-users than an uplift. This may include a quality incentive scheme, or a financial volume incentive, depending on the concerns.

Our initial view

2.73 We note that Chorus submitted that we should review the appropriate WACC percentile that is used for setting the fibre WACC for pricing purposes.[35]

2.74 We are therefore considering whether we should maintain the current approach, which continues to use the mid-point WACC for both PQ and ID FFLAS regulated providers, or whether we should provide any uplift to the mid-point WACC.

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[33] Ibid. On 7 May 2026, the High Court allowed an appeal against the Commission's decision to reduce the GPB WACC percentile to the mid-point. As at the date of publication of this paper, the Court has not made orders granting relief in relation to the successful appeal: *First Gas Limited v Commerce Commission* [2026] NZHC 1224.

[34] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.647.1]-[6.647.3].

[35] Chorus "Submission on Open letter on Fibre Input Methodologies Review" (29 April 2025), at [9].

2.75 Our initial view is that the reasons for not providing an uplift in 2020 reasons paper still hold and the conditions are not different that would warrant reconsideration of WACC percentile. If stakeholders have different views, we welcome any quantitative and qualitative evidence in the context of fibre supporting the alternatives.

Asset stranding risk

2.76 Asset stranding risk is a business risk for Chorus and other local fibre companies (**LFCs**). If demand for regulated FFLAS falls away because end-users prefer a competitor's service that makes use of an alternative technology or are overbuilt by a rival provider of regulated FFLAS, then the full amount invested in providing that regulated FFLAS may not be recoverable in the long term.

2.77 Stranding risk is normally non-systematic because the risk can be managed by investors holding a diversified portfolio of assets. [36] If an investor is concerned about a regulated FFLAS becoming stranded by 5G technology, the investor can hedge (although not necessarily fully) against the risk by investing in a competing firm whose service offerings are based on 5G technology. The capital asset pricing model (**CAPM**) assumes that investors act in this way, and therefore the cost of equity that is derived from CAPM does not normally compensate for non-systematic stranding risk.

2.78 However, stranding risk can possibly have a systematic component when the drivers for stranding risk have some correlation with the overall market. In this case, the firms in the comparator set we use to calculate the asset beta would also face stranding risk, and this would be captured in our estimate of the asset beta for regulated FFLAS.

2.79 Therefore, we do not know for certain what proportion of the stranding risk is already compensated by our cost of capital estimate. However, since the main source of stranding risk in this context is competition linked to technological development, which is normally non-systematic, we consider that most of the stranding risk is not compensated by the cost of capital.

2.80 When we set the 2020 Fibre IM, we considered that telecommunications services are subject to significant technological change which may give rise to new technologies in competition with regulated FFLAS. The contiguous geography of the different regulated FFLAS networks may also give rise to competition (or overbuild) between these networks. The scope for possible competition is reflected in the Act where we are required, before the start of each regulatory period (except the first regulatory period), to consider whether there are reasonable grounds to start a review of how FFLAS is regulated under Part 6 of the Act. This potential for competition combined with PQ regulation constraining the ability of firms to earn an above-normal profit in the short-run increases the likelihood that firms face asymmetric stranding risks.

[36] We note that in the recent Australian Energy Regulator 2026 RORI, Dr David Johnstone presented an analysis that challenges the conventional understanding of the CAPM framework that is adopted by most regulators and finance practitioners.

2.81 We preferred to provide some ex-ante compensation through cash flows as we considered that stranding risk is not systematic therefore should not be compensated through WACC.

Our current weighted average cost of capital settings

2.82 In the 2020 Fibre IM reasons paper, we considered that material asset stranding risk required compensation.

2.83 For compensation for Type II asymmetric risk (i.e., the risks that derive from the threat of competitive entry or expansion) associated with asset stranding, we currently provide a combination of the following:

2.83.1 retaining assets in the regulated asset base (**RAB**) in regulated markets;

2.83.2 allowing for the possible shortening of asset lives (or alternative depreciation profiles); and

2.83.3 a modest ex-ante allowance.

2.84 The ex-ante allowance:

2.84.1 is specified in the Asset Valuation IM and has a quantum of ten basis points;

2.84.2 will not be implemented through the WACC, but rather through cash flows at the time of setting a PQ path; and

2.84.3 relates to the whole RAB, where the ten basis points is applied to the allocated RAB to derive a stranding allowance, which is included in the allowed revenue.

2.85 For regulated providers who are subject to ID only, no stranding allowance is required within the IMs. It is open to regulated providers subject only to ID regulation to publish information indicating how they have accounted for asset stranding risk in their cash flows and evidence they have to support this.

Our initial view

2.86 We note that there are existing tools available to address the stranding risk including allowing alternative depreciation methods and keeping stranded assets in the RAB. We still consider that these existing tools remain appropriate. As part of this review, we are interested in stakeholder views on any evidence warrant a change from the current setting. We are considering the following issues related to this topic:

2.86.1 for existing investment, we set out in the 2020 Reasons paper that the asset stranding allowance of 10 basis points represents our best view of the risk of asset stranding over the next ten years, based on the evidence before us then.[37] We consider this allowance relates to sunk investment so our initial view is that the existing allowance remains appropriate;

2.86.2 for new investment, we are considering updating the risk assessment of network stranding on a forward-looking basis; and

2.86.3 in light of our recent and potential future consideration on deregulation of specific services, we intend to assess to what extent the deregulation decisions affect the residual risk of network stranding.

2.87 We received two submissions on this topic during Tranche 1 consultation process:

2.87.1 Tuatahi First Fibre recommended that we should review the depreciation IM to complement the review of WACC due to the significant interplay between depreciation settings and the WACC in managing asset stranding risk.[38] It suggested that we should ensure that regulated fibre services providers are adequately protected against the risk of asset stranding through the *ex-ante* measures.[39] It further suggested that key *ex-ante* mechanisms must be considered in the WACC context as a WACC that properly reflects the risks borne by providers (including asset stranding risk) is essential to incentivise investment and maintain the efficient provision of fibre services.[40]

2.87.2 Enable also submitted that LFCs are exposed to stranding risk and recommended we review the depreciation IM and consider the interaction of depreciation and WACC in dealing with asset stranding risk.[41]

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[37] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.1226.1].

[38] Tuatahi First Fibre Limited "Tuatahi First Fibre Limited feedback to the Open Letter on Fibre Input Methodologies Review" (29 April 2025), at [3].

[39] Ibid, at [5].

[40] Ibid, at [5].

[41] Enable "Enable's feedback on the Open Letter on the Fibre Input Methodology Review" (29 April 2025), at 2.

2.88 Our initial view is that there are various ways of addressing asset stranding risk. We have outlined the existing tools already available in paragraph 2.86. Additionally, for those regulated providers subject to ID only, we previously considered that it is appropriate to give them greater freedom as to how they manage Type II risks, rather than this being laid out in the IMs.[42] As a starting point, we consider that the 2020 decision remains appropriate as it best gives effect to s 186 in allowing interested parties to analyse the information and reach conclusions as to how each ID regulated provider is balancing the Part 6 purposes at s 162(a) and (d).[43] We would like to understand more on the concerns raised above by Enable and Tuatahi First Fibre and why the existing settings could not deal with it. Should LFCs provide further evidence on the need for additional ways to address the stranding risk, we will assess the evidence when reaching our draft decision.

Spread premium (and term credit spread differential)

2.89 The cost of capital IM includes a TCSD allowance to compensate regulated providers for the additional debt premium incurred from issuing debt with an average original term greater than five years.

2.90 Although the TCSD is conceptually a component of the cost of capital, it is treated as an adjustment to cash-flows and is only available to providers who have met the criteria and issued long-term debt. We recognise that issuing longer term debt can be consistent with prudent debt management.

2.91 The TCSD is calculated by way of a formula that combines:

2.91.1 the additional debt premium associated with debt that has an original term to maturity in excess of the five-year debt premium (the 'spread premium') up to a cap of ten years;[44] and

2.91.2 a negative adjustment to take account of the lower per-annum debt issuance costs that are associated with longer-term debt.[45]

2.92 We note that the spread premium depends on the target credit rating, which is currently BBB but will be reviewed as part of this Tranche as mentioned in paragraphs 2.53-2.62.

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[42] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.1028].
[43] Ibid, at [6.1029].
[44] This debt is called 'qualifying' debt.
[45] We assume that all debt issuance costs are fixed, irrespective of the original term of the debt.

2.93 In the Tranche 1 draft decision, we specified the approach to the TCSD and proposed to maintain the ten-year cap on the TCSD allowance.[46] However, we note that depending on our final decision to the approach to the cost of debt, and especially the length of it, the TCSD allowance may be removed:[47]

2.93.1 if we maintained the current hybrid approach as set out in the draft decision,[48] we would retain the TCSD allowance;

2.93.2 if we adopted a five-year trailing average cost of debt, we would likely retain the TCSD allowance; and

2.93.3 if we adopted a ten-year trailing average cost of debt, we would likely remove the TCSD allowance.

2.94 Therefore, the issues we set out here are based on the assumptions that we maintain the current hybrid approach or move to a five-year trailing average approach. In either case, we will update the value of the spread premium (and the TCSD) for fibre based on the latest available information in this Tranche 2.[49]

Our current weighted average cost of capital setting

2.95 We currently estimate the TCSD with a formula that uses a fixed linear relationship to determine the additional debt premium associated with debt issued with an original maturity term of more than five years.

2.96 We currently use a spread premium of 7.5 bps p.a. for Fibre.

2.97 We previously looked at this topic area in 2020, when we estimated the spread premium by using the Nelson Siegel Svensson (**NSS**) method and compared it with the spread premium estimates for Part 4 energy businesses.[50] We decided on 7.5 bps (which was the same estimate as the spread premium we used for the 2016 Part 4 IM Review) for Fibre.[51]

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[46] Commerce Commission "Common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) – Draft decision reasons paper" (10 March 2026) at [5.38.2].

[47] We might remove the TCSD allowance if we move to a ten-year trailing average approach and are likely to maintain the TCSD allowance if we maintain the current hybrid approach or move to a five-year trailing average approach.

[48] Commerce Commission "Common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) – Draft decision reasons paper" (10 March 2026), at [X13.4].

[49] As explained in Tranche 1 draft decision reasons paper for the common cost of capital IM review, we reviewed the approach to TCSD for both Part 6 and Part 4 regulated businesses. The specific value of the spread premium will be updated for energy businesses (Transpower and EDBs) in the next Part 4 sector specific review which is due in 2030. We also set out in our Tranche 1 draft decision proposed that we do not provide a TCSD allowance for airports services.

[50] The NSS framework allows for a flexible yield curve with the 'humped' shape often associated with bond-yield term structures. For detailed explanation on NSS approach, see Commerce Commission "Input methodologies review decisions – Topic paper 4: Cost of capital issues" (20 December 2016), Attachment H.

[51] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [6.339].

2.98 In the 2023 Part 4 IM Review, we undertook a detailed analysis of the spread premium (and TCSD). We used a sample including bonds with the target credit rating and included bonds from one tier each side of the target rating to increase the sample size and robustness of the analysis. We also considered splitting the sample based on whether we include or exclude bonds that are issued by entities that are 100% government or local authority owned.

2.99 We used the following three steps in estimating the spread premium using an econometric approach:[52]

2.99.1 first, we estimated the five-year debt premium for each individual month in the sample using the NSS curve;

2.99.2 second, we calculated the 'adjusted debt premium' by subtracting the five-year debt premium from the observed debt premium (which will have a tenor above five years); and

2.99.3 third, we estimated a constant linear relationship between the remaining term above five years and the adjusted debt premium for each sample and set the intercept of the linear slope to zero. The resulting slope is the spread premium.

2.100 We then used the NSS method as a cross-check against the econometric approach described above. The final spread premium was based on our judgement after comparing all spread premium estimates resulted from different samples and applied any necessary adjustments.

2.101 Finally, we included the negative debt issuance cost adjustment to take into account the reduced per annum issuance costs associated with longer-term debt to get the TCSD allowance.

Our initial view

2.102 Our initial view is that we should follow a similar approach to update the spread premium for fibre.

[52] Commerce Commission "Cost of capital topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [3.225.1]-[3.225.3].

Reasonableness checks

2.103 The purpose of the reasonableness checks is to test whether application of the IMs will produce commercially realistic estimates of the cost of capital. The reasonableness checks are intended to help identify any potential oddities in our estimates, which would suggest modifications should be made to the cost of capital IMs. We have undertaken reasonableness checks during the 2010 IM, 2016 IM Review, 2020 Fibre IM and 2023 IM Review.

Our current weighted average cost of capital setting

2.104 Reasonableness checks are not part of the cost of capital IMs. However, as the High Court observed, reasonableness checks are "definitely a part, and a not unimportant part, of the Commission's reasoning process leading to its IM determinations".[53]

2.105 When undertaking reasonableness checks, we currently use available information on:

2.105.1 the current New Zealand returns on government bonds (proxy for the risk-free rate) and corporate bonds;

2.105.2 historic average and expected returns achieved on the New Zealand stock and bond markets;

2.105.3 independent estimates of the post-tax WACC for providers in New Zealand, including estimates from New Zealand investment banks; and

2.105.4 the WACC estimates from overseas regulators.

2.106 Among these, we place the most weight on New Zealand-sourced WACC estimates.

Our initial view

2.107 Our initial view is that we should undertake a similar reasonableness check in Tranche 2 with updated cost of capital IMs for fibre.

2.108 In response to the Tranche 1 Issues paper, Incenta on behalf of Chorus submitted on the reasonableness checks. Incenta did not support continuing use of reasonableness checks due to the lack of comparison and errors including:[54]

2.108.1 the checks rely on the assumption that the WACC for an infrastructure service should be lower than a "market average" firm, rather than evidence of this fact;

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[53] *Wellington Airport & others v Commerce Commission* [2013] NZHC 3289, at [1208].

[54] Incenta Economic Consulting "Issues relating to common WACC elements" – 'submitting in relation to Issues paper (Tranche 1) and Draft decision-making framework paper' (report prepared for Chorus, 24 July 2025), at 7-9.

2.108.2 the historical returns to NZ firms from 1990 to the present are of little relevance to the regulatory WACC determinations, since what is relevant to investors today is future expected returns from assets of equivalent risk; and

2.108.3 some assumptions used in reasonableness checks are inconsistent or out of date. For example:

2.108.3.1 we have inconsistently used geometric or arithmetic average in different decisions; and

2.108.3.2 we have applied different market leverage ratios in different decisions.

2.109 Incenta therefore recommended the reasonableness checks not be applied or that we resolve the issues identified before undertaking reasonableness checks.[55] Chorus agreed with Incenta.[56]

2.110 We previously looked at this topic area when we set our Fibre IMs in 2020 and when we set all our Part 4 IMs to see whether the cost of capital IMs produced commercially realistic estimates.

2.111 We consider that New Zealand sourced WACC estimates should be given more weight than overseas estimates, so we have placed the most weight on NZ-sourced WACC estimates. International WACC estimates can be affected, among other things, by country-specific factors such as differences in tax regimes, monetary conditions, regulatory objectives and regimes (and WACC methodologies). In its judgement on the IMs merits appeals, the High Court agreed that "...the most helpful comparative material for cross-checking purposes comprises independent assessments of WACC in the New Zealand context".[57]

2.112 We have responded to Incenta and Chorus in our Tranche 1 draft decision paper regarding whether to include a reasonableness check or not. However, we noted above the points raised by Incenta regarding how we undertake the reasonableness checks so will review these in Tranche 2.

2.113 We therefore welcome stakeholder views on the issues that Incenta raised above, and any evidence supporting the alternatives raised by Incenta.

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[55] Ibid, at 9.

[56] Chorus "Chorus submission on Fibre input methodologies review 2027: Issues Paper (Tranche 1)" (7 August 2025), at [93].

[57] *Wellington Airport & others v Commerce Commission* [2013] NZHC 3289, at [1213].

Chapter 3 Reopening the price path

3.1 In this chapter we set out some elements of the current 'Reconsideration of a price-quality path' IM settings. The fibre IMs are based on the Part 4 sector IMs. The 2023 Part 4 IM Review resulted in amendments that may be beneficial where similar issues are faced in the fibre regime. We explore those amendments and a potential new fibre reopener.

3.2 The price-quality paths we set under Part 6 provide certainty to suppliers and end-users about limits on revenue, quality standards, and incentive mechanisms for efficiency and quality over the regulatory period. The regime also provides mechanisms to respond to change that occurs during the regulatory period.

3.3 One such mechanism, called a reopener, governs the reopening and revision of a price path after it has been determined by the Commission. Reopeners provide us with the ability to respond to certain unforeseeable costs that are beyond the control of a regulated provider.

3.4 The price-quality path reopener process refers to a series of provisions that outline the 'how' of reopening a price quality path. The reopener process in the Fibre IMs outlines when a price-quality path may be reopened and the constraints on the Commission when amending a price-quality path.[58]

3.5 We may reconsider the price path to address catastrophic events, change events, generally accepted accounting principles (**GAAP**) changes, error events, or major transactions. We are considering amendments to the rules regarding existing reopeners to clarify and improve their operation. We are also considering introducing a new reopener for individual capex proposals (**ICPs**).

Would recent Part 4 reopener amendments be beneficial to the fibre regime?

3.6 The reopener process in Part 6 is similar to the reopener process under Part 4, and the Part 4 processes have previously been amended to be more aligned with the Fibre IM reopener process.[59]

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[58] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clauses 3.9.1 to 3.9.9.

[59] See Commerce Commission "CPP and in-period adjustment mechanisms topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [5.4.1.1] and [5.14].

3.7 Several changes were made in the 2023 Part 4 IM review to address what was characterised as a relatively high level of uncertainty in the mechanisms to respond to change occurring during the regulatory period. This was driven by the reopener process having been developed and amended progressively over the years, resulting in the process in the IMs at that time not being as clear as it could be.[60] Changes were made to align the Part 4 reopener process IMs with the Fibre reopener process IMs, and further improvements to the Part 4 reopener process were based on submitter feedback.[61]

3.8 Certain reopener IM changes made under Part 4 considered specific issues that may be relevant to the Fibre IMs:

3.8.1 **Reopener event timeframe -** Providing clarity on the timeframe within which a reopener event may occur. This allows a reopener for events which may not be able, due to timing relative to when the price-quality path is being set for the next regulatory period, to be appropriately reflected in the price-quality determination for that next period.[62]

3.8.2 **Timing of costs to be included** - To allow, when amending the price-quality path following a responsive reopener event (see below), amendment of the price path to account for opex incurred or assets commissioned after the event date but before the reopener application that relates to the event.[63]

3.8.3 **Definition of costs** - Including a definition of what additional costs may encompass, in terms of a reopener event, to improve certainty.[64]

3.8.4 **Reopener thresholds** – are the current thresholds and the differences between thresholds for different types of events, appropriate?

3.9 Two classes of reopeners were subsequently introduced in Part 4 as follows:[65]

3.9.1 **Prospective reopener events** - relate to anticipated or forecast events, where a supplier will have some notice or foresight of a need to invest; and

3.9.2 **Responsive reopener events** - are those that respond to an identifiable event that has already occurred.

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[60] Ibid, at [5.12]-[5.13].
[61] Ibid, at [5.14] and [5.21].
[62] Ibid, at [5.26].
[63] Commerce Commission "Amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Final decision and reasons paper" (27 March 2025), at [2.2.2].
[64] Ibid, at [2.73]-[2.85].
[65] Commerce Commission "Proposed amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Draft decision – Reasons paper" (12 December 2024), at [3.5.3].

Definition of a reopener event (lead time)

3.10 The issue of the timeframe within which a qualifying event may occur relates to events that occur near to the end of one regulatory period but that give rise to costs in the next regulatory period and therefore require adjustment to the next regulatory period price path.

3.11 This lead time has been problematic in Part 4, where the inability to provide additional revenue in response to the additional prudent and efficient costs of responding to an event risked undermining incentives to restore supply (negatively affecting incentives to maintain quality) or to invest in response to an event.[66]

3.12 The clearest example of this is disaster response and recovery (giving rise to a catastrophic event reopener). While the cost of immediate response will be known relatively shortly after an event, identification of longer-term recovery projects and their associated costs may take longer. This lag between the event occurring, the need for an investment being know, and the costs being included in the price-quality path can give rise to arbitrary exclusion of cost recovery in a way that is not consistent with end-user benefit. The same issue may also present itself for a legislative made during one period but whose cost or quality implications do not become clear until later.

3.13 Amendments were made to the EDBs and Transpower IMs ahead of the fourth default price-quality path regulatory period/regulatory control period (**DPP4/RCP4**) that defined a 'reopener event' as an event, or a series of related events of a type specified, that occurs in the period that:[67]

3.13.1 begins on the date that is 18 months before the start of the regulatory period; and

3.13.2 ends at the end of the regulatory period.

3.14 We consider the same issues could apply to the fibre IMs, as the current maximum lead time for a reopener event that applies in the Fibre IMs is set at six months before a regulatory period.[68] Providing a timeframe for reopener events which starts in advance of the regulatory period is appropriate to allow events which may not be able, due to timing relative to when the price-quality path is being set, to be appropriately reflected in the price path for the next period. So we intend to consider if the current six months is an appropriate timeframe for Fibre.

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[66] Commerce Commission "Amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Final decision and reasons paper" (27 March 2025), at [5.6]-[5.21].

[67] Ibid, at [5.6.1].

[68] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clause 3.9.1(2).

Initial view

3.15 We need to consider whether any changes are required in relation to lead time, given Part 6 is likely to face the same issues in relation to lead time as Part 4. As noted above at paragraph 3.12, the current relatively short six-month lead time may not be adequate, and we do not consider there are any relevant difference between fibre and the Part 4 infrastructure sectors.

Reopener events (time limits and expenditure eligibility)

3.16 Under the current fibre IMs, we are considering whether costs prudently incurred to address a reopener event prior to a reopener application are eligible for inclusion in any subsequent reopener allowance determined by the Commission.[69]

3.17 Under Part 4, a reopener event allowance was introduced as a recoverable cost, which enables certain Part 4 regulated suppliers to recover costs incurred as a result of any 'reopener event' up until the date the reconsidered price-quality path takes effect.[70] This was aimed at responsive reopener events, where an ex post approach is reasonable.[71]

3.18 However, it was found that there was ambiguity regarding the mechanism that might allow ex post recovery for prospective reopener events, though these types of reopeners should only receive approval for additional expenditure on an *ex ante* basis.[72]

3.19 Amendments were made to the Part 4 IMs to clarify that reopeners may account for expenditure undertaken prior to an application in some cases (ie for responsive reopeners).[73]

Reasons to include in the Fibre IM Review

3.20 Just as the Part 4 IMs were not originally clear on the inclusion of costs in a reopener allowance incurred prior to a reopener application, the fibre IMs may not provide sufficient clarity about the timing of eligible expenditure relative to a reopener application and the entry into effect of any reopener determination.

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[69] Ibid, clause 3.9.9 sets out the rules for amending a price-quality path after consideration.

[70] Commerce Commission "Proposed amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Draft decision – Reasons paper" (12 December 2024), at [3.8].

[71] Commerce Commission "Amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Final decision and reasons paper" (27 March 2025), at [2.55].

[72] Ibid, at [2.54].

[73] Ibid, at [2.2]-[2.48].

3.21 Given the nature of the fibre reopeners (all of them would currently fit within the "responsive" reopener event category from the Part 4 IMs) we need to consider if certainty could be improved in relation to the rules regarding whether reopeners may incorporate prudent opex or capex undertaken prior to a reopener application. Clarity will be important when undertaking a reopener to ensure the best outcome for the regulated supplier and end-users, and we welcome feedback on whether the current IM is clear with regard to the inclusion of prudent costs.

Definition of a reopener event (definition of additional net costs)

3.22 Multiple sections of the reopener IMs rely on the concept of changes to the costs (net of any compensatory entitlements), but without clarifying the scope of eligible costs or offsetting factors. [74]

3.23 The fibre IMs do not specify which costs qualify as contributing to a change in costs and how to treat tax, insurance proceeds, or interactions with capex/opex categories.

3.24 Part 4, following recent changes, specifies what is included in additional net costs, which reduces ambiguity and compliance risk.75, 76 This raises the question, given we expect to deal with similar drivers of reopeners under Part 6, as to whether the Fibre IMs should also provide a more detailed definition of costs that are in scope for a reopener decision.

Reasons to include in the Fibre IM Review

3.25 As with Part 4 IMs, we consider certainty for suppliers and consumers about what types of costs may be subject to a reopener (and which compensatory offsets are included) could be improved. For example:

3.25.1 it is not explicit whether capital costs are assessed on a total capex basis, or on a return on/of capital basis;

3.25.2 it is not clear how costs other than opex or capex (eg, tax costs) are treated; and

3.25.3 in Tranche 1, the treatment of insurance and other entitlements in relation to reopeners have been clarified.

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[74] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clauses 3.9.3(1)(c), 3.9.4(1)(b), 3.9.9(1), and 3.9.9(2)(a)

[75] For example, see the definition of additional net costs in *Electricity Distribution Services Input Methodologies Determination 2012*, as consolidated on 23 June 2026, clause 1.1.4(2).

[76] Commerce Commission "Amendments to input methodologies for electricity distribution businesses and Transpower (reopeners and other matters) – Final decision and reasons paper" (27 March 2025), at [2.73.2].

3.26 In addition to improving certainty, we consider there is an opportunity to reduce the regulatory cost and complexity of the reopener regime by ensuring the right information in support of a reopener is provided and that decisions can be made promptly. More clarity regarding which costs are eligible for consideration after a reopener should avoid questions and debate about the eligibility of certain cost categories.

Reopener thresholds

3.27 Different reopener categories have their own materiality "threshold" that needs to be met to qualify as a reopener. For catastrophic events, change events, and GAAP changes the threshold is that it is greater than 1% of forecast allowable revenues (**FAR**). For major transactions the threshold is 10% of the opening RAB value. While error events do not have a threshold.[77]

Reasons to include in Fibre IM Review

3.28 We note that there are inconsistencies between the thresholds for different categories of events both in terms of how they are expressed (in revenue terms versus cost terms) and in what the threshold is (for example, there is no threshold for error events).

3.29 Part 4 has generally adopted a uniform cost-based threshold, providing more predictable, though static triggers. For Transpower the threshold is $5 million, which is lower than the current effective Chorus threshold, given 1% of Chorus' FAR is greater than $10 million.[78]

3.30 We note that, as part of considering various potential reopener changes, it is reasonable to consider if any threshold changes would improve the operation of the reopener mechanism. Reopeners should provide an appropriate balance of incentives to invest, with reopeners available for more material events whilst maintaining an incentive on suppliers to efficiently prioritise work programmes for smaller events or programmes of work.

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[77] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clauses 3.9.3(1)(c)(i), 3.9.4(1)(b), 3.9.5(1)(b), 3.9.6 and 3.9.7.

[78] *Transpower Input Methodologies Determination 2012*, as consolidated on 1 April 2025, for example 3.7.4(1)(iv). However, we note that the error event threshold is $100,000.

3.31 Changes were made in Part 4 IMs on the basis that there may be certainty and compliance cost benefits from a more consistently defined and uniform set of thresholds.[79] One particular benefit that the Part 4 review identified was providing incentives to invest, where capex investments in response to catastrophic events would be treated equally to opex, and would promote efficiency because a potential bias, in this case towards opex, would be removed.[80]

Price-quality path reopener for approved individual capital expenditure allowances

3.32 We are considering if we should introduce a new reopener for approved individual capex proposals (ICPs). The ICP mechanism is briefly explained in our Tranche 1 draft decision paper.81 The ICP mechanism is unique to Part 6.

3.33 Chorus may apply for an individual capex allowance, additional to base capex, for a project or programme forecast to cost over a specified value threshold over the life of the project or programme via an ICP.[82] While an approved ICP, given it must be additional to base and connection capex allowances, requires an adjustment to the price path originally set, we do not currently reopen the path.

3.34 The impact of the ICP is instead added to Chorus' wash-up balance.[83] The wash-up mechanism provides for any over-recovery or under-recovery of revenues by the regulated provider in the previous regulatory period. The wash-up for the ICP is detailed in clause 3.1.1(11)(d). The calculation is of any ICP's impact on "actual allowable revenue", where we add the incremental impact of the ICP to allowable revenue.

3.35 As the fibre IMs do not currently provide the ability to adjust the MAR during the period for approved ICPs, the potential revenue recovery is delayed until the recovery of the wash-up balance within which it is included can commence in the next regulatory period.[84]

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[79] Commerce Commission "Report on the IM review 2023: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [8.32]-[8.32.3]; and Commerce Commission "CPP and in-period adjustment mechanisms topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [7.6]-[7.68].

[80] Commerce Commission "CPP and in-period adjustment mechanisms topic paper: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [7.26]-[7.27].

[81] Commerce Commission "Fibre input methodologies review (Tranche 1) – Draft decision reasons paper" (17 March 2026), at [5.43]-[5.46].

[82] See *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clause 3.7.22(3).

[83] Section 196 of the Act sets out that we must apply a wash-up mechanism for every regulatory period (except the first) that starts before the 'reset date'. The process for the Governor-General to declare a reset date is set out in s 225.

[84] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clause 3.9.1(3) lists reopener events. Clause 3.7.28 sets out the Commission processes for a final individual capex proposal.

3.36 In Part 4 there are in-period revenue path amendments but only for large capex projects. For example:

3.36.1 the EDB IMs include for default price paths (**DPPs**) under reopener events an unforeseeable large project and a foreseeable large project;[85] and

3.36.2 the Transpower IMs include a prospective reopener event for an anticipatory capacity project.[86]

Reasons to include in the Fibre IM Review

3.37 Chorus has previously submitted that the delay in the ability to recover the costs creates a cash shortfall. This is an issue especially for larger programmes of work and/or longer regulatory periods. In particular, Chorus said that an approved ICP allowance should result in an in-period updating of the PQ path to enable Chorus to recover the costs and efficiently finance its operations each year.[87]

3.38 We need to consider whether the likely benefits of amending the fibre IMs to allow for a PQ path reopener for approved ICPs outweigh the likely costs. We note that a reopener brings with it costs that need to be weighed against the forecast benefits of allowing potential recovery of the ICP costs to begin earlier than is currently allowed via the wash-up mechanism.[88] Given Chorus' submission on the Open letter mentioned the possibility of a materiality threshold, this may be one way to seek to ensure the benefits of a reopener will exceed the costs.[89]

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[85] *Electricity Distribution Services Input Methodologies Determination 2012*, as consolidated on 23 June 2026, clause 4.5.1(3).

[86] *Transpower Input Methodologies Determination 2012*, as consolidated on 1 April 2025, clause 3.7.2(2)(b).

[87] Chorus "Submission on Open letter on Fibre Input Methodologies Review" (29 April 2025), at 9.

[88] The reopener will simply, potentially, mean that recovery can commence earlier. It does not change the amount recovered in real terms, as the wash-up is NPV neutral.

[89] Chorus "Submission on Open letter on Fibre Input Methodologies Review" (29 April 2025), at 9 and 10.

Chapter 4 Individual capital expenditure proposals – conditions and ringfencing

4.1 This chapter discusses the issues of conditions and ringfencing in relation to ICPs. We proposed some changes to the IMs in relation to ICPs in Tranche 1. In Tranche 2, we are considering how we ensure that approval of an ICP does not give rise to perverse incentives and risk Chorus being able to extract excessive profits.

4.2 An ICP provides capex that is additional to base capex, and it addresses capex requirements where the need, economic case, and/or timing is uncertain or not foreseen at the time of submitting the base capex proposal.[90]

4.3 When Chorus is provided with additional capex under an ICP it is on the basis that it will deliver the outcomes used to justify the ICP. We need to have clear incentives to deliver the approved outcomes to avoid the risk of inefficient expenditure, contrary to s 162(b), and which also risks a failure to reflect good telecommunications industry practice, as required under clause 3.8.5(1)(a).

4.4 There are two IM rules set out within the ICP mechanism that we consider may currently be used to help ensure that Chorus uses ICP capex to efficiently deliver end-user requirements and mitigate against the use of the capex provided by the ICP for other investments while not delivering what it proposed to deliver after being granted the additional capex funding. These are:

4.4.1 the ability to impose conditions when determining an ICP (clause 3.7.28(1)(b)); and

4.4.2 a requirement that individual capex is spent on the project or programme it was approved for (clause 3.7.22((5)(a)).

4.5 The current IMs, however, lack clarity on the operation of these requirements. It is not clear:

4.5.1 if conditions that are imposed as part of the ICP approval are confirmed to be practical and that their cost is included in the approved capex;

4.5.2 how we determine the boundaries of the 'ringfence' around the approved capex as we look to determine if the ringfence has been breached; and

4.5.3 what the consequences for not fulfilling the requirements imposed by conditions or a breach of the ringfence are.

4.6 We are also interested in stakeholder views as to any other potential options to ensure that capex approved under an ICP leads to the delivery of the proposed outcomes that the approval was based on.

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[90] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clause 3.7.22(4).

4.7 We note that ringfencing – requiring that the capex is spent on the project or programme it was approved for – can be seen as type of a condition.

Individual capex proposals – conditions on approval

Current IM settings

4.8 The capex IM sets out that the Commission may impose conditions when determining an ICP (clause 3.7.28(1)(b)). If the Commission imposes conditions, it is required to include details in the determination of the ICP of those conditions (clause 3.7.28(2)(c)).

4.9 We would expect to apply conditions to seek to ensure that the benefits originally forecast from making the investment are delivered. These conditions would seek to balance incentives to invest with a restraint on excessive profits. That is, the ICP capex should be used to first to deliver the benefits set out in the proposal for the ICP, though it might also produce additional benefits or deliver additional assets. [91]

4.10 We also recognise that to be effective, the application of conditions must be restricted to ones that are practically achievable by Chorus and that we are able to enforce.

Issues with current settings

4.11 The current IM provides a wide scope for applying conditions. However, given these conditions are only required to be set out as part of the final determination of the ICP, it is possible that:

4.11.1 the costs of meeting them are not accounted for within the approved capex allowance; and/or

4.11.2 conditions are applied that are impractical to fulfil, given that these conditions may not have been analysed in detail in conjunction Chorus prior to being imposed.

4.12 There is also no mechanism in the IMs to test that the conditions have been met or impose a consequence on Chorus if the conditions have not been met. The consequence for not meeting the conditions would normally be expected to be imposed via the wash-up mechanism. However, there is no reference to the requirement to meet any conditions imposed in the current wash-up IM (clause 3.1.1(11)(d)).

[91] As an extreme example of what we would want conditions to guard against – we would not want capex approved under an ICP to be spent (perhaps funding a completely different project) and the benefits originally forecast and approved to be delivered by the project are subsequently not delivered.

An option we are considering

4.13 We are considering requiring Chorus to propose, as part of the individual capex proposal, outputs to be delivered by the individual capex allowance and any associated conditions it considered relevant to the approval. This would facilitate setting a clear measure or measures against which the compliance with conditions, demonstrating that the intended outputs have been delivered, can be measured. Such measures may be particularly relevant where there is not a direct or immediate link between a project and an existing quality standard (for example, resilience projects whose benefits relate to reducing high impact low probability (**HILP**) risks).

4.14 The measure(s), along with any associated conditions to be met, to test compliance with the ICP determination can then be analysed and clearly articulated in the determination.

4.15 We will consider amending the specification of the price and revenues IM to allow the wash-up for the ICP to be adjusted if the set measures and conditions are not delivered.[92]

Individual capex proposals - ringfencing spend

4.16 The capex IM sets out a requirement that individual capex is spent on the project or programme for which it was approved.[93] We refer to this as the expenditure being 'ringfenced'. In our original IM decisions, we explained that it is essential that individual capex is additional to capex already approved and is not used as a mechanism to dilute efficiency incentives.[94]

Current IM setting

4.17 As noted above in relation to any conditions attached to the ICP approval, the current wash-up mechanism (see clause 3.1.1(11)(d)) simply requires that the forecast building blocks revenue is adjusted to include the modelled impacts on forecast allowable revenue of the ICP. It does not contain any provision to remove from the modelled impacts any capex that is outside a ringfence condition.

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[92] For example, we could introduce a measure or measures that act, like those used for Transpower, to apply an asymmetric incentive mechanism whereby a penalty is applied if Chorus does not deliver the agreed outputs, or Chorus receives a reward for efficiency gains in project delivery. See the Transpower major capex efficiency adjustment and the major capex overspend adjustment, discussed in the Commerce Commission "Transpower Capital Expenditure Input Methodology – Reasons Paper" (31 January 2012), at Chapter 4.

[93] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clause 3.7.22((5)(a).

[94] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [7.481].

4.18 The fibre IM does not currently have a mechanism to enforce ringfencing.[95]

Our initial view

4.19 Given ringfencing is simply a condition that we consider we can impose as part of the ICP approval (clause 3.7.28(1)(b)), we are considering removing the specific ringfencing requirement from the ICP IMs, once a suitable condition mechanism is available. If we introduce a capability to adjust the wash-up for non-compliance with conditions, this will ensure any ringfencing condition can also be enforced. The ringfencing requirement does not currently have any consequences within the wash-up mechanism, and we do not see a clear, practical way to change the IMs to make it more effectively promote sections 162 and 166(2) if we are to keep it. Combining these mechanisms would simplify the IMs, reducing compliance cost and complexity without detriment to the s 162 or s 174 purposes.

4.20 Definition of outputs may be expected to provide a clear yardstick against which compliance with delivering the intended outputs of the ICP can be measured. The potential introduction of the ability to reduce the wash-up if the conditions are not delivered will also provide a potential enforcement mechanism.

New ways to ensure individual capital expenditure proposals deliver intended outcomes

4.21 As noted above, we are also interested in stakeholder submissions on other ways we might ensure ICPs deliver the outcomes intended.

4.22 This will likely involve ways to apply a consequence if conditions on which approval is granted are not met.

[95] The one ICP approved to date related to customer incentive payment expenditure. Incentive payments are payments that Chorus makes to retail service providers (RSPs) to incentivise acquisition of new customers to its fibre network or to incentivise customers to upgrade to new services. See Commerce Commission "Chorus' individual capex proposal for customer incentives 2023 – Final decision – Reasons paper" (13 December 2022).

Chapter 5 Other issues/amendments

5.1 This chapter explores three issues to help us assess whether they would or would not be useful in the future:

5.1.1 Value of commissioned assets and related party transactions (consider the applicability of recent amendments in Part 4 IMs);

5.1.2 Crown financing provisions; and

5.1.3 Introducing a more consistent treatment of the wash-up balance with that of the financial loss asset, should a deregulation event or sale of assets occur.

Value of commissioned assets and related party transactions

5.2 We noted in our Tranche 1 Issues paper that the 2023 Part 4 IM Review amended the IMs to address transaction related issues.[96]

5.3 The amendments included:

5.3.1 amending the EDB and GPB IMs to ensure GAAP applies on an arm's-length basis to the valuation of commissioned assets acquired, or forecast to be acquired, in related party transactions;

5.3.2 adding the related party transaction asset valuation rules applying to EDBs and GPBs to Airports and Transpower IMs;

5.3.3 requiring that the value of a commissioned asset that was, before its commissioning date, acquired from another regulated supplier as works under construction, is limited to the sum of:

5.3.3.1 the costs of the other regulated supplier in constructing those works; and

5.3.3.2 any additional costs of the acquiring regulated supplier in constructing the asset (excluding the amount paid to the other regulated supplier; and

5.3.4 removing the term "limited to", such that assets acquired from another regulated supplier and used by the regulated supplier in the supply of regulated goods and services must always be value at the unallocated closing RAB value of the asset that would have applied for the other regulated supplier.

[96] Commerce Commission "Report on the IM review 2023: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at Attachment A; and Commerce Commission "Fibre input methodologies review 2027 – Issues paper (Tranche 1)" (10 July 2025), at Table 5.2.

Current IM setting

5.4 Currently the Fibre IMs are aligned with the Part 4 IMs prior to the changes made in the 2023 Part 4 IM review.[97]

Our initial view

5.5 Our initial view is that we need to amend the fibre IMs to align with changes made under Part 4 in relation to these issues.

5.6 Changes were made under the Part 4 Review relating to the rules for the purchase of assets from regulated parties to prevent regulated providers overstating the costs of assets. We consider that the risk of overstatement of costs also exists under Part 6 and therefore these changes are also relevant for the Fibre IMs.

5.7 The Part 4 IM review made changes to ensure that regulated suppliers properly apply GAAP on an arm's-length basis when valuing assets acquired in related party transactions.[98]

5.8 A party regulated under Part 4 undertook a sale and leaseback transaction that highlighted that a single related party transaction might impose significant additional costs on consumers without any improvement to assets or services.[99]

5.9 The Part 4 IM review also pointed out that there was the possibility for regulated suppliers to trade works under construction at a mark-up in excess of reasonable costs. If the asset is then subsequently commissioned by the purchasing regulated supplier, the mark-up becomes part of the purchaser's RAB.[100]

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[97] See *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clauses 2.2.13(3), 2.2.13(4) and 2.2.15.

[98] Commerce Commission "Report on the IM review 2023: Part 4 Input Methodologies Review 2023 – Final decision" (13 December 2023), at [A8]-[A10].

[99] Ibid, at [A17.2].

[100] Ibid, at [A30].

Crown financing

5.10 Section 164 of the Act defines Crown financing as debt or equity financing provided by or on behalf of the Crown for the deployment of assets under the ultrafast broadband (**UFB**) initiative. The Crown provided $1.336 billion in interest-free and dividend free securities to Chorus between 2012 and 2023 to help finance the UFB initiative. [101]

5.11 The IMs calculate the impact of the benefit of Crown Financing via a specific building block.102 This building block ensures that the benefit Chorus receives from the funding (ie for the portion of the funding that remains free of interest or dividends) is accounted for and that the revenue requirement is reduced appropriately.

5.12 The Government has previously indicated that it may sell the securities. We are considering whether the Government's sale of its securities in Chorus would require us to make any amendments to the fibre IMs. Given a portion of the funding, from Chorus' perspective, will remain free of interest and dividends, we want to ensure the IM rules remain capable of recognising this benefit.

Current IM setting

5.13 Under the fibre IMs Crown financing is used in:

5.13.1 the calculation of notional deductible interest; and

5.13.2 the annual benefit of Crown financing building block for Chorus, Enable, Northpower and Tuatahi First Fibre.

Our initial view

5.14 From available evidence at the moment, our initial view is that we do not need to amend the fibre IMs for the Government's sale of Chorus securities. From what we understand, in any sale the terms of the securities would remain unchanged, and simply transfer from the Crown to another party. If this is the case, the securities will still remain Crown financing for the purposes of s 164 because it was provided by the Crown to help finance the UFB initiative. Therefore, under the fibre IMs, the treatment will remain the same, no matter who holds Crown financing.

5.15 Without further evidence of a change in the terms of the securities, we do not intend to make any changes to the IM in relation to Crown Financing.

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[101] At least for a set period of time, after which repayment or dividends may apply. See Hon N Willis, Minister of Finance, Economic Growth and Social Investment and Hon C Bishop, Minister of Housing, Infrastructure, RMA Reform and Transport "Earlier monetization of Chorus debt to the Crown" (press release, 17 December 2025).

[102] *Fibre Input Methodologies Determination 2020*, as consolidated on 3 September 2025, clauses 2.4.10 and 3.5.11.

Treatment of fibre fixed line access service wash-up account balance following deregulation or sale

5.16 We set out in our final decision in 2021 that we would treat core fibre assets and the financial loss asset (**FLA**) symmetrically and remove the cost component relating to deregulated assets. This is consistent with outcomes in workably competitive markets.[103] Clause 2.2.6 of the fibre IMs sets out that if a deregulation event occurs or some of the RAB asset base is sold a portion of the FLA is deducted via a deregulation or sale adjustment.

Current IM setting

5.17 While the wash-up account balance is similar to the FLA, currently it is not adjusted if a deregulation event or sale of assets occurs. We consider it is appropriate to review if an adjustment should be made to the wash-up account balance if either event was to occur.

5.18 The wash-up balance at the start of PQP2 was forecast at $167.1 million in present value terms.[104] It is unclear what the balance might be at the end of PQP2. Given the levels of under-recovery in PQP1 and the ongoing potential impact of factors such as inflation, the wash-up balance at the end of PQP2 may remain a material amount.

Our initial view

5.19 If (some but not all) FFLAS assets were to be deregulated, we consider that only a commensurate portion of the outstanding wash-up balance, like the FLA, should be recoverable from remaining regulated consumers. If all of the wash-up balance remains within the regulated asset base, Chorus may make excessive profits, contrary to s 162(d). We therefore need to consider introducing an IM to achieve a fair distribution of any outstanding balance between regulated and deregulated assets. Given the wash-up balance to this point has accumulated in a similar way to the FLA – via an under-recovery of revenue due to demand and pricing – this may take a similar approach to that currently used for the FLA (see clause 2.2.6).[105]

5.20 Deregulation or sale of part of the RAB without any adjustment to the wash-up balance within the RAB would mean:

5.20.1 the remaining regulated services, with a now smaller customer base, would carry the full burden of recovering the opening wash-up balance and prices of regulated services would need to rise further; and

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[103] Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [3.376] and [3.378].

[104] Commerce Commission "Chorus price-quality path for the second regulatory period (2025-2028) – final decision – Reasons paper" (13 December 2024), at [X4.3].

[105] The IMs, at clause 2.2.6, set out how the calculation is to be undertaken to determine a 'deregulation adjustment' to remove a portion of the FLA value and reduce the overall value of the opening RAB value following deregulation or sale. The approach to determining the portion of the wash-up balance to be excluded could be similar to the FLA calculations set out in clauses 2.2.6(3)(c) and (d).

5.20.2 the portion of the base that is no longer receiving regulated services would then have an artificially lowered cost base.

5.21 Like the FLA,[106] we consider that the ability to recover revenue from the wash-up asset is closely linked to the ability to recover revenue from the core fibre asset RAB. This means that, as the size of the RAB decreases as a result of removing deregulated or sold cost components, so too does a regulated provider's ability to recover the wash-up account balance via generating revenue from the core fibre asset RAB (ie, the core fibre asset).

[106] For the reasons relating to the FLA decision see Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), at [3.376]-[3.381].

Attachment A Overview of the Fibre IM Review project

A1 We commenced this review on 27 March 2025 when we issued two notices of intention and an Open Letter on the Fibre IM Review.[107]

A2 In July 2025 we published an issues paper seeking submitter feedback on the key topics we proposed to consider as part of the IM Review.[108] We also set out that the review would be conducted in two tranches. Tranche 1 focused on issues relevant to Chorus preparing and submitting its proposal for a price-quality path reset. Tranche 2 covering any matters not addressed in Tranche 1, including fibre-specific cost of capital matters.

A3 We received stakeholder submissions and cross submissions on that Tranche 1 issues paper. Having considered those submissions, and applying our decision-making framework, we formed our draft decision on Tranche 1 issues and published it for consultation.[109]

A4 Stakeholders provided their views on the draft decision through submissions and cross submissions. We have considered those views in coming to a final decision on Tranche 1 issues. Tranche 1 issues will not be reconsidered in Tranche 2.

A5 The fibre IMs (Tranche 1) final decision will be published in August 2026. In summary it includes:

A5.1 **proposing and assessing capital expenditure (capex)** - including timelines, independent verification, information requirements, and evaluation criteria;

A5.2 **investment test** - form and scope, process and consultation, information requirements and key assumptions, cost and benefits, and evaluation criteria;

A5.3 **capital expenditure flexibility measures** - connection capital expenditure and individual capex proposals;

A5.4 **treatment of insurance** - licensed insurance entitlements and self-insurance entitlements; and

A5.5 other amendments relating to efficiency and effectiveness.

A6 The draft decision on common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) was also published in March 2026.[110] The Commission is working towards a final decision.

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[107] Commerce Commission "Notice of Intention – Fibre Input Methodologies Review 2027" (27 March 2025); and Commerce Commission "Notice of Intention – Cost of Capital Review for Electricity Lines Services, Gas Pipeline Services, and Specified Airport Services" (27 March 2025).

[108] Commerce Commission "Fibre input methodologies review 2027 – Issues paper (Tranche 1)" (10 July 2025).

[109] Commerce Commission "Fibre input methodologies review (Tranche 1) – Draft decision reasons paper" (17 March 2026).

[110] Commerce Commission "Common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) – Draft decision reasons paper" (10 March 2026).

Table A.1 Fibre IM Review project timeline

Date	Publication date or key process step
27 March 2025	Open Letter and Notices of intention (**NOIs**)
10 July 2025	Issues paper on Tranche 1 issues Draft Fibre IM Review decision-making framework paper
10 March 2026	Common cost of capital input methodologies review (fibre and regulated suppliers under Part 4) draft decision package Fibre IM Review decision-making framework paper
17 March 2026	Fibre input methodologies review 2027 (Tranche 1) draft decision package
16 April 2026	Submissions on Tranche 1 draft decision and Common cost of capital closed
6 May 2026	Cross submissions on Tranche 1 draft decision closed
4 August 2026	Issues paper on Tranche 2 issues
August 2026	Final decision on Tranche 1 issues (excluding common cost of capital IMs being considered separately)
1 September 2026	Submissions on Tranche 2 issues paper closes
22 September 2026	Cross submissions on Tranche 2 issues paper closes
Q1 2027	Draft decision on Tranche 2 issues published for consultation
October 2027	Final decision package on Tranche 2 issues

Attachment B Submission process

How you can make a submission

B1 There are opportunities for interested parties to participate at each stage of the Fibre IM Review process. We are now seeking feedback on the Tranche 2 issues set out in this paper and summarised in Table X1.

B2 In providing feedback it would be helpful for stakeholders to:

B2.1 consider our decision-making framework objectives, including the requirement on the Commission to promote the Part 6 purposes and other statutory decision-making considerations, when preparing their submissions;

B2.2 provide feedback on the priority we should give to the Tranche 2 topics and issues identified in this paper;

B2.3 identify other topics and issues not covered in this paper or Tranche 1 and explain which IMs these other topics and issues relate to;

B2.4 consider our decision-making framework objectives, including the requirement on the Commission to promote the Part 6 purposes and other statutory decision-making considerations, when preparing their submissions; and

B2.5 provide details of alternative approaches to resolve any issues raised with the IMs along with supporting evidence of why those alternatives should be preferred, including considerations and challenges they would like us to consider.

B3 In identifying any further issues for us to consider, we request that submitters use our draft IM Review decision making framework paper, and particularly the s 162 purpose and s 166(2)(b) and s 174 IMs purpose of Part 6 of the Telecommunications Act (the Act); and the s 52A purpose of Part 4 and the s 52R IMs purpose in Part 4 where relevant, to show why the IM Review should cover the further topics and related potential issues.

Key dates

B4 We welcome your views on this paper by **5pm on 1 September 2026**. We will publish public versions of submissions we receive by 8 September 2026 and invite cross submissions by **5pm on 22 September 2026**.

Address for submissions

B5 Please email your submissions to Telecommunications@comcom.govt.nz with "Fibre IM Review issues paper (Tranche 2) submission – [your submitter name]" in the subject line of your email.

B6 Please email your submission in both a format suitable for word processing (such as a Microsoft Word document), as well as a 'locked' format (such as a PDF) for publication on our website.

Identifying and managing confidential information

B7 The protection of confidential information is something we take seriously. If you need to include commercially sensitive or confidential information in your submission or cross-submission, you must provide us with both a confidential and non-confidential/public version of your submission that clearly identify the confidential and non-confidential/public versions.

B8 When including commercially sensitive or confidential information in your submission, we offer the following guidance.

B8.1 Please provide a clearly labelled confidential version and public version. We intend to publish all public versions on our website.

B8.2 The responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.

B8.3 All submissions and cross submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we do not publish unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult with the party that provided the information before we disclose it to a requestor.

Attachment C Preliminary beta calculations

C1 This appendix sets out our preliminary views and some initial analysis on our approach to estimating the asset beta, equity beta, and leverage. In particular, it addresses:

C1.1 the appropriate comparator set;

C1.2 our standard approach; and

C1.3 to what extent the beta is affected by Covid-19 pandemic.

The appropriate comparator set

C2 As a starting point, we have used the previous comparator set that was initially used in setting the Fibre IMs in 2020. This set contained 56 firms, providing services across fibre, telecommunications, satellite operators and mobile towers, from countries such as New Zealand, the United States, Australia, and Japan (among others).

C3 Our preliminary view is that our previous set does not need to be expanded, as we are not aware of any new firms to include in our sample that were not assessed when deciding on the original comparator set.

C4 Since we initially set the Fibre IMs, many firms within our comparator set have delisted and share price data is no longer available for them. We have removed these from the set, to give our preliminary comparator set of 48 firms.

C5 The preliminary comparator set is outlined below in Table C1. As noted in paragraphs 2.31-2.33, we will consider further filtering as necessary.

Table C1: Preliminary comparator set for fibre

Code	Name	Exchange country	Services provided
017670 KS Equity	SK Telecom Co Ltd	South Korea	Integrated
032640 KS Equity	LG Uplus Corp	South Korea	Integrated
9432 JP Equity	NTT Inc	Japan	Integrated
9433 JP Equity	KDDI Corp	Japan	Integrated
9984 JP Equity	SoftBank Group Corp	Japan	Integrated
AMT US Equity	American Tower Corp	United States	Tower company
BCE CN Equity	BCE Inc	Canada	Integrated
BT/A LN Equity	BT Group PLC	United Kingdom	Integrated
CABO US Equity	Cable One Inc	United States	Integrated
CCA CN Equity	Cogeco Communications Inc	Canada	Integrated
CCI US Equity	Crown Castle Inc	United States	Tower company
CCOI US Equity	Cogent Communications Holdings Inc	United States	Integrated
CLNX SM Equity	Cellnex Telecom SA	Spain	Tower company
CNU NZ Equity	Chorus Ltd	New Zealand	FFLAS
DTE GR Equity	Deutsche Telekom AG	Germany	Integrated
ELISA FH Equity	Elisa Oyj	Finland	Integrated
ETL FP Equity	Eutelsat Communications SACA	France	Satellite operator
GAMA LN Equity	Gamma Communications PLC	United Kingdom	Integrated
GO MV Equity	GO PLC	Malta	Integrated
HTO GA Equity	Hellenic Telecommunications Organization SA	Greece	Integrated
INW IM Equity	Infrastrutture Wireless Italiane SpA	Italy	Tower company
KPN NA Equity	Koninklijke KPN NV	Netherlands	Integrated
LBTYA US Equity	Liberty Global Ltd	United States	Integrated
ORA FP Equity	Orange SA	France	Integrated
PROX BB Equity	Proximus SADP	Belgium	Integrated

Code	Name	Exchange country	Services provided
RCI/B CN Equity	Rogers Communications Inc	Canada	Integrated
RWAY IM Equity	RAI Way SpA	Italy	Tower company
SBAC US Equity	SBA Communications Corp	United States	Tower company
SCMN SW Equity	Swisscom AG	Switzerland	Integrated
SESG FP Equity	SES SA	France	Satellite
SHEN US Equity	Shenandoah Telecommunications Co	United States	Integrated
SLC AU Equity	Superloop Ltd	Australia	Integrated
SNC PL Equity	Sonaecom SGPS SA	Portugal	Integrated
SPK NZ Equity	Spark New Zealand Ltd	New Zealand	Integrated
ST SP Equity	Singapore Telecommunications Ltd	Singapore	Integrated
STH SP Equity	StarHub Ltd	Singapore	Integrated
TDS US Equity	Telephone and Data Systems Inc	United States	Integrated
TEF SM Equity	Telefonica SA	Spain	Integrated
TEL NO Equity	Telenor ASA	Norway	Integrated
TEL2B SS Equity	Tele2 AB	Sweden	Integrated
TELIA SS Equity	Telia Co AB	Sweden	Integrated
TIT IM Equity	Telecom Italia SpA/Milano	Italy	Integrated
TKA AV Equity	Telekom Austria AG	Austria	Integrated
TLS AU Equity	Telstra Group Ltd	Australia	Integrated
TMUS US Equity	T-Mobile US Inc	United States	Integrated
UNIT US Equity	Uniti Group Inc	United States	
VOD LN Equity	Vodafone Group PLC	United Kingdom	Integrated
VZ US Equity	Verizon Communications Inc	United States	Integrated

Our standard approach

C6 Our standard approach, which we used when we set the 2020 Fibre IMs, is to take the average of two last five-year estimates. To provide further context, we have provided the two five-year periods results based on the updated comparator set in Table C2 below.

Table C2 Updated equity beta, leverage and asset beta under standard approach

Indicator	01 Feb 2016 - 31 Jan 2021	01 Feb 2021- 31 Jan 2026	Average of the last two five-year periods
Raw equity beta[111]	0.65	0.60	0.63
Leverage	0.29	0.37	0.33
Asset beta	0.43	0.35	0.39
Equity beta[112]	0.61	0.56	0.58

To what extent the beta is affected by Covid-19 pandemic

C7 We have recently made a draft decision for the airports IMs, in which we noted that the equity beta for airports has decreased slightly in the period after Covid-19.[113]

C8 In theory, trends around increased remote working and the need for Fibre services may have changed the risk profile, in particular the covariance of returns to these firms relative to the relevant market return, for FFLAS providers, which would be reflected in a lower equity beta.

C9 To inform stakeholders on whether this is an issue, we have estimated the asset beta, equity beta, and leverage for the pre-Covid periods, Covid periods, and post-Covid periods. The results are displayed below in Tables C3 and C4.

C10 In Tables C3 and C4, it appears as though the asset and equity betas increased throughout the Covid period, staying elevated until 2024. They have since fallen back to levels broadly consistent with the pre-Covid period (when taking the average of the 2025, and 2026 estimates). We must decide whether to include, exclude, or adjust the Covid period data in some way, and how to make use of the pre-Covid data. We would welcome stakeholders' views on this issue.

[111] Note that the raw equity beta is from the comparator set.
[112] Equity beta = Asset beta /(1-leverage).
[113] Commerce Commission "Targeted amendments to the Cost of Capital Input Methodologies for Airports – equity beta and related parameters – Draft decisions reasons paper" (19 May 2026), at Table X1.

Table C3: Pre-Covid, Covid, and post-Covid average values of equity beta, leverage, and asset beta

Indicator	5 February 2009 – 31 January 2020 (pre-Covid)	1 February 2020 – 31 January 2023 (Covid period)	1 February 2023 – 31 January 2026 (post-Covid)
Raw equity beta	0.67	0.67	0.54
Leverage	0.29	0.33	0.39
Asset beta	0.45	0.42	0.31
Equity beta	0.63	0.63	0.51

Table C4: Beta and leverage estimates for years commencing 1 February

Indicator	01 Feb 2016 - 31 Jan 2017	01 Feb 2017 - 31 Jan 2018	01 Feb 2018 - 31 Jan 2019	01 Feb 2019 - 31 Jan 2020	01 Feb 2020 - 31 Jan 2021	01 Feb 2021 - 31 Jan 2022	01 Feb 2022 - 31 Jan 2023	01 Feb 2023 - 31 Jan 2024	01 Feb 2024 - 31 Jan 2025	01 Feb 2025 - 31 Jan 2026
Raw equity beta	0.79	0.51	0.58	0.47	0.68	0.61	0.66	0.69	0.54	0.42
Leverage	0.27	0.27	0.28	0.31	0.33	0.32	0.35	0.39	0.39	0.39
Asset beta	0.53	0.34	0.40	0.28	0.43	0.42	0.40	0.39	0.31	0.24
Equity beta	0.73	0.47	0.56	0.41	0.64	0.62	0.62	0.64	0.51	0.39

Attachment D Glossary

Term/Abbreviation	Definition
the Act	Telecommunications Act 2001
Commission	Commerce Commission
Capex	Capital expenditure
CAPM	Capital asset pricing model
DPP	Default price-quality path regulatory period
DPP4/RCP4	The fourth default price-quality path regulatory period/regulatory control period
EDB	Electricity distribution business
FFLAS	Fibre fixed line access service
FLA	Financial loss asset
FAR	Forecast allowable revenue
GAAP	Generally accepted accounting principles
GPB	Gas pipeline businesses
HILP	High impact low probability
ICP	Individual capex proposal
ID	Information disclosure
IM	Input methodology
LFC	Local fibre company
MAR	Maximum allowable revenue
NPV	Net present value
NSP	Network service provider
NSS	Nelson Siegel Svenson method
Part 4	Part 4 of the Commerce Act 1986
Part 6	Part 6 of the Telecommunications Act 2001
PQ	Price-quality
PQP1	Price-quality path for the first regulatory period (2022-2024)
PQP2	Price-quality path for the second regulatory period (2025-2028)
PQP3	Price-quality path for the third regulatory period (2029-2033)
RAB	Regulatory asset base
Regulations	Telecommunications (Regulated Fibre Service Providers) Regulations 2019
RCP	Regulatory control period
RORI	Rate of return instrument

Term/Abbreviation	Definition
S&P	Standard and Poor
SBL-CAPM	Simplified Brennan-Lally capital asset pricing model
TAMRP	Tax-adjusted market risk premium
TCSD	Term credit spread differential
UFB	Ultrafast broadband
WACC	Weighted average cost of capital