Cross-submission on Commerce Commission Fibre Regulation Emerging Views Paper

31 July 2019

Executive summary

2degrees welcomes the invitation to cross-submit in relation to the Commerce Commission's fibre Input Methodologies (IMs) Emerging Views Paper.

The content of this response reflects the limited time for cross-submissions and focusses on key high-level issues.

We have the following general comments:

- The potential for competition with Chorus is a particular distinguishing characteristic of fibre services regulated under Part 6 of the Telecommunications Act compared to services regulated under Part 4 of the Commerce Act. Another critical distinguishing characteristic is the prospect for differentiated access products, including Layer 1 and Layer 2 services.
- We agree with the other RSPs that these factors mean the Commission should adopt a more prescriptive approach to cost allocation (and pricing) in the Part 6 IMs than it has adopted for the Part 4 Commerce Act IMs.
- We agree with the other RSPs that the Commission needs to address double-recovery between Chorus' copper and fibre services, just as it will for fibre and electricity services provided by the LFCs. We agree with the other RSPs that failure to address this issue would result in Chorus extracting excessive profits.
- We agree with the other RSPs that financial losses (if any) should be determined on an incremental or avoidable cost basis. We also agree that inclusion of common and shared costs would result in Chorus extracting excessive profits (capitalised in the Regulatory Asset Base (RAB)). Chorus' defence of the OVABAA methodology appears to provide (unintended) support for adopting an incremental cost approach to financial losses.
- While we are not responding to Chorus and related parties submissions' detailed points on WACC given time restraints, we note most of this material covers ground which would be largely familiar to those involved in the review and establishment of the Part 4 WACC IMs, including matters such as whether there should be a 5 or 10-year risk free rate etc. We haven't seen anything that makes us think the Commission should adopt a different approach to that under Part 4 of the Commerce Act, or that the asset beta should be increased.
- We do not consider an above mid-point WACC has been justified by Chorus or its consultants. The HoustonKemp report Chorus relies on appears to suffer from the same criticisms the High Court made in relation to the Commission's original Part 4 75th percentile WACC decision - with analysis based on subjective judgement and lacking robust evidence.

The remainder of our cross- submission is set out as follows:

- Section 2 sets out substantial common ground amongst RSPs.
- Section 3 sets out how the immaturity of the new Part 6 regime creates risks for end-users.
- Section 4 sets out the distinction between IM and Price Quality (PQ) determinations.
- Section 5 sets out 2degrees' concerns about loose cost allocation rules and the proposed method for determination of financial losses.
- Section 6 sets out why Chorus' comments on double recovery are unsound.
- Section 7 sets out why 2degrees does not support Chorus' attempts to get a higher WACC, including above mid-point WACC.

1 Common ground amongst RSPs

There continues to be a large amount of common ground amongst RSPs. We commented in response to the Commission's previous consultation that there was a large amount of common ground between the RSPs, InternetNZ and TUANZ. While InternetNZ and TUANZ haven't individually submitted in response to the latest consultation, the large degree of common ground amongst the RSPs continues, including but not limited to:

- **Recognition the potential for competition, including infrastructure competition, is a distinguishing feature between fibre and energy**

  Vodafone, for example, submitted that "More needs to be done to promote competition incentives" and "The most important difference between the Part 6 fibre regime, and regulations set under Part 4 of the Commerce Act is the level of current and potential competition. To date the Commission has not fully considered the implications of competition. Without making some critical changes the LFCs will be faced with significant perverse incentives".[1]

  Axiom similarly commented "the single most significant contextual difference between the Part 6 and Part 4 arrangements" is that "there is substantially more scope for the Commission's Part 6 IMs – and especially its cost allocation IM – to impact upon *actual* competition in *real* markets. That was not the case under Part 4, where the primary question was how to promote outcomes *consistent with* those produced in workably competitive markets – a largely *hypothetical* exercise" [footnote removed].[2]

- **A more prescriptive approach should be undertaken for the Cost Allocation IM and other elements of the IMs that could impact on competition**

  For example, Trustpower submitted "… we suggest that the Commission errs on the side of prescription in relation to this IM, particularly in those sensitive areas where a misallocation of costs are likely to impact competition".[3]

- **Cost allocation between different FFLAS needs to be resolved**

  For example, Vector Fibre submitted "Cost allocation rules are required between layer 1 services, which will be key inputs to competitive services, and layer 2 services that Chorus and the LFCs provide; … Layer 1 services are a current issue, notwithstanding that the Commission may not set price caps at this point. From 2020, Chorus and LFCs must provide unbundled fibre services".[4]

- **Pricing Principles should be adopted**

  For example, Spark submitted "… the lack of certainty on how the Commission will apply pricing principles in the Act is a significant concern for us. Access seekers are planning investment and architectures today, which will be impacted by future pricing decisions".[5]

- **There is benefit in providing certainty over pricing for different FFLAS services**

  For example, Axiom submitted "businesses are likely to be investing very large sums of money on 5G mobile networks in coming years, and it is important for them to know the methodologies that the Commission will use to determine 'cost-reflective' tariffs for key inputs such as DFAS now – even if the maximum prices themselves cannot be determined by the Commission prior to a s.207 review".[6]

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[1] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 1.
[2] Axiom Economics, Fibre regulation emerging views, July 2019, section 2.2.1.
[3] Trustpower, Trustpower Submission: Fibre Regulation Emerging Views, 16 July 2019, para 3.6.2.
[4] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, paras 37, 38.
[5] Spark, Fibre regulation emerging views: technical paper, 16 July 2019, page 1.
[6] Axiom Economics, Fibre regulation emerging views, July 2019, section 3.2.2.

- **Chorus must not be excessively rewarded for participating in the UFB**

  For example, Vodafone "… recommend that the key guiding principle the Commission should apply in calculating of the losses is: Ensure the LFCs are neither punished nor excessively rewarded for their decision to participate in the UFB initiative. In other words, set the losses so that the LFCs are economically indifferent to the investment (when the appropriate costs of capital and discount rates are taken into account). Indifference is a central concept in economics, and underpins the NPV=0 approach of the building block model that the Commission has proposed to apply".[7]

- **The Commission needs to ensure Chorus isn't over-compensated for financial losses**

  For example, Vector Fibre submitted "We note that, if financial losses are overstated, then customers will be burdened with excessive prices for years to come, which would also be inefficient and inequitable".[8]

- **The financial cost determination needs to take into account tax-benefits from losses**

  For example, Vodafone submitted "the Commission's proposed approach ignores a potentially significant tax benefit. If losses are actually incurred in any year an LFC will be able to use these losses to off-set its tax burden in other parts of its wider business. The Commission acknowledges this benefit exists, but fails to account for it. This benefit must be subtracted off the losses calculation".[9]

- **Financial losses should be calculated on an incremental cost basis, and should exclude all pre-existing assets as at 2011**

  For example, Trustpower noted "Section 177(3)(a) provides that "In determining the financial losses under subsection (2), the Commission— (a) must take into account any accumulated unrecovered returns on investments made by the provider under the UFB initiative". … Necessarily, these investments under the UFB initiative were made post-2011".[10]

- **Chorus' own submission points on OVABAA provide clear (inadvertent) support for calculating financial losses on an incremental cost basis, and for Vodafone's position that suppliers in workably competitive markets evaluate investment opportunities on an incremental cost basis**

  Chorus submitted "It is efficient to incentivise a regulated business to use regulated assets to also provide unregulated services if the regulated business is able to recover at least the incremental costs of doing so. However, under ABAA, the costs that would be allocated to the unregulated activity could exceed incremental cost because this is an accounting method, rather than an economic allocation. Therefore there is a risk that ABAA could make the provision of an unregulated service uncommercial and unprofitable even if it is efficient. This is a risk that the Commission identified in the Part 4 context, and therefore allowed for the use of OVABAA. The same reasoning supports its inclusion in the Part 6 IMs".[11]

- **There were a number of submissions that the burden of proof should be on Chorus to prove it has incurred financial losses**

  For example, Spark submitted: "… the Commission assessment of past losses should focus on identifying the losses that Chorus and LFCs were consciously incurring on the understanding that they would be allowed to over recover in the future to compensate … if Chorus can identify the losses through that period that it had a reasonable expectation of recovering in the future, then the Commission should consider the proposal …"[12]

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[7] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 7.
[8] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, para 24.
[9] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 5.
[10] Trustpower, Trustpower Submission: Fibre Regulation Emerging Views, 16 July 2019, paras 3.5.6 and 3.5.7.
[11] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, para 104.
[12] Spark, Fibre regulation emerging views: technical paper, 16 July 2019, paras 46–48.

- **There was notable scepticism about whether Chorus had incurred any financial losses given the evident profitability of Chorus**

  For example, Vodafone submitted "We remain of the view that Chorus in particular does not look or act like a business that has suffered any losses. In the last submission, we highlighted the very healthy return on investment that Chorus earned over the losses period. We are unsure how the Commission can simply ignore this fact and proceed with an approach that will allow Chorus to artificially inflate its asset base to the detriment of end-users".[13]

- **The Commission needs to address double-recovery between copper and fibre**

  For example, Vocus submitted "double-recovery of copper and fibre needs to be addressed to limit excessive profits".[14] Vocus went on to provide guidance about how the Commission could address double-recovery, as did Vodafone.

  Axiom discussed how Chorus would have incentives to "allocate a disproportionate share of the costs (and assets) that are common across its fibre and copper networks to the former…"[15] This would make commercial sense for Chorus. As Axiom went on to point out "The greater allocation to FFLAS would increase its revenue cap – leading to higher returns on those services. Moreover, the reduced allocation to copper would not affect its returns from those services, since they are subject to legacy prices".[16]

- **WACC should be set at mid-point**

  The view that WACC should be set at mid-point didn't get much airing from RSPs, given they had covered this point in earlier submissions. Trustpower submitted "We … agree with the Commission that an uplift to the weighted average cost of capital (WACC) is not required. Under-investment risks and consequences are likely to be less significant in a fibre context than in the electricity sector"[17] and "we also question whether there are many opportunities for under-investment when regulated suppliers have committed contractually to deploying the fibre network. This would also suggest an uplift is not required".[18]

  Link Economics submitted "A comparison of investment incentives between electricity distribution and telecommunications indicate that there are a number of reasons why underinvestment is less likely to occur for fibre networks…To the extent that there are underinvestment concerns, these are better addressed through quality measures than through a WACC uplift, especially in light of the investment distortions that could result…"[19]

  Vocus submitted they "… fully support … application of a mid-point WACC percentile consistent with copper (Telecommunications Act) and airports (Part 4 Commerce Act)".[20]

- **While some details may need to be updated, the existing service quality measures play an important role and should be retained.**

  For example, Vodafone submitted "We would like to see the Wholesale Service Agreements (WSAs) agreed by the industry continue into the new regime. These agreements are the result of hard fought negotiations and represent an effective compromise that is delivering good results for end-users", and "If the WSAs are terminated and unsatisfactory agreements are established in their place, it seems unlikely that the quality measures proposed by the Commission will be a sufficient replacement."[21] Spark submitted "We would like to see the Wholesale Service Agreements (WSAs) agreed by the industry continue into the new regime…"

[13] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 15.
[14] Vocus, Fibre regulation emerging views, 16 July 2019, after para 70.
[15] Axiom Economics, Fibre regulation emerging views, July 2019, section 2.2.
[16] Axiom Economics, Fibre regulation emerging views, July 2019, box 2.1.
[17] Trustpower, Trustpower Submission: Fibre regulation Emerging Views, 16 July 2019, para 3.7.2.
[18] Trustpower, Trustpower Submission: Fibre regulation Emerging Views,, 16 July 2019, para 3.7.4.
[19] Link Economics, Report on the Commerce Commission's Emerging Views on Fibre Regulation, 15 July 2019, page 3.
[20] Vocus, Fibre regulation emerging views, 16 July 2019, para 6.
[21] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019.

2 The immaturity of the new Part 6 fibre regime creates risks for end-users

The Commission should determine the scope of regulated services (costs and assets)

In our submission we noted we do not support the suggestion "Chorus and the other LFCs will need to determine which of the services they offer are regulated, and which assets are employed, wholly or partly, in the provision of those services".[22] We consider the Commission should provide regulatory direction about what costs and assets qualify for inclusion in the regulated fibre business.

One of the examples we used to illustrate this point was Chorus' claim FFLAS does not include ICABS. Our concerns are reinforced by Chorus' submission which appears aimed at minimising the scope of FFLAS regulation. For example, despite clearly being included in the legislation Chorus' submission states "We disagree that backhaul services, like ICABS for layer 1 services, are included under the FFLAS definition as they are beyond the layer 1 POIs ..."[23]

Chorus' proposed transitional arrangements include unacceptable short-cuts

Our submission raised concerns about the types of regulatory short-cuts proposed by Chorus, and how this would leave access seekers and end-users exposed to insufficient checks and scrutiny of current and projected costs for the first regulatory period. The risk is particularly pronounced as the Part 6 Telecommunications Act regime is new and there isn't the history of Asset Management Plan (AMP) disclosure that existed in electricity and gas when Part 4 was introduced. Our concerns are reinforced by Chorus' submission on transitional arrangments including, for example, Chorus':

- continued attempts to soften the service quality component of price-quality regulation, including by arguing "Quality targets … should focus on targets rather than strict standards"; and
- advocacy for "A modified approach is also appropriate for some expenditure process and evaluation requirements given the challenging timeframes to implement a new regulatory regime".[24] Examples of unacceptable modifications include the limits Chorus wants to place on the role of the Independent Verifier and in relation to consultation.

For the avoidance of doubt, we are cogniscant regulation will need to evolve, and acknowledge that the role of incentive mechanisms under Part 4 of the Commerce Act has expanded over time, including that IRIS initially applied to Transpower but not other regulated suppliers, and service-quality revenue links are something that was tentatively introduced for the 2015 price-quality resets.

The Commission lacks the safeguards it has with Part 4 Commerce Act price control

2degrees is concerned any Chorus-provided supplier proposal or other financial information and expenditure forecasts (AMP material) might not receive the scrutiny needed to ensure Chorus is limited in its ability to extract excessive profits. This is particularly the case if Chorus was to get its way in limiting Independent Verification, limiting the Commission's own consultation, and not undertaking any consultation itself on its draft supplier proposal (if applicable) before submitting it to the Commission.

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[22] 2degrees, Submission on Commerce Commission Fibre Regulation Emerging Views Paper, 16 July 2019, page 10.
[23] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 78.
[24] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, page 24.

The concerns we raise below in this respect blur both IM setting and the price-quality determination, and highlight the risk of taking a less prescriptive approach to the IMs, which relies on Chorus' discretion and judgement. The comments also have direct relevance for the nature of any supplier proposal requirements that may be specified in the IMs and for our re-opener recommendations.

Our concerns are particularly acute given experience with Chorus' cost estimates for TSO and TSLRIC. The Commission was not able to rely on any of the Chorus' TSO or TLSRIC estimates and they were widely different (higher) than the Commission's determinations:

- In relation to Chorus' submission of a TSLRIC calculation for copper services, the Commission concluded Chorus hadn't presented it with an appropriate TSLRIC-model that could be used to set the prices of the UCLL and UBA services[25]. For example, "Chorus' cost model does not reflect the costs of an efficiently built network. It is primarily a top-down model based on Chorus' copper network with some minor efficiency adjustments, rather than a bottom-up model based on an optimised MEA network with significant efficiency adjustments applied where needed"[26] and "Chorus' cost model is not consistent with our framework".[27]

  Chorus submitted its own cost model developed by Analysys Mason. The Chorus model calculated prices $74.10 for UCLL, and $16.57 for UBA (total = $90.67).[28] The Commission's determination was less than half Chorus' proposal with the highest price being in year 5 and set at $42.35.[29]

Table X1: Basic UBA monthly rental prices

Service	Year 1	Year 2	Year 3	Year 4	Year 5
Basic UBA additional costs	$11.44	$11.22	$11.01	$10.83	$10.67
UCLL	$29.75	$30.22	$30.70	$31.19	$31.68
Basic UBA (total)	$41.19	$41.44	$41.71	$42.02	$42.35

- In the case of the TSO, Telecom [now Chorus] managed to more than double the estimate it had provided under Information Disclosure. The Telecom [Chorus] TSO net cost estimate was originally $167m (2000/2001), when it was used for information disclosure only, then jumped to $408m (2001/02), after the Telecommunications Act enabled Chorus to recover a share of the net costs from its competitors. Both these estimates are substantially higher than the Commission's determinations of the network cost of the TSO: $65.57m (2001/02), $56.75m (2002/03), and $69.72m (2008/09, draft in the final year the Commission calculated the cost – this was never finalised given legislative changes etc).

The dynamics of Chorus' regulatory engagement strategy is particularly concerning in relation to the new Part 6 regime as the Commission won't have the same luxury of time it had to make the TSO and TSLRIC determinations (including doing its own cost calculations), and given the immaturity of the new fibre regime.

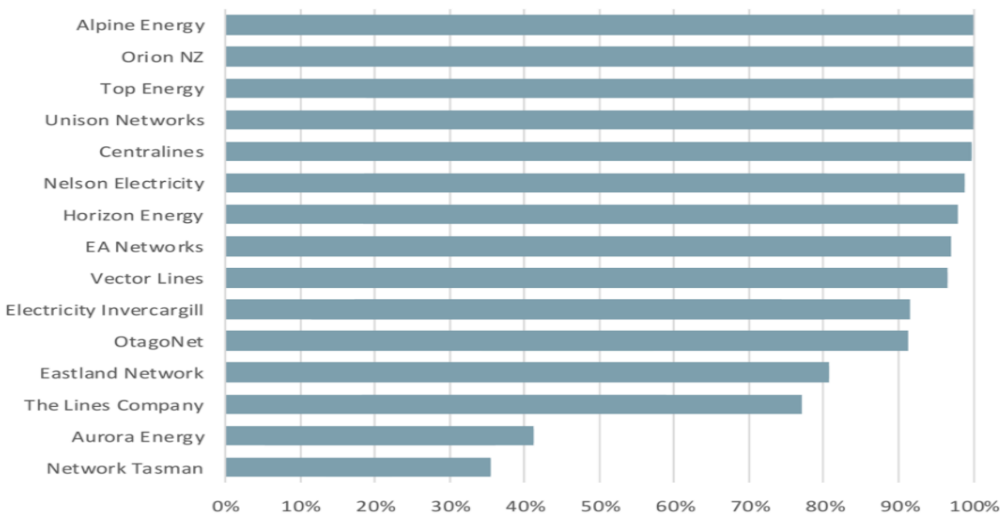
[25] Commerce Commission, Final pricing review determination for Chorus' unbundled copper local loop service, 15 December 2015, para Q23.
[26] Commerce Commission, Final pricing review determination for Chorus' unbundled copper local loop service, 15 December 2015, para Q20.
[27] Commerce Commission, Final pricing review determination for Chorus' unbundled copper local loop service, 15 December 2015, para Q21.
[28] Commerce Commission, Final pricing review determination for Chorus' unbundled copper local loop service, 15 December 2015, para Q4.
[29] Commerce Commission, Final pricing review determination for Chorus' unbundled bitstream access service, 15 December 2015.

The gaps between what Chorus proposed and the Commission's determinations are particularly stark when compared with Transpower's IPP proposals, and the CPP proposals of Orion, Powerco and Wellington Electricity. The recent draft electricity DPP determination reflects that the Commission has generally been able to rely on EDB supplier opex and capex forecasts, as was the case with the previous gas DPP determinations.

Past comparisons between the opex the Commission previously allowed for and actual expenditure have a high degree of alignment.[30,31] We note the Commission forecast of opex (based on econometric modelling) was more accurate than the EDB AMP forecast of opex, and we would expect the same in relation to Chorus.

In relation to capex, the Commission has been able to draw sufficient comfort based on past experience that acceptance of 95+% of the capex forecast in supplier AMPs is appropriate in the majority of cases.[32]

Figure X7 Capex forecast acceptance rates



The specific case of Aurora simply reflects the design of the DPP/CPP regime that isn't relevant to fibre regulation. The substantial increase in asset replacement and renewal expenditure is well in excess of the levels the Commission would scrutinise under a DPP, and would require a CPP for approval.[33] More relevant are the cases of Network Tasman and The Lines Company: "Network Tasman and The Lines Company are forecasting levels of expenditure increases that, in some cases, are justified by other information presented in their AMPs. However, <u>given a history of over-forecasting</u> in their past AMPs, <u>we do not have confidence that this expenditure will be delivered</u>, so have set their allowances based on historical levels of capex" [emphasis added].[34]

The experience with the Transpower IPP supplier proposal also highlights the Commission has been able to establish a high degree of confidence in the proposed expenditure. The Commission's overall estimated maximum allowable revenue for each of the 5 years 2020/21 to

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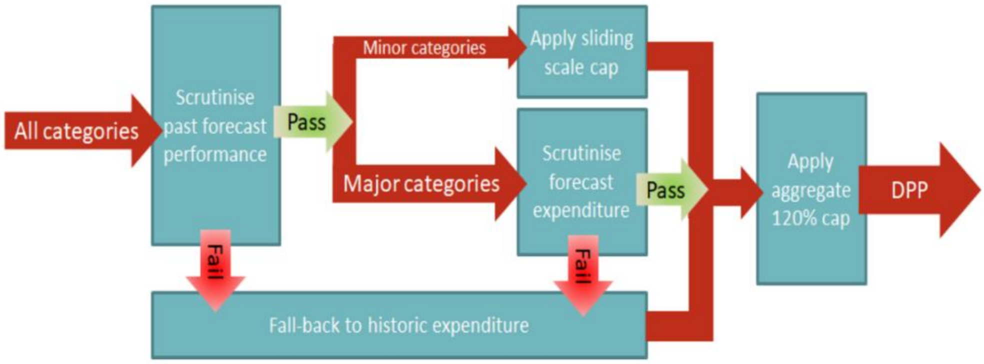
[30] Commerce Commission, 2020-2025 price-quality paths for EDBs and Transpower, Draft decisions, 29 May 2019.
[31] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019.
[32] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019.
[33] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para X48.
[34] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para X49.

2024/25 (based on the draft decisions) was within 95.9 and 97.2% of the amount Transpower had proposed.[35]

While AMP disclosure is a core part of the operation of Part 4 price-quality control that has been in place since the Electricity Information Disclosure Regulations 1999, price-quality regulation is new and immature for Part 6 Telecommunications Act fibre regulation. We are concerned Chorus does not have a history or incentive to accurately forecast supplier costs in its proposals.

Under Part 4 of the Commerce Act, the Commission has managed its "concern … about the possibility of capex forecasts being inflated in order to increase revenues … and the incentive benefits distributors would receive"[36] by application of a series of quantitative 'checks' to the regulated suppliers' forecasts (see Figure 5.6 below[37]). These include a number of checks based on historic expenditure, including comparison of each regulated supplier's average AMP forecasts against actual expenditure, and comparisons of forecast expenditure against historical expenditure.

Figure 5.6 Flow diagram of recommended approach



The Commission has noted, in relation to electricity capex forecasting, that:

- "the accuracy test we apply ensures we do not rely on AMPs where there is a proven record of AMP forecast costs being an unreliable indicator of future costs"[38] ; and
- "distributors who have a record of higher quality forecasting are rewarded for this with more tolerant allowances".[39]

The Commission's approach for the gas pipeline DPP in 2017 also took an approach that relied on historic AMP information to scrutinise AMP forecasts, including:

- "comparing category level AMP forecasts to a historical baseline"; and
- "the use of a 'fall-back' to historical levels of expenditure where the forecast expenditure could not be justified".[40]

[35] Commerce Commission, Transpower's individual price-quality path from 1 April 2020, Draft decisions and reasons paper, 29 May 2019.
[36] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para 5.68.
[37] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019.
[38] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para 5.70.2.
[39] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para 5.70.3.
[40] Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision, Reasons paper, 29 May 2019, para B8.

Even with 20 years of experience and disclosure, the Commission is still expanding and refining the requirements that the type of scrutiny the AMP disclosures and reporting is subject to. For example, the Commission's draft transmission IPP determination sets further reporting requirements to measure progress in relation to asset health and criticality, and requires a mid-RCP3 expert review of asset management.

The Commission won't have all the information available in relation to Chorus it currently has to scrutinise regulated suppliers under Part 4 of the Commerce Act, and will have to find other ways to gain surety about the information it is relying on to calculate current and future costs, including a lower level of reliance on supplier information, econometric techniques (as used for electricity opex forecasts) etc.

While the Commission won't be able to apply the types of scrutiny to past forecast performance it is applying to EDBs' AMP capex forecasts, it will be able to undertake this scrutiny during the regulatory period (*ex post* rather than *ex ante*). This may warrant re-opener provisions that would allow the price-quality path to be adjusted if Chorus' actual capex and/or opex was substantially below the levels in its proposals and allowed for in the price path, at least for the first regulatory periods.

2degrees considers the Commission should rely less on Chorus' AMP than it has been able to for electricity and gas businesses under Part 4 of the Commerce Act, and should explore deriving its own independent capex forecast series.

3 The IM versus PQ determination

Chorus' submission appears to conflate the Input Methodology and Price-Quality determination.

Chorus submitted that: "The Commission has stated that the asset valuation IM will not contain a 'dollar value' for determining the initial RAB. Given this view, it's important that a base 'dollar value' for the initial RAB is set by the Commission in a PQD as soon as possible after the final IMs are set. Our view is that the Commission is required to determine a value for the initial RAB as early as possible because the BBM cannot be facilitated without the Commission determining the RAB well ahead of setting the MAR." [41]

We consider it self-evident that the RAB IM will not contain a *"'dollar value' for determining the initial RAB"*. An IM is a methodology for determining the value of certain costs (asset value, WACC etc) not the actual determination itself. In addition, the initial RAB value is simply one component of the building blocks used to establish the price-quality determination and MAR. There is nothing about the initial RAB value that means it needs to be determined ahead of time or *"as early as possible"*.

Chorus' claims about the need for certainty over the initial RAB value seem to be in direct conflict with the High Court in the Part 4 IMs Merit Appeal decision. Chorus has claimed:[42] "It is critically important to Chorus that an initial RAB value is set as early as possible. To submit a price-quality proposal for RP1 it is prudent for a regulated supplier to have a view on the value of its regulated assets. Our Board needs clarity on the value of Chorus' regulated assets before it can certify proposed expenditure on FFLAS assets. Any uncertainty about the value could affect business plans for FFLAS expenditure. We also need to know the value of assets with some confidence to secure capital from investors to fund an efficient expenditure programme. Chorus and investor confidence will be promoted by the Commission publishing the initial value."

Notably, the High Court commented that what matters in terms of investment incentives is the value of new assets and asset replacement, and that the initial RAB value won't impact incentives unless the RAB is set at less than scrap value:[43] "… in a regulated industry, unless the RAB is set at less than the scrap value, the asset owner will rationally keep the assets in operation, and indeed operate them as efficiently as possible. Moreover, the asset owner will still have just the same incentives to invest in new assets and asset replacement (so long as those new investments are taken into the RAB at cost) because the regulatory environment provides for new investments to return the regulated cost of capital."

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[41] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, para 350.
[42] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, para 5.
[43] WELLINGTON INTERNATIONAL AIRPORT LTD & ORS v COMMERCE COMMISSION [2013] NZHC [11 December 2013], paras 598 and 599.

4 2degrees remains concerned about loose cost allocation rules and the proposed method for determination of financial losses

2degrees does not support Chorus' advocacy of OVABAA

Chorus advocate that it be able to adopt an OVABAA cost allocation method. Chorus claims "OVABAA is not just about encouraging regulated firms to provide innovative services in the same industry. It is also intended to encourage regulated firms to use regulated assets to provide services in a completely unrelated industry, which will provide benefits to consumers".[44]

It is unclear how providing services in unrelated industry necessarily "promote[s] the long-term benefit of end-users in markets for fibre fixed line access services" (section 162 purpose) or "promot[es] … workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services" (section 166(2) purpose).

Chorus goes on to claim "The economic rationale for providing the option of OVABAA for FFLAS is no different than for the Part 4 firms".[45] This ignores that:

- OVABAA is not provided as an option for airports, and
- Unlike Part 6 of the Telecommunications Act section 53T, Part 4 of the Commerce Act includes the requirement that the IMs for cost of capital, valuation of assets, including depreciation, and treatment of revaluations, allocation of common costs, including between activities, businesses, consumer classes, and geographic areas, and treatment of taxation "must not unduly deter investment by a supplier of regulated goods or services in the provision of other goods or services".

Similarly, Chorus' claim "As with Part 4 businesses, the purpose statement (i.e. section 162) provides the legal rationale for including OVABAA as it is about promoting the long term interests of FFLAS end-users"[46] ignores that the Commission has determined airports should not be able to apply OVABAA. This is particularly notable given, just like Chorus, airports provide substantial services (and a substantial revenue stream) outside of the service regulated.

2degrees does not support Chorus' views on cost allocation for past financial losses

Given the views we have expressed in relation to determination of financial losses (if any) it is of no surprise we do not support Chorus' views on the cost allocation approach for past financial losses in the initial RAB.

Chorus' attempts to counter the workably competitive market argument for an incremental cost approach by stating "… in a WCM, firms make transitions between technologies (e.g. moving from 3G to 4G) all the time. In addition, if a WCM has sunk costs (as is the case with Chorus), businesses don't scrap existing sunk assets once better technology is developed. Instead they gradually embed the new technology in the existing network when doing so leads to lower expenditure and/or gives rise to quality improvements. The pricing of the new technology would therefore represent the cost of the existing asset that is re-used, plus the incremental cost to transition to the new technology".[47]

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[44] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 106.1.
[45] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 106.2.
[46] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 106.3.
[47] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 75.

Chorus' commentary confuses how a supplier might price a particular good or service with the question of whether the supplier is making a financial loss on that service. The two matters are related as suppliers in workably competitive markets will want to at least fully recover their costs (including cost of capital). All this means is the price floor will generally be incremental cost.

Chorus went on to claim "… it's reasonable to assume that FFLAS consumers should contribute to the recovery of their share of the existing assets that are reused to provide FFLAS. That is, as the consumer transitions from copper to FFLAS they should continue to pay their share of the cost. This ensures the right outcome is achieved, which is consistent with a WCM".[48] Again, Chorus is confusing how a supplier might price a particular good or service with the question of whether the supplier is making a financial loss.

Where we agree with Chorus is in relation to its statement that "the 'attribution of incremental costs' and 'allocation of shared costs' are two distinct steps in the methodology and should not be confused as one and the same".[49] It appears that in confusing the matter of financial loss determination with the matter of how a supplier might set price, Chorus has itself confused these two steps as "one and the same".

Chorus concludes the financial loss calculation should include "Shared costs including pre-2011 and post-2011 assets, as this takes into account the proportion of existing assets that were reused to provide fibre".[50] The submissions of Vodafone and Trustpower address the matter of pre-2011 assets well. They are costs Chorus incurred regardless of whether it provided UFB services or not and therefore have not contributed to whether Chorus made a financial loss from provision of UFB, and have not contributed to the size of any financial loss.

Chorus subsequently undermines its position on financial loss calculation in its commentary on cost allocation. Notably, Chorus argues "It is efficient to incentivise a regulated business to use regulated assets to also provide unregulated services if the regulated business is able to recover at least the incremental costs of doing so. However, under ABAA, the costs that would be allocated to the unregulated activity could exceed incremental cost because this is an accounting method, rather than an economic allocation. Therefore there is a risk that ABAA could make the provision of an unregulated service uncommercial and unprofitable even if it is efficient. This is a risk that the Commission identified in the Part 4 context, and therefore allowed for the use of OVABAA. The same reasoning supports its inclusion in the Part 6 IMs".[51]

What Chorus is effectively saying is that:

- In a workably competitive market the relevant test for whether to provide a new good or service is whether it will recover at least its incremental cost; and
- Provision of a good or service breaks-even (does not incur a financial loss) at the point where revenue equals incremental cost.

We agree with these points.

[48] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 76.
[49] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 79.
[50] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, Q21.
[51] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views, 21 May 2019, 16 July 2019, para 104.

RSP and Vector Fibre submissions provide useful support for an incremental cost approach to financial loss determination

Consistent with previous consultations, the RSP and Vector Fibre submissions provide useful support and explanation of why an incremental cost approach should be adopted for financial loss determination.

Notable contributions to the debate, include but aren't limited to:

- Vodafone's submission that the principle should be whether the compensation is such that Chorus' is "economically indifferent to the investment, consistent with the overall NPV=0 approach to fibre regulation".[52] Vodafone note this "principle is best implemented via an incremental cost calculation, which is consistent with how a firm in a competitive market would assess losses".[53]

- Trustpower and Vodafone's submissions that pre-2011 assets should be excluded from the financial loss calculation as these would be incurred regardless of whether the UFB investment went ahead or not. Trustpower, for example, noted "…under section 177(1)(a)(ii) the cost of Chorus' pre-2011 assets may be included in the fibre assets. However, in calculating the financial losses that may be included in the fibre assets, it is Chorus' post-2011 investments that must be considered".[54]

- Vector Fibre had not previously engaged in the consultation process but noted "An incremental costs approach would be consistent with how Chorus would have considered the business case for UFB in 2011. It would have considered its incremental costs (that it otherwise would not have had to incur), and revenues, in determining whether to participate in UFB".[55] Vector Fibre would have a good understanding of this given they also bid in the UFB tender process.

- We agree with Vector Fibre's observations that "the requirement for costs to be a "direct result" of meeting UFB obligations for the purposes of calculating losses is in contrast to the IMs to be applied going forward. In that instance, common costs are explicitly contemplated (s. 176(1)(a))"[56], and "[w]hile we acknowledge that the term "fibre assets" is defined in s.177(6) as including assets employed in providing other services, this extended meaning should not be applied to the financial losses calculation, where clearly the costs must be the direct result of UFB".[57]

- We agree with Vector Fibre that "the Commission will need to review carefully fibre providers' audited accounts to ensure that only those costs that are a direct result of meeting UFB obligations are included in the assessment of past losses".[58]

Spark's proposed top down cross check for financial losses has merit

2degrees supports Spark's proposal that the Commission "Apply a top down cross check on assessed losses. For example, a material discrepancy between identified losses and Chorus' actual profitability over this period signals that something is amiss and further analysis is required".[59]

[52] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 16.
[53] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 16.
[54] Trustpower, TRUSTPOWER SUBMISSION: FIBRE REGULATION EMERGING VIEWS, 16 July 2019, para 3.5.5.
[55] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, para 28.
[56] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, para 29.
[57] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, para 30.
[58] Vector Fibre, Submission to Commerce Commission on the Fibre Regulation Emerging Views Paper, 16 July 2019, para 53(c).
[59] Spark, Fibre regulation emerging views: technical paper, 16 July 2019, page 1.

5 Chorus' comments on double recovery are unsound

Chorus comments under "Relationship with the FPP model" appear aimed at clouding the issue of double-recovery between copper and fibre services, rather than helping resolve it.[60]

We do not consider the fact "The regulated prices for copper services (where they remain) are locked in"[61] is especially relevant. It simply means any adjustment would need to be in relation to the fibre determination and not the copper determination.

In this respect, we consider Vodafone made relevant comment in its submission that the TSLRIC modelling didn't factor in a parallel fibre network, "and certainly did not reduce copper costs on the assumption that another network would share the infrastructure costs … The conclusion that must be reached … is that the copper prices were sufficient to cover the entire cost of the copper network. None of these costs need to be recovered from fibre revenues, as has been proposed by the Commission's cost allocation methodology".[62]

Chorus also claim "The sharing of assets is substantial, and the valuations of the assets are not consistent (i.e. one is based upon (past) actual cost and a calculation of economic recoveries, whereas the other reflects the replacement value but of a hypothetical and highly optimised network). Therefore, a simple comparison of what recovery was assumed in one sector compared to the other cannot be undertaken".[63] Vocus' submission addresses these points.

In addition, 2degrees provides the following example to highlight the importance of the double-recovery issue and why the Commission should disregard Chorus' comments. Chorus could identify any double-recovery if it was minded to.

This simple example has the following assumptions:

- Shared asset *x* has a current value of $1.
- At the time the TSLRIC determination was made shared asset *x* had a value of 80c, and a Modern Equivalent Asset (MEA) valuation under the copper TSLRIC of 50c.[64]

If the Commission does not address copper-fibre double recovery, Chorus will be able to recover the asset as a (duplicated) value of $1.50. This would violate FCM by inflating the return on investment by 50% more than needed to earn a normal return.

Chorus has previously claimed "Even if it was appropriate to assess shared costs based on a comparison of hypothetical assets and actual assets, this means that such 'shared' costs would only be fully recovered from copper services if copper connections represented 100% of all fixed line connections".[65] We do not consider this to be correct. The Commerce Commission never assumed 100% penetration when it determined the copper TLSRIC prices.

For argument sake, suppose the Chorus claim was correct and the Commission assumed 100% copper penetration. Assume copper pricing penetration is now actually at 50%. Taking shared asset *x* above, the double-recovery would be 25% more than needed to earn a normal return. In

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[60] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, from page 53.
[61] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, para 117.2.
[62] Vodafone, New regulatory framework for fibre: Submission on Fibre Regulation Emerging Views, 16 July 2019, page 18.
[63] Chorus, Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019, 16 July 2019, para 117.1.
[64] Depreciation is assumed to be zero purely for simplicity, and does not impact the conclusions from the analysis below.
[65] Chorus, New regulatory framework for fibre: cross-submission on Commission's proposed approach, 1 February 2019, para 69.

this scenario the copper to fibre transition reduces (gradually and over a very extended period of time) the double-recovery, but it doesn't eliminate it.

Chorus also previously claimed "The argument of double-recovery of shared costs between copper and fibre services would only hold if the FPP price increased in line with the declining demand for copper services, as a result of migration to fibre in Chorus' UFB areas".[66] This claim is also incorrect.

To calculate the impact of different rates of migration from copper to fibre would require comparison of actual migration against the assumptions the Commission applied in the copper TSLRIC price determination (the fibre assumptions are not relevant because of the impact of the revenue cap). Suppose, for example, that the Commission assumed copper penetration would decline from 100% to 50%, but the actual decline was only to 75%. This would result in Chorus recovering more from its copper (TSLRIC) price than it needed to recover the cost of shared asset *x*. This would violate FCM by inflating the return on investment more than needed to earn a normal return.

All a copper connection rate below 100%, or a declining copper connection rate, would mean is the extent of double-recovery is changed. There is no magic bright line where 100% connection means there could be double-recovery but 99% or some other connection rate does not.

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[66] Chorus, New regulatory framework for fibre: cross-submission on Commission's proposed approach, 1 February 2019, para 69.

6 2degrees does not support Chorus' attempts to get a higher WACC

WACC has been a substantial focus of Chorus' submissions and consultant reports. Most of the submission material covers ground that we expect to be largely familiar to those involved in the review and establishment of the Part 4 WACC IM, including matters such as whether there should be a 5 or 10-year risk free rate etc.

We haven't seen anything in the Chorus submissions that makes us think the Commission should adopt a different approach to Part 4 of the Commerce Act, or that the asset beta should be increased. We expect while it is straightforward to challenge the CEPA analysis by suggesting an alternative comparator sample that would raise the asset beta - and Oxera have done this - it would be equally valid to select a comparator sample that would reduce the asset beta.

Chorus and HoustonKemp do not provide legitimate grounds for a WACC uplift

Chorus rely substantively on HoustonKemp to justify a WACC uplift. These justifications are not well founded:

- HoustonKemp attempt to depict the decision on WACC uplift as a trade-off between dynamic and static efficiency,[67] but this appears to be based on treating investment or incentives to invest as synonomous with dynamic efficiency. Much of their subsequent justification for WACC uplift is around service reliability, which is quite distinct from dynamic efficiency.

- Chorus claim "… the costs to consumers of over-estimating the cost of capital reflect static, allocative efficiency concerns".[68] Both the Chorus and HoustonKemp claims ignore that by far the most substantive cost to consumers isn't inefficiency (deadweight losses) but wealth transfers from consumers to Chorus.

- HoustonKemp go on to assert "In the telecommunications industry, the emphasis on dynamic efficiency is generally considered to be heightened because under-investment in new innovations may result in a continuation of lower-value services for customers".[69] While as a general statement it may be true that dynamic efficiency is more important than static efficiency, this assumption does not mean there should be a WACC uplift.

- HoustonKemp claim "… if incentives to invest were low or absent (ie, if the true WACC is higher than the allowed, regulatory WACC), these investment decisions are unlikely to be limited to small scale effects on a limited number of customers. Instead, these investment decisions seem likely to have a long reach to customers across the fibre network".[70] If there is evidence the regulatory WACC is below the "true WACC" this should be addressed directly through determination of the WACC, not uplift.

- HoustonKemp criticise the Commission for determining the cost to consumers (higher prices) from a WACC uplift by multiplying the WACC uplift by the RAB over the relevant period. HoustonKemp claim: "This approach does not appear to have sufficient regard to the interactions between various components of the proposed regulatory and legislative framework, including: … the legislative price caps on anchor services; … the wash-up provisions addressing any over- or under-recovery of revenues, for at least the initial regulatory period; … geographic consistency of prices; and … the MAR".[71]

  None of the above factors prevent Chorus' pricing from recovering WACC uplift multiplied by the RAB. The wash-up mechanism, for example, means that if the WACC uplift wasn't fully

[67] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, page i.
[68] Chorus, New regulatory framework for fibre: cross-submission on Commission's proposed approach, 1 February 2019, para 168.
[69] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, page ii.
[70] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, page iii.
[71] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, page iii.

recovered in one regulatory period it would be recovered in the next. Geographically consistent prices simply mean the WACC uplift would be recovered uniformally.

HoustonKemp seem to be saying Chorus will price below its MAR

HoustonKemp contend that "the presence of anchor services mitigates the direct cost of a WACC uplift to end-users, and reduces the likelihood that Chorus will be able to recover the MAR through the price of FFLAS"[72]. They also state that the "direct costs to end-users of a WACC uplift should be discounted by the proportion of end-users using anchor services".[73]

The WACC uplift increases the MAR that covers both anchor and non-anchor services, and therefore impacts end users of both anchor and non-anchor services. A higher WACC uplift can impact the non-anchor service prices (such that Chorus is able to recover its MAR). Overall 'end-user' prices are increased by the WACC uplift.

For this not to be the case suggests a view that Chorus will not profit maximise/set prices up to its allowable revenue. It is not obvious why this would be the case. If Chorus were to act in such a way it would not be obvious why they would seek higher prices through a WACC uplift. There would seem little point in Chorus seeking an uplift which would, presumably, just increase the gap between actual revenue (voluntary pricing below MAR) and the MAR. We note we are aware that some electricity networks voluntarily price below MAR but that this reflects their trust/community-ownership.

Chorus also argue "The dynamic nature of the supply and demand for FFLAS distinguishes the circumstances of previous cost of capital percentile decisions in New Zealand".[74] While we agree there are distinguishing circumstances between copper and fibre, it is also true:

- a substantive number of the reasons why copper should not receive an above mid-point WACC also apply to fibre; and
- there are other factors, such as the UFB contractual requirements and the relatively young age of the fibre networks, which also weigh against any uplift.

We were unable to reconcile Chorus' (and HoustonKemp's) advocacy that above mid-point WACC was needed in order to preserve incentives to invest in reliability and service quality of the network, against Chorus' commentary that "It was … acknowledged by stakeholders at the workshop of 25 June 2019 that, for RP1, Chorus has a strong incentive to maintain or improve quality in order to encourage fibre uptake. There is therefore little risk that a lack of regulatory constraint would lead to quality degradation in the immediate future".[75]

If Chorus has strong incentives to invest in service quality such that little or no regulatory oversight is needed, it is difficult to see why the Commission would need to allow Chorus higher prices to ensure service quality. 2degrees' view is that if higher prices are needed to ensure service quality then this suggests the Commission would need to prioritise broad and extensive service quality standards as part of the Price-Quality determination.

Overall, the HoustonKemp report suffers from the same criticisms the High Court made in relation to the Commission's original Part 4 75th percentile WACC decision, with analysis based on subjective judgement and lacking robust evidence. We do not consider the HoustonKemp report "has established that there are likely to be asymmetric consequences of under-investment, and that there is a strong qualitative case for a WACC uplift in respect of Chorus' FFLAS services".[76] We consider the Commission can safely discount the HoustonKemp report in making its determination on WACC percentile.

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[72] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, section 5.5.
[73] HoustonKemp, WACC uplift – asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, section 5.4.
[74] Chorus, New regulatory framework for fibre: cross-submission on Commission's proposed approach, 1 February 2019, para 167.
[75] Chorus, New regulatory framework for fibre: cross-submission on Commission's proposed approach, 1 February 2019, para 248.
[76] HoustonKemp, WACC uplift–asymmetric consequences of under-investment, A report for Chorus, 15 July 2019, section 4.4.