



Fibre regulation emerging views: technical paper

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## Contents

Executive summary.....	1
Introduction.....	3
Developing an overarching view of utility regulation and fibre network infrastructure .....	4
Expected Part 6 outcomes.....	5
Addressing Chorus incentives .....	6
Pricing principles.....	7
Cost allocation .....	8
Causal and proxy allocator cost allocation.....	8
Standalone cost allocation cap .....	10
Asset valuation.....	10
Past losses.....	10
Depreciation of assets backed by Crown financing.....	12
Quality dimensions.....	13
Proposed framework .....	13
Detailed service specification .....	16
Attachment: Commission questions .....	17
Attachment: Axiom report.....	21

## Executive summary

The Commission is tasked with applying Part 6 utility regulation to a notional Fibre Network operated by an access provider with substantial interests in both substitute connectivity services and in adjacent markets, and with the prospect of the regulatory setting leading to distorted competition in markets. This is a level of complexity that sets Part 6 regulation apart from other sectors subject to utility regulation. The technical paper, workshop and stakeholder comments further highlight the differing expectations of interested parties.

We believe that the best way to manage this complexity is for the Commission to clearly articulate the expected outcomes from proposed regulatory parameters, i.e. setting out the expectations of the regulated entity and how the Commission will address the natural incentives of the regulated provider to maximise value, looking across related regulated and unregulated activities, and to distort competition in adjacent and downstream markets.

### Pricing methodologies and cost allocation

The Commission's emerging view is that there does not appear to be a strong case for preparing an IM containing specific pricing principles. However, 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.

We asked Axiom to consider the technical paper proposals:

- Pricing methodologies. Axiom note that the technical paper's proposed approach is based on the expert report's advice. However, that report is theoretical in nature and risks failing to account for the broader context within which the Commission is determining its IMs. While there are already cost reflective pricing principles in the Act and the Commission will be required to apply the principle over time, there is a question relating to the methodologies that the Commission will use to give effect to that principle. This guidance - which should be through a methodology - is important for businesses considering or making large investments now and it is difficult to see how the Commission can promote the requisite certainty for access seekers without this guidance.

Pricing methodologies are also key for information disclosure (**ID**) that applies equally to Chorus and LFCs. The IM should include pricing principles, and the ID requirements should require LFCs and Chorus to explain why their pricing methodologies - which they must also disclose - are consistent with those principles.

- Cost allocation methodologies. Axiom also report that the proposed approach to cost allocation leaves significant discretion with regulated providers - the Commission is understandably reluctant to assume a detailed role of analysing factors driving costs or mandating an allocation approach. However, with the regulated providers' strong and perfectly rational incentives to allocate common costs to assuage competition, the outcomes are predictable with little or no over-sight. Axiom recommend requiring regulated providers to prepare a cost allocation statement that could be approved by the Commission as part of the periodic regulatory determination process. The technical paper already acknowledges that an approach along these lines is an option to be considered.

### Past losses

We are also uncertain that the technical paper's proposed approach to past losses best supports the Part 6 purposes. The regulatory framework in place in 2011 - TSLRIC pricing model and UFB funding - was expected to leave Chorus fully funded through the period. The future regulatory framework had not been identified and, in this context, it is unclear where the losses might lie. Accordingly, in our view, the assessment of past losses should focus on identifying the losses that UFB participants consciously incurred on the understanding that they would be allowed to over recover in the future to compensate. As Vodafone report, Chorus has been highly profitable over

this period. Nonetheless, if Chorus can identify losses through that period then the Commission should consider the proposal.

In addition, if the Commission arrives at the view that past losses have been incurred, then it is crucial that they not be overstated. Consumers will be forced to pay excessive prices for years to come and undermine the Part 6 framework. The Commission should ensure that it only compensates actual losses incurred, and that any double recovery with the funding through that period is removed.

### Quality IMs

We support the proposed approach to setting the Quality IM. However, the current UFB and WSA parameters are unlikely to be appropriate for 2022 let alone 2025 when the next regulatory period starts. The current measures and service levels are unlikely to reflect the activities at that time which will, for example, largely relate to an intact network and reflect increasing automation of activities.

The setting of dimensions and measures is largely a technical consideration relating to the identification of quality that is important to access seekers and end users. Accordingly, this is something that could be developed via a technical workshop or the TCF, like the TCF based approach successfully taken during the development of UBA regulated services.

## Introduction

1. Thank you for the opportunity to comment on submissions on the Commission's emerging views technical paper for implementing the fibre regulatory regime set out in Part 6 of Act (**the technical paper**).
2. The emerging views paper draws heavily from Part 4. However, the Part 6 framework and characteristics of our sector mean that, while the Commission should draw on relevant aspects of its Part 4 experience, it will need to take a fresh look at key aspects of its regulatory approach.
3. As the Commission noted earlier, the telecommunications sector has significant differences to sectors where Part 4 has been previously applied. The Commission is tasked with applying utility regulation to the Fibre Network, the underlying infrastructure on which future fixed and wireless networks rely. At the same time nascent competition is developing in parts of the sector, this competition is reliant on access to the fibre network. However, the regulated providers – particularly Chorus – also provide substitute (i.e. broadband copper) and downstream (i.e. layer 2 fibre, national transport and potentially wireless) services.
4. This means that Chorus has natural incentives to optimise its approach across its regulated and unregulated businesses to maximise revenue and to distort competition in related markets and will understandably do this to the extent possible. Part 6 is tasked with mitigating inefficient incentives as they potentially inflate prices and undermine competition for the benefit of end users. Accordingly, at the same time as capping Chorus returns, the IMs need to recognise Chorus incentives to maximise rents across regulated and unregulated parts of its business and distort competition.
5. Further, we operate in a dynamic sector and the rate of change is high. The IMs should, in addition to addressing static issues, provide the forward-looking signals and certainty access seekers need for their planned investments and innovation. This is particularly important as, while the UFB Fibre Network is committed and long-lasting infrastructure on which we expect limited innovation, significant innovation is expected to come from the services and downstream network innovations that it supports. Accordingly, the implications of holding back output or overpricing, or distorting competition by permitting market power to extend into innovative markets, are significant.
6. Therefore, we've focused on recommendations that promote competition and certainty for our investments, and confidence that the Government funded fibre network operates as envisaged by the UFB initiative. In this submission, which generally follows the structure of the technical paper we:
  - a. Propose that the Commission, in the next phase of the process, develop a view on the regulated entity and expected outcomes from regulatory settings to manage the complexity relating to applying Part 6 to our sector, and to better signal to stakeholders likely IM outcomes;
  - b. Submit that certainty and a more detailed approach on pricing principles is needed to ensure that the purpose of Part 6 is met;
  - c. Comment on the IM for the allocation of common costs;
  - d. Comment on the issue of past losses in determining the value of fibre assets; and

- e. Comment on how the Quality dimensions might be developed further. The Commission could develop detailed quality metrics and process for change through technical workshops or ask the TCF to prepare consolidated advice.
7. An expert report by Axiom Economics (**Axiom**) is attached. We asked Axiom to set out its thinking relating to pricing principles and cost allocations.
  8. A number of questions not addressed in the body of our submission are considered in the attached.

## Developing an overarching view of utility regulation and fibre network infrastructure

9. The Commission set out several telecommunications sector tensions and specific issues in its November 2018 proposed approach paper. We agree that applying a utility regulatory model to a dynamic sector such as telecommunications is challenging.
10. The telecommunications sector is materially different from the sectors that Part 4 has traditionally been applied to. Part 4 decisions were applied to relatively settled and homogenous regulated entities. However, in this case, utility regulation is being applied to the Fibre Network that only exists as a Government UFB and regulatory construct and where the competition model is still developing, i.e:
  - a. Chorus is a broad integrated business that encompasses substitute and adjacent/downstream services. LFCs have likewise indicated an intention to expand into adjacent markets. Part 6 applies to the Fibre Network and this is a commercial UFB and regulatory construct within Chorus and LFCs' wider activities;
  - b. Regulatory decisions will have significant implications for adjacent and downstream market competition and innovation; and
  - c. The active Part 6 role to promote s166 end user and competition outcomes. This needs to underpin the Commission's decisions in this area.
11. This level of complexity sets Part 6 regulation apart from other sectors subject to utility regulation. The Commission managed similar complexity in the Part 2 context, in practice, by engaging on the implications and expected outcomes of proposed regulatory approaches. We believe a similar approach would help for Part 6 which, while drawing on Part 4 regulatory tools, faces the challenges addressed by the Commission in Part 2 determinations.
12. The technical paper, workshop and submissions further highlight that the parties and stakeholders are unlikely to be aligned on the nature of the Fibre Network and expected Part 6 outcomes, i.e.
  - a. Chorus indicated that it considers regulatory services are fibre connectivity services that run fully between the exchange and the end user premises. If this were the case, then a Chorus wireless service would leave almost all assets subject to cost allocation rules<sup>1</sup>. Likewise, LFCs have asked the Government to exclude backhaul fibre services used for wireless networks from the regulatory scope<sup>2</sup>;

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<sup>1</sup> Under the Chorus proposed approach, more or less all assets except lead-ins would require cost allocation. We do not believe Chorus' proposed approach is supported by the Act.

<sup>2</sup> See LFC submission on draft regulations to be made under section 226 of the Act.

- b. As Axiom note in its report, the Commission advisors have multiple views of Chorus and the regulated entity as a traditional monopoly, a potentially ‘aggressive competitor’ and a firm engaging in Cournot or Bertrand competition;
  - c. Chorus investors queried at the workshop Commission proposals to benchmark WACC parameters against comparable infrastructure providers;
  - d. Access seekers have indicated that the Fibre Network is utility infrastructure that is intended to be a competitively neutral platform for broadband and intermediate inputs to their networks.
13. It is difficult to reconcile the range of expected regulatory outcomes, with the range of stakeholder views, and with the draft views set out in the technical paper. In our view, the Commission can best manage this uncertainty by setting out through the process:
- a. The regulated entity and regulatory outcomes it’s expecting to see from Part 6 regulatory settings; and
  - b. The nature of Chorus and LFC incentives and ways it expects to mitigate or harness those incentives.
14. This would facilitate a consistent approach across IM and PQ regulatory settings – i.e. permitted return, risk sharing, and behavioural expectations - and set stakeholder expectations on expected outcomes from this process. The Commission could do this as it develops its views and draft IMs.

### Expected Part 6 outcomes

15. It will not be difficult to establish the context and expected outcomes as these have been articulated several times, it is the Commission setting out its view that will provide the guidance and better results.
16. For example, the policy development process, UFB arrangements and commentary by interested parties indicate that:
- a. UFB Fibre Networks are intended to be subject to Part 6 regulation. The Fibre Network is the common platform for broadband services and underlying infrastructure to wireless network providers. This is a common business model applied overseas where fibre has been deployed, particularly in partnership with Governments;<sup>3</sup>
  - b. The UFB initiative came about through concerns that there had been under-investment in the fixed network over many years and a desire to bring forward fibre investment that was expected to be made in any case, and to resolve longstanding competition concerns in the sector;
  - c. UFB arrangements provide for funding of fibre networks and anticipate that the funded networks would be available on an open access basis. An open access approach creates an open market, or platform, on which downstream service providers can compete and innovate. Open access to the subsidised network is further a necessary measure to avoid authorities “picking winners” when assigning public funding;

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<sup>3</sup> For example, see the WIK 2018 wholesale only network report summarises deployments in Europe [https://www.stokab.se/Documents/Nyheter%20bilagor/The%20role%20of%20wholesale%20only\\_WIK.pdf](https://www.stokab.se/Documents/Nyheter%20bilagor/The%20role%20of%20wholesale%20only_WIK.pdf).

- d. The Fibre Networks are important infrastructure and are, accordingly, low risk and prone to market power concerns.
17. The principles are already widely accepted in the sector<sup>4</sup>. In other words, Part 6 utility regulation is applied to the Fibre Networks because they are an important utility.
18. The Commission context is important because Part 6 must be applied in a manner that best promotes all s166 outcomes - i.e. the nature of risk and returns; where innovation and investment in the sector is expected to occur – and recognises the natural incentives Chorus and LFCs face to shift costs and revenues in their businesses, and to distort competition.

### Addressing Chorus incentives

19. Second, Chorus' natural incentives remain a key challenge for Part 6 regulatory settings.
20. Chorus has several business interests - including regional and national transport links and a copper broadband network – and is actively pursuing new markets. The fibre network will be used for broadband local access, but also as an input for national wholesale capacity, business networks, and mobile and wireless networks.
21. Access seekers compete with Chorus in several markets and are conscious that Chorus is not only a competitor, but the provider of important fibre input services that they rely on. Chorus faces incentives to leverage the regulatory framework to distort competition in competitive markets and, as Axiom note in its report, we should expect Chorus to act on these incentives.
22. Chorus faces obvious incentives to maximise assets and costs attributable to the regulated service, minimise MAR contributing revenues, reduce fibre service demand and fund step out options into competitive markets from regulated revenues. We should expect Chorus, for example, to respond to incentives to:
- a. Slow fibre growth by – for example - limiting connection capacity, potentially adding in home connection fees on top of anchor services or setting a high premium for higher spec'd non-anchor products. This would leave more demand and revenue on Chorus' copper broadband business, while leaving guaranteed MAR revenues largely unchanged. Within a regulatory period, a one percent slowing in fibre connection growth increases Chorus EBITDA by around \$6M through the period;
  - b. Implement design and deployment tactics that optimise against shared cost allocators, i.e. deploying fibre cables in an otherwise redundant duct in a system rather than share space within an efficiently sized system, or building an unnecessarily complex business and systems that, while unnecessary for the relatively simple fibre services, provide subsidised access to competitive downstream markets;
  - c. Design products to capture more of the value chain, placing more of the sector under Chorus rather than competition disciplines. For example, by developing in-home services such as education and consumer wi-fi that bundle more of the value chain with the fibre network service; and
  - d. Hold back new fibre backhaul services to wireless providers that, while such services avoid inefficient fibre network overbuild, would reduce copper broadband revenues.

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<sup>4</sup> For example, they are set out in Government policy development, the UFB *Invitation To Participate*, and Chorus investor presentations highlight the “fourth utility” nature of the fibre network.

23. We believe that care is required in setting regulatory parameters that limit or mitigate these incentives, and address information asymmetries that facilitate them.
24. In our view, the technical paper proposals - which devolve many of the key regulatory decisions to Chorus - are unlikely to be effective when faced with these incentives. As discussed below, we believe the framework will need to be more directive and give the Commission, within general principles, the ability to more directly determine key parameters of the approach.

## Pricing principles

25. The Commission's emerging view is that there does not appear to be a strong case for it to prepare an IM containing specific pricing principles, and that it would be preferable to rely instead on the various constraints imposed already on Chorus through various instruments/mechanisms.
26. The technical paper asks for views on the advisory panel's recommendation that there does not appear to be a strong case for setting pricing principles beyond the pricing rules in the Act. The Commission has asked for comments on the advisor's paper.
27. The lack of certainty on how the Commission will consider pricing issues is a concern for us. We have seen Chorus acting on the incentives it faces, setting prices or quality in ways that we believe seeks to shape downstream markets. For example, we have seen the unregulated "Boost" broadband service<sup>5</sup> and structuring of fibre promotions that discourage RSPs from developing scale<sup>6</sup>. Looking forward, the pricing of FFLAS services will have significant implications for Part 6 outcomes, for example:
  - a. Access seekers looking to make long term investments in order to roll out unbundled fibre networks and the viability of these networks will be determined in part by the pricing of layer 1 and layer 2 services. Vodafone, Vocus and Vector<sup>7</sup> all indicate plans to unbundle the fibre network and offer competing wholesale services;
  - b. Whether access providers are to set relative prices based on efficiency or other criteria, or to seek specific outcomes in downstream markets;
  - c. Whether the price of intermediate fibre products such as fibre network backhaul services for dense 5G networks is likely to promote inefficient fibre overbuild;
  - d. How the premium for higher spec'd services will be set. Chorus has an incentive to price non-anchor services relative to copper to optimise demand/revenue across copper and fibre broadband services.
28. We asked Axiom to consider the proposals set out in the technical paper. Axiom advise that, in its view:

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<sup>5</sup> Chorus offered a wholesale "unregulated Boost" broadband service at a price premium to the regulated variant, at the same time as constraining the functionality of the wholesale service. The proposal would have had the effect of forcing RSPs to consume the Boost service. The Commission subsequently determined that the regulated service could not be constrained in this way.

<sup>6</sup> For example, caps on RSP fibre promotion subsidies and connection upgrade incentive hurdles (a certain proportion must be higher fibre speeds for the incentive to apply).

<sup>7</sup> Vector indicated in the workshop that it is keen to provide services that rely, in part, on unbundled fibre network infrastructure.

- a. The Commission advisors' paper is theoretical in nature – drawn principally from stylised models of industrial organisation – and may not sufficiently take account of the broader context within which the Commission must determine its IMs. It appears not to address the key concerns of access seekers in the New Zealand context;
  - b. The Commission should provide guidance on the methodologies that it will use to specify cost reflective prices for key services in the future. Axiom note that there is already a pricing principle in place – i.e. cost based for key services – and the question is what methodologies the Commission use to give effect to that principle?
  - c. This guidance is important now because businesses are considering or making very large investments now – i.e. in 5G mobile networks and unbundling of fibre services – that may be influenced by the prices that they anticipate paying for key inputs like DFAS;
  - d. It is difficult to see how the Commission can promote certainty for access seekers without guidance being provided on how the Commission would go about setting prices.
29. We agree, investment and architecture choices we face inevitably reflect anticipated future fibre network prices. Access seekers have all indicated that pricing methodology certainty is important for their investment decisions and confidence in the Part 6 approach. These requests alone should give the Commission pause for thought. The Commission should set pricing methodologies that, at a minimum, reflect the cost-oriented principles in the Act.
30. Further, pricing methodologies are key for Information Disclosure (**ID**) that will apply equally to Chorus and LFCs. While LFCs may currently have less incentives than Chorus to distort markets<sup>8</sup>, an effective ID regime would establish pricing principles in the IMs and require LFCs to report against those principles.
31. This approach – i.e. LFCs disclosing their pricing against established pricing principles - would permit the Commission and other parties to assess how they are going in the absence of controls on their prices. In our view, s166 and the purpose of ID requires the Commission to take action to influence efficient pricing for entities subject to ID only. As proposed in the technical paper, Chorus should make the same disclosures.

## Cost allocation

### Causal and proxy allocator cost allocation

32. The Commission is required to prepare an IM that covers the allocation of common costs, including between activities, businesses, access seekers, regulated services and geographic areas. In broad terms, the Commission's emerging view encapsulates two key elements:
- a. the allocation of costs between FFLAS and other (non-FFLAS) services; and
  - b. the allocation of costs between different types of FFLAS.
33. For allocations between FFLAS and other services, the Commission proposes to build on the Part 4 approach applied to energy businesses and airports:

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<sup>8</sup> Although, in saying this, we note the LFCs have asked that fibre backhaul services for wireless providers not be subject to Part 6 regulation.

- a. Costs that are directly attributable to FFLAS should first be allocated fully to those services; and
  - b. Common (or 'shared') across FFLAS and other services should be allocated using a causal relationship whenever that is possible or, where a causal relationship is not available, a proxy allocator may be used.
34. The proposed approach leaves significant discretion with Chorus and LFCs over significant allocations of shared assets and costs. Shared costs are likely to comprise over 50% of all costs. For example, Chorus indicated during the initial phases of the roll out that it planned to reuse much of its existing network for UFB deployment, including 29,000km of existing fibre network and much of its existing duct network (half of Chorus' network is already ducted)<sup>9</sup>. Further, depending on how FFLAS services are defined, around 65% of new fibre assets could require allocation between regulated and unregulated services.<sup>10</sup>
35. The workshop worked example demonstrates that there is a wide range of plausible cost allocation approaches and the outcomes of these approaches vary widely. For example, allocation methodologies for a duct network could range from a per line, per cable, per space, per sub-duct or per-duct in a multi duct system, and over time by current use to reserved use to forecast use of the capacity. Accordingly, a fibre broadband service that comprises, say, 1% of broadband demand served by the system could be allocated 50% or more of the cost of asset.
36. We asked Axiom to consider the proposed approach set out in the technical paper. Axiom makes a number of observations and recommendations including that:
- a. Many of the costs of FFLAS will be shared across multiple services and, more importantly, Chorus will have strong and perfectly rational commercial incentives to allocate those common costs in ways that assuage existing and/or competitive threats;
  - b. Further, as outlined in Axiom's earlier report, 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;
  - c. The Commission is understandably reluctant to assume the role of analysing the factors driving costs and mandating an appropriate allocation approach. However, it would be easy to predict what might happen with little or no oversight. Axiom recommend that:
    - i. There is no compelling reason to apply different methodologies to step 1 and 2 of the allocation process, and that ACAM would not be permitted in either step;
    - ii. Due to the potential implications on competition, causal relationships should be defined relative to an increase in shared operating costs or investment rather than utilisation (the Part 4 approach) and the allocation

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<sup>9</sup> Chorus Annual Report 2012.

<sup>10</sup> For example, if distribution fibre were shared by FTTP and Chorus proposed fibre/wireless education service.

option selected should be the one that best promotes the competition objective specified in the Act;

- d. The IMs should require access providers to prepare a cost allocation statement that could be approved by the Commission as part of the periodic regulatory determination process.

### Standalone cost allocation cap

37. The technical paper proposes to not consider a standalone cost cap for the allocation of shared costs.
38. The standalone cost caps the allocation of shared costs to FFLAS services at the cost of providing the services on a standalone basis. As set out earlier, we believe a standalone cost cap on allocating shared costs is important for providing efficient investment signals and avoiding regulated firms bringing unnecessary and inefficient legacy assets in to the RAB.
39. We understand that the Commission has not applied standalone cost caps for Part 4. In that case, the regulated firms' scope (demarcation is clearer), is providing services of set quality, and are predominantly wholesale. There are greater risks in the telecommunications sector, for example:
  - a. Firms have choices relating to building the capability to manage complex services and customer interactions. Systems that can manage this complexity are more expensive. Regulated Part 6 services are less complex and, without a standalone cost cap, the framework risks over allocating shared costs to these services;
  - b. Shared assets are transitioning into the Fibre Network, and these shouldn't be allocated beyond that directly required for FFLAS. For example, fibre networks are unlikely to require large duct systems used for legacy copper services.
40. In our view, establishing a standalone cost cap is not a significant exercise. The cap can be reasonably identified by benchmarking against costs or systems deployed by standalone wholesale only providers, and then applying an adjustment. For example, there are a number of wholesale only fibre and infrastructure based firms in New Zealand and overseas that overall allocations could be compared to.
41. The IM could require Chorus to undertake a standalone cost cross check on proposed allocations and, if concerns arise, the Commission could require an adjustment be made.

## Asset valuation

### Past losses

42. The technical paper proposes that the past losses be established by applying a BBM model for the period through to implementation day, generally applying the proposed ex ante BBM settings. As noted at the workshop, this could be considered as having the Part 6 BBM applying from 2011.
43. This is a significant consideration as "past losses" will potentially drive end user prices in the new framework. As Vodafone notes in its prior submission, Analysts estimated that past losses could be determined up to \$3B. If this were the outcome, past losses would equal the value of Chorus's overall assets deployed and subsequent price increases to consumers would add significantly uncertainty to the regulatory framework.

### Under-recovery prior to regulation

44. We don't support the proposed approach. The Act does not require the Commission to apply a particular pricing model to assessing losses, or that the model will apply after implementation day should be applied retrospectively and over the top of then applied regulatory framework. It is simply asked to identify whether an under-recovery occurred before Part 6 regulation was applied to the service.
45. Chorus and LFCs participated in the UFB initiative because it added value to their businesses. The regulatory framework – i.e. TSLRIC plus UFB funding - was expected to leave Chorus fully funded through the regulatory framework. In other words, the parties expected the arrangements to fund the UFB participants through that period<sup>11</sup>. At the time Chorus was not deliberately under recovering on the understanding that it could over recover in the future and this raises the prospect of a windfall gain now.
46. Accordingly, 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. The Commission should take a cautious approach to doing this. As it stands, the Commission would not be looking backwards at past losses if the legislation had not directed it to do so. Therefore, it needs to be cautious about providing a benefit to regulated entities that it would not otherwise provide.
47. We believe our top approach as a practical way of identifying whether losses could have occurred in the prior period that should be brought into the new regulatory framework. The Commission would not be required to consider the counterfactual in the absence of UFB – i.e. the degree to which UFB sought to resolve for past failures to invest and bring forward fibre investment that would be made in any case and implications of network overbuild<sup>12</sup> - and it would fully reflect the incremental nature of UFB on the existing network. This approach captures all the benefits and costs over the period and does not have the complexity of a bottom up assessment. As Vodafone note, Chorus has been highly profitable over the past losses period and under these circumstances we doubt there has been a loss.
48. Nonetheless, 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 and that expectation be honoured. We think the best approach would be for the Commission to set out the principles on which it would look at a claim for past losses in the IMs and leave it to Chorus to make its case. The Commission could have a specific consultation on what these principles should be.

### Proposed approach set out in the technical paper

49. Nonetheless, if the Commission arrives at the view that past losses have indeed been incurred, it is crucial that they not be overstated. If they are, then consumers will be forced to pay excessive prices for FFLAS for years to come – an outcome that is both inefficient and unfair. If past losses are grossly overstated it may even undermine the foundations of the Part 6 framework. The inflated losses may push up the revenue cap to a level that Chorus cannot possibly achieve. That shortfall would then be added to future revenue caps, exacerbating the problem from one period to the next.
50. In such circumstances, the revenue cap could quickly become irrelevant. Chorus would be free to set virtually whatever prices it liked – subject only to the (in our view quite minimal)

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<sup>11</sup> For example, in 2013 Chorus and the Government set out its expectations in response to Commission proposals to reduce the UBA price, claiming a \$1B funding hole. The Government released a discussion paper that concluded the TSLRIC approach was fundamentally sound.

<https://www.beehive.govt.nz/release/review-provide-certainty-consumers-industry-0>

<sup>12</sup> Telecom articulated benefit, amongst others, set out in the Scheme Booklet.

constraints of the anchor product – safe in the knowledge that the cap would never bind. The Commission should be wide awake to this possibility when it estimates past losses. Not only is it plainly not in the long-term interests of end-users to pay inflated prices – it could also jeopardise the longevity of the regime itself.

51. At the minimum, the Commission should consider the wider financial benefits of the UFB arrangements, seek to capture actual unrecovered costs and remove double recovery.
52. The technical paper identifies that double recovery is a concern, particularly where costs are funded from different regulatory models. We agree. Chorus's current broadband prices were informed by and set in the context of the UFB initiative, i.e. the pricing model was based on the costs of the fibre network, assumed demand incorporated both copper and fibre demand over the transition, costs were not allocated between the copper and fibre network (because they are the same thing, and inputs were based on actually incurred UFB costs.<sup>13</sup> We believe that the potential double recovery is significant.
53. We further recommend that the proposed past losses assessment:

- a. Recognise that Chorus and LFCs' participation in UFB was incremental to their existing broadband and electricity lines business. The Government UFB approach was premised on participants leveraging existing infrastructure, whereas the technical paper approach appears not to take account the incremental nature of the UFB initiative.

We see no reason why the approach in the past regime – i.e. consideration of cost allocations - cannot differ going forward. In our view, Parliament has made a distinction between the Fibre Network and other broadband services that was not made in the prior regulatory framework. Therefore, it is appropriate to consider UFB incrementally in the past regime (reflecting that it was incremental to the then service), and fully allocate in the new framework.

- b. Seek to identify actual costs or losses. For example, the workshop worked example did not include the tax benefits of notional losses, i.e. that fibre "losses" wouldn't create a notional credit on Chorus' other returns. By definition, if a firm has made a loss on a particular line of business (in this case, FFLAS) that will, presumably, have reduced the quantum of tax that it has paid in relation to other profitable aspects of its operations (in this case, non-FFLAS). Any such off-setting tax benefits should consequently be accounted for as a revenue item for the fibre business, mitigating the size of any estimated losses.
- c. 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.

### **Depreciation of assets backed by Crown financing**

54. The technical paper proposes that depreciation and revaluation will apply to Crown funded assets sitting within the main tangible RAB and the loss component of the RAB.
55. Nonetheless, the Commission has asked whether depreciation should be permitted as a building block component during the loss period with respect to the value of assets which are funded by Crown financing. A related question also arises in respect of the calculation of

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<sup>13</sup> For example, see [2015] NZCC 37 at around paras 259, 260, 293, 507 525 and 632 amongst many where the UFB initiative formed a key part of the pricing model

regulatory depreciation for the period after implementation date, i.e. whether depreciation should be permitted in respect of the value of assets which are funded by Crown financing.

56. It's unclear to us why depreciation (and indexation) of a Crown funded asset would be included in past losses or for the purposes of the ongoing BBM. Depreciation should occur on assets funded by Chorus as, to the degree there is a mismatch in timing of the return of capital, Chorus will receive a benefit from an investment it has not made.
57. As we understand it, there may be a concern that recognising Chorus funding of an asset at the time the funds are returned to the Crown funding may result in a short asset life over which that capital is returned to Chorus and an increase in the MAR. We believe this is a smoothing issue. The Commission could set a longer depreciation period, i.e. it doesn't need to be tied to the life of a specific asset. In other words, we think that the asset should come in at the time the funding is repaid, and that anything more than that is a smoothing issue.
58. Nonetheless, if the Commission does want to recognise depreciation on an asset that Chorus has not funded for other reasons, then it should do this in an NPV=0 way.

## Quality dimensions

### Proposed framework

59. The technical paper proposes that the IM set out what quality dimensions are to be measured and how they will be measured. Further, the primary role of quality dimensions is to incentivise regulated fibre providers to supply fibre services of quality that reflects end-user demand. We support the proposed approach and that – ultimately – the purpose is for end services to reflect consumers preferences. The technical paper further proposes to apply a transitional approach that would see a quality approach based on existing UFB agreements until 2025.
60. However, the quality framework is also important for access seekers as, not only does the quality of fibre services directly determine end user services, but it also impacts access seekers' costs and ability to respond to end user needs. For example, fibre provider service performance can increase RSP costs (by adding complexity and uncertainty to customer engagement), reduce the range of services we can provide to customers (by unnecessarily constraining the functionality of an input) and make us less responsive to end user needs (by adding delay or complexity to engaging with the fibre provider).
61. The Commission should also look to promote certainty for access seekers and end users through quality dimensions. We are making significant investments in systems to improve services to customers and this investment also requires certainty relating to how quality will be set and evolve over time.
62. Accordingly, as proposed in the technical paper, we agree that the quality IM has a role in ensuring the quality of input services reflects access seekers' demands. This includes providing certainty so that access seekers can invest with confidence in services and service quality.
63. The Commission will need to set amended quality measures as the current UFB agreement based measures are unlikely to be appropriate for 2022, let alone 2025 when the next regulatory period starts. This is because:
  - a. The measures and services levels were the outcome of a commercial compromise rather than an assessment of end user needs. Spark accepted the current approach on the basis that further consumer gains were likely from the discussions – we believe access seekers decided to “move on” after a drawn out and difficult

process. Accordingly, the current measures are unlikely to reflect end user demands or support efficient provision of fibre services;

- b. Current measures were set in the context of the “build” phase on the UFB roll out, whereas the performance Part 6 measures will be set for a period when customers are largely intact and other parameters become more important;
- c. The current measures would require additional elements to meet the needs, for example, of access seekers unbundling the Fibre Network;
- d. We expect to see increasing automation which will result in improved performance for end users. Further, field force improvements such as GPS enabled resource tracking and route planning are expected; and
- e. The measures set PQ determinations should be optimised in the context of, for example, a sustainable level of work for service orders. Post build, what does the resource look like and what’s a reasonable service level? This means that the IM measures will vary from those in current agreements and the Commission risks – through simply adopting existing measures – constraining the PQ determination and failing to regulate terms that are in the interests of end users.

64. The table below sets illustrates the type of measures we would expect to see from 2022 at the time the new framework is implemented.

	<b>Current UFB Construct</b>	<b>Likely post 2022 approach more likely to be in end user interests</b>
<b>Customer Service</b>	Target a customer satisfaction score of 70% or more	Target a customer satisfaction score of 85% or more  Any trends for customer dissatisfaction are remediated via industry published improvement plans which are measured for expected improvement (or something to that effect).  End to end view and alignment of performance measures to facilitate benchmarking across and between LFCs and RSPs.
<b>New Connection Order</b>	the median time in calendar days between the Order Date and completion of the installation in each POI Area - 30 days simple orders - 65 days complex orders Aspirational targets - 20 days simple - 50 days complex MDU - 20 business days build & 1st connection	New Connections (no median or maximum cycle times) in calendar days - Rebate SLA - 15 days simple - 40 days complex MDU - 15 business days build and 1st connection
<b>Intact / Disconnections</b>	- remote 90% 4 hours 100% 1 business day - truck roll 5 business days (intact only)	- remote 4 hours - next business day (intact only)

	<b>Current UFB Construct</b>	<b>Likely post 2022 approach more likely to be in end user interests</b>
<b>Jeopardy Management</b>	- 50 days simple - 100 days complex	- 30 days simple - 60 days complex  -Any orders with 4 or more reschedules
<b>Restoration</b>	Consumer Services are restored by the end of the day following the day on which Downtime is reported to the LFC;	18 hours
	Enterprise Services for which Downtime is reported to the LFC - Before midday are restored by 7pm on that day; - After midday are restored by midday on the following day; and - After 7pm are restored by 7pm the following day.	Enterprise 6 hours 24 x 7
<b>Change management process effectiveness</b>	None	Committed outcomes
<b>Unbundled Fibre Network quality</b>	None	Would expect quality dimensions to reflect these requirements.
<b>Responsiveness to access seeker new service requests</b>	None	Would expect quality dimensions to reflect these requirements.
<b>Responsiveness to access seeker process change request</b>	None	Would expect quality dimensions to reflect these requirements.

65. The technical paper proposes to defer setting quality dimensions until 2025, instead relying on existing UFB related measures. While quality dimensions could draw on existing arrangements, the proposed quality dimensions should capture requirements that are relevant for the first regulatory period and also provide for other gaps in UFB arrangements. For example,
- a. End user demands evolve over time and we expect quality measures will likewise need to evolve to ensure fibre services continue to meet these needs. The quality IM will need to establish principles – i.e. the intended quality outcome of fibre services – so that this can occur. For example, the UBA s 30R review established

that the regulated service should evolve over time so that it remained fit for purpose;

- b. New fibre services are being developed and platforms deployed and the terms will need to be established for these services. For example, access seekers are requesting unbundled Fibre Network services and Chorus is currently testing the deployment of the next generation of PON technologies XGSPON. These will need to be tested against and brought into the quality framework;
- c. Consumer quality measures such as NPS may evolve over time. Further, if benchmarking across Chorus and LFCs is to be implemented, then a common approach to seeking consumer feedback is required (Chorus and LFCs do not have a consistent approach making comparisons difficult).

66. We do not believe the setting of quality dimensions and measures is difficult or should be deferred until later periods. If the approach was deferred until the end of the first regulatory period, this would mean that we would not see fit for purpose measures until 2025.

67. The setting of dimensions and measures is largely a technical consideration relating to the identification of quality that is important to access seekers and end users. Accordingly, this is something that could be via a technical workshop or the TCF, i.e. such as the TCF based approach successfully taken during the development of UBA regulated services.

#### Detailed service specification

68. The workshop discussed where the detailed FFLAS service and operational specifications might be set out. For example, current STDs codify the principles in the STD Decision and provide practical detail of how the service is intended to work in service specific terms and attachments. As noted in the technical paper, UFB agreements currently govern and regulate the quality of the network and services provided to access seekers and, by implication, end users. These obligations will fall away. The prescribed service regulations will also describe the technical specifications and other circumstances in which the services must be supplied, although this is expected to be at a high level.

69. We agree that, while there are options available to the Commission, it is unclear where technical and quality aspects of services might be set. The Commission may wish to clarify this issue during the next phase of the process.

70. As with the quality dimensions, the Commission could address detailed specifications through a technical workshop or the TCF.

**END**

## Attachment: Commission questions

Question	Comment
<p><b>Legal framework</b></p> <p>Q1 What are your views on our interpretation of end-users of FFLAS and (a) whether or not persons can only be end-users when they are direct recipients of a telecommunications service rather than the recipients of a non-telecommunications service, and (b) when a retail service is “dependent” on a FFLAS?</p>	<p>We agree with the proposed approach. The Commission should be considering the interests of all end users that rely on FFLAS service of some form.</p>
<p>Q2 Is the 2011 GPS on the incentives for businesses to invest in UFB infrastructure irrelevant to our decisions under Part 6?</p>	<p>We support the Commission approach.</p>
<p>Q3 Can we can set IMs to support the matters in subparts 7 to 10 of Part 6, and not only IMs directly related to PQR and ID?</p> <p>Q4 Are there any other key issues that you consider should form part of our legal framework?</p>	<p>As noted in the paper, IMs can be set to for s174 purposes which relate to regulation under Part 6 and best promote s166 outcomes.</p> <p>The IMs do not apply to Part 4AA of the Act. However, they IMs must support s166 and Part 6 outcomes and should be applied to promote certainty and competition – this can include provisions that support EOI and non-discrimination. We expect that IMs and PQ determinations will be applied with the specific purpose of promoting competition for end user benefits.</p> <p>Further, IMs are intended to promote certainty for access seekers in relation to Part 6 regulation and there must be a prospective element to this - access seekers are making long term investment decisions and these are facilitated by certainty over how Part 6 will be applied.</p> <p>The IMs cannot relate solely to the next or imminent decisions. If this were the case they would have no purpose. In this case, the Commission can be confident that unbundling is a key issue for access seekers and end users, and that providing certainty over how Part 6 will apply will promote certainty for their investments. Under these circumstances, the Commission should provide IMs guidance on how it will apply Part 6 to that issue as this will support s174 and s166 purposes.</p>

Question	Comment
<p><b>Key economic principles</b></p> <p>Q5 Are there challenges involved in applying the FCM principle to FFLAS markets that mean we should not adopt this principle into the Part 6 regime? If so, please elaborate on your concerns with specific references to FFLAS market characteristics/dynamics that would make the application of the FCM principle impractical.</p>	<p>See our prior submission on the process paper.</p>
<p>Q6 Do you consider there is an economic principle related to competition that would increase regulatory certainty and would inform our decision-making process over and above the purposes described in s 166(2)? If so, please elaborate on how such a principle would fit with our decision-making framework.</p>	<p>We don't see the Commission economic principles as having special status, the Commission is obliged to make decisions that best promote Part 6 purposes. However, as an articulation of how the Commission thinks about issues and future decisions, they have wider signalling value.</p> <p>As set out in the body of our submission, we propose that the Commission set out the outcomes it is expecting from Part 6 regulation and this will have similar signalling benefits.</p>
<p>Q7 What are your views on the advisory panel's recommendation that there does not appear to be a strong case for an additional pricing principle beyond the pricing rules the Act imposes on Chorus? Please explain any areas where you disagree with the panel's advice and elaborate on how any pricing principle you propose would fit with our decision making framework.</p> <p>Do you have any other views on our economics principles?</p>	<p>As set out in the Axiom report, the Commission should consider pricing IMs. The pricing principles set out in the methodologies have a specific purpose. This is distinct from economic principles which do not have special status.</p>
<p><b>Asset valuation</b></p> <p>Q8 What are your views on our approach to establishing the initial RAB values?</p>	<p>The technical paper proposes that s177 applies to all fibre assets entering the RAB, irrespective of whether the fibre asset enters the RAB at implementation date or in the future.</p> <p>Accordingly, it's unclear what purpose FCM could have as a principle in this construct or what revaluation issues might come about apart from the limited permitted reasons set out in s177.</p>
<p>Q9 What are your views on our approach to the composition of the RAB?</p>	<p>The Commission will likely need to be more prescriptive on what assets come in to the RAB as, for example, the Commission should not accept assets in to the RAB where they exceed the efficient costs of providing the FFLAS service. The risk is that otherwise redundant copper assets will find their way in to the RAB.</p> <p>We recommend the Commission consider this more closely, and likely need to be more prescriptive on the assets entering the RAB (particularly where this is outside</p>

Question	Comment
	<p>the capex process). Chorus has clear incentives to maximise assets entering the RAB – i.e. otherwise redundant copper assets - irrespective the degree to which they are directly related to the provision of FFLAS services. Accordingly, there needs to be a nexus between FFLAS and the proposed asset for an asset to enter the RAB and this must be efficient.</p> <p>Further, an open approach risks Chorus designing services in a way, a substantive of purpose of which is to ensure assets are included in the RAB. For example, by routing services through otherwise redundant ducts so that they are candidates for inclusion in the RAB.</p>
<p>Q10 Are any issues likely to arise from adjusting asset costs to take account of capital contributions or supplier revaluations?</p>	<p>Where an asset has been created and a contribution made, in part, in lieu of contractual penalty or an in-kind contribution, this should be treated as a contribution and deducted from the cost of the asset. For example, Chorus' approach to non-standard lead-ins was the result of commercial agreement with the Crown and that contribution should be deducted from the lead-in asset.</p> <p>Repurposed assets should only come in to the RAB if they are directly required to provide FFLAS services, i.e. there should be a nexus with the regulated service.</p>
<p><b>Cost allocation</b> Q16 – 20</p>	<p>See Axiom report on cost allocation.</p>
<p>Q21 What are your views on the allocation of costs that could be included in the past losses for the initial RAB?</p> <p>Q22 What are your views on the choice of allocators for UFB initiative network investment which was used for non-UFB purposes?</p> <p>Q23 What are your views on the use of proxy allocators and other approaches to simplify the past losses calculations? Do you have any other views on our approach to cost allocation?</p>	<p>See body of our submission relating to past losses.</p>
<p><b>Quality dimensions</b> Q35 – 52</p>	<p>See body of our submission.</p>
<p>Q59 What are your views on our proposed approach for setting transitional arrangements for PQR in the first regulatory period? Do you have any other views on our approach to the capex IM?</p>	<p>We're not sure transitional arrangements can be easily applied as suggested by Chorus. For example,</p> <ul style="list-style-type: none"> <li>• There will be significantly different views on what is important for promoting end user and competition outcomes. Access seekers have been clear that</li> </ul>

Question	Comment
	<p>they need clarity on pricing principles and cost allocations to enable them to make investments today.</p> <ul style="list-style-type: none"> <li>In practice, it will be difficult to isolate elements or decisions relating to the regulatory framework that can be considered in isolation and ensure there are no spill-over effects of these decisions on the wider IM framework, i.e. by locking in parameters.</li> </ul> <p>Accordingly, the Commission should be specific and consider on a case by case basis any transitional arrangements.</p>
<p><b>Treatment of taxation</b></p> <p>Q66 Have tax losses from the fibre rollout been utilised by Chorus and the other LFCs to offset profits in other parts of the business or group, meaning that tax losses should not be carried forward or included in the calculation of initial losses? Please provide the reasons for your views. Do you have any other views on our approach to the treatment of taxation?</p>	<p>The past losses is all about losses incurred, and if these are set off against profits then Chorus has had the benefit of those losses. Accordingly, the losses benefit should be taken in the year they were established.</p>

## Attachment: Axiom report

[Provided as a separate document.]