New regulatory framework for fibre: cross-submission on Commission's proposed approach

1 February 2019

OVERVIEW

1 This cross-submission responds to submissions on the Commission's consultation paper *New regulatory framework for fibre – Invitation to comment on our proposed approach* (**Issues Paper**) released on 9 November 2018.

2 The Commission is implementing legislation designed to transition from a contractual framework governing the provision of fibre services to a building block model (**BBM**) regime. The policy approach and resulting legislation:

2.1 Recognise the UFB initiative involves making a once in a generation investment in a fibre network well ahead of demand, under Crown oversight and market disciplines. For example, by specifically requiring the Commission to carry out a financial losses calculation as part of the initial asset valuation.

2.2 Support the implementation of a BBM framework that will ensure consumers receive fair quality/prices and investors receive a fair return on that fibre investment.

2.3 Require incentives for ongoing investment in, and sustainability of, open access platforms that support retail competition. For example, bringing forward and encouraging ongoing investment in significant network capability, such as Chorus' 10 Gig trial, which will bring with it beneficial outcomes for consumers. Commission decisions here impact not only fibre investment under this regime but send signals on all infrastructure investment in New Zealand by others.

3 We agree the BBM framework:

3.1 Is intended to compensate for investment risks, including demand and stranding risks.

3.2 Does not allow double recovery for investments. The BBM framework in the Part 6 context is about the costs incurred in constructing or acquiring the assets used to deliver the regulated fibre fixed line access services (**FFLAS**), including shared assets. There is no double recovery with TSLRIC[1] (copper pricing) and some submitters incorrectly conflate the Commission's TSLRIC costing exercise with Chorus' actual costs and ask the Commission to undertake tasks that are inconsistent with the BBM approach under Part 6.

3.3 Will not provide excessive returns to investors. Chorus has not made the financial returns as suggested by one submitter. That analysis does not make a like-for-like comparison and appears to incorrectly compare Chorus' return on

[1] Total Service Long Run Incremental Cost (**TSLRIC**) was the pricing methodology used in the Final Pricing Principle (**FPP**) process for copper services. Refer to Commerce Commission, *Final pricing review determination for Chorus' unbundled copper local loop service* and *Final pricing review determination for Chorus' unbundled bitstream access services* (15 December 2015).

equity calculated from financial statements against the Commission's estimates of cost of equity for certain regulated sectors.

4 There is a degree of alignment in submissions on some of the key issues in developing the input methodologies (**IMs**). The scope of issues raised in submissions have also been limited, given the requirements set out in the recently amended Telecommunications Act (**Act**) as well as fundamentals one would expect to see in a BBM approach. This helps to narrow the focus of the Commission's process.

5 Areas of alignment in submissions include:

5.1 The initial establishment of a utility model requires some transition for the first regulatory period (**RP**) and significant policy alignment that there should be no shocks for anyone transitioning from a Crown contracted model into a utility framework.

5.2 Adopting a BBM approach similar to Part 4 of the Commerce Act (**Part 4**) best meets the objectives of the purpose statement in section 162.

5.3 Part 4 precedent is a good starting point for this process, factoring in legislative differences, as well as the more dynamic nature of telecommunications relative to other Part 4 regulated industries. The dynamic nature of the industry will need to be factored in the cost of capital IM.

5.4 Staggering the IMs consultation periods, and recognising some mandatory IMs will be more complex than others so will require more time.

5.5 The importance of the regulated asset base (**RAB**), cost allocation, capital expenditure (**capex**) and cost of capital.

5.6 The three economic principles developed in the Part 4 context are also relevant to Part 6 – real financial capital maintenance (**FCM**), efficient allocation of risk and asymmetric consequences of over- and under-investment.

5.7 Acknowledgement that competition is principally relevant at the retail level. Trustpower, the 4th largest retail service provider (**RSP**), has suggested the Commission recognises and increases focus on competition at the retail level, as opposed to the network level.

5.8 The importance of the consumer lens in Part 6, including its role within the development of IMs.

6 In terms of process issues, there's also some recognition of, and support by submitters for, the following:

6.1 Staggering of IMs draft decisions with priority given to asset valuation, cost allocation, and cost of capital.

6.2 The value in providing early visibility of the IMs required for the initial RAB[2] and the setting of the initial RAB value early (which we consider is possible in an IM).

6.3 Chorus submitting a price-quality proposal and approach similar to an individual price path (**IPP**).

6.4 The role for both principle and prescription in the IMs, although parties differ as to which IMs should be principled or prescribed and why.

6.5 To deprioritise the development of incentive mechanisms, given the legislative timeframe to implement the regime.

7 While there are submissions on certain aspects of the IMs regime, the legislative framework already settles a number of these key decisions. For example:

7.1 Section 162, as the purpose statement for Part 6, is to be given primacy over section 166(2)(b), which is simply a mandatory consideration where the Commission or Minister considers it relevant.

7.2 The methodology for calculating the initial asset valuation, including the financial loss asset, is largely specified in the Act, although some RSPs question the legislative requirements (e.g. suggesting the Commission move away from using fibre provider's actual costs).

7.3 The decision to implement a maximum allowable revenue (**MAR**). For example one submitter suggests a starting price adjustment, which isn't relevant in this regulatory context where we have a MAR and anchor services (and certain other services can be) specified.

7.4 The requirement to apply a wash-up mechanism for any over- or under-recovery of revenue, over one or more regulatory periods (until first reset).

7.5 The Act specifies the timeframe for implementation. Other local fibre companies (**LFCs**) and Spark suggest deferring the Draft IM Decision, which would put added pressure on the Commission to implement by 1 January 2022.

7.6 The Commission can undertake a deregulation review of the FFLAS, but not before the implementation date, despite Vodafone wanting it to be reflected in the BBM at implementation.

7.7 Chorus will set the layer 1 fibre unbundled product price from 1 January 2020, with the Commission having the opportunity to review three years post implementation date and potentially recommend cost-based pricing to the Minister.

[2] Refer to our main submission at paragraph [63] where we list requirements for determining the initial RAB in detail, including the components already set in section 176 of the Act and those requiring an IM.

7.8 Anchor services are set by the Minister in the first instance. The parameters of anchor services are therefore out of scope for the IMs process.

8 The purpose of IMs is to provide certainty across regulatory periods of the rules that apply in setting price-quality and information disclosure (**ID**) requirements. Some matters raised in submissions are outside the scope of the IMs and Part 6 of the Act and would duplicate obligations that already exist elsewhere under the Act. For example:

8.1 Unbundling and Vodafone's request for an unbundling IM to include non-discrimination and equivalence of inputs (**EOI**).

8.2 Business line restrictions (**BLRs**) and section 166(2)(b) when the Commission considers possible exemptions.

9 Some submitters have argued that competition, or the potential for competition, in various telecommunications markets requires the Commission to revisit fundamental aspects of the BBM approach developed under Part 4. Our view is that Part 4 precedents have been explicitly designed to ensure the actions of firms with market power do not distort competition in adjacent or downstream markets. It's for this reason that Parliament chose to model the new regulatory framework on existing Part 4 structures.

10 Given the legislative framework and submissions to date, the areas requiring further consideration, and that this cross-submission discusses in more length, are:

10.1 The relevance of the mandatory consideration in section 166(2)(b). Even where the Commission takes the view that promotion of competition is a relevant consideration, the Commission's role is not to protect other telecommunications market participants from competition nor to choose market winners and losers by promoting inefficient bypass of the regulated service.

10.2 Confirming that a pricing IM, additional economic principles (in particular pricing efficiency) and cost allocation rules between services are unnecessary and would not make sense in the context of the new regulatory framework. Parliament acknowledged in the Act[3] that some prices set under Part 6 will not be cost-based and, in some circumstances, it specifically imposes non-cost-based pricing. Fibre providers' pricing will already be constrained by the revenue cap, anchor pricing and the geographically consistent pricing requirements. It's unclear to us how pricing efficiency tests can be reformulated to make sense where pricing under the Act is deliberately not cost-based.

10.3 Establishing a clear understanding of the scope of the regulated service, while recognising services that are over and above FFLAS services should be excluded.

[3] See for example, section 206 of the Act recognises that FFLAS prices are not necessarily cost-based. After the implementation date, if the maximum price of a service is regulated, and it's not a cost-based price, Chorus will not be required to achieve price equivalence in relation to a layer 1 service to the extent that it is an input to that service.

10.4 Early guidance on the Commission's process, including whether any IMs will be given early priority for development including bringing forward the initial RAB and cost of capital IMs, the process for commencing work on the initial RAB (as the methodology is largely defined in the Act), whether the Commission intends to develop IMs in addition to the mandatory IMs in the Act for RP1, and early visibility of the price-quality path expenditure proposal requirements.

10.5 Confirming preferred methodologies for calculating financial losses and Crown financing, using actual costs incurred by the fibre provider.

10.6 Early decisions on cost allocation, given the Commission will need to consider a backward looking approach for the initial RAB, while setting enduring rules for the roll-forward.

10.7 Clarifying the extent to which the FFLAS cost of capital methodology will depart from the FPP cost of capital decision. The cost of capital IM is not a simple-roll over of the FPP decision, and should take into account higher levels of financial leverage, systematic risk and asset stranding risk associated with FFLAS.

10.8 Clarifying the relevance of other LFCs' arguments regarding systematic demand risk. While we agree with the risk, there appears to be some confusion regarding systematic demand risk (which would justify a higher asset beta for fibre over legacy copper) and demand risk due to competition, quality dimensions, and how the Commission plans to deliver a coherent approach, recognising the numerous mechanisms and instruments in the framework.

The structure of our cross-submission

11 For ease of reference, this cross-submission utilises the structure of the Commission's Issues Paper and our submission dated 21 December 2018. As we did in our submission, we address process issues, the legislative framework and purpose statements and economic principles in the main body of the submission as these reflect overarching themes and issues.

12 In the Appendix we address submissions made in response to the Commission's issues for early discussion.

13 Recognising that we are in the early stages of a long process, we have deliberately limited our comments to the most significant issues raised by other submitters.

PROCESS FOR DEVELOPING THE FIBRE INPUT METHODOLOGIES

14 We seek guidance on the Commission's process. This includes an early direction on:

14.1 Whether any IMs will be given early priority for development;

14.2 Whether the Commission will bring forward the setting of the initial RAB (in terms of the IMs required and value) and cost of capital IMs;

14.3 The process for commencing work on the initial RAB (as the methodology is largely defined in the Act);

14.4 Whether the Commission intends to develop IMs in addition to the mandatory IMs in the Act for RP1, including incentives;

14.5 Early visibility of price-quality path expenditure proposal requirements; and

14.6 The approach to development of ID.

15 There is broad support amongst submitters for staggering development of the IMs, including issuing draft decisions in tranches for consultation. We strongly agree with this view, as a timely transition to the new regulatory framework is critical. Considering ways to streamline the development of IMs, including staggering key decisions, can help achieve this outcome. Releasing consultation papers in tranches will make more efficient use of both the Commission's and stakeholders' time and resources.

16 The Commission can, and in our view should, go further to produce early final IM decisions, particularly those required to set the initial RAB[4] (and the initial RAB value itself) and cost of capital. These IMs decisions are sufficiently distinct from other IM topics (e.g. quality and expenditure) so final decisions can be determined earlier. The Commission could do a 'wrap-up' of any linked issues in the later IM decisions.

17 As we explained in our submission, the initial RAB (IMs and the actual value) and cost of capital decisions are of critical importance to Chorus and its shareholders and would benefit the wider industry. Continuing uncertainty regarding these key parameters, pending Commission decisions, constitutes an investment risk that adversely affects us and our shareholders. Our internal modelling or the modelling of independent analysts cannot sufficiently address the uncertainty with these parameters. This uncertainty can be reduced by the Commission expediting the IMs needed for the initial RAB (in addition to requirements set in the Act) and the initial RAB value itself. This can be achieved with minimal additional effort and without prejudicing the

[4] Our main submission addresses the requirements (including section 176 of the Act and some IMs) for determining the initial RAB in detail at paragraph [63] and the following table.

Commission's process for determining the remaining IMs. We note that a number of other submitters support this position.

18 Some submitters recognise the need to prioritise IMs for attention early due to their complexity or importance as a key building block of the new fibre regulatory regime. Chorus supports this general approach to prioritising IMs.

19 We support submitters' views that cost of capital, asset valuation and cost allocation are priority IMs for development.

20 We also acknowledge the complexity of implementing a BBM. We encourage building on the precedents already in place from the Part 4 regulated sectors. We also agree with the Commission's proposed approach to keep the IMs to the minimum mandatory IMs required to implement the regime by 2022 (the mandatory IMs listed in section 175(1)).

21 Within that mandatory list, we consider the following should be included:

21.1 IMs for the initial RAB (to the extent the Commission considers the initial RAB should be set utilising IMs);

21.2 The rules and processes IMs for pass through and recoverable costs, wash-up and reopeners. 2degrees also supports inclusion of reopeners (rules for reconsideration within the regulatory period) as mandatory within the rules and processes IMs.

Pricing IM

22 We do not think a pricing IM (or pricing principles set in an IM),[5] as suggested by some submitters, is required for implementation of the regime by 2022, including for the reasons set out above. The Commission could consider in future reviews whether other IMs are required, but the tight timeframe for implementation means the focus should also be on only those IMs required for RP1.

23 The Commission is not required to determine pricing methodologies under section 176. Because price-quality regulation prior to the reset date is based on revenue control, not price control,[6] a processes and rules methodology addressing price is not required for that form of regulation. While the Commission could consider a discretionary methodology addressing aspects of price, e.g. as part of ID, we think it's unnecessary at this time, given the other mechanisms that will constrain Chorus' pricing freedom: the revenue cap itself, anchor service regulation, geographically consistent pricing requirements and, outside Part 6, non-discrimination, EOI and Commerce Act requirements.

[5] Refer also to our discussion of pricing principles at paragraph [55].

[6] Section 195.

24 The Commission should wait to see how these mechanisms all work together in practice before making further regulatory interventions, particularly where – as is the case for any pricing methodology – the intervention is likely to be complex to determine and uncertain in its effects.

25 The Commission has previously discussed the development of pricing methodologies in the context of gas pipeline services. In the Final Reasons Paper accompanying the 2013 gas pipelines IM determination, the Commission acknowledged the challenges associated with determining pricing methodologies:[7]

25.1 Suppliers have access to better demand data than regulators and therefore the imposition of methodologies for deriving regulated prices may do more economic harm than good; and

25.2 Regulators are unable to address pricing distortions that arise in downstream unregulated markets.

26 Those concerns are of even greater significance in the present context given the relative immaturity of the FFLAS market (and downstream related markets).

27 The Commission may conduct a price quality review (three years after the implementation date)[8], and could consider then whether to continue to set a MAR for Chorus. It can also review anchor services before the start of each RP.[9] Our view is that this would be the appropriate point to consider whether pricing principles should apply (i.e. at least where the MAR and anchor services relationship is being reconsidered together, and where the FFLAS market will have reached a stage of greater maturity).

Incentives

28 We agree with other submitters, 2degrees and Trustpower, that consider there is insufficient time to develop incentives IMs. Accordingly, we believe that incentive mechanisms should be deferred to RP2, particularly given we have yet to transition from intensive build to a more 'maintain and operate' state with our network.

Prescriptive versus principled

29 A number of submitters support a mix of principled and prescriptive IMs, although parties differ as to which IMs should be principled and prescribed and why. We agree

[7] Commerce Commission, *Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper* (2 December 2010) at section 7.2.

[8] See section 209.

[9] See section 208.

a mix is likely to be appropriate. But in general we support the Commission's proposal to explore the potential for more principles-based, rather than prescriptive, IMs.

30 A degree of flexibility will be important for RP1 in transitioning into a new regulatory framework. Principles-based IMs can mitigate the potential for unforeseen consequences.

31 We support a more principles-based approach for cost allocation, quality, and expenditure. We also acknowledge there is a case within some IM topics for an appropriate balance of principled and prescriptive approaches, depending on the nature of the IM. For example, we support a quality dimensions IM that sets out broad principles that apply to the fibre providers' service provision, together with more specific dimensions from which the Commission might choose to (but does not have to) set quality measures or standards. This achieves a good balance of flexibility and certainty.

Price-quality determination and individual price path

32 Some submitters note the expectation that the IPP (similar to Transpower) is the starting point for price-quality regulation for Chorus. We agree with the Commission's indicated preference for a propose/approve model, whereby Chorus proposes forecast capex and operating expenditure (**opex**) to the Commission and the Commission scrutinises that proposal.

33 A key issue for us is getting early visibility on the Commission's expectations so we can incorporate them into our proposal preparation. Based on the Commission's current timetable, our proposal will have to be submitted before the IMs are finalised.

34 Some submitters noted that development of a capex IM is likely to be complex. We share this view, and support the Commission using its discretionary power to allow a price-quality path proposal for RP1 to have less granular requirements, with a fuller proposal for RP2 to line up with our increasing asset management maturity. We also agree with the Commission's view that it's not necessary for the IMs to specify all aspects of the price-quality path setting process. The IMs should allow sufficient flexibility to accommodate unforeseen challenges in preparing and scrutinising the expenditure proposal.

Information disclosure

35 We support comments from other LFCs on the general approach of principles-based ID regulation. A principles-based approach, where it makes sense, will support the flexibility and ultimately the durability of regulatory requirements over time.

36 The key to setting ID requirements, for both Chorus and other LFCs, will be to ensure the requirements are fit for the purpose of the new regulatory framework under which Chorus and other LFCs will be operating. Consistent requirements across Chorus and other LFCs, where practicable, will enable meaningful comparisons to be made.

37 As we said in our main submission, the current ID regime is not suitable for the new regulatory framework, given its approach to cost allocation and the granularity of reporting required. The new ID regime will require significant work, not only in its development but also its implementation. We suggest development of the ID regime is brought forward and run more in parallel with the price-quality determination (**PQD**). If the ID regime were finally determined by Q2 2021 that would allow us and other LFCs sufficient time to develop internal systems and processes for implementing the new ID regime. Otherwise the transition will be unnecessarily challenging.

THE RELEVANT STATUTORY CONTEXT AND PURPOSES OF PART 6

38 A number of submitters suggest the competitive dynamics of the telecommunications sector necessitate fundamental changes to various components of the BBM, as developed by the Commission in the Part 4 context. We support the Commission drawing on the analysis and reasoning from Part 4 where relevant to Part 6:

38.1 The Part 4 IMs were designed to achieve outcomes consistent with workably effective competition, and as such the orthodox BBM approach developed by the Commission under Part 4 is consistent with workable competition in the related market; and

38.2 The Commission has given some attention to reconciling the BBM to the potential of future workable competition as well as the current presence of some competition in the Part 4 context most recently, and notably, in the context of emerging technologies that are substitutable for electricity lines services. The Part 4 IMs are therefore not merely consistent with competitive outcomes; they take account of the development of potential competition in markets for regulated services.

39 There is nothing new concerning the existence of actual or potential competition that requires major changes to existing BBM fundamentals. The difference from the Part 4 experience is merely one of degree. We expect some adjustments may be required to reflect the particular circumstances of FFLAS, but that the core of the Commission's BBM approach is suitable for this context.

40 We are also concerned that a number of submitters are conflating the promotion of workable competition with the promotion of the interests of individual competitors, or particular market outcomes. Promoting workable competition in section 166(2)(b) does not mean inefficient entry should be incentivised for its own sake, or picking winners or losers in the market. Nor does it imply any particular market structure (e.g. a particular level of unbundling or infrastructure bypass). Promoting competition, in the context of the FFLAS IMs, means:

40.1 Creating conditions that facilitate retail competition utilising FFLAS; and

40.2 Ensuring that the regulatory arrangements do not serve as a barrier to the emergence of <u>efficient</u> competitors and substitutes for Chorus' services.

41 Competition is also a two-way street – the promotion of competition means that Chorus must be permitted to compete as well. Chorus' objective is to maximise utilisation of its FFLAS services in order to achieve its MAR, and so recovering our investment in the regulated fibre infrastructure and a normal return. That objective is both consistent with the Part 6 regulatory purpose and pro-competitive. That means Chorus must be afforded sufficient freedom to determine the optimal way to achieve its MAR, including, e.g. by incentivising uptake of layer 2 services.

42 Chorus has obligations under the Act (e.g. to make anchor services available) and those obligations have to be funded. The promotion of competition does not permit an outcome which doesn't allow us to recover the costs of meeting our regulatory obligations.

43 Finally, section 166(2)(b) is not a licence for interested parties to pressure the Commission to extend regulation to matters that are beyond the scope of price-quality regulation and ID. The Part 6 task is to develop IMs that deliver price-quality regulation and ID. Decisions made in the course of determining those IMs may take into account section 166(2)(b), where relevant, but the present task is limited to delivering price-quality regulation and ID. Some interested parties don't recognise that the task excludes, for example, specifying the terms on which unbundling will occur (a matter for regulation by the Minister[10]) and how EOI will operate (a matter regulated by deeds provided under Part 4AA).

44 One of the reasons the Commission is first required to assess the relevance of competition when applying section 166(2)(b) stems from the fact that, contrary to the assumption in some submissions, the promotion of rivalry with or substitution for, regulated networks will not always be to the long-term benefit of end-users or promote outcomes consistent with those observed in competitive markets. Rather, there are circumstances where promoting rivalry or substitution may be adverse to these outcomes, as we discuss below.

45 One of the submissions drew attention to the reforms to electricity distribution pricing that are being pursued by the Electricity Authority (**Authority**). It was suggested that one of the Authority's principal concerns was the potential for regulated networks to foreclose competition in related markets.[11] While this concern was noted by the Authority, it was far from the principal problem identified – rather than a concern about regulated networks *suppressing competition*, the principal problem the Authority identified was that inefficiencies in the networks' price structures are encouraging inefficient entry and therefore *excessive competition* for networks:[12]

> *Distributors run primarily fixed-cost businesses, but recover most of their costs using a variable charge – a flat per kWh charge that is not cost-reflective, nor benefit-based. This is inefficient and means consumers are paying more than they need to. This is because flat per kWh charges:*
>
> - *do not signal to consumers when the network is congested and costly to use, or when there is spare capacity. This results in unnecessary investment in the network, costing consumers more*

[10] Under sections 199 and 200.

[11] Axiom (for Spark), page 10.

[12] Electricity Authority, *More efficient distribution prices – what do they look like?*, Consultation Paper, 11 December 2018, page 1.

- *cause consumers to over-invest in technologies (such as solar panels) to avoid these charges, pushing more and more of the network costs onto consumers who do not use these technologies – often lower socio-economic households.*

The outcome is inefficient and unsustainable.

46 There are direct parallels between the Authority's concerns about excessive competition in the context of electricity networks and the issues with which the Commission must grapple regarding FFLAS. For example:

46.1 Chorus is constrained to set "geographically consistent" prices, which inevitably implies a degree of cross-subsidisation between areas, creating a potential incentive for inefficient entry into the contributing areas. Unlike the pricing inefficiencies identified in the electricity sector, this constraint is embedded in legislation and so cannot simply be removed.

46.2 In addition, Chorus' layer 2 prices currently imply a greater recovery of layer 1 cost from consumers of higher speed services, which has been acknowledged as an efficiency-enhancing form of price discrimination. However, unless this same structure can be embedded in the price for unbundled layer 1 services – which poses commercial challenges – then an incentive will be created for RSPs to "cherry-pick" irrespective of any cost or service advantage, and ultimately put pressure on Chorus to adopt a price structure for layer 2 services that is less efficient and that will be to the long-term detriment of end-users.

47 It is important, therefore – as reflected in the structure of the Commission's legislative requirements – for the Commission to consider the full implications of direct competition for FFLAS when making decisions on matters that may affect this, and ensure that such decisions are consistent with the achievement of the purpose statement.

Chorus layer 1 service

48 The framework is very clear that unbundling is to be set commercially for RP1. We do not think an unbundling IM is required for the layer 1 service.

49 Some submitters have proposed an IM that would cover the application of EOI to price, non-discrimination and how a review of an unbundling product is triggered after RP1.

50 There are a number of elements to what is proposed that don't relate to Part 6, including EOI and non-discrimination obligations. This would require the Commission to use its IM-making powers under Part 6 in relation to requirements placed on Chorus by other parts of the Act. This is outside the purpose and function of IMs set out in the Act.[13]

[13] See sections 174 to 176.

51 The legislation requires Chorus and other LFCs to make a point-to-multipoint layer 1 service available on commercial terms for RP1, subject to the provisions in the deed obligations under Part 4AA. The request for earlier Commission intervention was made both to the Ministry of Business, Innovation and Employment (**MBIE**) in the legislative review and again to Parliament during the Bill passage process and subsequently rejected. The Commission's role under Part 6 for layer 1 fibre service commences after RP1, when it may elect to undertake a price-quality review under section 209. It's important the Commission doesn't pre-determine any outcomes of the review before then.

ECONOMIC CONCEPTS AND PRINCIPLES

52 There is broad alignment around the relevance of the three economic principles from Part 4 to Part 6 – FCM, efficient allocation of risk and asymmetric consequences of over- and under-investment. Of those, FCM is the key principle underpinning the BBM framework.

53 We disagree there is any need for an additional pricing efficiency principle or any of the additional principles submitters have proposed.

FCM principle

54 Some submitters raise concerns that FCM gives Chorus a guaranteed return on its investments. Chorus is not being guaranteed a return *ex-post*. But the FCM principle recognises we should have an *ex-ante* expectation of earning a normal return on our efficient costs incurred in delivering all services captured by the BBM approach. We remain exposed to risks of under-recovery to the extent of any development that has not been anticipated.

Pricing efficiency principle

55 Some submitters support an additional pricing efficiency principle. Our view remains that this is unnecessary and difficult to reconcile with the policy choices made in the Act, as outlined above. A pricing efficiency principle is:

55.1 Redundant in light of other constraints on Chorus' pricing; and

55.2 Ineffective given that Chorus' pricing structure will have to accommodate the effect of anchor services on the distribution of demand as well as other pricing constraints.

56 The policy choice was made in the legislation to apply a revenue cap to constrain our return across our portfolio of products. Within that, we are subject to additional constraints including non-cost-based anchor services, geographically consistent pricing, the potential for price regulation of other mandatory products and Commerce Act obligations. Those various obligations already operate as a substantial constraint on Chorus' pricing, making a pricing efficiency principle redundant.

57 A pricing efficiency principle is also likely to be ineffective given the constraints on Chorus' pricing, including the effect of anchor service prices on the distribution of demand. The constraints on Chorus' pricing reflect social and policy objectives, rather than efficiency objectives, and will result in pricing structures that diverge from those that might be expected from a strict focus on allocative efficiency.

58 Finally, the existence of these pricing constraints will make it difficult for Chorus to achieve its MAR through the pricing of non-anchor services. Given that challenge, interested parties should not be advocating that the Commission place additional barriers in the way of Chorus achieving its MAR. Indeed, the interest of end-users would be best served if Chorus has flexibility to set prices across non-anchor services

which align to demand responsiveness or willingness to pay within the overarching constraint of the revenue cap. If additional barriers were to be put in place that prejudiced Chorus' ability to achieve its MAR, we would expect that risk to be compensated elsewhere in the BBM.

59 A number of submitters also proposed additional economic principles for the Commission's consideration. We haven't addressed those proposals individually in this cross-submission. None of those proposals can properly be characterised as an economic principle that ought to guide the Commission's decision-making.

APPENDIX – ISSUES FOR EARLY DISCUSSION

Scope of regulated services

60 We agree with other LFCs that FFLAS is focused on services that enable access to, or interconnection with, the defined network between a point of interconnection (**POI**) and end-user's building or access point. Services that are 'over and above' or additional to the services required to support delivery of the regulated services are out of scope, as are backhaul services. Using intra candidate area backhaul service (**ICABS**) as an example, ICABS is:

60.1 A backhaul service that sits outside the UFB contacts and Chorus' open access fibre deed under Part 4AA.

60.2 For layer 2 services (e.g. fibre bitstream services), it's included in the access service (from the local exchange to the POI).

60.3 For layer 1 services (e.g. direct fibre access services (**DFAS**)), it can be purchased from local exchange to the handover – but it's a competitive service and not necessary to take.

61 Some submitters have argued for broader interpretations of the FFLAS definition. We disagree, essentially for the reasons we explained in our submission. Using the in-home wiring services as an example, this service does not enable access to or interconnection with the network between a POI and end-users building. These services are beyond the optical network terminal (**ONT**) at the end-user's premise and entirely contestable – others can provide service independently of any telecommunication service to the ONT. Accordingly, it is not a FFLAS.

Asset valuation and financial losses

Asset valuation requirements in the Act

62 The methodology for calculating the initial valuation of pre- and post-2011 assets is largely determined by section 177 of the Act, which directs the Commission to use the costs incurred by fibre providers.

63 We agree with other submitters that costs incurred as a result of the UFB initiative should be included at actual cost: this is expressly stated in section 177(5). As we note in our submission, we have a powerful incentive to pursue efficiency as a result of our status as a publicly listed company delivering on what is essentially a fixed price contract. The partnership between the Government and the industry should not be second guessed by imposing a backwards looking efficiency test. This was the explicit policy choice made in the legislative review and by Parliament in passing the Act.

64 We also disagree with any suggestion there is double recovery in terms of assets shared with copper regulated services.

Efficiency

65 Several submitters have suggested an efficiency test could, and should, be applied to expenditure prior to the implementation date that was not subject to Crown oversight. This is inconsistent with section 177(1)(a), which requires the actual costs incurred to be included in the initial value, together with the value recorded by Chorus in its financial statements for assets owned by Chorus prior to 1 December 2011. The only permitted adjustment to those costs is for accumulated depreciation and impairment losses (if any), in accordance with section 177(1)(b). Again, this careful drafting reflects a deliberate policy choice not to impose an efficiency test in developing the initial value.[14]

66 Some submitters have proposed a variation on this approach, which contends that – although the Commission is not entitled to apply an efficiency test in calculating the initial value of fibre assets under section 177(1) – it is entitled to do so in determining the financial losses asset under section 177(2). Again, this is inconsistent with the structure and purpose of the Act. It doesn't make sense for the Commission to use actual historical costs for the initial value of fibre assets but then to develop a completely different value for the purpose of assessing whether Chorus has made financial losses on its investment *in those same assets* prior to implementation. Such an approach would not be determining the "*unrecovered returns on [Chorus'] investments*" as required by section 177(6).

67 Both variations on this theme would reflect bad regulatory policy – even if they were permitted by the Act. We are a publicly listed company with a strong efficiency incentive to meet cash-flow needs and to maintain our financeability. Our investments have been made against the backdrop of ongoing regulatory uncertainty. As we move towards implementation, regulatory uncertainty will decrease but not disappear. In this context, some responses imply that we would have an incentive to gold plate our investment if no backwards looking efficiency test were applied and assets were added into the RAB at cost. We disagree. This could only be correct if we were guaranteed to recover those costs. However, the Part 6 regulation does not provide this guarantee and, in fact, constraints in the regime mean that achieving our MAR could be challenging.

Shared assets

68 The initial RAB will include an allocation of costs for assets that are also used to provide copper-based services. This does not mean that costs are being recovered twice as some submissions suggested. The FPP copper prices were set based on an assumption that:

68.1 The hypothetical efficient operator has demand equal to the number of end-users paying for services on Chorus' copper and fibre networks, and LFC networks; and

[14] Cabinet Paper *Review of the Telecommunications Act 2001: Final Decisions on Fixed Line Services, Mobile Regulation and Consumer Protection* (2017) at paragraph [38] – [40].

68.2 There is constant demand on the hypothetical efficient operator's network.[15]

69 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. 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. This is clearly not the case. It's therefore entirely consistent for an allocation of shared costs of actual shared assets to be included in the fibre RAB.

70 Another submitter has suggested that optional variation accounting-based allocation (**OVABAA**) should be applied on the basis that the fibre network is new and an additional service, therefore doesn't warrant any allocation of shared assets. This argument reflects a misunderstanding of the role of OVABAA, which is to permit a regulated business to recover the whole of its shared costs across all activities, while avoiding disincentivising the use of regulated assets to provide other services. OVABAA is applied by:

70.1 Determining a standard accounting-based allocation approach (**ABAA**) between the regulated and 'additional' service; and

70.2 Asking whether that allocation would render the additional service commercially non-viable.

71 The submitter is reversing the approach by advocating for a lower initial allocation to the regulated (fibre) service. Moreover, there is no support for the proposition that FFLAS is non-viable under a standard allocation given that Chorus expects to recover the costs associated with FFLAS over the life of the assets.

Financial losses

72 We support the Commission's proposal to use a BBM methodology to calculate the value of the initial loss asset. This is consistent with the policy intention of the Act, and is the correct approach to ensure the FCM principle holds for Chorus' fibre investment.

73 We disagree with one submitter's suggestion that the unrecovered loss calculation should capture only the return on capital, ignoring depreciation, tax, and opex. A return means the surplus to capital after expenses. This can't be assessed without starting with revenues and deducting expenses. Under the BBM methodology a calculation that omits depreciation, opex, and tax is not a valid measure of the return achieved and therefore would not comply with section 177(3)(a) which requires that in determining the financial losses the Commission must "*take into account any accumulated unrecovered returns on investment made by the provider under the UFB initiative*".

[15] Commerce Commission *Final pricing review determination for Chorus' unbundled copper local loop service* (December 2015) at paragraph [422]

74 We also disagree with the same submitter's suggestion that the cost of debt should be used as the discount rate for calculating the value of the unrecovered loss asset at implementation date. We understand that this view relies on the Commission's 'claw back' approach as support. However the claw back mechanism has generally been used as an *ex-post* adjustment in relation to unforeseeable circumstances (e.g. Orion's under-recovery due to the Christchurch earthquakes). It has not been used to assess unrecovered returns on investment in a business as usual context.

75 The more relevant precedent is the Commission's proposed approach to the wash-up mechanism in the next default price path (**DPP**), where the cost of capital will be used for the 'time value of money adjustment' in the wash-up. As we note in our submission, we think the unrecovered loss period (2011 to the implementation date) should be treated as a single regulatory period, so it's appropriate to apply a wash-up in the same manner as will apply going forward.

76 Using a rate other than cost of capital would be inconsistent with the FCM principle. If we expected that we would under-recover during the 2011 to implementation date period. And this under-recovery would be rolled forward at a rate that differed from cost of capital, by definition the *ex-ante* NPV is less than 0.

77 Several submitters take the view that the financial loss calculation should be reduced by including copper revenues. This suggestion is inconsistent with the deliberate policy choice in the legislative review (reflected in the Act) not to have a single RAB for copper and fibre services. Part 6 applies only to FFLAS. The Part 6 purpose statement and resulting FCM principle is therefore concerned with the control of revenue for FFLAS –the regulation of copper services is separately addressed under Parts 2 and 2AA.

78 We also note that, if such an approach was taken, it would be complex to implement and would be unlikely to generate the result the submitters appear to be expecting. The FPP process set a cost-based price for copper services. The period between 2011 and the implementation date includes a significant period where Chorus was prevented from earning that cost-based price. Including copper revenues would essentially re-open that FPP pricing and involve re-litigating the pricing of those services, as well as the Commission's decision not to backdate that price to the date of the IPP re-determination.

79 Finally, we agree with Pat Duignan's thoughts on the calculation of the Crown Infrastructure Partners (**CIP**) financing adjustment. Specifically, the benefit of Crown financing cannot be calculated without considering the characteristics of the financing and how those compare with the cost of capital estimate to be applied. We are confident that, once the Commission takes these characteristics into account, the cost of Crown financing will not be zero.

Cost allocation

80 There is nothing new that requires fundamentally revisiting the Commission's approach to cost allocation. The cost allocation rules were designed to achieve outcomes consistent with workable competition, including by preventing allocations that distort competition.

81 Submitters asking for more granular cost allocation are not really complaining about allocation as such – they're concerned about pricing, and the relative prices of different services. The regulatory framework already incorporates a number of mechanisms to prevent Chorus from setting prices in a way that distorts competitive outcomes (e.g. EOI, non-discrimination, requirements for geographically consistent prices, anchor services, and Commerce Act obligations). Seeking to place additional constraints on cost allocation between layer 1 and layer 2 services, and between different regulated layer 2 services, is therefore unnecessary and conflicts with the legislative scheme.

82 Cost allocation between regulated services is also not a meaningful exercise where Parliament's decision to implement non-cost-based anchor services will necessarily distort the relationship between Chorus' prices and its costs, and will also affect the distribution of demand (as discussed above in relation to pricing methodologies and pricing efficiency).

83 The existence of anchor services will make it difficult for Chorus to achieve its MAR through pricing of commercial services. Given that challenge, the Commission should not be placing additional barriers in the way of Chorus achieving its MAR.

84 If the Commission considers that detailed cost allocation rules may be necessary to implement cost-based pricing for future regulatory periods that does not require the Commission to adopt a costly and unnecessary cost allocation methodology now. In any case, cost-based pricing does not require setting relative prices to reflect accounting-based allocations of cost between services, but rather should be based on economically meaningful concepts of cost. This would see prices set between incremental and standalone cost (consistent with the pricing principles applied to the Gas Distribution Businesses and EDBs), and a consistency with allowable revenue being recovered in the aggregate. In addition, given the network, market structure and consumer preferences are still evolving, capturing historic cost allocation data will not necessarily be informative for future regulatory decisions.

Cost of capital

85 The FFLAS cost of capital IM is not a simple roll-over of the Part 4 cost of capital IM and the FPP cost of capital decision.

86 There has been some suggestion from submitters that the cost of capital IM for FFLAS should be straightforward, based on the Part 4 IM and FPP decision. This suggestion is too simplistic.

87 We agree that the Commission has a settled high-level cost of capital methodology, and has experience in applying that methodology in both the Part 4 and FPP contexts. But within that methodology, there is flexibility for the Commission to take into account differences between the respective regulatory regimes and regulated services and reflect these differences in specific elements of the FFLAS cost of capital methodology.

88 When the time comes for the substantive debate, we will demonstrate that the Part 6 regulatory regime and FFLAS have some key characteristics, which are different to other regulatory regimes and regulated services. These differences should be

reflected in the asset beta, leverage, debt premium and risk-free rate (i.e. term) parameters, and the appropriate uplift in the Commission's midpoint cost of capital estimate. In addition, the percentile should be above the midpoint. We don't agree with any suggestion from submitters that no uplift should apply to the Commission's midpoint cost of capital estimate, for two reasons.

89 First, the focus of these submitters on the impact of FFLAS outages is too narrow. When thinking about whether there are asymmetric consequences of investment, traditionally addressed by means of a cost of capital uplift, the Commission can take into account the impact investment may have on both service quality and accelerating innovation. The move to a RAB-based BBM, rather than TSLRIC, supports an uplift. In contrast to TSLRIC, the connection between the cost of capital percentile and actual investment incentives is clear.

90 We note the Commission has previously considered whether a higher cost of capital percentile would be appropriate for UCLL/UBA in the FPP process based on the benefits that increased investment would have on accelerating innovation, as opposed to preventing major supply issues. A higher cost of capital percentile could send a positive signal to potential investors in fibre and telecommunications. Although this signal was determined too weak for copper services under the FPP model, under a BBM framework the connection between the cost of capital percentile and actual investment incentives is clear.

91 Second, the suggestion that the impact of FFLAS outages is not material because of the availability of mobile and fixed wireless access (**FWA**) services is not correct. The potential substitution from FWA and mobile services is likely to have limited effect in reducing the harm resulting from major supply disruption. The well-documented and continuing increase in fibre speeds and data usage is widely forecast to entrench fibre as the premier access technology, with FWA and mobile services remaining niche alternatives.

92 Homes and businesses are becoming increasingly dependent on reliable fixed-line fibre services. While FWA and mobile services are arguably a partial substitute for copper-based fixed line services, the much-increased service quality and speed of fibre services, and the pricing structure applied to mobile broadband services, means that mobile services are not always an effective substitute. In addition, mobile services are also dependent on our fibre network, potentially even more so with the future deployment of 5G cell sites. A failure of our network can impact both fibre, FWA and mobile services in an area.

93 When the time comes for the substantive debate, we will demonstrate that the transition to the BBM and the different circumstances of FFLAS, mean that the cost of capital percentile should be set above the midpoint.

Quality dimensions

Scope of quality dimensions

94 Submitters generally agreed the CEPA paper provides a useful framework for discussion about a quality dimensions IM. There also seemed to be broad acceptance that the quality dimensions IM should be principled but with some level of prescription regarding specific dimensions.

95 There was some disagreement on what should be covered in the IM and the measures and standards set under them. We agree that the aspects of quality highlighted by the submitters are important. Our concern is that the Commission adopt a coherent approach to the various instruments regulating quality, including: PQD, anchor service regulation, DFAS and unbundled fibre regulation, open access deeds under Part 4AA, regulated codes, and reference offer service terms. This would involve ensuring:

95.1 Quality matters are regulated by the instrument that is best suited to regulate that aspect of quality;

95.2 Consistency between quality instruments, together with other aspects of regulation applying to Chorus; and

95.3 No duplication between quality regulating instruments.

96 Many of the issues raised by submitters for consideration in IMs are likely to be best dealt with by other instruments. We also think the scope of quality standards suggested by some submitters was too wide and, if accepted, would amount to a regulatory guarantee of service performance which goes far beyond the purpose of Part 6 or price-quality regulation.

97 Quality measures included in IMs and price-quality regulation should be appropriate and proportionate to that type of instrument, and in particular to the statutory consequences for failures to meet the regulatory requirements. Breach of a price-quality requirement exposes the regulated provider to penalties of up to $5 million[16] and, in some cases, may also be an offence.[17] It is disproportionate to suggest that ordinary service commitments in relation to individual connections should attract such penalties.

98 More broadly it's also unrealistic to suggest that firms operating in competitive markets never fail to meet any service commitments (indeed, even in the context of regulated service levels under Part 2 standard terms determinations, the Commission has recognised the appropriateness of service levels that are not absolute standards). It is therefore not within the purpose of Part 6 to secure this outcome. Instead, such failures should have proportionate commercial consequences.

[16] Section 215.

[17] Section 217.

Process for quality

99 Submitters generally support the idea that Chorus should make a price-quality proposal but a few had reservations about us proposing quality measures and standards.

100 As the Commission knows, expenditure and quality are inextricably linked and the Commission typically requires suppliers to demonstrate the link between their forecast expenditure and proposed performance measures. It therefore doesn't make sense to separate quality measures and standards from the expenditure proposal. It would introduce substantial additional process and delay if the Commission had to first develop quality measures and standards and then Chorus formulated an expenditure proposal to meet them.

101 Any concerns that Chorus is targeting performance measures that are too low can be addressed in the course of the consultation on the proposal (as for example the Commission does in the case of Transpower's IPP proposals, or a customised price path proposal).

102 We also agree that end-user consultation should form part of the price-quality proposal process but this shouldn't be required for RP1 where the key aspects of quality are locked-in by legislation. In subsequent regulatory periods we would expect to consult with end-users in order to develop our proposed performance measures.

Retail commitments

103 We agree it is important that the quality of service provided by regulated networks allows RSPs to meet their obligations to consumers under the retail service quality code. We agree with the TUANZ statement that what matters to end-users is quality end-to-end and a wholesale input service is only part of the picture.

104 This reinforces our broader point that it's important to remain conscious of how different instruments work together and the importance of a coherent overall approach to quality. However, it is not the purpose of quality regulation under Part 6 (whether through standards under a PQD, anchor or DFAS service requirements) to underwrite RSPs' performance of their obligations to end-users. Our quality requirements should relate to those matters within our control, and reflect the nature of the regulatory instruments that apply to us.

Anchor services

105 Several submitters highlighted the importance of anchor services. This discussion was generally separate from discussion of the quality dimensions IM and the measures and standards set under them. It's important discussion about these regulations (together with DFAS) not be separated from the BBM generally. Anchor services serve an explicit and important function in controlling both service quality and price. They are

part of price-quality regulation under Part 6[18] and must be considered in any discussion about the appropriate scope of price-quality requirements.

106 Some submitters advocated for IMs prescribing the specific content of anchor services requirements. These regulations will be set by the Minister and IMs do not bind the Minister.

[18] Under subpart 5 of Part 6.