Chorus

BRINGING NEW ZEALAND
BETTER BROADBAND

Submission on Telecommunications Act Review: Post 2020 Regulatory Framework for Fixed Line Services

3 March 2017

500,000+ customers could upgrade to Chorus fibre or VDSL where fibre isn't availaible

The digital environment is increasingly touching everyone.

New Zealand's **world leading, essential digital infrastructure for the 21st century** is much like the railways in the 19th century. It connects. It creates movement. It creates new opportunities and pathways. It is important to **get the regulatory settings right in order to ensure continued investment and innovation in the infrastructure that is the indispensable platform supporting our digital future.**

- Increased use of UFB will deliver an estimated **$5.5 billion to GDP** over the next 10 years. Highly digitally engaged SMEs have **20% higher revenues**, faster growth and stronger job growth (NZ Tech Industry Association, 2016).
- Firms making smarter use of internet services are **6% more productive** or **four years ahead**. (Sapere, 2014).
- If all firms made smarter use of internet services, the productivity impact on national GDP would be **$34 billion a year**. (Sapere 2014)
- Better use of data by business and government could deliver **$4.5 billion over the next 5 years**. (The Innovation Partnership, 2015).
- The tech sector is creating jobs and growth throughout New Zealand, comprising **8%** of the country's GDP and contributing over **$6.3 billion** in exports.
- Even the least connected sectors are engaged - **91%** of Primary Sector firms use the internet. (NZ Tech Industry Association, 2016).
- UFB is an essential platform underpinning the **National Health IT plan**, e.g. enabling access to primary providers, common e-prescribing processes, uniform information sharing and telehealth in remote areas.
- UFB supports the **future of education** – increasing equal opportunity for kids of all backgrounds and preparing them to participate in the jobs of the future.
- Nearly **2 in 5** Kiwis have subscription video on demand and **1 in 10** have at least 2 services in the home – this is a 56% increase between the end of 2015 and the end 2016. (Roy Morgan Single Source New Zealand, October 2015 to December 2016).

The Government has taken a leadership step towards smarter regulation - simpler and more sustainable – to support market innovation and investment. **The issues have narrowed. Some final critical decisions are required:**

- Shared asset allocation could drive complexity and price or revenue shock in the fibre RAB.
- Incentives for efficiency under UFB contracts were very strong and the regulator should not second guess them.
- The proposed settings in the last 15% risk a digital divide because there is no line of sight to a fair return on investment. Clarification that fibre investment in rural areas could be treated similarly to urban fibre investment could positively renew those private sector incentives.
- Sustainability and financeability must be firmly cemented in.

The next step is final decisions and the introduction of legislation this year.

Industry, investors and consumers are watching to ensure that the innovation and investment needed to deliver fair pricing and fair returns results from these decisions. As recent moves in the market show (UFB2, RBI2, Sky/Vodafone, NZME/Fairfax), **investors in the communications, media and infrastructure markets are already looking well beyond the next two years and want to know what the future landscape looks like now**.

Investors will support ongoing investment where there is a clear line of sight to a return on that investment. We are happy to discuss options to ensure fair pricing and fair returns with strong incentives for rural fibre and transitional investment (such as the TSO).

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ANNEX A

A report from Brian Williamson of Communication Chambers: *Ensuring that anchor product regulation is effective; or how to avoid a regulatory Chimera* (**Williamson paper**)

OVERVIEW

We agree that in fibred areas (75% by 2020, 85% by 2024)

- A wholesale open access market structure was created in 2011; transition to world leading fibre is underway.
- A utility-style building block model (**BBM**) is the most appropriate regulatory model.
- Properly guided and implemented, a BBM better aligns investor and consumer interests - fair pricing and fair return.
- A revenue cap with entry level, price-capped anchor products is the appropriate form of control.
- Symmetric wash up is an orthodox approach.
- Efficiency should be presumed present in relation to UFB build due to the very strong incentives in place every step of the way. UFB financing has enabled build before demand and is factored into the contractual prices and framework.
- Forward looking efficiency will be dealt with in major capex approvals by the regulator. No backwards look is required.
- Shared asset allocation needs guidance. We need to move forward from 2011. No good can come from trying to reconstruct the vertically integrated Telecom to inform this.
- A WACC uplift is required to recognise the risk with fibre to the home (**FTTH**), as recognised by the Commission and internationally.
- Cost oriented price caps are complex and incompatible with this model; an anchor product approach is an economically sound alternative.
- Voice and basic broadband anchor products are reasonable.
- A 100/20 Mbps entry level anchor product is manageable; a Gigabit is not.
- Pricing anchor products at 2019 levels with inflation adjustments is fair.
- The anchor product approach supports continuity for consumers, certainty for the industry, a simpler transition for the first regulatory period and copper to fibre migration.
- An anchor product constrains potential monopoly power concerns via a chain of substitution with other differentiated products.
- The non-anchor products then allow us flexibility to innovate, invest and adapt to the market. The only tolerable limits on non-anchor products are the three minimum requirements in the July 2016 Options Paper.
- Unbundled fibre will be one of those non-anchor products; any additional costs to deliver this will form part of the RAB.
- Averaged prices continues existing policy.

- Regulatory periods for BBMs are 5-7 years in New Zealand and overseas.
- Open Access Deeds need to be simplified, updated and consolidated into one.
- Copper should be fully de-regulated wherever fibre is available.
- The only constraint on copper decommissioning are the minimum consumer safeguards.
- Where fibre roll out is pending (e.g. in UFB2 areas):
  - Only UBA (wholesale broadband) and UCLFS (copper voice) should remain regulated (UCLL is in decline. Retailers have been on notice since 2008).
  - There should be a simple and timely roll back of all copper regulation as soon as fibre is available.

Outside fibred areas (15% of NZ)

- Incentivising investment in the last 15% means we could get all kiwis included in future proofed fixed line broadband. Five years ago we were onto the first few percent. We are now at the other end - trying to solve the last 15%.
- A combination of public and private investment can maximise the outcomes. But poor investment signalling risks cementing a digital divide between urban and rural New Zealand.
- More thought is needed to support the continuation of the Government's policy of delivering future proofed fixed line broadband to all kiwis.
- This is the least competitive and highest cost part of New Zealand to serve. It needs the most investment to be included in the digital future.
- Former de-averaged pricing for urban and rural consumers, and the regulator's TSLRIC modelling across geographies, starkly reminds us of this reality.
- Investors will continue to support investment where they have a line of sight to a return on that investment. The new proposals don't provide this.
- The current cross subsidisation effect and benefit of an averaged pricing policy has changed such that consumers and investors will now likely see:
  - A conversation about legacy regulation to continue to support maintenance of minimum voice/dial-up/fax services using very costly legacy technologies, rather than a conversation about future proofed fixed line broadband to as many as possible.
  - The potential for more s30R copper processes about investment or cost without any corresponding upward price adjustment.
  - Any new investment deterred by averaged price caps that decline in real terms.
  - As a consequence, a focus on public subsidy and/or compensation mechanisms rather than encouraging private sector investment to deliver more.

- Pathways to FTTH, like fibre to the node, see partial copper replacement getting fibre deeper into rural areas. Decisions are required as to what is included in the RAB as a fibre asset which can positively advance rural investment incentives.
- Consideration will be needed to whether, and why, the TSO might remain in place where there are RBI improvements.

Bringing it all together

- The revised proposals mean the Commission would work with two regulatory models. On the right hand, a fibre BBM. On the left hand, a legacy regime continues for copper or potential other services in the sector.
- Both the proposed fibre form of control (revenue cap plus anchor products), and the need to bring together the fibre and copper models risk creating a ***regulatory chimera***.[1]
- Such an outcome – a model that proves unsustainable after undermining investor confidence and harming incentives for further fibre investment – is a particular risk in a structurally separated environment and with regulatory control extending to almost all revenues of a company.
- Sustainability must be firmly cemented in for industry, investors, consumers and the regulator for the transition and the long term.
  - For fibre, the existence of the hybrid anchor product and revenue cap is a delicate one, especially against a backdrop of building with uncertain demand and given that the largest retailers have become focused on vertical re-integration against the 2011 market structure. Any calls to:
    - Increase the anchor product (e.g. 1 Gbps) beyond entry level;
    - Interfere in the corresponding non-anchor product space so the innovation, investment and uptake benefits are harmed; and/or
    - Optimise the RAB to reduce maximum allowable revenues;

    carry a real risk of the combination combusting.
  - Having two models (a fibre one and a copper one) carries a risk that they don't "add up" (the 2013 problem).
- At a minimum, ensuring the financeability of the regulated supplier across the whole regulatory framework needs to be required by legislation. An investment grade credit rating is appropriate for a supplier of an essential utility service, required to receive UFB funding, necessary to support around $2 bn of debt, and necessary to support ongoing investment. Chorus is one business, with equity and debt holders in the whole business.

[1] To use the term coined in an independent expert report at Annex A.

SUBMISSION

1. We welcome progression of the review and the opportunity to comment on the Telecommunications Act Review: Post-2020 Regulatory Framework for Fixed Line Services paper (Discussion Paper) released on 10 February.

2. While we think several significant new issues arise, our focus is on working with the revised proposals. Our overall goal is to ensure that the framework is sustainable, there is fair pricing and fair returns, there are no shocks in transition and that regulatory implementation is more predictable and aligned to expectations of outcomes.

3. In 2011, New Zealand saw a major structural and investment change in telecommunications. Chorus and local fibre companies (LFCs) were established and the world leading roll out of upgraded ultra-fast FTTH broadband infrastructure commenced.

4. In contrast to Australia, New Zealand leveraged the existing assets and expertise of Chorus to support the rollout of high quality broadband. Chorus had already successfully delivered fibre to the node, and continued that pathway with FTTH.

5. This approach has secured very efficient, high quality build and increasingly improving customer experiences as uptake (already at 32%) soars.

6. While there have been significant commercial risks undertaken in the UFB roll out, the largest complexity has been the shocks of the regulatory regime and its scarring effect across industry, investors and consumers.

7. As fibre uptake is soaring, large retail service providers are now pushing against the wholesale open access model, taking steps toward vertical reintegration using mobile and selective fixed deployments. We believe wholesale open access is the best approach for New Zealand and the regulatory framework should continue to support this forwards and for the whole of New Zealand.

8. We endorse policy makers' efforts to move towards simple and clear regulation. Being more predictable and simpler to implement should also minimise the potential for disputes or surprising outcomes (for both the industry and the regulator who has to navigate those disputes).

9. It's important the regulator has clear objectives and the tools to deliver them. This new framework is set against a backdrop of stability issues and under, not over recovery concerns. The Commission should be clearly directed on the objectives and outcomes that the policy framework is seeking to achieve. This ensures the regulator delivers the intended outcomes and will avoid mismatches as occurred in the past - even though there was a new s18(2A) purpose statement and Government policy statement in 2011.

10. Building on the proposed framework, key areas for minimising complexity and disputes and increasing predictability include:

Regulated Asset Base to inform the fibre revenue cap

11. The UFB roll out has been subject to enormous cost, quality and timeliness incentives. A highly competitive tender process ensured that efficient deployment was secured up front. Much of the risk sits with UFB providers and, there continues to be a high degree of monitoring and approvals by Crown Fibre Holdings, an independent crown company. Additionally, for Chorus as an NZX and ASX listed company, there are strong market disciplines and constant public scrutiny.

12. There is no need to put the regulator in the position of second guessing the Crown contracts. This would place the Commission in a position of facing calls for hypothetical efficiency and optimisation subjectivity. Also, any suggestion that UFB funding should be treated differently is unorthodox. That funding supported delivery ahead of demand and is already factored into the contracted prices. Leaving this kind of uncertainty sends very poor signals to existing and future investors in New Zealand infrastructure and Crown partnerships. That is not in the long term interests of consumers.

13. We are aware of two broad concerns from the proposed efficiency statements added into the Discussion Document. First, signals are sent to the private sector and investors that competitively tendered public private partnerships may be second guessed. Secondly, given history, there is concern that the Commission will be faced with having to consider hypothetical efficiency or benchmarking (again). This would be a very poor outcome.

14. We have had strong incentives to deploy cost effective UFB build and installations. As a dual-listed company, and one that has reshaped its business following the initial copper benchmarking decision, we have every incentive, and indeed face market disciplines, to ensure that costs are efficient. During the FPP process, we were clear that we have negotiated to achieve the lowest costs possible and there has been no suggestion in the market that we have been anything but efficient.

15. Beyond UFB contracts, future investment will be scrutinised by the regulator under a major capex approval regime. So a backwards looking efficiency review is redundant.

16. As the Commission has indicated,[2] WACC will be higher in the context of a fibre only RAB than the WACC approach seen in the TSLRIC processes, as new investment is rolled into the RAB in a BBM. The WACC premium must reflect the risk associated with investing while future demand is uncertain and recognise that

[2] Commerce Commission, Cost of Capital for the UCLL and UBA pricing reviews, Final Decision, 15 December 2015, para 221.

ongoing investment incentives for essential infrastructure investors are critical to encourage further fibre roll-out and a resilient network.

Anchor and non-anchor products

17. The anchor product approach has been adopted in Europe. It is an alternative to a complex search for cost oriented prices for each service.

18. We want to ensure that the economic anchor concept is not lost. It has a constraining effect and also beneficial effects. At Annex A, we provide a further independent report from Brian Williamson. This reminds us that the anchor is intended to be a basic product (arguably a 30/10 in his view), not a "most popular" or aspirational product.

19. The existence of the anchor product price cap mitigates potential monopoly concerns via a chain of substitution effect. While the anchor product concept constrains potential monopoly behaviour, it also provides positive incentives to innovate by providing higher and lower specification non-anchor products. As the Williamson Paper notes:

> *"Differentiation and scope to adapt pricing was considered important to motivate investment and efficient investment choices.".*

20. The paper is also a reminder that the anchor product concept will result in further constraints if there is also a revenue cap – which was not the case in the UK or Europe. Additionally, it is critical that the anchor product cap and revenue cap are carefully mixed and that further constraints are not added, otherwise the positive benefits and the sustainability of the model desired may be undermined.

21. The substantial countervailing power of the major retail service providers over non-anchor products should also be borne in mind. The major retail service providers are well placed to negotiate quality and responsive product offerings. This means the non-anchor product set will invariably contain high quality product offerings that RSPs and consumers want. On this, without complex regulatory determination processes on fibre:

    - We voluntarily introduced the 100/20 product within the UFB contracted product range – it has driven uptake and it has price relativity with the ADSL/VDSL product;
    - We voluntarily increased the 30/10 product to a 50/10 (no price increase) on our fifth birthday in December;
    - We voluntarily made Dunedin the first Gigabit city in the southern hemisphere and we have since released the 1 Gigabit wholesale product nationwide;
    - We voluntarily announced further incentives to encourage a transition from ADSL to fibre, or VDSL where fibre is not available, as well as incentives for retail service providers to offer fibre capable modems; and
    - We are continuously increasing information and education for consumers.

22. Calls for a highly specified anchor product (e.g. a 1 Gbps service) combined with calls to reduce the revenue cap place sustainability at risk. In turn, that puts differentiation, innovation and investment incentives at risk, to the detriment of consumers. This would be further de-stabilised if other interference appears in the regime for non-anchor products.

No revenue or price volatility / financeability of regulated supplier

23. We agree that there should be an explicit policy objective that clearly guides the implementation and forward looking application of the new framework to minimise revenue and price volatility. This will help improve and restore general market confidence. Regulation should deliver fair pricing and a fair return in regulated sectors in New Zealand, better aligning consumer and investor interests.

24. Everyone is aware that an investment grade credit rating is appropriate for a utility-like provider. Chorus has, and requires, an investment grade credit rating to service nearly $2 billion debt, which is a required pre-requisite to receive UFB funding and, it is required to support ongoing investment. No regulatory regime or implementation process should de-stabilise this.

25. A requirement to apply a financeability test is a well recognised tool given to regulators in other utility regimes. We support the Government making it clear that this is expected in New Zealand. This is increasingly important where the Commission is regulating one business with two different regimes, including the unique FTTH transition.

Commitment to implementation of the regime in time

26. The Government has decided that fibre must be regulated going forwards. As soon as legislation is passed, it is up to the Commission to implement the framework ready for 2020, when the existing UFB1 contract expires.

27. The framework paper has taken a step towards narrowing the range of uncertainty as to the environment post 2020, and that process needs to continue with urgency. As recent moves in the market show (UFB2, RBI2, Sky/Vodafone, NZME/Fairfax) investors in the telecommunications and media markets are already looking beyond the next two years and need to know what the future landscape looks like.

28. Without legislation, there is no new framework. Nor is there any transitional regime for fibre.

29. Even though we would make commercial offers, if legislation is not promptly progressed, there will be uncertainty for everyone and the regulator may even face a request to open a Schedule 3 investigation under the existing regime - 'just in case'. This would be a poor outcome for everyone and a major distraction from moving to a sustainable position.

30. A transitional regime is a poor substitute for moving forward with the new regime on time, and would create odd flow-on effects. In the event a transitional

regime were in place until 2022 because the Commission couldn't complete implementation prior, reviews of that regime would commence only a year later (2023). This requires further consideration.

31. In the body of this submission we provide more detailed comment on:

- **Part A** - Fibre regulation.
- **Part B** – Copper regulation.
- **Part C** – Overall considerations.

32. In **Appendix A**, we summarise previous views on other key topics.

33. We also attach as **Annex A** a report from Brian Williamson of Communication Chambers: *Ensuring that anchor product regulation is effective; or how to avoid a regulatory Chimera* (**Williamson paper**).

Part A – Fibre Regulation

34. The Government has made final decisions on regulation of fibre networks. We support the move towards utility style regulation, with the objective of moving towards simple, clear regulation that minimises the potential for disputes, provides more stability and predictability and incentivises efficient investment.

35. This shift to utility-style regulation is not because there are concerns about excessive profits and pricing or because of non-discrimination concerns. It is to address concerns over the volatility in revenues and prices, and the impact that has on investment in infrastructure, driven by the existing framework.

36. There are three particular areas where the implementation of the proposed valuation approach - unrecovered historical cost - could become complex, lead to highly contentious disputes, and ultimately be arbitrary:

- Valuation of shared assets that existed in 2011 – we propose consistency with the approach the Commission used when regulating other sectors under Part 4 of the Commerce Act.
- Allocation of shared assets built 2011 – 2020 – this investment was driven by the UFB roll out, and the assets should be recognised accordingly.
- Application of a backwards looking efficiency test – this is unnecessary in the market context that we operate under, and any assessment needs to take into account the context in which Chorus was operating at the time.

37. We suggest that in these areas additional guidance be given to the Commission and the industry on the implementation of the valuation approach.

Scope of the RAB

38. The Government has said there will be a single RAB containing fibre assets used to deliver fixed line access services. The definition of fixed line access services will

be modelled on 'electricity lines services' in section 54C of the Commerce Act. We think this is the right approach and will usefully leverage the Commission's experience with Part 4.

39. One key change adopting a Part 4 approach brings is defining the scope of regulation by service as opposed to network structure. So we expect a fixed line access service will be one that provides a link to an end user's premises rather than a link between two specific network structures (such as an external termination point and an aggregation switch). This allows the parameters of services to be set in response to demand rather than locked-in by regulation. It also avoids the spectre of partly regulated services.

40. There are some decisions to be taken in determining what counts as a 'fibre asset'. For example, we've invested in laying fibre feeder cables to DSL cabinets to improve the performance of copper broadband. Investment of this kind is clearly in 'fibre assets' but the fixed line access service it improves is DSL over copper (UBA).

41. Over time, as the copper is replaced and withdrawn, these fibre feeders can be repurposed to support FTTH services. So it might make sense to include this kind of investment in the RAB now (but allocate it appropriately) even though it may not currently be supporting any FTTH access services. This would provide certainty up-front and avoid the need to value partly depreciated assets and adjust the RAB in subsequent periods. Deciding how to approach this issue could have particular consequences for rural New Zealand (discussed in Part B below).

Valuation of the fibre RAB

42. The UFB network will be regulated from 2020 using the building blocks approach.

43. The Government will prescribe that "the opening value of each regulated supplier's RAB will be determined on the basis of the unrecovered historic costs incurred by the regulated supplier, but only to the extent those costs were efficiently incurred".

44. We agree with the objective of a valuation approach that prevents double recovery but assures investors they can expect to recover their investment, and results in investors being compensated for investments efficiently incurred.

45. By 2020 the UFB network will be made up of investments committed as part of the UFB project, and the shared infrastructure that supports both the UFB network and the copper network (such as ducts and poles).

46. Implementing an unrecovered historical cost valuation at 2020 will require the Commission and the industry to work through a number of steps. Key steps will include:

    - Assessing the value of the shared infrastructure at 2011, when Telecom was split and the UFB project started.

- Tracking the UFB investment between the start of the UFB project in 2011 and 2020.

47. The Government should provide additional guidance to the Commission on three key valuation aspects:

    - Implementation of the unrecovered historical cost valuation approach, to support the objective of simple and clear regulation and minimising the potential for disputes and industry disruption.
    - Indexation of the RAB value to CPI. Indexation removes uncertainty and avoids any potential arguments about revaluations when the RAB is rolled over. This is an orthodox approach used by the Commission in regulating electricity lines businesses under Part 4.

      If submissions are not aligned on this this point then, consistent with the Government's objective of providing sufficient regulatory stability, transparency and certainty to enable businesses to make long term investments, indexing the RAB to CPI should be included in guidance to the Commission.

Shared assets at 2011

48. Shared assets are a significant part of the network used to deliver fibre services. These assets can have very long asset lives, many of the assets in question are not that old, and the unrecovered investment in these assets is significant.

49. Copper prices set through the FPP process are not designed to recover all pre-UFB shared asset costs as they are calculated on the basis of a 100% demand assumption. This means that copper prices can only be said to recover a proportion of our shared assets costs, based on copper's proportion of total connections. The remainder needs to be recovered through fibre revenues.

50. The unrecovered value of the 2011 shared assets is impossible to calculate with any accuracy. As we have continually said, any attempts to go back to privatisation or earlier and reconstruct the past, including through a demerger, would set the industry and regulator up for years of debate. No good can come from reconstructing the vertically integrated Telecom.

51. Accurate cost information, revenue information, and the ability to accurately disentangle cost and recovery during the period when Telecom was vertically integrated and operated several networks simply does not exist. If the Commission is set this task, it seems inevitable that the process will be complex, lengthy, contentious, and, given the lack of reliable information, the outcome will be ultimately arbitrary.

52. Even if it could be done, it would be inappropriate to do so. A calculation that goes back through past revenues and costs would result in a RAB that either claws back past profits or protects the firm from the adverse consequences of past risks. Neither outcome is appropriate in modern regulation.

53. To address these problems legislation needs to go beyond an instruction of unrecovered historic costs. Further guidance to the Commission is needed as to how the value of shared assets should be assessed. One possible reference point is a direction to use the approach the Commission took when regulating other sectors under Part 4 of the Commerce Act. The Commission set fair and reasonable valuations consistent with investor expectations. This was endorsed by the High Court as being consistent with the purpose of Part 4 regulation and in the long term interests of consumers.

Investment in shared assets 2011 - 2020

54. Turning to the investment in shared asset infrastructure that occurred between 2011 and 2020. During this period Chorus was fully committed to rolling out the UFB network, and had commitments to CFH to promote fibre services and investment over copper. It is reasonable to recognise the reality that investment in the shared assets infrastructure during the period from 2011 to 2020 was driven by the UFB network roll out.

55. Guidance from the Government to the Commission that it could take this approach would allow the Commission and the industry to avoid a lengthy and complex trawl through the data on costs and projects between 2011 and 2020 – replicating the very oversight that Crown Fibre Holdings and the investor community has given continuously throughout.

Efficiency check

56. The Government has proposed a caveat that unrecovered historical costs should be recognised "to the extent those costs were efficiently incurred." Given the market context, this caveat is not only unnecessary, but quite inappropriate. It risks bogging the industry down in a complex and contentious process.

57. While we accept the principle of efficiency on a forward-looking basis, a backwards looking assessment is very problematic. This is particularly so where the proposal is to apply scrutiny to investments after the fact. The Commission will have the task of checking for efficiency applying unrealistic hindsight. The risks of disputes and undermining investor confidence are obvious. Such an inquiry has no precedent in other industries regulated under Part 4 of the Commerce Act. It is novel and unorthodox.

58. The UFB investment was made following a highly competitive tendering process. Our fibre prices were fixed until 2020, with no forward certainty about price regulation after 2020. Competition for the market created economically efficient investment outcomes - efficient outcomes were self-selecting arising from the competitive process.

59. The level of debt and equity funding provided through CFH was also fixed. All risk associated with cost overruns was borne by Chorus.

60. Accordingly, we had every incentive to invest in the UFB program in an efficient manner. If our investment was higher than expected, we could expect not to be

able to recover this higher cost of our investment or obtain the expected return on the investment during the build period to 2020. If our investment was more efficient than expected, we could expect to gain from that efficiency during the build period. We have, and have had, every incentive to incur costs efficiently in building the UFB network in the areas in which we were the successful tenderer.

61. There are other issues at play. Demand was and remains uncertain to a large degree. We have an incentive to invest and price efficiently so as to increase uptake and traffic over the UFB network, the investment in which is largely sunk and non-diversifiable. The risk of overbuild and potential competition acts as an additional constraint against inefficient investment.

62. The proposal for a backward looking efficiency inquiry also ignores the reality of constraints on capex which we operate under. Chorus currently carries nearly $2 billion in debt. Our financial covenants require us to stay below a certain debt/EBITDA ratio and we are required under the terms of the UFB agreement to maintain an investment grade credit rating. Intentionally spending capital inefficiently and unnecessarily on something that, in the best case, will deliver a regulated (sub-market) return after 2020 would be entirely irresponsible.

63. It is our firm view that a backwards looking efficiency inquiry is unnecessary and inappropriate. It introduces controversy, complexity and uncertainty with the only potential benefit being a windfall gain for a few large retail service providers. It should not proceed.

64. But if the inquiry must proceed it is important guidance from the Government be given to limit the potential damage to investor confidence and New Zealand's reputation. Guidance should require that the efficiency assessment:

- Start with the presumption that Chorus' investment making was efficient, given the strong efficiency incentives operating on Chorus during the relevant period (where Chorus was listed and subject to regulation). The UK energy regulator, Ofgem, refers to there being a reverse onus of proof with respect to disallowance of incurred capex – that is, Ofgem accepts that it needs to prove that something has been inefficient, rather than there being a requirement for the regulated business to prove efficiency.
- Be consistent with the objectives of BBM regulation and the information available to Chorus at the time the investments were made. The Commission's inquiry should look at the decisions in the context of the information that was available at the time of the decision (i.e. no application of hindsight).
- Recognise that during the relevant period Chorus' network investment decisions were constrained by the requirements of the UFB contract and CFH, as well as other regulatory requirements (such as health and safety).

WACC

65. During the FPP process, the Commission noted there was likely to be greater scope for a WACC uplift in a BBM framework than in a TSLRIC model. This is

because new investment is rolled into the RAB in a BBM framework, meaning that there is a direct link between WACC and our investment incentives.[3]

66. We also believe that WACC considerations in a fibre only RAB are different to those in a combined copper and fibre RAB. Careful consideration needs to be given to a suitable WACC premium that adequately reflects the risk associated with the fibre business and the importance of ongoing investment incentives in encouraging further roll-out of fibre and supporting ongoing investment to ensure resilience of the network. In Europe, a number of regulators have recognised the risks of FTTH investment and have permitted a WACC uplift,[4] which is consistent with the recommendations of the European Commission.[5]

Anchor products

67. The Discussion Paper proposes anchor products plus a revenue cap, with a 100/20 Mbps bitstream product and a basic voice input product. This approach ensures price stability and ensures that we cannot make excessive returns while supporting a fair return overall. However, the ability to make a fair return will be undermined if other constraints are applied to non-anchor products – creating what the Williamson Paper describes as a regulatory Chimera.

68. Under an anchor product approach, a basic product at an entry level price acts as a constraint on a provider's ability to earn excessive profits, while still providing incentives to innovate by providing higher and lower specification non-anchor products.

69. As Brian Williamson notes in his paper, service and price flexibility increases the scope for investors to offer differentiated wholesale products, which aligns investor interests with consumer willingness to pay, and also encourages assessment of cost, value and risk in making investment choices.[6] Williamson cautions that constraints on market flexibility would risk a "heads you win, tails I lose situation",[7] which would ultimately prove unstable.

70. While there is an ability to differentiate and offer premium services, this will always be constrained by the anchor product specifications and prices. And in the New Zealand case, this will be further constrained by the revenue cap.

71. However, the anchor product and revenue cap approach will be compromised if additional constraints limit how differentiated products sit relative to the anchors. Such constraints will limit our ability to innovate and generate efficiencies in

[3] Commerce Commission (15 December 2015) *Cost of capital for the UCLL and UBA pricing reviews*, page 53

[4] WIK-Consult (2016) *Regulatory approaches to risky bottleneck assets: International case studies*, page 7

[5] See: European Commission (2010) *Commission Recommendation of 20/09/2010 on regulated access to Next Generation Access Networks (NGA)*, {SEC(2010) 1037}, page 6

[6] Brian Williamson, *Ensuring that anchor product regulation is effective; or how to avoid a regulatory Chimera*, page 10.

[7] Above, page 3.

delivering non-anchor products. The simple point is that any further constraints will put at risk our ability to meet market demand and generate revenue equal to the revenue cap. This goes against BBM regulation.

72. Consistent with our previous submissions, we propose that the EOI constraint be removed and that the existing Commerce Act carve out in s63 be extended to anchor and non-anchor products under the BBM. Non-discrimination will still apply, consistent with the last five years and the approach proposed as part of the land access reforms.[8]

73. The Government has said that the anchor product price will be set at the 2019 UFB contract level and increased annually by CPI. This should be legislated. We agree it's appropriate to begin with the 2019 UFB contract price in order to avoid the potential for sharp price changes for end users. Indexing prices to inflation sends the right signals to regulated suppliers and investors about price and revenue stability and is important to the credibility of the anchor product proposal.

Part B – Copper Regulation

Deregulation of copper

74. We agree that copper services should be deregulated inside areas where fibre services are available, including the ability to decommission copper. In these areas, fibre services effectively act as an anchor for copper services and prices. Deregulation in response to fibre availability should be predictable and uncontroversial. It's not really clear why ministerial oversight of such a mechanism is required.

75. The Discussion Paper proposes that the ability to decommission copper be subject to some minimum consumer protection requirements. We agree with a code that provides minimum consumer protection.

76. Care needs to be taken that in areas served by other LFCs, that the conditions of any code cannot be used to hold up withdrawal of copper. For example, while we will be obligated to provide an anchor product in our fibre areas, other LFCs won't have the same obligation.

77. In these areas, fibre products will effectively constrain how we can price copper services. This means we are not free to make excessive profits, or potentially even make a return. At some point it may become uneconomic to maintain the copper network. Inefficient investment is not in the long term interest of consumers, and at that point, Chorus should be able to withdraw copper without being held up by other network providers.

[8] Under the Telecommunications (Property Access and Other Matters) Amendment Bill), electricity lines companies who install fibre using their right of access to existing electricity works are obliged to provide a layer 1 fibre service on a non-discriminatory basis

78. The risk of being held up in other LFC areas could be addressed by: simply allowing Chorus to give sufficient notice of withdrawal; placing incentives on other LFCs and RBI providers to meet the minimum consumer requirements; or placing an obligation to supply basic services on other LFCs and RBI providers.

79. Outside areas where fibre is available the proposal is that UBA and UCLFS will remain regulated. The UBA and UCLL service descriptions could be removed from Schedule 1 of the Act, with the position in the last 15% preserved by specific provisions grandfathering price and non-price terms under the UBA and UCLFS STDs. Part 2 should also be clarified to provide that, if the service description is removed from Schedule 1, the STDs in place fall away from that date.

TSO

80. We agree that TSO obligations for the Local Residential Telephone Service should be rolled back wherever fibre is available – both within Chorus fibre areas, and areas served by other LFCs.

81. The policy rationale for the TSO is to ensure there are basic voice services available at an affordable price, particularly where there might not be incentives to provide them. The two TSO Deeds place obligations on both Chorus (at the wholesale level) and Spark (at the retail level) to make such services available. While the TSO Deed was split between wholesale and retail obligations at demerger, it hasn't otherwise been updated since 2001. There have been fundamental changes in the industry and consumer preferences and demand in the 16 years since then.

82. The reason for proposing the TSO obligation be removed in fibre areas is that there are alternative voice services of sufficient quality and open access obligations that allow competition at the retail level. The same conditions seem to be present in RBI areas.

83. For the remaining areas, the proposal is that UCLFS will remain regulated, with prices capped at 2019 levels. As we explained in submissions the 2013 TSO Review, this does raise questions about the relevance of wholesale TSO.

84. If the TSO does remain in place outside fibre areas, the TSO Deeds need to be modernised to enable Chorus to invest in the most efficient technology. Utility-style regulation is designed to ensure that a monopoly continues to have incentives to efficiently invest. There are a number of features of the TSO that prevent us from choosing the most efficient technology.

85. What is the most efficient technology will depend on a number of factors, including the topography of an area. Countries, such as Australia are achieving efficient universal service obligation investment by using a mix of fibre, copper, wireless and/or satellite technologies. The existing TSO would need to be updated to explicitly allow the use of other technologies that can deliver a minimum service (e.g. satellite) – by updating the list of technologies we can use to deliver our TSO service and removing the outdated dial-up obligations.

86. Chorus would also need the ability to require Spark (as the retail TSO provider) to move to that alternative technology. As Spark only pays the nationally averaged regulated wholesale price, it doesn't have any incentive to allow Chorus to move to more efficient technology. A satellite voice service may also fit better as a vertically integrated solution rather than a retail/wholesale solution.

Rural

Incentives to invest

87. The rural copper network is an important part of the telecommunications landscape. As the Discussion Paper observes, seven years from now we expect that 15% of New Zealanders will rely on the copper network. They will want the best possible service at an appropriate price, just like New Zealanders who live in more urban areas. They are waiting for their turn to be upgraded.

88. For this reason, some realism is needed when the Discussion Paper talks about the copper network "nearing the end of its useful life". A lot of New Zealanders will rely on the copper network for some years to come. Following the completion of RBI, we have continued to make investments in upgrading rural cabinets which has brought some fibre to rural areas already. There's absolutely more to do and some parts of the country are not getting the great broadband experience we want for all New Zealanders.

89. Also from Chorus' perspective, significant parts of this network, such as ducts and poles, have very long asset lives. Investment in these assets is recovered over a long period of time.

90. We support the government's objectives for the rural copper network, as explained in the Discussion Paper. These are continuation of service by us, incentives to invest further in the network to improve services to 15% of New Zealanders, and incentives to expand the reach of the UFB network over time. We think those are the right outcomes.

91. The Discussion Paper proposes that only UBA and UCLFS will be regulated in these areas. We agree that there is no need for ongoing regulation of UCLL.

92. However the proposal that UBA and UCLFS prices be frozen at 2019 without real adjustment presents challenges. The 2019 prices are based on nationally averaged costs, and yet the last 15% of New Zealand covers the highest cost areas. And while any FTTH investment might be captured by the fibre RAB, this ignores the opportunity to invest in improving copper in the interim (e.g. as proposed in RBI2) if the business case can be made.

93. The Discussion Paper suggests that investment in the rural network by Chorus should be driven by competition from other network providers in rural areas, should that competition emerge. However, these are the least competitive areas in New Zealand, because of the high cost to serve.

94. Our intention was not to wait for competition to emerge in these rural areas before investing to improve the broadband service received by these 15% of New Zealanders. And even if competition does emerge, it is likely to only cherry pick the most economic areas – which is what has been observed with unbundling in New Zealand and around the world. So the fundamental challenge of getting better broadband to the most challenging areas will continue to be ignored.

95. The proposed regulatory setting would actively deter us from making those investments and improving the service received by 15% of New Zealanders. If prices are capped, and nothing else is done to recognise additional investment, the status quo gets locked-in. We worry this would cement a digital divide between urban and rural NZ.

96. While new FTTH investment will be added to the RAB, this type of investment cannot happen overnight. In the interim, there is investment that improves or replaces part of the copper – such as fibre to the cabinet, VDSL and vectoring – which can improve broadband in rural areas. But there needs to be a business case and an incentive to do so – including an ability to make a return on that investment.

97. As noted above in Part A, a choice could be made about the scope of assets included in the RAB. If investment in interim rural upgrades (much of which will involve laying fibre) as a stepping stone to FTTH is treated in a similar way to investment in urban fibre – e.g. added to the fibre RAB - then the costs of additional rural investment will be spread across the wider UFB customer base. This has long been the social compact in New Zealand. It reflects, among other things, the fact that a stronger network benefits everyone (including urban-based businesses serving customers across New Zealand).

Part C – Overall considerations

98. In the sections above we've discussed fibre and copper regulation separately. The Government has made a decision to take different regulatory approaches for copper and fibre services and we understand the reasons for that. But, having taken this decision, it is vital that the framework ensures consideration is given to the overall picture – regulation simply cannot operate in silos.

99. In the copper price review process the Commission looked at copper pricing only – as required by the legislative changes introduced in 2010. It did not take into account the impact of its decisions on other services or the position of Chorus overall, despite guidance in the s18(2A) purpose statement and Government policy statement. As a result, the IPP copper price put New Zealand's fibre future in jeopardy. It is important to New Zealand's credibility as a destination for investment that this is not allowed to happen again.

100. In this section we discuss what can be done in a framework with delicate balances and separate regulatory tracks to ensure the overall picture is not lost. We also describe the importance of acting quickly to put this new framework in place.

Sustainability and financeability

101. We agree with the objectives of having no price shocks in the transition to a new regulatory framework and incentivising new investment in fibre. The ability to finance new investment is critical to achieving these objectives.

102. The proposed framework does create some complexity in achieving these objectives. Different frameworks will potentially apply to Chorus' fibre areas, other LFC areas, Chorus' copper network outside UFB areas and backhaul. However, what is consistent is the desire to incentivise efficient investment in better broadband.

103. As with today's framework, there is a risk that having different frameworks applying to different networks means that nobody is considering the impact of individual decisions on investment overall.

104. A building blocks model can sometimes produce a short-run mismatch between the revenue allowed by regulation and the legitimate costs of the business.

105. For these reasons, a regulator implementing the building blocks model needs the mandate, and the tools, to test that regulation is implemented such that Chorus will not find it unduly difficult to finance the provision of regulated services. And, where a financeability issue arises, the regulator needs the ability to make adjustments to the regulatory settings to better match allowed cash flows with actual costs.

106. At a minimum, a financeability test needs to be applied to the whole regulatory framework and required by legislation. If the test is not met, adjustments by the regulator must be required. This will help improve and restore general market confidence that regulation will deliver fair pricing and a fair return in regulated sectors in New Zealand.

107. Everyone is aware that an investment grade credit rating is appropriate for a utility-like provider. An investment grade credit rating is also required for Chorus to service nearly $2 billion debt, is a pre-requisite to receive UFB funding and is required to support ongoing investment.

108. A financeability approach is not only compatible with the objective of incentivising the delivery of fibre services in rural areas, it positively advances it. It also aids and recognises the need to continue ongoing investment in transitional services such as TSO voice services.

109. Financeability tests are used by regulators in Australia and the UK, who have recognised that consumers have an interest in the long-term commercial sustainability of the regulated supplier. One of the lessons from these jurisdictions has been that it is important that the legislation gives an explicit mandate to the regulator to consider financeability. Without being explicitly given this tool, some regulators have felt unable to check the results of the building blocks model in this way, and potentially make adjustments.

110. We support the Government making it clear that this is expected in New Zealand as we move into a new regulatory regime to eliminate any risks that could arise if Commission is asked to administer two different regimes. A financeability requirement should ensure that regulation is implemented in a way that providers will not find it unduly difficult to finance the provision of regulated services.

111. We are happy to discuss options we are currently assessing for achieving certainty around the objectives of: fair prices; fair return on investment; strong incentives for development of rural fibre while also ensuring appropriate investment in transitional services; and that more isolated areas have access to services and products that meet their needs and make best use of developing technology.

Timing

112. Investors, companies and consumers need certainty as to the rules that will apply in 2020. Everyone is looking now. There are real risks of industry turbulence if amending legislation supporting the new framework is not put in place soon.

113. From 2020, there is no regulatory framework in place for fibre. The regulated price paths for copper services also expire. Having decided on the regulatory approach it's vital the Government act now to put to put legislation in place. Any further delay:

- Puts pressure on the Commission to begin 'failsafe' investigations – considering whether to add fibre services to Schedule 1; considering the copper price path after 2020. Commission resource would be far more constructively utilised working to develop the input methodologies to apply from 2020, which it can begin once it has a legislative mandate;
- Increases the likelihood of further transitional measures being required, or the review of the regime (from 2023) falling due before the regime itself is even in place. If legislation is not passed this year, even the two-year transitional contingency MBIE proposes may be insufficient. The initial implementation of the Part 4 input methodologies took 27 months (from entry into force of the amendment act to the final price-quality determinations), the recently-completed review of those rules took 23 months, and the FPP process for UCLL took three years. Even if the Commission can complete the framework by 2020, it's unlikely regulated suppliers would have sufficient time to prepare their businesses and systems (for example, for compliance with information disclosure rules).

114. The UFB initiative has been an incredible success so far. It has put New Zealand in the top tier of connected nations in a pragmatic and cost-effective way that is the envy of many other countries. But the absence of certainty as to how telecommunications services will be regulated after 2020 leaves a question mark at the end. New Zealand's broadband future will only be secure when the parameters of future regulation, and legislation supporting it, are predictably set down. As we've noted earlier, the year 2020 is on the doorstep, and wider industry changes that look across telecommunications and digital content well beyond 2020 are already being debated.

APPENDIX A

Issue	Chorus' view	Reference to previous submissions
Regulatory periods	Regulatory periods for BBMs in NZ and overseas are commonly 5 – 7 years. We are concerned to see shorter periods and a risk of continuous regulatory processes as the industry has experienced over the last 10 years. If the new regime is not in place at 2020, a review might be required just as a transitional period and actual implementation of the first regime occurs.	See Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, paragraphs 213-219.
Purpose statement	We support the proposal to mirror the Part 4 purpose statement, subject to improvements to confirm: ▪ the central regulatory compact that investors are entitled to have an expectation of a reasonable return on their investments; and ▪ consistent with a broader financeability obligation assessing Chorus as a whole, that regulation should be implemented in a way that providers will not find it unduly difficult to finance the provision of regulated services.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, Appendix One, paragraphs 1-13.

Issue	Chorus' view	Reference to previous submissions
Merits review	Improvements to the merits review process available under Part 4 of the Commerce Act should be available under the Telco Act BBM regime, in a way that does not delay reform of the Telco Act.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, Appendix One, paragraphs 29-35.
Simplify and modernise business line restrictions	Chorus is wholesale only and the business line restrictions should reflect that simply. While the largest RSPs are increasing their vertical integration, we have the complexity of the 3 existing business line rules entrenched in legacy speak. Modern regulation should not inadvertently hinder innovation.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, Page 10.
Minimum quality standards	There should be a distinction between service specific and global quality factors. Input methodologies and rules for major capex approval should take into account the need to meet prescribed standards.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, paragraphs 142-145
Setting anchor product price and non-price terms	Section 52P style determinations are appropriate and we would expect a move away from the micro-level, lengthy two-year processes that STDs involve today.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, Appendix Four, paragraphs 12-13.

Issue	Chorus' view	Reference to previous submissions
Review of anchor products at regulatory resets	Guidance should direct the Commission to first consider designating one of the existing product set to be the anchor product for the next regulated period. This avoids design of new products by a regulator divorced from market discipline, and upsetting relativities of the entire product set.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, Appendix Four, paragraphs 14-17.
Potential fibre deregulation backstop	The proposal that the Commission review and deregulate UFB suppliers where competition emerges is appropriate. But it must not operate to selectively strand assets in a way that undermines the BBM fundamentals.	Submission in response to MBIE's Telecommunications Act Review Options Paper, 2 September 2016, paragraphs 41-46.