

Telecommunications Review: Options Paper

InternetNZ Submission

2 September 2016



Table of Contents

1.	Introduction	2
2.	What's on the horizon?.....	4
3.	Summary of Submission.....	5
4.	Delivering better services at fair prices	9
5.	Basic services and better options for rural users.....	10
6.	Give clear, early policy directions to support predictability.....	11
7.	Is competition an option?.....	11
8.	Scope RABs for efficient investment	12
9.	Our proposal: “the Chorus fibre footprint RAB”.....	13
10.	Balance revenue caps and anchor products to deliver good services	14
11.	Options for fibre unbundling	16
12.	Role of Commission	16
13.	Net Neutrality	17
14.	Detailed Questions	19
	About InternetNZ	20

1. Introduction

1.1 InternetNZ welcomes the opportunity to submit on this review of the Telecommunications Act. New Zealand has invested in better networks, and with the right decisions now, we can establish a regime which delivers their potential economic and social benefits.

1.2 We welcome further opportunities to discuss our views. Please contact James Ting-Edwards on 0211565596 or james@internetnz.nz.

InternetNZ’s vision is “A better world through a better Internet”

1.3 Our mission is to promote the Internet’s benefits and uses and protect its potential. We act as part of the New Zealand Internet community, seeking wide input on what is important for the Internet in New Zealand and how best to respond.

Rules for Telecommunications affect all of us

1.4 New rules for telecommunications affect everyone who uses or is affected by the Internet – that means all of us. We think it’s useful to ask what various players should expect from a new regime. Once we understand various perspectives, we can note common ground and fairly balance the interests at stake.

What should we expect from our regulatory framework?

Users

In UFB areas (80%)	<u>Ambitious goals to unlock the potential of NZ's fibre network: a baseline of gigabit symmetrical speeds by 2025.</u>
Beyond UFB (19%)	<u>Better fixed and wireless services, with innovation delivering better options, and competition between modes driving great service and prices.</u>
The most remote (1%)	<u>Better services delivered efficiently, with wise public investment programmes like the RBI to reach users who'd otherwise miss out.</u>
Those stuck on copper	<u>Better alternatives to copper, and no big price increases.</u>

Network Providers

Regulatory stability to support efficient investments.

Retail ISPs

A predictable path for service quality and prices.

Everyone

An efficient, transparent, and fair telecommunications industry, delivering good services and price stability.

Everyone wins if we unlock the potential of our networks

- 1.5 In 2008 the Government articulated a compelling vision for better Internet, including a fibre broadband network serving all of our schools and hospitals, and most of our homes and businesses. With most Kiwis getting much faster speeds, limited bandwidth need no longer constrain us. We would be freed to imagine and deliver new services, new applications, new content and new ways to communicate.
- 1.6 More recently, the Government has set clear goals for better Internet. By 2025, the Government wants speeds of 50 Mbps to reach 99% of Kiwis, and 10 Mbps for the remaining, most remote 1%.¹

¹ "Regions benefiting from rural broadband" (19 Nov 2015), <https://www.beehive.govt.nz/release/regions-benefiting-rural-broadband>

- 1.7 The month before close of submissions saw Ministerial announcements that:
- a) Upgraded RBI services will deliver peak mobile data speeds of 30/5 Mbps to rural users²
 - b) UFB fibre is available to 2.4 million New Zealanders³
 - c) Residential users can now access fibre services delivering 1Gb speeds⁴
- 1.8 With that recent progress in mind, we think the 2025 goals are within reach, and there is room to be even more ambitious.
- 1.9 New Zealand is investing in better networks. Unlocking the vast potential of these new networks should be a key driver of this review, alongside efficiently and fairly balancing the interests of network providers, retailers, and users. Everyone benefits from a regulatory framework which is durable, stable, and which supports the full potential of our fibre network. It is not clear whether the new framework will be ready to operate in 2020 – so we propose a contingency plan in the event that it isn't.

We can have better, faster services

- 1.10 With the right framework in place, we could see gigabit symmetrical connections across the UFB footprint; competitive markets delivering options for the urban fringes beyond UFB, and wise public investment to drive faster speeds in rural areas. We are talking here about all factors that affect experience of and possibilities for the Internet – average and peak speeds, variability, reliability, local and international response times.
- 1.11 Through efficient investment in better technologies, enabled by a sound regulatory environment, our networks could deliver 50 Mbps to 99% by 2020, half a decade ahead of schedule – with continuing improvements from there.

2. What's on the horizon?

Better wireless and mobile options

- 2.1 Investment in newer mobile technologies mean users can access faster mobile data speeds and higher mobile data caps. This improvement will continue, and may attract users away from fixed-line services, particularly where fibre is not available. Our policy approach must not trap users on current technology, particularly outside UFB areas.

Copper migration

- 2.2 As more users migrate from copper to fibre and alternatives, the fixed costs of operating copper will fall more heavily on fewer users. Per-user costs to operate copper will increase.
- 2.3 At some point, we will see an almost total migration away from copper throughout New Zealand. Any pricing construct for copper will help or hinder that process - there's no such thing as neutral here. Our preference is to see

² “4G RBI speeds lifted dramatically” (16 Aug 2016), <https://www.beehive.govt.nz/release/4g-rbi-speeds-lifted-dramatically>

³ “2.4 million New Zealanders able to get UFB” (8 Aug 2016), <https://www.beehive.govt.nz/release/24-million-new-zealanders-able-get-ufb>

⁴ “Super-fast Internet puts NZ on par with world” (19 Aug 2016), <https://www.beehive.govt.nz/release/super-fast-internet-puts-nz-par-world>

the migration happen sooner, not later, and for pricing incentives to push in that direction. In the long-run, that's better for users.

Investment in better technology

- 2.4 Users will continue to find new ways to use the Internet, and to demand and use better services. Delivering those services will require investment to implement new technologies. The gigabit services available today will in turn be surpassed - even within the timeframe of this review. New Zealand needs a regulatory framework which can enable these improvements through ongoing, efficient investment. With the right framework all New Zealanders will benefit from ever-better Internet services at fair prices.

3. Summary of Submission

- 3.1 We've set out an ambitious vision for the potential of our networks. Delivering that potential means getting the framework right, to deliver predictability now, and to support efficient investment over time.

Everyone in the sector wants clear rules

- 3.2 We attended MBIE's workshops and have consulted separately with our members as well as Spark, Callplus, Vodafone, 2degrees, TUANZ, Ultra-Fast Fibre, Chorus and others. Based on these various conversations:
- a) Everyone wants greater clarity on the direction and structure of the framework - the proposals do not go far enough to give clarity and predictability;
 - b) All RSPs, and all users want faster anchor products, calibrated to contemporary mid-range services at 2020 and beyond.
- 3.3 Delivering clarity means giving clear direction on desired outcomes now. High-level priorities should be included in legislation rather than left to policy statements. What should be left open are precise service specifications, to allow for technological progress up to the time those decisions are made.
- 3.4 Guidance on the scope of regulated assets should be delivered via legislation and flagged as soon as possible. Investment decisions made well in advance of the start of this new framework will depend on the anticipated scope of RABs, so clear directions cannot wait for 2020.

Cross-submissions: get input now to design for the future

- 3.5 The options paper raises difficult issues: broad in scope, high in complexity, and deeply interlocking. Our submission and others will likely raise new perspectives on these issues, and new proposals for addressing them - perspectives and proposals which other parties have not yet considered.
- 3.6 We request a cross-submission process to allow adequate consideration of these new proposals.

Scope RABs for efficient investment

- 3.7 The scope of RABs relates firstly to their value, and secondly to the incentives of the relevant network provider. Both factors are crucial, and both affect long-run outcomes.
- 3.8 Including diverse infrastructure in a single RAB gives the operator means, motive, and opportunity to decide how users share costs across modes. This flexibility creates a risk of inefficiency, where cross-subsidies prop up old or otherwise inefficient modes of access.

- 3.9 We propose that Chorus have a single RAB, which covers all its network assets within UFB areas, but propose an approach that mitigates the key concern of inefficient cross-subsidisation.
- 3.10 Copper network infrastructure outside UFB areas is an asset with distinct characteristics, and should be treated separately. Our aim is to avoid both inefficient incentives and a risk of major price shocks to remaining copper users. Though these aims are in tension, we think that a viable approach can be found.

Our proposal: “the Chorus fibre footprint RAB”

- 3.11 To maintain efficient incentives across modes, we propose to:
- a) Exclude copper outside the UFB footprint from Chorus’ RAB;
 - b) Require both copper and fibre to deliver minimum-speed maximum-price anchor products which improve over time.
- 3.12 This approach mitigates against large price shocks, and reduces risks of cross-subsidy or pocket pricing that arise from including copper in a RAB, maintaining efficient migration incentives.
- 3.13 As a backstop should the full regime not be in place from 2020, current prices on copper could be maintained with a CPI-X% adjustment. This avoids large price shocks on copper while maintaining reasonable migration incentives.
- 3.14 Our proposed approach delivers certainty and is relatively simple. With the right adjustments, it would allow and support migration away from the increasingly inefficient copper network over time.

Consider a tech-neutral, nationwide essential services product

- 3.15 All New Zealanders should have access to essential telecommunications services. In our view, the proposed voice-only anchor product is directed to this concern. We agree the concern is real, but think a tech-neutral approach better realises the same objective.
- 3.16 We think a separate, tech-neutral essential services product improves on the proposals in three respects. Firstly, it ensures essential services can be accessed regardless of local infrastructure. Secondly, it allows anchor products to be true “minimum performance, maximum price” services which balance incentives under a revenue cap. Finally, it removes a constraint on the ambition of anchor products, allowing them to be faster.
- 3.17 To address essential service needs, we propose that the Government:
- a) Allow for a tech-neutral “essential services” product to be specified as a minimum service level with a fixed maximum wholesale price.
 - b) Develop the specification to allow delivery of the essential services product by mobile or other networks. For example, specified monthly minimums for calling minutes and data to substitute for “free local calls” might allow delivery over mobile networks.
 - c) Specify a performance path for improvements to the product specification over time that as a minimum would achieve the Government’s 50Mbps target by 2025.

Make anchor products attractive, measurable, and dynamic

- 3.18 To serve their role of balancing incentives, anchor products must:
- a) Be attractive to a significant number of users

- b) Have specified maximum prices and minimum service levels which are binding, measurable, and enforceable
 - c) Improve by default, to share the benefits of better technology widely.
- 3.19 We also see anchor products as part of an overall push for faster services, realising the potential of our modern network infrastructure.
- 3.20 To allow dynamic improvement in anchor specifications, we propose a reference formula be specified, providing a known trajectory for required service improvements. This reduces the need for periodic reviews.
- 3.21 For services based on current copper products, we propose required speed increases of 50% per annum. This was Chorus' estimate of consumer demand growth for copper broadband services in the UBA final pricing determination, which the Commission accepted⁵.
- 3.22 For our proposed "standard fibre" service, we suggest that an initial minimum specification and growth path be set by the Commission. These should be assessed closer to that time, and calibrated to deliver mid-market fibre services at 2020 and beyond, targeting adoption by 80% of fibre users.
- 3.23 Here as elsewhere, we favour ambitious progress to realise the potential of fibre. Gigabit speeds are available at retail now – in our view, this is an indicative minimum level for "standard" fibre in 2020. Even faster services may be standard by 2020, and should be reflected in anchor specifications and growth paths.

Fibre unbundling can support efficient use of infrastructure

- 3.24 We support efficient use of infrastructure to deliver better services. That means allowing access at the lowest viable level, with competition to support innovation above that level and deliver better services to users. Fibre unbundling is an existing requirement on UFB providers – it is not a change.
- 3.25 The proposal is for unbundled fibre as a commercial service. This is inadequate – providers have strong incentives to make any unbundled service unattractive.
- 3.26 We favour a requirement for unbundling; but could accept a backstop option, with a fast-track process to avoid gaming, as this also supports incentives for efficient operation of fibre. We supply more detail in Appendix A.
- 3.27 As with other issues, clear indication of Government objectives would give more clarity and predictability.

Allow the copper migration to happen

- 3.28 As users take up fibre and alternatives, copper will become increasingly costly and inefficient. This means there is no "neutral" response – any and every pricing methodology will encourage or discourage migration to some degree.
- 3.29 Our preference is to gently discourage ongoing investment in the copper network, or to gently and predictably encourage migration. Efficient regulation may smooth the transition from copper, but should not delay it.

⁵ Commerce Commission, "Final-pricing-review-determination-for-Chorus-unbundled-bitstream-access-service (2015-NZCC-38, 15-December-2015), at B55 & B58 <<http://www.comcom.govt.nz/dmsdocument/13935>>

3.30 We acknowledge the real and important interests of users who have no choice but copper. These users have most to gain from alternatives - particularly those who now pay a standard price but receive a less-than-standard service. While waiting for alternatives to arrive, users limited to copper should not face large or sudden price increases for copper access.

3.31 We propose that price increases for those stranded on copper be limited.

Want more detail? Get in touch!

3.32 We support this process, and would be keen to talk more on how to realise its target outcomes.

3.33 Please contact James Ting-Edwards on 0211565596 or james@internetnz.nz.



Andrew Cushen

Deputy Chief Executive

4. Delivering better services at fair prices

4.1 Telecommunications services connect people, giving opportunities to learn, communicate, and do business. Their value is the service they offer to users. New Zealand’s telecommunications regulatory framework should ensure those services are fast, reliable, and efficient, and offered at fair prices. That’s the bottom-line.

The proposed model: utility-style regulation

- 4.2 The Options Paper proposes “utility-style” regulation, a model used for infrastructure which is not expected to face competition. Proposals are that:
- a) All fibre providers will be given a one-time initial valuation of their networks, forming a “regulated asset base” (RAB). Based on its RAB valuation, each operator will face an overall cap on revenue.
 - b) All fibre network providers will offer price-capped “anchor products”, providing a specified service with a set maximum price (if MBIE’s preference for “averaging” is implemented it will be a fixed price).
 - c) Chorus will face price/quality regulation of the anchor services and an overall revenue cap.
 - d) If there are delays in implementing the above price-quality regime, different “backstop” requirements will need to apply to network operators depending on what technology they are deploying. We comment on these separately.
- 4.3 Overall, we agree that the proposed utility-style model is a reasonable approach, particularly for UFB fibre services which we do not expect to face comparable, competing alternatives. Like all models, the proposals rely on some key assumptions.

Key assumptions of the discussion document

4.4 Though we broadly support the approach taken by the options paper, in our view its proposals reflect a number of assumptions. We think it is useful to explicitly state some of these assumption, and assess how likely they are to hold, and how important they are to the approach proposed.

Assumption: Fibre will be the most important service for the 80% of users who can access UFB.

Our view: We agree that fibre is the “best-in-class” service where available. Fibre in UFB areas allows a world where bandwidth is no limit – we want to see that potential delivered.

Assumption: Competition from wireless services will be limited to “the fringes”.

Our view: Continued improvement in wireless will create significant competition with copper, both “at the fringes” and “in the core”.

Fast wireless will rely on fibre backhaul, putting pressure on a retail-centred paradigm for fibre regulation⁶.

Assumption:	Copper services will remain relevant in the medium term.
--------------------	---

Our view: Copper’s continuing role for cost-effective service delivery is limited. Migration away from copper will happen, and is an efficient outcome. Our regulatory framework should not stand in the way of migration, and should consider the potential for early or rapid migration away from copper.

Assumption:	No users should be left significantly worse off by changes in technology
--------------------	---

Our view: We agree that user interests should be protected, particularly the interests of users with limited choices available. This does not mean prolonging current services forever, but instead ensuring that changes deliver equal or better services to all.

4.5 As indicated, we broadly agree with the direction of key assumptions, but suggest that advances in technology may be quicker and of broader impact than is implied in the options paper. This view informs our recommendations.

5. Basic services and better options for rural users

- 5.1 Rural and remote users are not reached by UFB fibre, and will want to know how the regulatory framework responds to their interests. For now, many of these users are limited to copper services, with poor or variable quality due to local wiring conditions.
- 5.2 The long-run interest of rural and remote users is the same as for everyone else – getting the best viable service at a fair price. These users should not be “left out” as progress happens elsewhere, but should share in the benefits from efficient rollout of better services.
- 5.3 We proposed two main approaches to deliver better services to rural and remote users. These are:
 - a) Enable investment in better options beyond UFB - don’t delay or deny the opportunity for wireless and mobile improvements;
 - b) Specify a national and truly tech-neutral “essential service”, for delivery on fixed-line, wireless, and mobile infrastructure – gives users a choice to use whatever mode suits them best.
- 5.4 Like everyone else, rural and remote users benefit from a robust, efficient, and transparent regulatory framework. We think our proposals on RAB scope and anchor products will support efficient investment, enabling better services to be delivered throughout New Zealand.

⁶ To put it another way, what is today primarily an access network might end up also serving as a localised backhaul network for intensive wireless connectivity. This use of the network is likely to be efficient, and should not be discouraged by our regulatory framework.

6. Give clear, early policy directions to support predictability

- 6.1 Predictability benefits all players: network providers, RSPs, and ultimately users. Better services depend on investments, which in turn depend on anticipated returns. Uncertainty can deter otherwise efficient investments.
- 6.2 Though a degree of uncertainty is unavoidable, the extent and negative effects of uncertainty can be reduced by:
 - a) Giving clear statements on desired policy outcomes
 - b) Identifying how the outcomes will be achieved with the proposed model and what trade-offs are acceptable/not acceptable.
 - c) Giving guidance on desired responses under a range of scenarios
 - d) Ensuring legislation clearly encapsulates the coherent policy picture
 - e) Giving the Commission tools to implement those responses
- 6.3 The most important uncertainties relate to evolving use of different services. The Government's desired approach might, for example, differ depending how many users are limited to copper connectivity at 2020, or depending how uptake of wireless options grows within and outside the UFB footprint. Clear guidance on desired outcomes under various scenarios would support predictability, and thus allow efficient investment in better services.

Consumer uncertainty: “will I be worse off?”

- 6.4 In a period of transition, a main concern of consumers is that they will be left worse-off than they were. This concern is particularly acute for users who do not have a choice of services available to them. A truly tech-neutral, “essential service”, would address much of this concern. It would ensure that virtually all New Zealanders can access an essential-level product, whatever their local infrastructure may be.
- 6.5 It is important to state that our preference is for price stability rather than revenue certainty: in other words, consumer and retail interests in predictable prices are more important than protecting network operators from demand uncertainty. Insulating operators against shifts in demand would be inefficient, and could ultimately lead to pricing strategies that had the effect of stopping users from adopting more attractive options over time.

7. Is competition an option?

- 7.1 Regulation of the type proposed is a way to simulate competitive incentives and outcomes. Where real competition exists, or could exist, regulation may mean less efficiency and ultimately worse long-term outcomes for users.

We agree UFB Fibre is unlikely to face competition

- 7.2 The UFB fibre roll-out has been supported by Government, delivers excellent connectivity to most New Zealanders, and is unlikely to be matched by any private investment or replaced by a technology that can offer similar characteristics. Within their geographic areas, each fibre network provider is effectively a natural monopoly. Active or backstop regulation is therefore desirable, to align the incentives of fibre providers with the interests of users.

But copper already faces competition from alternatives

- 7.3 The copper network was at one time monopoly infrastructure, but changes in technology have made wireless alternatives cheaper and faster. Where these

services compete, or could compete with copper, the key assumption of the building-blocks model may not hold.

Consider deregulation where competition emerges

- 7.4 Our priority is efficient investment to deliver better services. We think there is a reasonable chance that copper networks will face competition from wireless alternatives, particularly outside the UFB footprint. We propose measures to allow for this.
- 7.5 As a principled backstop alternative, which may apply to a range of situations, we propose a competition test. The Commission would be obliged to regularly assess levels of competition (e.g. in the lead up to the start of each regulatory period, or every three years, or when material conditions of competition are observed to have changed in a locality).
- 7.6 Where a regulated area faces sufficient competition from alternatives, the Commission should be obliged to consider de-regulating that area and removing relevant assets from any RAB. In practice, this might operate at the granularity level of relevant infrastructure – for example, central offices on fibre.

8. Scope RABs for efficient investment

- 8.1 Under the proposed “utility-style” model, each regulated supplier will have a defined Regulatory Asset Base (RAB). This RAB will define the scope and the value of assets, providing a key input to price-quality regulation.

RAB scoping affects investment incentives

- 8.2 Each network operator will make investment decisions, now and in future, based on the anticipated scope of its RAB. This is an area where clear, early policy direction will have immediate benefits.

Give clear direction on the scope of RABs now

- 8.3 We agree that the basis for setting RABs should be determined now, allowing operators to decide where they might invest with sufficient certainty. If this is delayed, there will be a combination of inefficient over- and under-investments, leaving consumers, network builders and investors all worse off.
- 8.4 The discussion document considers whether Chorus should operate:
 - a) Separate RABs for copper and fibre assets; or
 - b) A single RAB combining copper and fibre assets.

A two-RAB model risks price shocks on copper

- 8.5 The Options Paper identifies price shocks for users left on copper as a concern, particularly under the identified two-RAB model. We accept this concern. However, as outlined below, we cannot support the proposed model for a single, combined copper/fibre RAB either.

A copper/fibre RAB with nationwide copper risks inefficiency

- 8.6 A combined copper/fibre RAB gives its operator motive, means, and opportunity to decide how users share costs across modes. An operator in this position can create opaque and inefficient cross-subsidies, where excess prices for fibre prop-up increasingly outmoded services on copper. This fails the purpose test for regulation in this area – it undermines competition-like incentives, efficient outcomes, and the long-run interests of users.
- 8.7 In our view, these downsides are too great to accept. They involve ongoing incentives to inefficiency.

8.8 We identify and spell out two main concerns with a single RAB combining fibre with nationwide copper:

- a) Disparate value of RABs;
- b) Disparate geographic scope of RABs.

A nationwide copper/fibre RAB will inflate Chorus' prices

8.9 Chorus has copper assets, other fibre network providers do not. Including copper in Chorus' RAB inflates its revenue cap relative to LFCs. This will allow Chorus to charge higher prices for its services than LFCs. This room for disparate pricing creates difficulties, for example in the specification of standardised, minimum-service maximum-price anchor products.

8.10 Reducing the value of copper assets in any RAB reduces this disparity. Excluding copper outside UFB is one way to reduce the total value given to copper.

A nationwide copper/fibre RAB may inhibit mobile competition

8.11 Outside UFB areas, faster wireless and mobile services are improving options for better Internet services. The long-run interest of users outside UFB areas is to have the earliest possible access to the best service for that location.

8.12 In some areas, wireless services are already the best option. Copper may be the best current mode for some users, but it is now facing and will continue to face wireless competition.

8.13 A nationwide copper/fibre RAB creates a risk of pocket pricing to prolong the life of remote copper services, deterring efficient investment in wireless or mobile services.

8.14 We propose an alternative model, which would maintain largely efficient incentives while managing concerns about price shocks for copper.

9. Our proposal: "the Chorus fibre footprint RAB"

9.1 We propose a single Chorus RAB, which excludes copper outside the UFB footprint.

The price problem: treat UFB copper as fully depreciated

9.2 The Government has supported the rollout of UFB fibre as a "best in class" service for 80% of New Zealanders. There is a clear objective for fibre to replace copper in UFB areas.

9.3 In these areas fibre is faster and more efficient both for retail users and for other services. Services at the fringes may be delivered via copper or wireless modes, but are served in the core by fibre backhaul. RSPs are expressing interest in withdrawing copper services where they can.

9.4 Copper in UFB areas is a legacy asset, and should be fully depreciated.

The competition problem: exclude ex-UFB copper from RABs

9.5 To avoid the risk of deterring efficient investment copper beyond UFB areas should be excluded from our proposed single Chorus RAB.

The performance problem: deliver max-price min-service anchors

9.6 To avoid the risk of pocket pricing, copper should be required to deliver minimum-performance, maximum-price anchor products as we outline below.

As a backstop, apply CPI – X% to copper pricing

- 9.7 We have proposed excluding copper outside the UFB footprint from Chorus' single RAB. As a backstop, should the full regime be delayed beyond 2020, we propose that current prices be fixed with a CPI-X% adjustment.

10. Balance revenue caps and anchor products to deliver good services

Revenue cap or price caps?

- 10.1 The discussion document identifies three approaches: price cap alone, revenue cap alone, or a revenue cap with price-capped anchor products. These options differ in their respective balancing of:
- a) Flexibility versus predictability
 - b) Risk allocation between network providers, RSPs, and end-users.

Price caps alone provide false certainty

- 10.2 Price caps alone provide excellent predictability for RSPs and consumers. However, setting price caps at the right level for efficient investment requires very detailed and accurate information on how demand will change.

Revenue caps alone risk poor service to some users

- 10.3 A pure revenue cap provides wide flexibility to network providers. The utility-style model assumes no competition. The combination of flexibility with limited competitive pressure creates a risk that revenue targets will be reached by targeting a limited market for high-priced services.

We support the Ministry's proposed approach: revenue caps & anchor products

- 10.4 The discussion document favours the third option, combining an overall revenue cap with price-capped anchor products. We agree with this approach. It has the potential to allow reasonable flexibility for network providers, while protecting the interests of end-users. Under this approach, it is critical that anchor products are and remain relevant and attractive to users.

Anchor products: at least this fast, at most this price

- 10.5 Anchor products balance the flexibility allowed by a revenue cap. To serve their purpose, anchor products must be taken up by a sufficient proportion of end-users. If they are widely adopted, these services will "anchor" incentives under an operator's revenue cap, ensuring users can access adequate services at fair prices. If these "anchors" are not widely adopted, service specification and pricing by operators will be free to drift in undesirable directions.
- 10.6 The discussion paper proposes three levels of anchor product: voice-only, up to 15/1 Mbps, and up to 100/20 Mbps. We consider that as specified, these anchor products will not be widely taken up, will fail to balance incentives, and will set an overly conservative expectation for service quality and evolution.
- 10.7 We propose that the anchor products be improved by:
- a) Being based on expected mid-range products from 2020
 - b) Evolving over time to maintain adoption and relevance
 - c) Specifying a minimum standard: "at least this fast, at most this price"

- d) Applying the principle of averaging to include standard minimum service as well as a standard price

Anchor products must be faster

- 10.8 If anchor products are set too low, they will not do the work of:
 - a) Balancing incentives under a revenue cap
 - b) Sharing benefits of technology and market practice with the widest feasible range of users
- 10.9 The proposed anchor products are specified at the low for 2016. In a field where progress is measured in times-to-double performance, the proposed anchors will be irrelevant at 2020. At the time of writing, 1Gb/500Mbps fibre products are being advertised in the LFC areas. In four years these services themselves will be surpassed.

Anchors must bite: “at least this fast, at most this price”

- 10.10 Proposed anchor products specify throughput rates “up to” a given value. In practice, the lack of a set minimum may mean users paying for “the same service” experience large variations quality. Setting a true minimum standard on throughput and other quality measures supports informed choices by users, and creates an enforceable balance on incentives for network providers.
- 10.11 We propose a clear consequence for an anchor product falling short – the maximum price of that service will drop to the next tier down.

Anchor products must evolve over time

- 10.12 The concerns above apply equally should anchor products be specified in a way that goes out of date. Anchor products must move with the market to balance incentives, and to share benefits of improved technology.
- 10.13 To provide predictability, while allowing for improvement in anchor products over time, we suggest that a formula for changes over time be specified. The Commission has accepted a 50% per annum estimate of consumer demand growth, supplied by Chorus⁷. We propose that this be a starting point for setting the growth rate of evolving copper anchor products.
- 10.14 Consideration should also be given to anchor product standards evolving to meet the Government’s targets such as 50Mbps for 99% by 2025 – as we have said, we think this target could be delivered even earlier.
- 10.15 Evolving anchor products will, in almost any reasonable scenario for keeping them current, eventually outstrip the capabilities of copper infrastructure. This is a deliberate choice. The potential of future networks should not be constrained with reference to the old technology of copper.

Specify a tech-neutral essential service

- 10.16 We propose a separate “nationwide essential service” to address concerns about universal access. On our proposal, this is a tech-neutral service, calibrated at a level which could actually be delivered to more than 99% of the population, via whatever infrastructure is available.

⁷ Commerce Commission, “Final-pricing-review-determination-for-Chorus-unbundled-bitstream-access-service (2015-NZCC-38, 15-December-2015), at B55 & B58 <<http://www.comcom.govt.nz/dmsdocument/13935>>

- 10.17 Separately addressing essential access needs allows faster and more precisely defined anchor products at higher service levels. By comparison, the proposed “voice-only” and “15/1 Mbps” services are at the low end for 2016. Within UFB areas, faster services will make these redundant. Outside UFB, variability of copper will mean highly variable service quality. Users receiving less than 1Mbps down will be paying the same as those who receive 15Mbps.
- 10.18 We note that the TSO review is yet to be delivered. We propose a request for specifications of a universal service as a constructive potential outcome from that review.
- 10.19 Meeting the Government’s 50Mbps and 10Mbps targets for 2025 will require efficient use of infrastructure. A regulated nationwide essential service will help to address that problem, and allows other Government initiatives such as the RBI and TDL to efficiently complete the picture.

11. Options for fibre unbundling

- 11.1 Unbundled fibre is an existing requirement for UFB providers. Unbundling allows for innovation and competition lower in the stack, which may show benefit for users.
- 11.2 We think the proposal for unbundled fibre as a pure commercial service is inadequate. Providers have no incentive to make unbundled products attractive, as this would undercut their other products.
- 11.3 In our view, unbundling options include:
- a) The Government requiring regulated unbundling from 2025 in legislation, with the Commission to investigate implementation; or
 - b) The Government creating a fast-track option to regulate for fibre unbundling in the event that a trigger is activated. Reasonable triggers would include an application by a party which has been unable to conclude a commercial agreement for unbundled services on reasonable terms – this would show commercial solutions to be inadequate.
- 11.4 We support maintaining the current requirement for unbundling. However, given the lack of detail available on how it might be implemented, we could accept a backstop option in line with (b) above.
- 11.5 The potential for fast-tracked regulated unbundling, with appropriate triggers, could provide useful incentives toward efficiency for fibre network operators. A party which has sought unbundled commercial services may be in a position to propose an implementation, which the Commission could then assess.
- 11.6 Further investigation and consultation, combined with clarification of Government objectives would be useful here. We also discuss unbundling in Appendix A, at question 30.

12. Role of Commission

Flexibility to handle a range of situations

- 12.1 At 2016, designing a regime for effect from 2020, all players face significant uncertainties. To some extent, that uncertainty is inevitable, as we do not know in advance how technologies or markets will evolve over time.
- 12.2 We suggest that it supports predictability, if not certainty, for the Commission to have both:
- a) A broad range of tools to intervene;

b) Clear guidance on desired policy outcomes.

Consider deregulation

- 12.3 Competition is the best way to generate pro-user outcomes. As the discussion document acknowledges, there is the potential for competition at least “at the fringes” from wireless access modes.
- 12.4 Regular reviews by the Commission should test the level of competition in the market, in local areas rather than nationally. Where competition is sufficient, the Commission should have the ability to consider deregulation in the relevant area, with the corresponding removal of relevant assets from any RAB.

13. Net Neutrality

- 13.1 The discussion document asks whether “net neutrality” issues are a concern in relation to the present review. We address these issues below, and in Appendix A at question 73.
- 13.2 In summary, we see converged telecommunications and content businesses creating potential risks of anticompetitive conduct. Current regulatory approaches lack the tools to address these risks.
- 13.3 Particular challenges include:
- a) The Act focusses on regulating at the wholesale level, but many net neutrality problems arise at the retail level – for example zero rating
 - b) Existing, limited provisions relating to non-discrimination for “access seekers” might enable the Commission to respond. However, this is unclear. Non-discrimination terms in price determinations are expressly ruled out.
 - c) The Commission has no power to address net neutrality issues arising from transmission of linear TV services, such as Sky TV SVOD (it can deal with video on demand).
- 13.4 Responses could include:
- a) A change to the Act allowing responses at the retail level, limited in scope to addressing net neutrality issues, so that the primary focus on wholesale is not unduly diluted. A prescriptive approach in the Act would likely cause market failure, so this should facilitate flexible action by the Commission.
 - b) Changes to allow the Commission to deal with differential pricing of services in the upstream and the downstream markets, relative to its competitors.
 - c) Giving the Commission power to address net neutrality issues arising out of transmission of linear TV such as the Sky TV SVOD service – this can be done without eroding the split between broadcasting and telecommunications.
 - d) Making content providers and associated parties “access seekers”, giving access to remedies for net neutrality issues as in the U.S, Europe and Canada.
- 13.5 Examples overseas show that problems extend beyond horizontally integrated combinations such as the proposed Sky TV and Vodafone merger where there is market power. Problems exist even if mergers of this kind are not cleared or sought.
- 13.6 For example, the Canadian regulator is taking steps to stop or restrain zero rating of content by mobile operators.

- 13.7 Our mobile market is more concentrated than Canada (and most other OECD countries too) so we are more likely to have issues.
- 13.8 The issues are sometimes complex and can arise in multiple different ways with multiple different parties (such as content providers, content delivery networks, upstream ISPs, and so on). Solutions via prescriptive legislation are unworkable and risk causing problems.

Give the Commission flexible powers

- 13.9 To address these issues, the Act should extend the Commission's powers to enable it to deal with problems as they arise case by case or more broadly.
- 13.10 We suggest that the current regime, based on telecommunications services that can be regulated via determinations, be augmented.
- 13.11 The options paper notes that the Broadband Product Disclosure Code plays an important role in this area. We consider its role in this context is limited and ineffectual. For example, as to zero rating the access provider's own content relative to other content (and also as to "fast tracking" its own content), the access provider is doing that to attract and retain customers onto its services, and will therefore strongly publicise and advertise the unique proposition. Non-disclosure is not an issue.
- 13.12 The paper also notes submissions that structural separation, and also strong retail competition, protect against net neutrality incentives and actions. We do not agree that these are full answers.
- 13.13 As to structural separation:
- a) Separation makes little difference to the ability of a provider to engage in anti-competitive actions in this area. For example, the ability and incentive to zero rate, leveraging off say the provider's content, is not changed by the pro-competitive features of separation (which after all are based on local access, which is only one component of the service stack, with opportunity elsewhere to discriminate).
 - b) In any event, as above, mobile is becoming a key part of the services, and that is a concentrated market.
 - c) Net neutrality abuses can take away the hard-won gains of structural separation, by a provider achieving market power by another path.

- 13.14 As to the suggestion there is strong retail competition:
- a) As the Commission's latest telecommunications monitoring report confirms, fixed line input costs recently dropped by \$4 per month, as part of the FPP process, but retail prices went up (modestly). That firmly implies lack of strong retail competition in fixed line. A competitive market would compete out most if not all of that drop in input cost.
 - b) High volume mobile data is becoming a critical part of telecommunications services, as noted above, via TV and OTT services, among others. However, again as the Commission's latest telecommunications monitoring report confirms, New Zealand has almost the highest retail mobile data prices in OECD - out of 32 countries - at up to 150% higher than the OECD average. Moreover, a robust Ofcom econometric survey this year of 25 countries, including New Zealand, effectively concluded that having only 3 MNOs, instead of 4, increases retail prices by around 19%.

Net neutrality is a potential threat in New Zealand

- 13.15 Such concentrated and limited competition points to this country being at greater risk of net neutrality problems than other countries.

14. Detailed Questions

14.1 We address the specific consultation questions in Appendix A below.

About InternetNZ

A better world through a better Internet

InternetNZ is a voice, a helping hand and a guide to the Internet for all New Zealanders. It provides a voice for the Internet, to the government and the public; it gives a helping hand to the Internet community; and it provides a guide to those who seek knowledge, support or any other method of benefiting the Internet and its users.

InternetNZ's vision is for a better world through a better Internet. To achieve that, we promote the Internet's benefits and uses and protect its potential. We are founded on the principle of advancing an open and uncaptureable Internet.

The growing importance of the Internet in people's everyday lives means that over the last twelve months we have significantly reoriented our strategic direction. The Internet is everywhere. We are a voice for the Internet's users and its potential to make life better.

InternetNZ helps foster an Internet where New Zealanders can freely express themselves online - where they can feel secure in their use of the Internet. We foster an Internet where a start-up can use the web to develop a presence and customer base for a new product, and we foster an Internet where gamers can get online and battle it out.

We work to ensure this Internet is safe, accessible and open.

The work we do is as varied as what you can find on the Internet.

We enable partner organisations to work in line with our objects - for example, supporting Internet access for groups who may miss out. We provide community funding to promote research and the discovery of ways to improve the Internet. We inform people about the Internet and explain it, to ensure it is well understood by those making decisions that help shape it.

We provide technical knowledge that you may not find in many places, and every year we bring the Internet community together at NetHui to share wisdom, talk about ideas and have discussions on the state of the Internet.

InternetNZ is the designated manager for the .nz country code top-level domain and represents New Zealand at a global level through that role.

InternetNZ is a non-profit open membership incorporated society, overseen by a council elected by members. We have two wholly owned subsidiaries that ensure that .nz is run effectively and fairly - the Domain Name Commission (DNC) develops and enforces policies for the .nz domain name space, and .nz Registry Services (NZRS) maintains and publishes the register of .nz names and operates the Domain Name System for .nz

Annex A: Summary of questions

Chapter 3: Policy decisions on the framework

The role of input methodologies

1. Please comment on the set of matters that you recommend input methodologies should cover, with reference to the examples.

The range of matters to be covered by input methodologies is generally adequately covered in the options paper. We are particularly supportive of the proposal to include network and service quality matters in the input methodologies. In this regard we consider it important that guaranteed minimum service levels are specified if copper and fibre services are to be considered as equivalent anchor services.

The role of information disclosure

2. Should information disclosure apply even if price-quality regulation is applied to Chorus and/or LFCs at 2020?

Information disclosure should apply to all regulated network providers from 2020.

The Commission must have access to information on how network providers operate, to allow simulation of competitive outcomes in the absence of competition for fixed-line services. Disclosure requirements should be determined by the Commission, with the onus on UFB operators to show that particular requirements are not needed. Confidentiality issues are limited by geographic market segmentation.

3. Should the information disclosure requirements apply to Chorus' copper services? Should there be any differences in the information required for the copper network?

Information disclosure should apply to copper services.

Copper is legacy infrastructure, and so it is important that it not be subject to inefficient overinvestment, nor have its working life prolonged where alternatives could operate instead. Its footprint is nationwide which, depending on the nature of copper regulation, could create a risk of anticompetitive behaviour such as pocket pricing. It also calls into question the investment incentives for Chorus in rural areas and to what degree these need to be transparent if the main alternative to them, mobile and fixed wireless, are regulated on a different basis

Chapter 4: The role of the regulator

Telecommunications Commissioner role

4. Do you agree that the role of the Telecommunications Commissioner should be reviewed after 2020?

Yes. There is a danger with all significant changes of legislation that the original policy intentions are not achieved either because of ambiguous policy, drafting errors or differing interpretations being made. As such we support a general principle that all significant changes of legislation should undergo an implementation review within 5 years of being passed. We would expect that the need to review the role of the Commissioner would be much clearer at that stage and be relatively easily addressed in such a review.

Chapter 5: Regulatory Asset Base (RAB)

Revenue cap and number of RABs

5. Do you agree that the number of RABs for price-quality regulation purposes should be set in legislation, or should it be a matter for the Commission?

We prefer that legislation set the number of RABs and their scope. Immediate investment decisions depend on RAB scope, so this should be clearly indicated early. Clear guidance to the Commission is a distant second-best alternative.

We assume that a single RAB for Chorus incorporating all current copper and fibre assets will, over time, have the effect of Chorus fibre users subsidising Chorus copper users. It will also create a significantly different asset base for Chorus than for LFCs and will affect their incentives, revenue and ultimately prices. Chorus for example will be incentivised to continue to invest in copper services – not least in LFC areas. Such significant policy decisions need to be made decisively and transparently by the Government. If left to the Commission, they would undoubtedly have to undertake a fulsome and lengthy review process with all the uncertainty that would entail.

The assumption that there will be a single Chorus RAB feeds into many other core components of this submission such as anchor products, averaging and relativity.

6. Do you support a single RAB for copper and fibre? Please explain how your preferred approach would meet our policy objectives.

We cannot support the model as proposed, due to the risk of inefficiency we identify. As we outline, fibre and copper differ in too many respects for a fully equal treatment to be efficient.

We propose instead a RAB of smaller scope: the “Chorus fibre footprint RAB”.

Our approach distinguishes consumers who have access to UFB services from those who do not. We believe this will remove many of the distortions and opaque cross-subsidies that might otherwise occur across fibre/copper and Chorus/LFC users.

We exclude copper outside UFB from any RAB, and treat UFB copper as fully depreciated. Reducing both the coverage and value of copper mitigates the potential for distortions in the revenue-cap-and-anchor-product model.

Our model requires all copper and fibre services to deliver minimum-service, maximum-price anchor products. Failure to meet the specified service level results in a price-drop to the anchor product below. This limits the undesirable flexibility which would otherwise allow inefficient operation of copper under a single RAB.

How our approach improves on the proposed options

The options paper’s single RAB model would result in cross -subsidisation between fibre and copper users (and between urban and rural users). This would incentivise providers and users to continue with copper services when they are no longer efficient. In extreme circumstances this might result in significant increases in price compared with alternatives (for example if fibre was extended far into rural areas).

The options paper’s proposed two-RAB model, without ameliorating measures, is likely to result in a large price shock at 1 January 2020, which would increase over time.

We propose a path between these two extremes, with a reduced-scope reduced-value RAB, and binding anchor products to manage pricing flexibility.

RAB valuation methodology

7. Do you agree that decisions on the RAB valuation methodology should be made by the Commission?

Yes, with one exception. It is critical to have clear, early, and decisive Government direction on the desired scope of RAB assets, particularly the valuation of copper.

In our view, the larger the valuation of copper, the more difficulty there is in maintaining efficient incentives and a consistent national framework across all providers.

In general, the Government should be particularly clear what its policy objectives are, rather than what approach it prefers. This includes what priority/weighting it feels need to apply to different objectives and where possible the expected outcomes it envisages if the objectives are achieved.

With clear and decisive guidance, the Commission has the resources to create a valuation approach, and to resolve issues in general. With guidance that is not decisive, or which is subject to varying interpretations, legal challenges may delay outcomes from the Commission.

As we suggest, particular concern attaches to valuation of the aging copper network. If the Government's intention is to incentivise people to move off copper, to signal to Chorus that further investment in copper services (beyond basic maintenance) is not supported, that should be made clear to support predictability. Likewise, if it is the Government's aim to avoid complications of historic valuing of copper, the Government should signal early and clearly that the copper network in UFB areas will be fully depreciated by 2020.

Why should copper in UFB areas be fully depreciated?

When the government signed the UFB contracts in 2005 it was effectively saying that fibre would replace copper in 15 years time and the government was paying for that transition. Most end-users will have only a single network connection (either fibre or copper) if the end user wishes to have both then they should pay the additional cost of maintaining the copper service - it shouldn't be included in the RAB. In Chorus UFB areas by 2020 there will effectively only be a single technology neutral service - customers will have one connection - it will use existing ducts and poles and a range of anchor products will be available. Use of copper to compete with itself or other LFCs - e.g. by upgrading the copper to VDSL or vectoring- is a commercial decision for Chorus and should not be included in the RAB.

8. If you think the Government should provide legislative guidance, what form of guidance do you recommend?

Clear, applicable legislative tests are the best form of guidance. For example, they are not subject to second-guessing in later processes. The main risk of legislation is that it specifies too closely what would ideally change over time.

We urge the Government to clearly state desired high-level outcomes and priorities, but to leave room for change in technology and implementation detail.

With clear, prioritised objectives, the Commission and other players are in a better position to make timely decisions which support efficient investment and long-run user benefit.

Other decisions for the Commission

9. Do you agree with our proposed approach to enable the Commission to determine the scope and treatment of assets in the RAB?

Yes, but we anticipate that the Government will make clear its policy objectives to guide the Commission.

The anticipated scope of RABs determines the expected return on investments made now. The most pressing concern relates to treatment of copper infrastructure. Clear, early indications that overinvestment in copper will be excluded from any RAB will give immediate competition-like incentives on investment.

Our suggested option is to exclude copper outside the UFB areas from Chorus' RAB, and to treat copper within UFB areas as fully depreciated. Excluding all copper is also an option, but would limit some of the purpose for a single RAB. Prices for copper services in rural areas will be determined by the anchor products it is capable of delivering, at their set minimum standard and nationwide maximum price, including our proposed nationwide, technology neutral "essential service anchor product". In a backstop situation current pricing with a CPI - based adjustment would apply. Both options avoid pocket-pricing of copper.

10. Please comment on any matters Government should take into account when developing a definition of "fixed line access services".

We largely agree with the option paper. There may be a grey area between what is an access service and what is a backhaul service. We note that the Commerce Commission is currently reviewing backhaul services and this should contribute to a better understanding of whether there are grey areas, whether the current framework is sufficient or it will require legislative change.

11. Do you think Chorus' assets in LFC areas should be excluded from its RAB?

No - but we think copper in UFB areas should be fully depreciated by 2020.

We agree there is a risk of anticompetitive copper pricing, which exists in LFC areas. The same risk exists in respect of competing wireless network services, particularly outside the UFB areas, where wireless technologies may be the most efficient mode for network services.

In other words, copper outside UFB areas is subject to a more severe version of this problem - more severe because LFC fibre services will readily outstrip copper, where wireless options may not for some time.

Our preferred approach is to:

- a) Exclude copper outside UFB areas from any RAB (adopt the Chorus fibre footprint RAB);
- b) Treat copper within UFB areas as zero value from 1 January 2020;
- c) Require delivery of minimum-service, maximum price anchor products to constrain pricing flexibility on copper.

12. Do you agree the Commission should decide on the treatment of UFB financial support? Do you support the Government providing guidance? If so, please comment on the guidance or approach you recommend.

We support clear government guidance here.

Government funding of UFB and RBI serves policy objectives which may go beyond competition-like outcomes. We support those objectives, and suggest that the government which has implemented them is best placed to offer guidance on their treatment. This might be particularly important as we understand that different UFB arrangements were put in place for the different LFCs.

As elsewhere, decisive guidance is best given through legislation rather than policy statements.

13. Please comment on our proposed approach to provide guidance to the Commission that it should implement its functions in a way that does not create incentives on Chorus to keep end-users on copper services in areas where there is a choice of UFB services available.

We agree with the aim. As the paper states, it is not desirable that there be an incentive to invest in, or prolong the use of copper, at the point where it is no longer the most efficient infrastructure. Under a single RAB including copper, Chorus will have an incentive to maintain copper services beyond their efficient life.

We propose:

- a) Pricing copper services at the same level as superior fibre services.
- b) Excluding copper assets outside the UFB area from any RAB.
- c) Regarding copper assets inside the UFB areas as being fully depreciated from 2020
- d) Where end-users require both a copper and fibre connection they will pay the additional cost to receive both services.

14. Do you agree the Commission should decide on the treatment of UFB initial losses?

Yes, but there should be clear and early guidance from the Government to indicate their desired outcomes, and this guidance is best given in legislation.

Assessing the efficiency and prudence of capital expenditure

15. Do you agree with our proposed approach to the treatment of networks rolled out under the Government's UFB and RBI programmes?

Yes. The rollout of these programmes serves a policy objective of providing better Internet for all New Zealanders.

In regard to using Government economic policy statements to guide the Commission our preference is always that Government policy is made explicit and as early as possible and preferably before legislation is drafted. Subsequent policy statements risk may face legal challenges, thus failing to deliver certainty.

16. Do you agree with our proposed approach to the treatment of non-standard installations? What threshold do you propose for charging end-users for non-standard installations?

Yes.

In general terms we agree with the concept that non-standard connections should be paid for by one-off charges. The threshold for non-standard charges under the current UFB arrangements seems to be working in practice - it would be useful if statistics could be provided to either prove or disprove that point. We would note that not every road has fibre running down it and not every fibre is capable of

being split at the nearest point to an end-user premise. A more effective measure might be distance from the closest available fibre access point.

17. Do you agree there should be a pre-approval mechanism available to regulated suppliers for future major capital expenditure based on the Transpower model?

Yes.

Pre-approval should be required for major investments, and should consider the availability of competing alternative ways of providing a proposed level of performance and coverage. Investments in fixed-line should not crowd out wireless alternatives where these would more efficiently deliver good connectivity.

18. Does the proposal to require the Commission to have regard to economic policy statements provide sufficient certainty to support any future government broadband infrastructure initiatives?

The Government should be absolutely clear on its policy intention and objectives as soon as possible. We favour use of legislation to deliver clear and decisive rules, informed up-front by wide consultation.

In most regards this would obviate or reduce the need for economic policy statements at a later date and minimise any litigation of Commission decisions.

If the Government chose to issue an economic policy statement which effectively signalled a change in policy intentions it would be more appropriate to do this by primary legislation not a policy statement.

Chapter 6: Price-quality regulation

Form of price-quality regulation

19. What is your preferred option for the form of price-quality regulation - price caps, a revenue cap, or our preferred option - and why?

We support a modified version of the proposed hybrid model.

We agree that a key challenge is managing revenue stability for providers and price stability for users. We agree that, given the risks identified, the preferred hybrid model of revenue cap and anchor products is the best general approach.

Despite that broad agreement, we think the model proposed could be improved by:

- a) Specifying anchor products as faster, binding, and evolving,
- b) Refining the scope of the Chorus RAB to make it more similar to LFCs,

We think that our approach stakes out a balance between various concerns, while maintaining reasonable efficient incentives, for example allowing for competition from wireless modes where those are the best option. We assume that is among the key policy outcomes desired. As elsewhere, more clarity from Government on those desired outcomes, and more explicit consideration of how to balance various trade-offs would be useful.

20. How could your preferred option be implemented to manage the risks identified above?

As outlined below, we favour higher-specification and evolving anchor products to balance incentives and drive delivery of better services. We favour separate

treatment of copper, taking it out of Chorus' RAB in areas where competing modes are likely to deliver better services more efficiently.

21. If you prefer a price cap approach, how should the demand forecasting risk be managed?

We do not support the price cap proposal, as demand forecasting relies on information we do not now have and are unlikely to have by 2020.

Debate around these inputs will address incentives and policy goals implicitly. We suggest that these known elements are better addressed explicitly up front, while providing tools to cross the bridges of varying demand or copper migration as these are reached.

In the event that price caps are adopted, there must be clear and early guidance on expected demand and resulting price trajectories.

Our proposals on the anchor product set go some way to capturing the benefits of a price-cap approach while retaining the benefits of a revenue cap approach.

22. Is there any way to make sure that the UFB provider is not wholly insulated from competition under a revenue cap model? For example, could an asymmetric wash up be applied?

We agree that there is potential for competition “at the fringes” and “in the core” from wireless connectivity.

An asymmetric washup is one reasonable response to lower-than-forecast use of fixed-line services. Change in technology allows services to become cheaper and faster, so lower-than-expected revenue in one period is a poor basis for increased recovery in the next.

Outside the UFB areas, we suggest that the potential for wireless competition with copper requires a wider range of tools.

Our proposals for the pricing of anchor products (especially the basic broadband product) will also contribute to incentivising efficiency and curbing the unintended vagaries of the revenue cap model.

23. Are there any risks or benefits of Option 3 that we have not identified? Will this option have the incentive effects we are seeking? How could these be addressed?

The main risks we see with Option 3 as proposed are:

- a) Anchor products are calibrated too low to act as a restraint on operator flexibility within a revenue cap (see below).
- b) A combined copper/fibre RAB may create undesirable incentives to prolong the use of copper where more efficient alternatives do or could exist.
- c) The potential for The Chorus RAB and revenue cap and ultimately prices to be significantly higher than those of LFCs

Our proposals seek to minimise these risks.

24. Do you agree the impact of competition ‘at the fringes’ should be managed? If so do you agree with our proposal for an ‘asymmetrical wash up’?

Competition at the fringes will be an important dynamic as technology and use patterns change. An “asymmetrical wash up” is one way to allow for this competition.

Another option is to recognise a distinction between consumers within and without the UFB area.

Our proposal for the treatment of wash up is first to minimise the likely disparities (by for example minimising the influence of the Chorus copper network) and then to effectively average any wash up between Chorus and LFCs by allowing flexibility in the wholesale anchor pricing of the basic broadband anchor product.

We also propose a general competition test, to allow deregulation in areas where this would efficiently deliver better services.

Anchor products

25. Should the following services (as defined above) be anchor products from 2020? Why or why not?

- a. voice-only service;
 - b. ‘entry-level broadband’; and
 - c. ‘basic broadband’.
-

We support the use of anchor products to balance incentives under a revenue-cap, but consider that the services proposed are inadequate. To balance incentives, anchors must specify services which are attractive and relevant to a significant proportion of users, and which remain so over time. The proposed services are at the low end for 2016, let alone 2020, and it is unclear how they will improve over time.

We are also concerned that the services are specified “up to” a given performance level. Meaningful anchors must have a measurable and binding minimum performance level, and there must be clear consequences for failing to deliver at that level. The proposed services allow too much variability, and would unfairly discriminate against rural users. For example, remote copper users on an “up to 15/1” product would pay a standard price, but receive a sub-standard service.

Addressing “essential service” needs

As proposed, services may be intended to address a need for nationwide “essential services”. We acknowledge this need, and to address it we propose an alternative “essential service” product. Specifying such a product allows more effective use of other anchors to balance incentives under a revenue cap.

Rather than maintain a “voice only” service, we consider that the Government should revisit current TSO arrangements in light of enhanced mobile connectivity in New Zealand and changing public appreciation of what an essential service means. We raise the matter in the present review, but it is equally relevant for the earlier TSO review process.

It is highly unlikely that the current TSO service will be able to provide a 50Mbps to 99% or 10Mbps to the remaining 1% without massive and inefficient investment. We propose a tech-neutral alternative below, with Chorus and Spark as now maintaining a service of last resort until such an alternative is available to all.

Our proposed anchor services

We propose four anchor services, each with defined and measurable performance levels. The first three services would be sold at fixed regulated prices (set relative to each other) with the service quality increasing over time to keep pace with technology. We propose an annual default increase in access speeds specified up-front by a formula, with periodic reviews to assess that trajectory. Where a particular service could not meet the required standard it would drop back to the standard below in terms of price.

1 Essential nationwide service.

We consider that there should be a defined nationwide technology neutral minimum service at a regulated maximum price. From an initial specification relative to voice calls, it should evolve over time to meet the Government's nationwide 50Mbps/10Mbps target. Fibre and mobile operators would provide a regulated number of call minutes or level of data cap in lieu of "free local calls". All fibre, copper and mobile operators would have to offer the regulated service (or better) at the regulated price. It is likely that such a service is already accessible to all but a very small number of remote users – our proposal is to be clear about what constitutes "essential service" and allow for its efficient nationwide delivery.

2 Entry level broadband (fibre-only providers could opt out)

This service would have a minimum standard commensurate with the most basic contemporary broadband speeds. At 2016, that would be ADSL equivalent. This service should be deliverable to those limited to copper access, but its specification should grow at Chorus' identified consumer demand growth rate of 50% per annum. Consideration might be given to putting an upper limit on this service of say 15Mbps if it was felt that it would otherwise inhibit transition to fibre. Services failing to meet the specification would be priced as for service 1 above.

3 Basic broadband (Compare VDSL or low-end fibre)

This service would have a minimum standard, for example a fraction of declared peak upload/download speeds to be provided 95% of the time. This could be set relative to the lowest-level fibre or highest-level copper services available. At 2016 this might be a 30/10 level service, though in practice fibre providers may offer faster speeds at this equivalent price point.

4 Standard fibre broadband

The fourth service would have a maximum regulated price, and be calibrated with respect to a mid-market fibre service at 2020, with a commensurate growth path for its performance over time. Gigabit services are at retail in 2016, and may indicate a reasonable lower-bound expectation for mid-market fibre at 2020.

The maximum price allows wholesale operators to offer this service at a lower price to retail providers, effectively using this to remain within revenue caps (a substitute for wash up). This would likely be most relevant for LFCs.

We believe RSPs, receiving the benefit of this lower price, have incentives to apply savings to attract and serve users. Depending on the strength of their desire for nationwide pricing, RSPs may pass on this benefit to users nationwide, or in areas facing local competition. To the extent that any difference is applied nationwide, we anticipate that it would smooth prices for Chorus end-users (should Chorus fail to reach its revenue cap and be allowed to increase prices in a future regulatory period).

TDL obligations

As discussed earlier there would likely be a need to grandfather the existing TSO obligations of Chorus and Spark. We have proposed a tech-neutral "essential

service”, which could allow these to transfer to a fixed or mobile wireless provider. TDL funding could also be prioritised to reducing these obligations. More generally, the TDL bidding process provides a model for efficiently serving users on a non-commercial basis.

Averaging

Of the four anchor products only the essential service would be expected to be averaged in both service standard and price nation-wide. The remaining three services would have to meet the minimum service standard, but the price would only be averaged within a provider’s area.

The place and function of commercial services will be affected by these proposals they are discussed below at Q40 and Q41.

Pricing of anchor products

26. How should anchor product prices be determined?

We are generally supportive of the general principles outlined in the options paper and extend these principles below in response to Q 27.

27. Do you have any comments on the following principles?

- a. end-users should not face sharp price increases;**
 - b. prices in the initial regulatory period should be set with regard to 2019 prices; and**
 - c. anchor product prices should be broadly reflective of the quality of the particular anchor product.**
-

We support the principle of setting a maximum price for nationwide averaged core anchor products as long as those products are equal in service quality terms (including measurable, enforceable minimum standard terms).

On our proposal, an “essential service” product would have a nationwide maximum price and minimum service across all service providers (mobile and fixed). Retail operators would be free to provide better services standards and lower prices. We think most users will take up better options, but that an “essential service” is important for the wellbeing of remote users.

We propose that other services have prices averaged only within the area of the relevant provider. Chorus anchor product prices would be regulated and be consistent nation wide. So for example a copper entry level anchor product would be at the same price inside an LFC UFB area as it would inside a Chorus UFB area or outside UFB areas. This would ensure that Chorus was not able to pocket price copper services in other LFC UFB areas and it would also provide incentives to end-users to migrate to fibre.

We support the goal of encouraging end-users to transition to UFB services where possible.

We support the concept of relativity (of the maximum price) between anchor products.

We agree that market prices at 2019 should be considered a reference point for future prices and glide-paths. We suggest a similar approach for service specifications and improvement trajectories, to apply binding minimums to all anchor products.

We support the concept of price smoothing over a regulatory period to minimise price shocks for end users.

28. Are there any other matters that need to be addressed regarding the pricing of technology-neutral anchor products?

We consider that the two major problems to be overcome by 2020 will first be the provision of reasonable broadband services to rural New Zealand. The estimated cost to push fibre based services further and further out into rural areas will be both massive and inefficient. Some fortunate rural locations will be close to fibre services, but in general we consider that the most efficient means of providing reasonable broadband services (for example the 50Mbps target identified by the Minister) to rural areas will be via either fixed wireless or mobile technology.

We consider the best means of ensuring such a reasonable service is for the Government to subsidise efficient infrastructure through the RBI, which likely means wireless delivery and fibre backhaul.

Should Chorus choose to compete with wireless providers post-2020, using either its copper or fibre networks, this should be on a competitive basis rather than supported by cross-subsidy within its broader business. We consider our proposed copper carve-out will incentivise efficient investment by Chorus, and bring its RAB value closer in line with other LFCs.

The second major problem is the likely disparity between Chorus and LFCs RABs (and revenue caps) as a result of Chorus having to support the transition from fibre to copper and maintain averaged prices – much will depend upon the derived value of that copper network. We propose to ameliorate these problems by carving out ex-UFB copper to reduce the Chorus RAB, regarding copper as being fully depreciated, and allowing LFCs to lower key wholesale broadband prices to avoid overshooting revenue cap limits. These measures should mitigate problems while continuing to incentivise transition to fibre.

With the carve out of rural copper, the Chorus RAB would then only have one technology neutral network. Individual end users in the Chorus UFB areas would only have one line - copper or fibre. This maintains an incentive on Chorus to treat both infrastructure modes efficiently. In Non-Chorus areas copper lines still in service at 1/1/2020 could continue to provide service but they would need to comply with the anchor product standards and maximum prices.

29. Do you think there would be any negative outcomes from the requirement to provide anchor products on a geographically averaged basis? Do you think the Commerce Act provisions would be a sufficient alternative in the absence of this requirement?

We are supportive of geographic averaging within certain boundaries.

Clearly, indications in the options paper regarding non-standard connection costs and the Commerce Commission having to approve certain investments already recognise the potential for significant costs to be incurred if averaging was taken to extreme levels.

Geographic averaging involves a cross-subsidy. This is potentially inefficient, with the largest risk of distortions relating to copper. Averaging must be on a like for like basis. Without defined minimum standards averaging means paying the same price for significantly different quality of services. Our proposals for anchor products with minimum standards aim to resolve these likely negative outcomes.

We do not think nationwide averaging will be possible, given likely differences in RAB values in resulting revenue caps. We have therefore proposed that only an “essential services” anchor product be averaged nationwide. Chorus copper services will also effectively be averaged nationwide as they are provided nationwide.

The remaining anchor products should be averaged just across the individual UFB providers areas.

The impact of this arrangement is likely to see a difference in price in LFC UFB areas between the copper price for an entry level anchor product (provided by Chorus) and the fibre price for the same entry level product (provided by the LFC). We do not believe this will be a major problem - the likelihood is that in LFC areas the Chorus copper price will be higher than the equivalent LFC fibre price - providing an added incentive to end-user to move to fibre.

The other impact of this proposal will be increased transparency of costs/prices between different UFB providers.

In any case, and as an absolute minimum position, any cross-subsidies however arising must be made transparent and reported openly.

Layer 1 anchor product

30. Should the following services be anchor products from 2020? Why or why not?

a. layer 1 fibre service; and

b. any other services.

Unbundling is an existing obligation under current UFB contracts, and is one we support. Competitive access at the lowest viable level supports innovation to serve end-users.

With that in mind, the proposal to rely on unbundling as a commercial service is inadequate. Provider incentives mean unbundling will not be offered at fair prices.

Unfortunately, it is not clear from the options paper whether a viable model for regulated unbundling has been identified. Further urgent work and consultation is needed in this area.

In the meantime, it is necessary to maintain a power to require unbundled fibre as a regulated service. The standard model would be a discretionary power held by the Commission. We acknowledge that standard model could be seen as undermining predictability and investment incentives on fibre providers.

As an alternative, we suggest a legislated fast-track process for unbundling which would operate as a backstop. A residual power, held by the Government, could allow for regulated unbundling of fibre access. This power could operate on satisfaction of an appropriate trigger condition.

We suggest that an appropriate trigger would be an application by a party, which has sought unbundled commercial services on reasonable terms, and which has been unable to gain access. A party in this position may be able to assist the Commission on details of implementing regulated fibre unbundling.

Should the Government wish to retain a supervisory role, the fast-track for unbundling could be enacted earlier, but brought into force only by an Order-in-Council. We suggest a fast-track period of 120 days as for Schedule 3 investigations to avoid gaming.

We think this provides a reasonable set of safeguards, and a reasonable trigger, which requires a motivated party seeking unbundled access. A backstop regime of this type may also create competitive incentives on fibre providers.

Options for implementing unbundling

In our original submission we proposed wavelength unbundling and also level 0 (e.g ducts and poles) unbundling also be considered. These options are likely to be more economically attractive than GPON unbundling.

Based on our research, wavelength unbundling appears complex but possible and could be economically viable. It does pose some risks for end users and infrastructure providers. Those risks include potential for the re-emergence of a vertically integrated monopoly or duopoly; a disincentive for Chorus and LFCs to invest beyond existing contractual commitments and a very complex task for the Commerce Commission to arrive at a price for an unbundled service.

We acknowledge a degree of uncertainty, and therefore suggest as one option backstop regulated unbundling with a fast-track to avoid gaming. For example if an RSP requests a commercial unbundled fibre service and cannot get it at what they consider a reasonable price, they can appeal to the Commerce Commission which would then have a limited time (for example 120 days as for a Schedule 3 investigation) to make a recommendation to the Government to introduce unbundling. Advance legislation would establish the Government's power to respond to this recommendation by Order-in-Council, bringing unbundling into effect through an otherwise suspended part of a new Act.

31. What test should the Commission be required to apply to determine whether to introduce a layer 1 fibre anchor product?

Please see above. The proposed legislative test of “the UFB providers are not innovating at the layer 2 level” would in our opinion be difficult to establish. A more likely trigger might be comparison of the differences between the commercial service offerings of the different LFCs and Chorus. As above though the ultimate aim should be the degree to which unbundling will contribute to the long term benefit of end users.

32. Would there be any problems with a technology-specific layer 1 anchor product? Should the layer 1 anchor product include UCLL, and therefore be technology-neutral?

The likelihood is that copper services will gradually disappear over time and that copper unbundling will be significantly different to fibre unbundling (at least at unbundled wavelength service level) and is largely only available in UFB coverage areas anyway. Consequently, it is unclear what benefits including UCLL in the layer 1 anchor product will achieve - much will depend upon the incentives that RSPs might have to compete against the regulated anchor products at layer 2.

33. Should the layer 1 anchor product include both point-to-point and point-to-multipoint configurations? How do you recommend the Commission should calculate a cost-oriented price for the layer 1 anchor product?

Yes the layer 1 anchor product should include both point to point and point to multipoint configurations. As above, we accept that the calculation of a cost-oriented price for a layer 1 anchor product is complex. We expect RSPs and LFCs to submit on this issue in far greater detail which as with other issues leads us to request further consultation and analysis particularly around the government's long term objectives.

34. Should the Commission have the power to require services based other forms of unbundling (such as wavelength unbundling) to be provided?

Yes - we consider wavelength unbundling to emerge as the most likely form of layer 1 unbundling.

35. How should the regulatory framework provide flexibility for the Commission to update anchor products over time? What criteria should be used for the selection of anchor product specifications?

Anchor products must attract a significant proportion of users, and must remain attractive over time. The one exception is our proposed “essential service” product, which is not intended to balance incentives under a revenue cap.

We favour improvement-by-default – users should not wait on decisions of the Commission to deliver improvements which could have been reasonably predicted. We propose a formula be specified for default improvement in anchor product specifications. More detail will be needed, but we begin with a default improvement of 50% per annum based on the throughput growth Chorus outlined in its UBA submissions.

On application, the Commission could review compliance with the formula. The Commission could also periodically review the formula itself.

36. Should there be a limit on when the Commission can review and update the anchor product set? What frequency of reviews do you recommend?

We understand that the proposed 5-yearly regulatory review would involve updating the anchor product set. In our view this is too infrequent and too involved – users should not wait on processes to experience improvements.

We consider that the setting of dynamic standards which the Commission applies and that automatically adjust (say increase by 50% per year) will remove the requirement for regular review and adjustment and will provide the level of certainty that industry and users require. We also propose that anchors which fall below a current specified performance level be priced at the level below.

We also consider that anchor products should account for approximately 80% of end user purchased services and any significant variance from this level might prompt an update.

With these automatic checks and balances in place then a regulatory review period of five years is considered reasonable in terms of providing certainty for users and operators. Without such adjustments we would expect much more frequent reviews.

There may also need to be additional measures that could trigger an extraordinary review, particularly in the initial stages of the regulatory model. For example we consider that anchor products should account for approximately 80% of end user purchased services and any significant variance from this level might suggest that the model is in need of urgent adjustment thereby triggering a review.

37. Should there be a limit on the number and type of anchor products, as proposed?

We suggest that if anchor product standards are specified correctly, by an agreed formula keeping pace with end-user demand and technological progress (we have suggested increase by 50% per year), the need for new anchor products will not be

great. The signal that an additional anchor product is required, or that the standard specification is not working correctly will be an increase in take-up of commercial products, dropping the proportion of anchor users below an indicated range.

The exception to this might be the introduction of an unbundled anchor product as discussed earlier.

In general, we prefer that a small set of anchor products improve over time by default, without a need for users to actively upgrade to a different product.

Consistency between Chorus and LFCs

38. Do you think that anchor products should be priced consistently across LFCs and Chorus?

We would in some respects prefer averaging of prices nationally – we identify this as desired from the Government point of view as well. However, this seems to conflict with other objectives such as a single RAB for Chorus, and relatively consistent revenue caps between LFCs and Chorus.

Our proposal attempts to provide a balance between the two options of all anchor products being averaged nationwide and all anchor products being averaged across the LFC/Chorus geographic areas.

In summary we are proposing:

- a) That all four anchor products will have consistent standards, including minimum standards, nationally.
- b) That all Chorus anchor products (copper and fibre) will have averaged prices nationally.
- c) LFCs will have fibre prices averaged across their UFB region.

Elsewhere we have submitted that averaging is a matter of averaging both standards and prices and it is not acceptable to have significantly different services standards applying in different geographical locations at the same price point. In part that is one reason we have suggested four rather than three anchor services.

We have also made a suggestion that if anchor service pricing caused difficulties in operators meeting their revenue caps that one exception to the averaging principle could be in regard to the pricing of the “standard” service where the regulated wholesale price would be set as a maximum. We envisage this (when combined with our other proposals) would result in some flexibility to allow LFCs to drop wholesale prices in the short term in order to help manage longer-term revenue caps and reduce eventual wash-ups. Clearly, price increases would be capped to match the set maximum level.

39. Please comment on any alternative ways to achieve consistency of pricing between Chorus and LFCs.

We suggest that the boundaries of UFB coverage provide a useful way to delineate similar and dissimilar network services and consequently recommend that networks outside the UFB are not included in any operator’s RAB. This largely relates to the Chorus rural copper network. The greater the consistency between the Chorus RAB and LFCs RABs the more likely it is that prices will be consistent.

Commercial services

40. Should commercial services offered by UFB providers be subject to any requirements?

We consider the need for commercial services to be slight. If anchor products are correctly specified and keep pace with end-user demand and expectations then commercial services will be required only for a relatively small number (we estimate less than 20%) of specialist users who are prepared to pay more for a bespoke service that cannot be provided via an anchor product.

We do not consider that the use of commercial services to act as a moderator which will allow LFCs and Chorus to meet revenue cap targets provides the correct incentives and they are likely to undermine the government's preference for averaging of services. All the reasons for rejecting a pure revenue cap apply.

We note that there has been extensive discussion on the need for commercial services both at the time of the introduction of Boost service by Chorus and subsequently during the Commission's s3OR review. The general consensus among industry and users has been that if entry level and basic broadband services are correctly specified then commercial fibre products should not generally be required and if they are RSPs would be best placed to request them.

41. Do you agree with our suggested requirements, including geographic averaging (noting the question earlier on this point in relation to anchor products) and the requirement that 12 months' notice must be given of any changes to price or material non-price terms for commercial services?

Inasmuch as we consider that regulated anchor products meet the requirement that they act as anchors or moderators of commercial service prices then the requirements on commercial products may be able to be reduced to the level indicated in the options paper. However if anchor products are unable to reasonably moderate the need for commercial products there will clearly be a need to revisit the anchor product and/or commercial product specifications. If the intention is that anchor products are only reviewed every five year regulatory period then the need to impose requirements on commercial service may need to be more frequent.

Deeds of undertaking for open access

42. What is your view on our proposal to carve the initial layer 2 anchor products out from this obligation?

The proposal is not particularly clear as to what the likely effect would be of carving out these products. The reason given, that layer 2 anchor products will be capped close to layer 1 prices seems to ignore the potential for unbundling layer 1. This issue is closely tied up to the issue of fibre unbundling and likewise needs greater clarification regarding the Government's long term objectives.

Retaining flexibility as the market matures: the Commission can recommend changes to the form of control

43. Do you agree the Commission should have the power to recommend changes to the form of price control (including moving to a price cap regime) if certain criteria are satisfied? If so what criteria would you propose?

Yes - As we have discussed we have a degree of concern regarding the stability of the proposed model and how it will be implemented in practice. The Commission

which has the role of implementing the Government's policy should be free to recommend changes (including the form of price control regime) to the Government if it considers that the Government's policy objectives are unable to be met.

We also propose that the Commission periodically consider whether services can be de-regulated for example as mobile and alternatives develop to compete with copper outside the UFB area.

44. Should the Minister make the final decision, or should this matter be delegated entirely to the Commission?

Our general position is that wherever possible the government should make its policy position, objectives and intended outcomes as clear as possible and then empower the Commission to make decisions consistent with the government's intentions. Nevertheless there may be occasions where for example reasons of urgency it is necessary to have a fast-track process that the government might wish to have a veto over - the example of unbundling above might be such an example.

The act of deregulation of a particular area might not meet the threshold for government veto whereas a fundamental change to the regulatory environment that is likely if moving to a price cap only regime is almost certainly going to mean that initial government objectives are not being met and that the government will wish to make the final decision.

Setting price and non-price terms

45. Do you agree that regulated terms should be set by Commission determination?

Yes, based on a clear indication of Government objectives, preferably specified by primary legislation to avoid uncertainty.

46. If so, do you agree that mirroring the approach to section 52P determinations in the Commerce Act is appropriate?

Yes

Chapter 7: Implementing price-quality regulation

Options for implementing price-quality regulation: Chorus

47. Do you support implementing price regulation for Chorus at 2020, or as a backstop?

We strongly support the proposal for implementing price regulation.

The choice between direct price regulation or a backstop being in place pending a Commission investigation as to the need for price regulation will create significant uncertainty for operators and end-users alike. However, if it is clear that the Commission is unable to develop a robust regulatory model by 2020 we would prefer to see a backstop such as the one we have proposed put in place until that robust model is able to be completed.

The alternative under backstop of relying upon commercial services and regulated information disclosure is insufficient safeguard.

48. What benefits would a backstop approach have over a 2020 model of the type described in this paper?

The only benefit we can envisage from a backstop approach relates to timeliness. Only in the event that the price determination is required but then unavailable in time for 2020 should an interim backstop option be considered.

49. How could a backstop approach ensure that the interests of end-users are taken into account?

The main interest of end-users is around price certainty. A backstop approach that effectively froze prices at 2019 levels pending a regulated price would only serve end-users best interests if those frozen prices were lower than the eventual regulated prices and that there were no price backdating process in place to then recoup any difference. We suggest that this approach only be considered if it is clear that operators are vexatiously delaying the regulatory process.

Our strong preference is for regulated pricing to be in place by 2020. Our proposals that the government makes clear its policy objectives and the outcomes that it is expecting will enable the Commission to expedite the regulatory pricing process to both end user and operators benefit.

50. Under a backstop approach, how do you suggest copper services be treated? Please comment on the preferred option of ‘freezing’ the copper price.

In the event that regulation is required but not available by 2020, a “frozen” price for copper, with CPI adjustments, makes sense for this legacy asset. We propose that this model operate outside the UFB area.

In the event that the government chooses a backstop approach from 2020 pending a Commission investigation, our least preferred approach, then copper with CPI - adjustments would be a preferred option.

51. Under this option, how do you propose managing the risk of copper prices becoming out of date over time? Is a CPI-1% adjustment appropriate?

We support the idea of a frozen price with CPU adjustment, but as above we oppose the backstop option.

Options for implementing price-quality regulation: LFCs

52. Is there a case to implement a backstop model, with information disclosure, for LFCs?

- a. To what extent do you think LFCs will be subject to competitive pressure from 2020?
- b. Do you expect that they will need to be subject to price-quality regulation at some point? When might this occur?
- c. Are there any other risks or benefits to a lighter touch approach for LFCs?

As LFCs do not have any copper assets that are likely to adversely distort their RABs we have less concern with a backstop model, with information disclosure, being implemented for LFCs. However, we do not see how other objectives such as averaging of anchor prices across LFCs and Chorus can be implemented if Chorus is subject to one form of regulation and LFCs another.

The competitive pressure on LFCs is likely to arise from two sources - mobile and fixed wireless operators and Chorus copper services.

Inasmuch as Chorus copper services are included as part of the regulated anchor product set we assume that only if Chorus attempts to develop separate commercial copper services will they pose a significant competitive threat to LFC fibre services. Even then, under the rules proposed for commercial services Chorus would have to offer those services in its own UFB areas undermining its own fibre services.

As we have said above it is difficult to see how other government objectives such as averaging can be achieved if LFCs and Chorus are operating under different regulatory controls - albeit that we recognise that there is less need for those controls in the case of LFCs. This is clearly an area where government objectives need further clarification - is the priority consistent anchor pricing and averaging or is it less regulatory control on LFCs?

Having said this we consider that the risks to end-users are less (from LFCs having backstop regulation in the event of price quality regulation being required but not ready by 2020) than the risks of Chorus having backstop regulation. We would prefer that there was no backstop regulation but if it is unavoidable our preference would be for it to only be applied to LFCs.

Intervention test

53. Please comment on the proposed intervention test based on the purpose statement.

- a. What are the risks and benefits?
- b. Would another type of test be more appropriate, such as that in section 52G of the Commerce Act? Why?

As above we support direct price quality regulation rather than a backstop approach pending an investigation or intervention test. As such the proposed nature of the intervention test is largely moot.

Legislative vehicle - Telecommunications Act

54. Do you have any comments on our proposal to establish the fixed line regulatory settings within the Telecommunications Act?

We see no reason to locate these regulatory settings outside the Telecommunications Act

Purpose statement

55. Do you agree that it is most appropriate to set out a new purpose statement separately to the existing one, in a new Part to the Telecommunications Act?

We agree that a separate purpose statement is appropriate to deal with certain fixed line networks particularly in UFB areas.

Our recommendation that copper services in non-UFB areas are excluded from Chorus' RAB might also require that these areas like mobile and fixed wireless networks remain subject to the existing purpose statement.

56. Do you agree with our proposal to largely replicate section 52A? Will this achieve the outcomes we have outlined?

- a. Do you agree with the terminology, including the use of "end-users"?

b. Do you think a single purpose statement derived from section 52A will be adequate to deal with access issues associated with unbundling?

c. Are any other definitions needed?

Within the UFB area we agree with the proposal to largely replicate S52A.

We agree with the terminology including the use of end-user.

Adding and removing suppliers

57. Do you agree with our proposed process and test for introducing a new supplier to the regime (or removing a supplier from the regime)? Please provide additional comments on any other aspects you think should be considered.

The proposal is not particularly clear - it envisages regulatory services being for fixed line services only but then uses as an example competition for mobile operators.

We presume that the only regulated fixed line operators at 1/1/2020 will be Chorus and LFCs. Should mobile operators such as Spark and Vodafone then choose to deploy and sell fixed line services in conjunction with their mobile services and in competition to Chorus and LFCs there would seem to be several options available: a competition test to allow Chorus and LFCs to be deregulated, Spark and Vodafone brought into fixed access line regulatory framework or simply allowing Vodafone and Spark to compete against the regulated operator. Much depends upon the Government's objectives and whether it considers competition to be valuable c/f providing UFB operators with revenue certainty.

58. Do you agree that the new framework should only apply to fixed line services?

Yes - other services are subject to sufficient competition, which may also affect some fixed-line services.

Appeal rights

59. Do you agree with the proposed approach to merits review? If not, are there any characteristics of fixed line services which mean that Part 4 merits review processes are inappropriate, or any changes are needed?

If as identified in the options paper that "gaming" is a concern then we consider that re-hearing appeal rights for the final determination on price quality paths might be a significant opportunity for gaming. Consequently we consider that this could be brought back to "pure appeal".

60. Do you agree that merits review should not be introduced for the existing regulatory framework in the Telecommunications Act?

We agree.

Backdating and claw-backs

61. Do you agree that mandatory claw-backs should be introduced for utility-style regulation of fixed line services under the Telecommunications Act?

We agree that mandatory claw-backs are more appropriate for utility style regulation of fixed line services. However we consider care needs to be taken in

drafting that decisions not related to price quality paths do not inadvertently get captured.

Chapter 8: Managing the transition

Managing the transition

62. In your view, do our proposals around smoothing the revenue cap and minimising price volatility for anchor products provide enough protection in reducing the risk of price and/or revenue shocks?

We agree that price shock for end users should be avoided. Many of the proposals we have made earlier are intended to minimise the chance of price shock in 2020. Should these prove to be insufficient then either the price quality regulation model is incorrect or the determination of price caps and revenue caps is incorrect and will need to be corrected. Nevertheless, options to enable price shocks to be smoothed such as rear loading cost recovery are appropriate. We do consider however that those options such as rear loading are likely to only spread the cost of poor inefficient investment decisions. We consider the likelihood of such decisions will be significantly reduced by the government being clear about its objectives as soon as possible.

Transitional arrangements

63. Do you agree that a transitional arrangement should be in place in case the new framework is not able to be implemented with enough notice before 2020?

Yes as discussed earlier we consider that if the price determination is not in place by December 2019 then transitional arrangements in the form of a price freeze at December 2019 levels are appropriate.

64. Do you agree with the proposed model of a temporary freeze? Are there any other risks or benefits of this approach?

We consider that the only risk with this approach is around the potential for gaming and whether backdating might incentivise that gaming.

Chapter 9: Mobile competition and infrastructure sharing

Mobile competition and infrastructure sharing

65. Please comment on any other measures you recommend to address mobile infrastructure sharing (outside of changes to Schedule 3, which are discussed in the next chapter).

We consider that mobile and fixed wireless offer the most efficient means of meeting or exceeding the government's objective of 50Mbps in rural areas and that issues such as roaming will need addressing if rural areas are to benefit from competition.

We support the option paper's conclusion that an investigation into making roaming a specified service will improve competition.

Our proposals to carve out Chorus rural copper services from the Chorus RAB and to have a technology neutral essential service will also increase demand for mobile and fixed wireless broadband services, particularly in rural areas.

Other issues for mobile regulation

66. Do you agree with our views on MVNOs and tools to manage competition in retail markets? Chapter 10: The regulatory toolkit

We have previously expressed concerns that radio spectrum, the basis on which all wireless services operate, is a relatively scarce resource that is allocated, usually on an auction basis, for periods of up to 20 years. The consequence of this is that it can create an artificial scarcity which inhibits competition and results in hoarding and inefficient use of spectrum. The lack of a nationally agreed long term strategy for spectrum allocation and use exacerbates this problem.

Managing copper to fibre migration

67. Would a regulated code, applying to RSPs as well as UFB providers, be the best way to protect end-users in the transition from copper to UFB services?

In general terms we agree that transition from copper to fibre services should be consumer lead and that wherever possible consumers should have a choice of service. We also believe that any incentives provided by the Government and the regulatory environment should be towards modestly encouraging transition but also towards promoting investment in fibre rather than copper services. We consider that our proposals will achieve these outcomes.

We believe that there needs to be a clear distinction made between “service” and “technology” – if the service standard is described in a technology neutral manner and includes minimum standards then end-users will have little issue with transitioning given the fixed price for anchor services.

In the case of a regulated code that applied to RSPs as well as UFB providers in the transition we consider that this could easily be accommodated alongside or in conjunction with our proposed “essential service”. In effect the UFB supplier and RSPs would always have to provide an essential service and at a consistent regulated price – if they wished to transition the service from copper to fibre or from copper to wireless the service would have to be equal or better than the existing service at the same price.

The only significant issue we can identify is the continued provision of Chorus copper services in other LFC areas and whether Chorus should be incentivised to compete against LFCs with its copper services. Given that the government is proposing consistent pricing of anchor services between technologies then we believe the vast majority of end users will transition voluntarily.

The issue then becomes one of how the copper network is valued in the Chorus RAB. What we do not wish to see is Chorus being compensated for providing a service that is not actually being used or being incentivised to invest in copper rather than fibre.

68. If a regulated code is not your preference, what mechanism do you propose to ensure end-users are protected in the transition?

See above.

Recommending regulation and deregulation

69. Do you agree with the recommendations to make the Schedule 3 process more efficient?

We generally agree with the proposals to streamline the schedule 3 process and allow the Commission to decide on a one or two step process. Our one concern

with the proposed streamlining is the potential it creates for lessening end-user input both by reducing the public consultation requirements and by shortening the process. Consumer organisations are not funded to make submissions and their resources are spread thinly. The need to make multiple submissions on different issues at the same time can often only be managed by seeking time extensions. This issue could be resolved in a number of ways. For example the Commission could be directed to assist consumer organisations to make submissions or the Government could help by funding consumer organisations.

70. Please comment on whether any other aspects of the Schedule 3 process could be removed or shortened further, or on any other ways to make the process more efficient and timely.

See above

71. Do you recommend any further changes in order to mitigate any potential harm being done in the market while a Schedule 3 process is underway?

See above

72. Should there be criteria specified for the Commission's decision whether to recommend a one- or two-stage pricing process for a potentially regulated service?

See above

Convergence: Broadcasting exemption and net neutrality

73. Do you agree that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise, in light of recent market developments?

No.

As we discuss above, net neutrality issues go beyond the tools our current framework provides. They have arisen elsewhere, and New Zealand is not immune. We have outlined in more detail the issues as to net neutrality in our submission to the Commission on the clearance application by Sky and Vodafone.⁸

The Sky and Vodafone is a useful example of how net neutrality issues arise, but as we outline in the body of this submission, the issues arise regardless. That is the more so as the market changes such as with the increasing importance of mobile for downloading TV and OTT content. The Canadian regulator's activities illustrate this.⁹

Initial conclusions

Conclusions from the submission on that clearance application include:

- a) It is necessary to address the specific details carefully, to identify where the current Act is, and is not, sufficient to deal with net neutrality concerns.

⁸ The submission is at <http://www.comcom.govt.nz/business-competition/mergers-and-acquisitions/clearances/clearances-register/vodafone-europe-b.v.-and-sky-network-television-limited/>

⁹ See for example its latest notice of consultation as to net neutrality at <http://www.crtc.gc.ca/eng/archive/2016/2016-192.htm>

- b) What is important are the incentives that providers have in the future, and the ability to take action in the future, and not necessarily the status quo. The markets are changing. For example, the rise over the next few years in high mobile data usage including for TV and OTT content, along with escalating triple and quad integrated plays, markedly changes the dynamics. Mobile has far lower data caps than fixed line, so zero rating is a more acute issue, for example. Mobile in this context can remove the strengths of open access and separation over fixed line (although as outlined in the body of this submission, separation does not solve fixed line net neutrality problems anyway).

Key examples of actions breaching net neutrality concerns include:

- a) Access provider prioritising its content online ahead of content such as OTT so that the viewer has a superior experience (the so-called “fast lane” relative to “slow lanes”): it is possible that OTT is singled out but more likely is that the TV content goes into the fast lane and most other content including OTT in the slow lane.
- b) Throttling back content such as OTT relative to the Sky content (with the same effect). We consider this is much less likely than (i) above as retail customers would react badly to that option.
- c) Differential retail charges as between OTT content and Sky content. The classic example, often seen including in NZ, is zero rating of the access provider’s own content relative to that of others (where the OTT content may just be part of all content other than the zero rated content).
- d) Charging content providers (and/or related parties such as upstream ISPs and content delivery networks) more for accepting the OTT content and forwarding it to the customer. Possibly charging more too for improved quality of service such as a “fast lane” to the retail customer. Like mobile termination, this is a termination service, and it may be called an IP interconnection service. Also like mobile termination, this is like a monopoly service as the RSP controls access to the customer (i.e. The RSP has dominance). As the market develops this could become an issue in New Zealand: it is increasingly an issue overseas.

We will particularly use zero rating to illustrate the position under the Act, as it is in common use.

The current Act and net neutrality

It is necessary to analyse the Act, in order to conclude whether it is adequate to cover net neutrality issues. We have outlined the legal position in more detail at Appendix B of our submission to the Commission as to the Vodafone and Sky clearance application.

Adding two further important points to what is in that Appendix B:

- a) Because of the Broadcasting Act carve out in the Telecommunications Act definition of “telecommunications service”, online transmission of linear TV such as Sky’s TV service is excluded from the Telecommunications Act (VOD is included). This further limits the ability of the Commissioner to deal with net neutrality issues.
- b) As the Act’s focus is on access seekers – typically RSPs – content providers such as OTT generally have no standing, yet they are the most affected, along with consumers. Competing RSPs (ie access seekers) have less incentive to object to net neutrality abuses and they also may have no ability to get the problems addressed by the Commission under the current Act.

We can therefore conclude, from the above, including our submission to the Commission:

- a) The Commission has some, but limited, ability, to regulate non-price terms of relevant services involving potential net neutrality breaches in both the upstream and downstream markets (that is, as to supply of content to the RSP's customer base, such as by the RSP's TV service and the content provider's service such as Netflix).¹⁰ That path will mostly be via a Schedule 3 investigation (eg as to facets of IP interconnection).
- b) Currently, however, this is a relatively constrained power. For example, it would require a determination that stopped discrimination as between the RSP's self-supplied content and service, and supply of the termination service to the content provider or related upstream provider. That has challenges in the current framework.
- c) The zero rating problem, for example, cannot be resolved under the current Act as:
 - (i) Non-discrimination terms as to price in determinations are expressly prohibited by the Act.
 - (ii) The issues arise as to downstream retail markets where the Act focusses instead on the wholesale level. Zero rating is all about the retail price that the provider charges its customers.
- d) This means that regulation as to what RSPs can charge their customers, for their own TV content relative to OTT content (for example, as to zero rating their own content) is unlikely under the current Act. Such regulation would not necessarily mean that the Commission dictates retail prices: in fact that is unlikely. Rather, the focus would be on having terms avoiding discriminatory treatment.
- e) In any event there are the issues above as to the linear TV carve out, and the content providers' lack of standing.

Conclusion

Regulatory decisions on how to deal with net neutrality issues are not simple and involve considering and balancing complex economic implications. This is illustrated by FCC, as the options paper notes, not intervening in a recent MNO zero rating, whereas the Canadian regulator did intervene, in different circumstances. Context is everything. Similarly, as to differing outcomes in this area in the U.S and in Europe.

That is a critical reason why the legislation should not deal prescriptively with net neutrality but rather it should provide a platform that is sufficient to enable the Commission to intervene - or not - appropriately, governed by the purpose statement in the Act as to the long term interests of end-users.

The proposed area for amendment of the Act is outlined in the body of this submission.

¹⁰ Such as IP interconnection services for termination of traffic with the provider's customers, following a Schedule 3 investigation

Customer service and quality for telecommunications services

74. Please comment on the proposal to amend the Consumer Complaints Code and Scheme TOR to make wholesalers primary respondents to a customer complaint.

The issue of greatest concern appears to be that end-users can only make a complaint to the TDRS after first complaining to their service supplier. There are currently a large number of complaints being made about UFB fibre connections but these are installed by UFB suppliers not the RSPs to whom end-users are required to complain.

RSPs and UFB operators are largely already incentivised to work together under the TCF code to address such cross party issues and some assurances have been given to this extent already.

The amendment to part 4b of the Act in 2006 seem to be effective as a “sword of Damocles” and should be retained in that capacity. The TCF should be given the opportunity to propose a solution to current problems before using that amendment provision.

Issues that need to be addressed include Chorus fibre connection complaints - RSPs in particular should not be able to simply say they cannot address a problem because the dispute is the responsibility of Chorus/LFC. This could be easily resolved with a simple amendment to the code.

The ongoing need for greater awareness of the TDRS with end-users and the responsibility of RSPs in particular to making their customers aware.

The balance of TDRS council should be towards consumers and end users rather than industry.

75. Please comment on the alternative option of introducing a new consumer complaints resolution scheme.

See above.

Housekeeping in the Telecommunications Act

76. Are there any other areas of the Telecommunications Act that you consider need to be updated or removed to be fit for purpose?

Yes. We have explained how our present regime is not equipped to deal with emerging net neutrality issues. We above propose measures responding to those issues.

We have suggested that there are potential anticompetitive risks from convergence of content and connectivity businesses. We propose flexible powers for the Commission:

- a) To investigate whether interactions between these businesses have anticompetitive effect on telecommunications markets,
- b) To develop flexible interventions avoiding undesirable lessening of competition.

It might be, for example, that control of key content by players with significant market power has downstream anticompetitive effects on telecommunications – if so, the Commission should be able to investigate and consider responses.