

21 May 2019

Fibre regulation emerging views: Summary Paper



Project number: 16531

Foreword

Broadband internet has grown to become an important part of New Zealanders' daily lives. Consumers and businesses increasingly demand ubiquitous, high speed connections to support an ever-expanding range of activities.

New Zealand is at a tipping point in its transition from the old copper telecommunications network to faster and more reliable fibre networks. Over the past decade, fibre networks have expanded significantly, with more than \$3 billion invested since 2011, largely as a result of the Government's ultra-fast broadband initiative. This build programme is about three quarters complete, with full deployment scheduled for the end of 2022. By then fibre networks will cover 87% of the population.

In preparation for this, Parliament passed the Telecommunications (New Regulatory Framework) Amendment Act. The goal of the legislation is to support a communications environment that provides high-quality and affordable services for all New Zealanders, and enables the economy to grow, innovate and compete in a dynamic global environment.

The legislation tasks the Commission with creating a utility style regulatory regime for fibre networks to prevent monopoly providers from earning excessive profits at the expense of network quality and consumers. The regime is also designed to provide a stable and predictable regulatory framework for fibre network providers and is based on how we regulate energy networks and airports.

This paper details our emerging views for designing the upfront rules, requirements and processes that will underpin the new regulatory regime which will see Chorus subject to revenue caps and minimum quality standards. Chorus and the three other Local Fibre Companies (**LFCs**) will also be required to publicly disclose information about their performance in what's colloquially known as 'sunlight regulation'. This paper is your opportunity to test our emerging thinking on different topics before we make our draft decisions.

Finally, we are mindful of the burden creating a new regulatory regime can cause stakeholders. We have split the emerging views paper into two. This paper is a summary document outlining our emerging views, options and issues for each topic at a high level. More detailed information can be found in our Technical Paper. We have also designed a template submission form to make it easier for you to provide feedback. We welcome your feedback on whether these changes have made it easier for you to engage with our work. We have also extended the submission period by a fortnight, allowing eight weeks to provide feedback (with two weeks for cross submissions).

We look forward to reading your submissions.

Ngā mihi nui

Stephen Gale
Telecommunications Commissioner

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Background

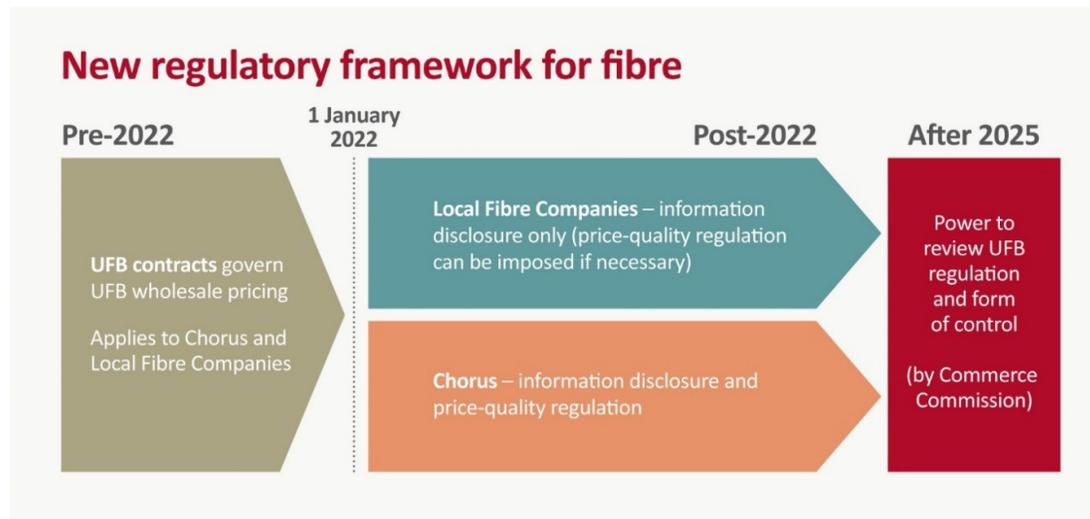
New legislation requires the Commission to set new rules for fibre

1. The purpose of Part 6 of the Telecommunications Act (**the Act**) is to promote the long-term benefit of end-users in markets for fibre fixed line access services (**FFLAS**). As these markets are characterised by a small number of providers who currently face little competition, regulation is designed to mimic the effects of competition by incentivising providers to innovate and invest, improve efficiency and provide a quality of service that end-users demand. This includes limiting providers from earning excessive profits and allowing end-users to share the benefits of efficiency gains through lower prices. Where relevant, we are also required to promote competition for the long-term benefit of end-users of telecommunications services.
2. To deliver these outcomes, the Commission is tasked with designing the upfront rules, requirements and processes (also known as input methodologies or **IMs**) to set price-quality and information disclosure regulation for regulated providers of FFLAS.
3. Regulations will be made by the Governor-General under s 226 of the Act specifying the persons who will be subject to information disclosure regulation, price-quality regulation, or both; and describing the services in respect of which they will be subject to regulation.
4. In reaching our emerging views, we have assumed that Chorus will be subject to both price-quality and information disclosure regulation. We assume that the other LFCs will be subject to information disclosure regulation only¹: Enable Networks Limited (**Enable**); Northpower Fibre Limited and Northpower LFC2 Limited (**Northpower**); and Ultrafast Fibre Limited (**Ultrafast**).²
5. We must apply the input methodologies to determine information disclosure and price-quality regulation by 1 January 2022 (the amended **implementation date**).

¹ We do not consider that our emerging views will change materially based on the final form of the regulations, but we will reassess this once the regulations have been made.

² In this paper, if we are referring to all regulated fibre service providers we will say Chorus and the other LFCs or regulated suppliers. If referring to Enable, Northpower and Ultrafast as a group we will refer to them as LFCs.

6. The following diagram provides an overview of the new regulatory framework.



Our process to date

7. On 9 November 2018, we published our paper - New regulatory framework for fibre – Invitation to comment on our proposed approach (**proposed approach paper**).³ This paper set out the context for the new regulatory framework and provided an overview of its features. The paper also discussed and invited comments on:
 - our proposed process for developing input methodologies
 - our interpretation of the statutory purpose statements
 - key economic concepts and principles
 - issues we had initially identified regarding the fibre input methodologies.
8. Section 24 of the Telecommunications (New Regulatory Framework) Amendment Act came into force on 13 November 2018 from which date Part 6 was inserted into the Telecommunications Act. We published a notice of intention to develop input methodologies on 19 November 2018.
9. On 10 December 2018, we held a workshop which provided an opportunity for stakeholders to clarify their understanding of our proposed approach and the key issues we had identified. Submissions on the proposed approach paper were received on 21 December 2018 with cross submissions received on 1 February 2019.
10. We have considered the submissions received, and this paper provides our emerging views on the development of IMs for the new fibre regulatory framework. We invite submissions on these views and the detailed reasoning provided in our Technical Paper. We will be publishing our draft decision in November 2019.

³ Commerce Commission “New regulatory framework for fibre - Invitation to comment on our proposed approach” (9 November 2018), available at [New regulatory framework for fibre - Invitation to comment on our proposed approach](#).

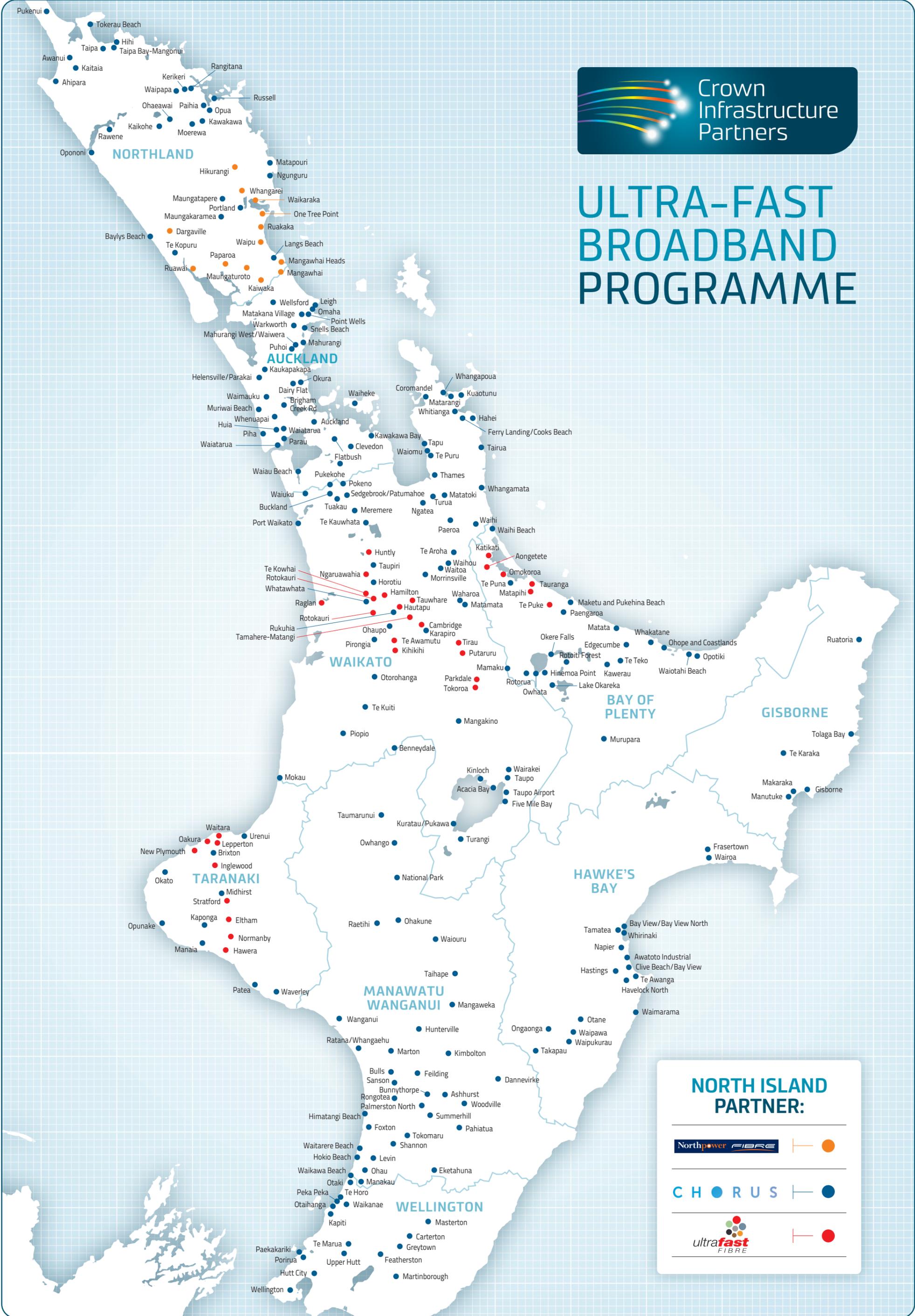
UFB coverage in New Zealand

11. The following maps from Crown Infrastructure Partners summarise the UFB coverage for Chorus and the other LFCs who will be subject to regulation.⁴
12. In terms of the number of users able to connect:
 - Chorus has 932,000;
 - Northpower Fibre has 25,000;
 - Ultrafast Fibre has 210,000; and
 - Enable Networks has 200,000.

⁴ Source: <https://www.crowninfrastructure.govt.nz/ufb/where/>



ULTRA-FAST BROADBAND PROGRAMME



NORTH ISLAND PARTNER:

Northpower FIBRE | ●

CHORUS | ●

ultrafast FIBRE | ●



ULTRA-FAST BROADBAND PROGRAMME



SOUTH ISLAND PARTNER:

● UFB ▲ Additional Fibre

CHORUS | ● ▲

enable | ●
Delivering new possibilities

Timeframe for developing the fibre regulatory framework

13. We have been granted a two-year extension by the Broadcasting, Communications and Digital Media Minister until 1 January 2022 to implement the new regulatory framework for fibre networks. This extension allows us to develop a durable regulatory regime in consultation with the telecommunications sector to provide certainty for the sector. We expect to issue a final determination for the input methodologies in June 2020. After that we will focus on making price-quality and information disclosure determinations by the end of 2021.
14. The following infographic sets out the remaining key milestones and stakeholder engagement opportunities for the design and implementation on the new fibre regime.



Key features of the new regulatory framework for fibre

15. We have previously provided a more detailed explanation of the key features of the new regulatory framework in our proposed approach paper. We provide a brief summary of that approach below.

Who will be regulated and how?

- Chorus will be subject to both price-quality and information disclosure regulation on the implementation date.
- The other LFCs (Enable Networks, Northpower and Ultrafast Fibre) will be subject to information disclosure only. Price-quality regulation can be imposed after the implementation date if necessary.

Regulation under Part 6

- We must determine input methodologies setting out the upfront regulatory rules and requirements for: cost of capital; valuation of assets; cost allocation; tax; quality dimensions; regulatory processes and rules such as reconsideration of a price-quality path; and capital expenditure projects.
- Following an extension granted by the Minister, we must apply the input methodologies to determine information disclosure and price-quality regulation by 1 January 2022 (implementation date).
- As implementation has been deferred, current prices (plus an annual consumer price index (CPI) adjustment) will be rolled over.
- The initial value of assets for each supplier is based on the actual costs incurred in constructing or acquiring the assets together with financial losses between 1/12/2011 and the implementation date.

Key features of price-quality regulation

- The initial regulatory period will be three years, followed by regulatory periods of 3-5 years.
- A revenue cap, with a wash-up mechanism, will apply for at least the initial regulatory period, combined with individual price caps for anchor services and direct fibre access service (DFAS).
- Quality standards, and any associated incentives, must be specified.
- Prices charged by a supplier subject to price-quality regulation for various FFLAS are required to be geographically consistent.
- We can smooth allowed revenues or prices over two or more regulatory periods if necessary or desirable to minimise price shocks to consumers or undue financial hardship to suppliers.

Anchor services, DFAS and unbundled fibre services

- Suppliers subject to price-quality regulation must provide anchor services (expected to be 100/20Mbps broadband, and voice) and DFAS. The maximum prices charged for these services until the end of the initial regulatory period will be the contract prices immediately before implementation date plus an annual CPI adjustment.
- The unbundled fibre service is to be provided in accordance with the open access deeds (no price cap initially).

Price-quality regulation reviews

- We can review the specification of the anchor services before the start of each regulatory period, including the first.
- We can review the features of price-quality regulation from three years after the implementation date (and then at intervals of no less than five years), including: the revenue cap, whether the terms for DFAS should be amended, and/or whether terms for the unbundled fibre service should be introduced.

- We can review, at any time after the implementation date, whether some or all FFLAS should be removed from price-quality regulation, or completely deregulated, if reasonable grounds to do so exist.
- Where we carry out a review, we must make a recommendation to the Minister, who may then make a recommendation to the Governor-General to change the relevant regulations.

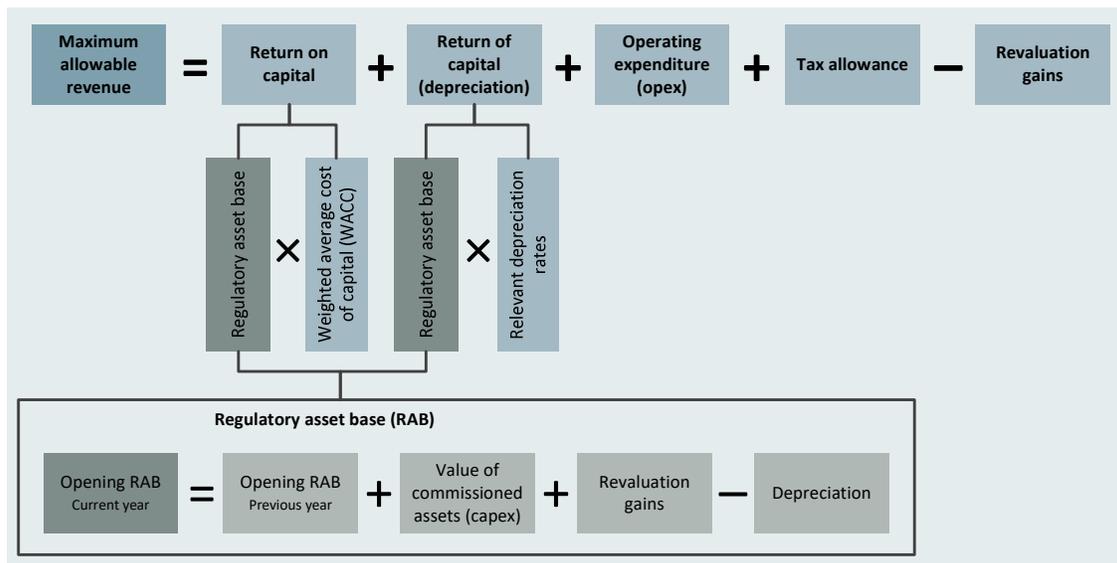
Key features of information disclosure regulation

- Regulated suppliers will be required to publicly disclose information under the requirements we set.
- We will summarise and analyse this information to promote greater understanding of the performance of the regulated suppliers, their relative performance, changes in their performance over time, and their ability to extract excessive profits.

16. The Act anticipated the Commission would base the new regulatory framework off the internationally recognised building blocks model (**BBM**). This is how energy networks and airports are regulated under Part 4 of the Commerce Act 1986 (**Part 4**).

17. The BBM approach is used to calculate the maximum allowable revenue (or prices) based on delivering the regulated services over the regulatory period. Under the BBM, we calculate the value of the network that is used to supply the regulated services; this forms the regulated supplier’s regulated asset base (**RAB**). We then use the RAB, along with the supplier's other costs—together, the building blocks—as a basis for calculating the allowed revenue or prices (see diagram below).

Figure 1: Calculation of maximum allowable revenues under BBM



Scope of this paper

18. This paper focuses on the development of input methodologies for fibre. At this stage we are focusing on the input methodologies required by the Act.
19. The input methodologies will inform the initial three-year price-quality path for Chorus and information disclosure determinations for Chorus and the other LFCs. We intend to publish separate plans for our consultation relating to information disclosure and price-quality regulation. We intend to publish a short paper on price-quality regulation later this year.
20. This paper summarises our emerging views, options and issues for determining input methodologies, setting out the upfront regulatory rules and requirements for the following:
 - valuation of assets;
 - cost allocation;
 - cost of capital;
 - quality dimensions;
 - capital expenditure projects; and
 - tax.
21. This paper also outlines the legal framework and key economic principles that we have applied in developing our emerging views.
22. While this paper summarises our emerging views, we are also publishing a detailed Technical Paper that will more thoroughly explain the rationale behind our emerging views, options that we considered and responses to stakeholder submissions.
23. You will see that the development of our views differs between topics. For example, our views on the legal and economic framework are more advanced and we have specific questions on these topics. This is because we have had the benefit of submissions received on these areas from our proposed approach paper. In comparison, our views on capital expenditure projects is less developed as we hadn't included a discussion on this area in our proposed approach paper, and we are looking for your feedback on the proposed form and content of that input methodology.
24. Although we have not set out our views, options and issues for determining input methodologies on regulatory processes and rules in this document, we do intend to develop these input methodologies. Note that some of the topics discussed in the capital expenditure projects section are relevant to regulatory processes and rules.

25. We will be consulting separately on the other requirements in the Act, including:

- Determining 'specified fibre areas' (**SFAs**)
- Making consequential changes to standard term determinations (**STDs**)
- Implementing annual CPI adjustments to charges in STDs
- Preparing a copper withdrawal code
- Reviewing certain copper services
- Making retail service quality codes if industry led codes are inadequate
- Monitoring telecommunications retail service quality and make information available to better inform consumer choice
- Reviewing industry dispute resolution schemes
- Undertaking reviews of FFLAS regulation including:
 - Anchor services reviews
 - Price-quality reviews
 - Deregulation reviews

Legal framework

26. The new Part 6 is based on the utility regulation in Part 4 of the Commerce Act. It includes two types of regulation that we are required to make under s 170: price-quality regulation (**PQR**) and information disclosure (**ID**).
27. Under s 176 we are also required to determine IMs that contain the rules and processes that will underpin our PQR and ID regulation and that will also have to be applied by regulated suppliers. We must develop and implement the new regulatory regime, including the IMs in a manner that we consider best gives, or is likely to best give, effect to the purposes described in s 166(2).
28. The two purposes in s 166(2) are: under s 166(2)(a) the promotion of the outcomes of workably competitive markets as described in s 162; and as described in s 166(2)(b) the promotion of workable competition where relevant. All references to the purposes of s 166(2) in this paper include both of these purposes.
29. The legal framework sets out our position on key aspects of the framework that we propose to apply when determining the IMs.

The relevance of Part 4 to Part 6

30. Our fibre IMs decisions under Part 6 must stand on their own merits and our Part 4 IMs decisions cannot in any way substitute for our decisions under Part 6. Therefore, while we may take account of and consider our approaches under Part 4, we cannot import an approach we have adopted under Part 4 unless we consider that such an approach is appropriate in light of the particular provisions of Part 6 and the specific features of the telecommunications sector.
31. We can use our experience in applying Part 4 to inform our consideration of decisions under Part 6, but must always take the specific characteristics of the telecommunications sector and the specific structure and language of Part 6 into account when we make our decisions. This also applies to court decisions relating to Part 4 that are relevant precedents for the interpretation of the equivalent Part 6 provisions.
32. We will assess the relevance of Part 4 IMs precedents to the different fibre IMs on a case by case basis. We consider that transparency is important and where the approach taken in a proposed IM set under Part 6 is similar or identical to the approach taken in an IM set under Part 4, we will note this so that stakeholders are aware that this is the case. We may also highlight any differences to the Part 4 IMs where we consider this will assist stakeholders.

Interpretation of s 162

33. Section 162 is adapted from the purpose statement in s 52A of the Commerce Act. It directs us to promote outcomes consistent with those produced in workably competitive markets rather than trying to promote competition directly.

34. Workable competition encapsulates the concept of economic efficiency. Efficiency is the condition in which prices reflect efficient costs, including the cost of capital and thus a reasonable level of profit.
35. Prices in workably competitive markets tend towards efficient outcomes, including firms earning normal rates of return after covering efficient costs and incentives for investment.
36. The same tendencies that lead toward prices based on efficient costs and reasonable rates of return will also lead to improved efficiency, provision of services reflecting end-user demands, sharing of the benefits of efficiency gains with end-users, and limitation on firms' ability to extract excessive profits.
37. None of the outcomes in s 162 (incentives to invest, improved efficiency and provision of services reflecting end-user demands, sharing of the benefits of efficiency gains with end-users, and limitation on firms' ability to extract excessive profits) are paramount and they are not separate and distinct from each other, or from s 162 as a whole. Rather, they are together the incentives and constraints on suppliers of FFLAS that flow from our promotion of outcomes consistent with those produced in workably competitive markets.

Interpretation of end-user as used in Part 6

38. The term end-user is used in both of the purposes in s 166(2). Section 162 requires us to focus on the long-term benefit of FFLAS end-users, while s 166(2)(b) requires us to consider the long-term benefit of telecommunications services' end-users more generally. Our interpretation of the terms 'end-user' is therefore relevant to both of these provisions.
39. Section 5 of the Act defines 'end-user' in relation to a telecommunications service as "a person who is the ultimate recipient of that service or of another service whose provision is dependent on that service."
40. There are two elements of the definition that inform how it is applied. The first is in how we consider when a person is the 'ultimate recipient' of the service, and the second in how we consider when a service is 'dependent' on another service.
41. We consider that:
 - a. the 'end-users' of FFLAS referred to in s 162 include any consumers of telecommunications services that use FFLAS as an input such as fixed wireless access.
 - b. the term "end-user" as used in s 162 and s 166(2)(b) excludes any intermediaries such as retail service providers (RSPs) who purchase a telecommunications service, but who do not consume the telecommunications service themselves.

- c. a retail telecommunications service will be dependent on another telecommunications service whenever that other telecommunications service is used as an input to supply the retail services, even where an alternative telecommunications service is available.

Interpretation of s 166(2)(b)

42. In assessing whether the promotion of workable competition is relevant under s 166(2)(b) we will have to consider whether a decision has the potential to influence the level of competition in telecommunications markets.
43. We do not consider that we should focus on promoting a particular form of competition, or that there is any presumed hierarchy between the different types of competition that we could promote. We further do not consider that we should limit ourselves at the outset to the consideration of particular markets. Rather we should consider the effect of our decisions on the promotion of competition in any telecommunications markets where competition exists or has the potential to emerge.
44. When considering the promotion of competition under s 166(2)(b) we are also required to consider the interests of all end-users in telecommunications markets and not just the interests of FFLAS end-users.

Interaction between s 166(2)(a) and s 166(2)(b)

45. Section 166(2) does not establish a hierarchy between the two purposes described in s 166(2)(a) and s 166(2)(b) and we must make decisions that will best give effect to both purposes.
46. As the purposes described in s 166(2)(a) and s 166(2)(b) are both concerned with outcomes produced by workable competition they contain complementary rather than competing objectives.
47. We do not consider that s 166(2)(a) has primacy over s 166(2)(b) if we are required to make trade-offs between the two objectives.

Application of s 174

48. Increased certainty is an important objective, but the regime does not aspire to absolute certainty. Increased certainty, timeliness and incentives to invest will develop over time.
49. While certainty is not the predominant consideration given our obligation to make the decision that we consider best gives, or is likely to best give, effect to the objectives in s 166(2), it will materially inform how we determine the fibre IMs.
50. Certainty is important to all market participants and not just the regulated fibre service providers.
51. We propose to approach the requirement for certainty in s 174 in substantially the same way as s 52R of Part 4 applies because the provisions are identical in all respects.

This means that the court decisions on the application of s 52R under Part 4 are likely to be directly applicable to our decisions giving effect to s 174.

Adopting a building blocks model

52. We propose adopting a BBM substantially similar to that adopted for regulation under Part 4 when setting the IMs. However, when setting the IMs that give effect to the BBM we will take account of differences in the services and markets concerned in Part 6 compared to Part 4.

Relevance of the 2011 Government Policy Statement on the incentives for businesses to invest in ultra-fast broadband infrastructure

53. We do not consider that the 2011 Government Policy Statement on the incentives for businesses to invest in ultra-fast broadband infrastructure is relevant to our decisions under Part 6.

Our power to set fibre IMs

54. Subject to the mandatory obligations in s 166 (and any other mandatory obligations in the Act) our view is that we can determine any IMs where doing so would fit within the purpose of promoting certainty for regulated fibre service providers, access seekers, and end-users as described in s 174. This would include IMs to support the remaining matters in Part 6 (subparts 7 to 10) and not only those IMs directly related to PQR and ID. We further consider that s 178(2) enables us to determine additional IMs at any time after the implementation date of 1 January 2022.
55. We provide more information on our legal framework for the regulation of FFLAS in the Chapter 1 of the Technical Paper.

Key economic principles

56. Economic principles can help us give effect to the purposes described in s 166(2). Any economic principles we adopt are not an outcome we seek to give effect to. Rather, we will only apply the principles if they help us promote the long-term benefit of telecommunications end-users under the purposes in s 166(2).
57. In deciding whether there are relevant economic principles that should be adopted for the new fibre regime, we considered the extent to which any proposed economic principles will:
- provide useful guidance when we make or explain our decisions; and
 - provide predictability to stakeholders.
58. We intend to adopt the following three economic principles:
- **Real financial capital maintenance (FCM):** Allowing a regulated supplier the opportunity to earn normal returns over the lifetime of an investment provides the supplier with a chance to maintain the financial capital it has invested. Adopting this principle would allow suppliers to have an expectation of recovering their cost of capital over time (taking into account their exposure to risk).
 - **Allocation of risk:** We allocate particular risks to suppliers or consumers depending on who is best placed to manage the risk, unless doing so would be inconsistent with the purposes in s 166(2). Appropriate risk allocation, and where relevant appropriate compensation for the risks carried, maintains incentives to invest and promotes efficient behaviour.
 - **Asymmetric consequences of over and under-investment:** We apply FCM recognising the asymmetric consequences to consumers of regulated fibre services, over the long term, of under-investment versus over-investment.
59. Each of the three principles can help us promote the purposes described in s 166(2), eg:
- the FCM principle promotes ss 162(a) and (d) by ensuring suppliers will have the opportunity, but not a guarantee, to earn a normal return on their investments;
 - the risk allocation principle promotes ss 162(a) and (b), since suppliers would have stronger incentives to manage efficiently risks if they bear at least some of the costs of (and are appropriately compensated for) risks they are best placed to manage;
 - the principle of asymmetric consequences of over/under-investment can help give effect to ss 162(a) and (b). In many cases, this principle involves trading off the costs to consumers of promoting investment against any expected benefits associated with reducing the risk of under-investment. However, the dynamics of FFLAS markets may imply that end-users are partially protected from the risk of under-investment by the existence, or potential entry, of competing services.

60. These three key economic principles have also proven useful in our experience in regulating markets under Part 4 of the Commerce Act.
61. At this stage, we do not intend to adopt economic principles related to:
 - competition; or
 - pricing.
62. We provide more information on the proposed economic principles and their relevance to the regulation of FFLAS in the Chapter 2 of the Technical Paper.

Topic summaries

63. Our emerging views have been informed by the information we have received from stakeholders to date including views expressed in submissions and cross submissions on our proposed approach paper, and those expressed at our workshop.
64. In many instances we have been able to identify specific approaches to the IMs that we are now are seeking feedback on. In other instances, we have narrowed our view to a number of options which could promote the outcomes we seek. Finally, there are some instances where we have not yet formed a view and have instead identified issues that we are seeking input from stakeholders on.
65. The following topic summaries outline our emerging views, options and issues for the following input methodologies which we are seeking your feedback on:
 - Asset valuation
 - Cost allocation
 - Cost of capital
 - Quality dimensions
 - Capital expenditure
 - Taxation
66. In our topic summaries, we have noted the level of similarity between our emerging views and our previous Part 4 IM decisions where we consider this useful to stakeholders. This is intended solely to provide stakeholders with additional information to assist them in understanding our emerging views. Where our emerging views and our previous Part 4 IM decisions are similar we have reached our emerging views only after consideration of the particular provisions of Part 6 and the specific features of the telecommunications sector.
67. As discussed in more detail in the legal framework chapter of our Technical Paper, each chapter independently considers the level of prescription required with in the IMs for the relevant topic rather than having a standard level of detail across all IMs.
68. We have also considered the need for transitional arrangements relating to Chorus' first regulated pricing period. We briefly discuss the need for transitional arrangements in the chapters where we consider these to be most relevant eg, capital expenditure and quality.

Topic 1. Asset valuation

For most businesses, the value of an asset depends on contribution to its expected profitability, which—in a workably competitive market—is constrained by competition. In regulated markets, however, there is little or no competition. Rather than reflecting the profits that a supplier expects to earn, the valuation of assets will help determine the supplier’s profit expectations. Our approach to asset valuation proposes that assets supporting the delivery of regulated services will be included in the RAB. The regulatory values of these assets will be based on the depreciated historic cost of investments and will include a loss asset that captures any losses that have built up to implementation date.

Scale of similarity to Part 4			
Very similar		Somewhat similar	
		Not very similar	
			Dissimilar

Emerging views

High level features	Similarity to Part 4
1. A principles-based regime for asset valuation with more general ‘rules’ (such as an asset being eligible to enter the RAB based on the definition of regulated services), with few specific rules prescribed where needed.	
2. A flexible approach to asset granularity, by allowing suppliers to determine the level of RAB disaggregation, but with rules for certain asset types to meet current and anticipated regulatory needs.	
3. IM rules that are consistent across Chorus and the other LFCs, unless a regulatory reason requires differing approaches.	

Setting the initial RAB	Similarity to Part 4
4. An asset will be eligible to enter the RAB of a supplier in the year in which the asset is first employed by that supplier in the provision of regulated FFLAS (ie, the year in which the asset is ‘commissioned’).	
5. The initial regulatory value of an asset will be determined based on the cost of that asset, net of specified capital contributions. We propose no revisions to the cost of assets once the relevant assets enter the RAB.	
6. A BBM approach will be used to calculate the initial losses at implementation date for Chorus and the other LFCs. We propose subtracting the face value of the Crown financing from the accumulated cost of UFB assets (ie, the ‘Investment’ component of the formula) when applying the required rate of return for the relevant year (“Method 1” as outlined in the proposed approach paper), to reflect the actual costs of Crown financing.	
7. The need to set specific valuation rules for assets constructed or acquired by a supplier from related parties will be considered. Our emerging view is that rules similar to those in Part 4 are likely to be suitable, but we will consider what changes in approach are	

necessary (if any) as we gain additional information on fibre suppliers' specific circumstances.	
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Roll forward of the RAB	Similarity to Part 4
<p>8. An annual RAB roll forward calculation similar to that applied for regulation under Part 4 of the Commerce Act 1986 (Part 4) is proposed as follows:</p> <p><i>Opening RAB value – Depreciation + Revaluations + Additions – Disposals = Closing RAB value</i></p>	
<p>9. We propose a similar rule for asset additions to that which applies for pre-implementation assets: additions will be valued at cost, net of specified capital contributions. Where assets have been previously used by a supplier in other parts of their business, then GAAP depreciation will be deducted from the cost of the assets at the point the assets enter the RAB. We propose no revisions to the cost of additions once they enter the RAB.</p>	
<p>10. We propose a straight-line depreciation method using suppliers' existing GAAP lives for fibre assets post-implementation. There may be reasons to allow departures from these for special assets or circumstances if required.</p>	
<p>11. We propose to apply straight-line depreciation to the loss asset. Our emerging view is that we will amortise the loss asset over a period equivalent to the weighted average life of the main (non-loss assets) RAB as at the implementation date.</p>	
<p>12. Indexation of the RAB, using the CPI as part of the RAB roll forward process. The increases in asset value from indexation will be treated as regulated revenues (to maintain FCM). We propose to index the total RAB, including the loss asset, but seek views on this from stakeholders.</p>	
<p>13. At this stage we do not see any reason for having other adjustments, such as lost or found assets, included in the annual roll forward formula.</p>	

More detailed information on asset valuation is provided in Chapter 3 of the Technical Paper

Topic 2. Cost Allocation

Regulated fibre service providers (**suppliers**) will often deliver multiple services, including regulated FFLAS and other regulated services, as well as non-regulated services. The main function of the cost allocation IM is to determine the rules and methodologies that providers must use to identify the portion of asset values and operating expenses associated with regulated fibre services.

Cost allocation helps ensure that the regulated services of a supplier meet the regulatory objectives of Part 6 of the Telecommunications Act, including those related to information disclosure and price-quality regulation. Cost allocation is relevant to both establishing the initial RAB, including the past losses asset, and to ongoing regulatory processes including ID, PQR and reviews.

Scale of similarity to Part 4							
Very similar		Somewhat similar		Not very similar		Dissimilar/Not applicable	

Emerging views

Allocation of costs between FFLAS and other services	Similarity to Part 4
1. We will broadly adopt the approach used in the Part 4 regime to fully allocate costs across a provider's regulated and non-regulated services.	
2. Chorus and LFCs must allocate costs that are directly attributable to regulated FFLAS.	
3. All costs that are not directly attributable to regulated (or other) services must be allocated using the accounting-based allocation approach (ABAA).	
4. LFCs and Chorus must apply the same definition of a causal relationship used in the Part 4 regime, when determining which causal allocators to use to allocate cost and asset values to regulated FFLAS.	
5. LFCs and Chorus must not use the avoidable cost allocation methodology (ACAM) methodology.	
6. LFCs and Chorus must not use the optional variance accounting-based allocation approach (OVABAA) methodology when allocating common costs.	
7. Where Chorus or the LFCs propose to use a proxy allocator to allocate costs, the provider must explain why a causal relationship cannot be established and explain the rationale for the choice of proxy allocator.	
8. suppliers must not double recover the costs shared across services regulated under Part 4 of the Commerce Act 1986 (Part 4) and Part 6 of the Telecommunications Act 2001 (Part 6) should not be over recovered.	

Allocation of costs between different types of regulated FFLAS	Similarity to Part 4
9. We propose that initially, there should not be prescriptive cost allocation IM rules for allocating costs between different types of regulated FFLAS.	N/A

10. We propose the use of directly attributable allocation and that suppliers identify shared costs based on certain characteristics including geographic coverage, individual products or product groups or level of network functionality.	N/A
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Allocation of costs to help determine the valuation of the initial RAB	Similarity to Part 4
11. Chorus and LFCs must adopt the same approach that is proposed to allocate costs between regulated FFLAS and other services post-implementation date when determining the valuation of the initial RAB (excluding past losses).	

Cost allocation rules applicable to the calculation of past losses in the initial RAB	Similarity to Part 4
12. All costs (including operating costs and depreciation in accordance with section 177(1)(b)) that are directly attributable to the UFB initiative must be allocated to the UFB past losses.	
13. All shared costs (including operating costs and depreciation in accordance with section 177(1)(b)) that relate to the UFB initiative must be allocated using ABAA.	
14. ABAA is to be applied using consistent, objective, measurable and timely cost allocators when calculating the past losses.	

Issues

We are not proposing that LFCs and Chorus allocate shared costs between FFLAS at this stage. However, we are interested in stakeholders' views on potential situations that would support a requirement for fibre providers to allocate costs between FFLAS.

For example, the following may be relevant circumstances:

- 1.1 Where information is needed for cost-based reviews of the prices for anchor services and potentially for setting maximum prices for DFAS.
- 1.2 To support the application of a potential pricing principle (if one is adopted).
- 1.3 Other reasons, such as:
 - 1.3.1 to prepare for removing assets from the RAB in the event of deregulation of certain FFLAS or geographic areas in subsequent regulatory periods.⁶
 - 1.3.2 to distinguish between layer 2 and layer 0+1 costs after unbundling of layer 2.

We have proposed that cost allocation is applied in determining the past loss asset. In doing so, decisions about what is the appropriate causal or proxy allocator may significantly influence the proportion of its costs that is allocated to the past losses. This will involve making decisions around the timing and purpose of investment, including for assets where the reason the initial deployment does not correspond to the long-term drivers for the investment and/or how the asset was redeployed.

We are interested in stakeholder views on how to assess the causal factors for UFB initiative investments that are shared and for pre-UFB initiative assets reused for UFB purposes when calculating the past losses.

More detailed information on cost allocation is provided in Chapter 4 of the Technical Paper

⁶ By prepare, we mean "to set their accounting systems in a way that would make data available".

Topic 3. WACC

The cost of capital is the financial return investors require from an investment given its risk. Investors have choices and will not make investments unless the expected return is at least as good as the return they would expect to get from a different investment of similar risk. Because the actual cost of capital of regulated suppliers is not observable, we must estimate it. The cost of capital IM seeks to specify rules for the calculation of a reasonable and commercially realistic cost of capital given investors' exposure to risk.

Scale of similarity to Part 4							
Very similar		Somewhat similar		Not very similar		Dissimilar	

Emerging views

Cost of equity	Similarity to Part 4
1. We propose to calculate cost of equity using the SBL-CAPM.	
2. We propose to take a service-wide approach when determining the cost of capital for FFLAS, including a service-wide asset beta.	
3. We propose to estimate the asset beta using a similar methodology to Part 4, including historic estimates of average betas and the six-step approach to estimate the asset (and equity) beta value.	
4. We will estimate a value for TAMRP for the Draft IMs Decision.	

Cost of debt	Similarity to Part 4
5. The risk-free rate should be set using a prevailing rate consistent with the term of the regulatory period; this includes:	
a. using the return on NZ government bonds as a proxy	
b. using prevailing rates	
c. using a 3-month determination window	
d. matching the term of the risk-free rate to the regulatory period (3 years initially).	
6. An appropriate credit rating is BBB+.	
7. The debt premium should be set using an historical average approach and a TCSD; this includes:	
a. using a historical average approach (not prevailing rate) to estimate the debt premium;	
b. using a 5-year debt premium with a TCSD similar to that in Part 4;	
c. using the Part 4 approach to comparators in the hierarchy of bonds; and	
d. having regard to the NSS curve.	
8. We intend to provide an allowance for debt issuance costs using the estimate determined during the Part 4 IM Review.	

Other key issues affecting WACC

WACC for losses calculation
A key difference in developing the fibre IMs with respect to Part 4 IMs is the requirement to compensate fibre businesses for accumulated losses prior to the implementation date (1 January 2022). This raises some issues in relation to WACC as:
<ul style="list-style-type: none"> a. a WACC is required to determine the ‘benchmark’ allowable revenue using a BBM approach (against which the losses will be calculated); b. and a time value of money adjustment is required, once the value of the accumulated losses has been determined, so that the losses can be recovered in the future.
Our emerging views on the WACC for the losses calculation are:
1. to apply the same asset beta when determining WACC in both the pre and post-implementation periods;
2. a risk-free rate estimate based on a rolling average approach is likely to be most appropriate as this limits the potential impact of anomalous market conditions during the pre-implementation period.
3. we consider actual financing costs of Crown financing are likely to be nil.
4. we will not use actual leverage assumptions when determining a WACC estimate in the pre-implementation period, instead we will use the same notional leverage used to determine a WACC estimate in the post-implementation period.

WACC uplift and asymmetric risk
Consideration of a WACC uplift is important because there could be reasons why a return that is equal to our best estimate of the WACC (ie, our ‘mid-point estimate’) does not result in a supplier expecting to earn a normal return.
5. We have seen limited evidence that there are likely to be material asymmetric consequences of under-investment for FFLAS and, therefore, we do not consider that an uplift is required for this reason. However, we welcome any further evidence on this issue.
6. We do not consider any further compensation is required for Type I catastrophic risk given the potential for appropriate ex-post compensation mechanisms to be developed as part of the price-quality path.
7. We consider that Type II risks of asset stranding is a potential risk for FFLAS of unknown magnitude. There are several options (or combination of options) that could be used to manage this risk. These options could include:
Option 1: ability to shorten asset lives and bring forward compensation. ⁷
Option 2: retention of assets in the RAB after stranding. ⁸
Option 3: ex-ante compensation allowance. This could be provided as an: <ul style="list-style-type: none"> a. ex-ante cashflow allowance; and b. increment to the WACC.

⁷ Suppliers currently assume asset lives consistent with GAAP, based on the expected useful life of the asset. Therefore, they are may already implicitly account for the degree of stranding risk that they currently face.

⁸ This would only mitigate the risk of stranding to the extent that it applies to a sub-set of assets, rather than the full RAB. If the full RAB was at risk of stranding, the retention of assets in the RAB provides no benefits to mitigate that risk.

	Option 4: ring-fenced ex-ante compensation allowance, for example, any compensation would be ring-fenced and only kept by suppliers to the extent that stranding does occur.
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WACC applied to information disclosure	
8. We consider that an information disclosure WACC will be required in some form so that we are able to undertake profitability assessments in the future for the LFCs. We do not consider a default annual WACC for ID is required and alternative options should be considered.	
	Option 1: not to specify a mechanism in the IMs requiring us to determine a separate ID WACC and use WACC set for the price-quality path as the starting point for profitability assessments for all FFLAS suppliers.
	Option 2: an approach consistent with our approach to airport services under Part 4 whereby a WACC can be determined consistent with the price setting periods on regulated suppliers – A default WACC would be the WACC set for price-quality paths.

More detailed information on WACC is provided in Chapter 5 of the Technical Paper

Topic 4. Quality dimensions

Where there is little or no competition and prices or revenues are capped, there is a risk that a regulated firm's incentives to provide the quality that consumers demand may be weakened. As such, one of the input methodologies of our new regulatory regime aims to ensure fibre providers supply fibre services of a quality that reflects end-user demands. While we do have experience in regulating quality under Part 4, there is no requirement to determine an input methodology for quality dimensions for Part 4.

Once the quality IM has been determined, this will be applied in setting the information that must be disclosed by fibre service providers under information disclosure regulation, as well as the quality standards that must be observed under price-quality regulation.

Emerging views

Approach to setting the quality IM	Similarity to Part 4
1. We propose to include a list of quality dimensions in the IM, and to have a list of possible quality measures linked to those dimensions. We are interested in feedback on this approach.	N/A
2. We propose to apply all of the quality dimensions set out in the IM to PQR and ID regulation.	N/A
3. Only some of the quality measures included in the IM may be applied to ID and PQ regulation, since methods of measuring fibre quality dimensions may change. Different or more detailed quality measures may be required for ID and PQ reporting purposes, some of which may be quality measures that were not set out in the quality IM.	N/A

Quality dimensions	Similarity to Part 4
4. We propose to include the following quality dimensions in the IM: ordering, provisioning, switching, faults, availability, performance, and customer service.	N/A

Issues

5. We have considered how the quality IM interacts with the regulatory context, including other regulatory tools and parts of the Act, as well as existing fibre industry agreements.
6. We will set the IM in a coherent way that recognises all of these interactions. For example, we will ensure that the quality IM does not contradict other regulations, such as those set for anchor, DFAS, or unbundled fibre services.
7. We have also considered the commercial realities faced by fibre providers, and how these might affect how we set the quality IM. We looked at the differences between the fibre market and industries regulated under Part 4, and incentives fibre providers have in relation to quality.
8. We also considered the quality dimensions that are able to be controlled by wholesale fibre providers, versus those retail service providers have more control over.

More detailed information on the contextual issues relevant to the quality dimensions IM is provided in Chapter 6 of the Technical Paper

Topic 5. Capital expenditure

The Act requires us to develop an IM for capital expenditure that includes information requirements, evaluation criteria, timeframes and processes that we will use to assess capital expenditure proposals from suppliers. This IM is only applied to suppliers that are subject to price regulation.

The capital expenditure input methodology (**capex IM**) works within the BBM approach by describing the rules and processes for approving new capex expenditure. The capex IM is a key component in helping to determine price-quality paths by setting the maximum allowable capex that can enter the RAB during a regulatory period. The capex IM is a key tool we have in ensuring regulated providers subject to price regulation have incentives to invest efficiently. The most relevant comparison to the Part 4 regime is the Transpower capex IM.

In developing our emerging view, we have used our experience developing similar rules under Part 4 of the Commerce Act as a framework for the design of the capex IM. Our view is that there are some key components of that scheme that could be applicable for regulating capex for FFLAS, as set out in the tables below.

Scale of similarity to Part 4							
Very similar		Somewhat similar		Not very similar		Dissimilar	

Emerging views

Information requirements	Similarity to Part 4
1. Customer consultation by regulated supplier – we propose to include a requirement for the regulated supplier to consult with its customers when developing its capex proposal. This is similar to requirements for electricity distribution businesses when applying for customised price path.	
2. Independent verification – we propose to include a requirement for the regulated supplier to have an independent verification of their proposal undertaken prior to submitting a capex proposal.	

Evaluation criteria	Similarity to Part 4
3. Stakeholder consultation by us – we propose to include a requirement for the Commission to consult with stakeholders during the evaluation of the capex proposals and prior to the price-quality path determination.	

Time frames and processes	Similarity to Part 4
4. Timeframes and processes - We consider the Transpower Capex IM provides a reasonable starting point for developing the content on process and timeframes for the fibre capex IM.	

Other recommendations related to the capex IM	Similarity to Part 4
5. Total expenditure (totex) – following feedback on our proposed approach paper, we do not propose to adopt a totex approach to forecasting at this stage.	
6. Additional expenditure efficiency incentives – following feedback on our proposed approach paper, we are seeking views on the appropriate form of any additional incentives we set.	

Options

Assessment criteria for evaluating capex proposals
9. List of possible criteria - We have not reached an emerging view on the assessment criteria for capex proposals that we will adopt in the capex IM. We have identified a list of possible criteria, of which we may choose to use some or all of the criteria. We are seeking stakeholder views on which criteria may be most appropriate for regulating regulated suppliers.

Issues

Additional issues identified relating to price-quality regulation
We have identified some additional issues that we are seeking stakeholder views on relating to the capex IM. We have not currently reached an emerging view or identified options these issues. We are seeking stakeholder views on these topics.
<ol style="list-style-type: none"> How to vary approach depending on the type of capex - We note that different types of capital expenditure may require different evaluation criteria. Varying of our approach could be consistent with the principle of proportionate scrutiny, as well as allow for Chorus to apply for additional amounts of capex within a regulatory period where appropriate. Issues unique to regulating fibre providers – We have identified several potential issues that are unique to fibre regulation and Chorus’ operating environment. We will need to consider these issues when developing the rules for the capex IM. Transitional arrangements for PQR in first period – We have included discussion on the possible inclusion of transitional arrangements. This discussion is focussed on the areas that stakeholders identified in submissions to our proposed approach paper, namely expenditure proposals and setting quality standards for PQR.

More detailed information on the capex IM is provided in Chapter 7 of the Technical Paper

Topic 6. Treatment of taxation

Apart from covering efficient capital and operating expenditure, the building blocks approach is generally intended to reflect the tax costs associated with providing regulated services. In keeping with the key economic principle of financial capital maintenance, the approach to tax should be consistent with a firm expecting to earn normal returns over the lifetime of their assets. A regulated supplier should expect to be able to recover the tax costs that are attributable to the supply of the regulated service over a regulatory pricing period.

Scale of similarity to Part 4							
Very similar		Somewhat similar		Not very similar		Dissimilar	

Emerging views

Taxation methodology	Similarity to Part 4
1. We propose for tax costs will be calculated using a tax payable approach. ⁹	
2. We propose for returns to be disclosed using a post-tax WACC.	
3. We propose that the level of debt attributed to the regulated part of the business should be based on the 'benchmark' level of leverage used in calculating the WACC.	

Setting of the initial tax asset values	Similarity to Part 4
5. The initial regulatory tax asset value should equal the lesser of the value recognised under tax rules for the relevant assets (or share of assets) used to supply the regulated services, and the initial RAB value.	
6. When establishing the value of initial losses as at implementation date, the tax methodology outlined in our final Tax IM decision would be applied retrospectively in this calculation.	N/A
7. Past tax losses associated with the period prior to implementation date will not be carried forward.	

More detailed information on the treatment of taxation is provided in Chapter 8 of the Technical Paper

⁹ This approach is similar to the tax approach used for Transpower, airports and gas pipeline businesses. Electricity distribution business use a different tax approach.

Have your say

We invite your feedback on the topics covered in this paper and in our more detailed Technical Paper, which sets out the reasons for our views and engages with the submissions we have received to date.¹⁰

In the Technical Paper we have asked a number of questions about our emerging views. We have created a template submission form that outlines all of our consultation questions and can help to guide you through the submission process.¹¹

You are welcome to use the template submission form to make a submission but you are not required to use this. While our consultation questions cover a wide range of topics you may submit on as many, or as few, topics as you would like. You can also submit on areas where we have not asked a specific consultation question.

Please email your submission to TelcoFibre@comcom.govt.nz by 5pm on 16 July 2019. You will then have until 5pm on 30 July 2019 if you wish to make a cross submission.

All submissions will be published on our website.

We recognise that there may be cases where parties wish to provide confidential information to us. If it is necessary to do so, the information should be clearly marked, with reasons why that information is confidential.

If submissions contain confidential information, an additional document labelled “public version” should be provided. The responsibility for ensuring that confidential information is not included in the public version of a submission rests entirely with the party making the submission.

Following feedback on this paper, we will be releasing our draft decision in November 2019.

Workshop

We intend to hold an industry workshop on 25 June 2019 (within the submission period) to discuss key topics relating to this paper with stakeholders. This will provide an opportunity for stakeholders to clarify their understanding of our emerging views, options and issues, and to ask questions. It will also allow us to receive early views and feedback on our paper. If you are interested in attending the workshop, please email TelcoFibre@comcom.govt.nz.

We will also hold a separate session with a consumer focus group, made up of representatives from Consumer NZ, InternetNZ and TUANZ.

¹⁰ See <https://comcom.govt.nz/regulated-industries/telecommunications/projects/fibre-input-methodologies/emerging-views-paper-published/Fibre-regulation-emerging-views-Technical-paper-21-May-2019.pdf>.

¹¹ See <https://comcom.govt.nz/regulated-industries/telecommunications/projects/fibre-input-methodologies/emerging-views-paper-published/Fibre-regulation-emerging-views-Submission-template-form-21-May-2019.pdf>.