Submission on
Fibre input methodologies: Draft decision – reasons paper dated 19 November 2019 and Draft fibre input methodologies determination 2020 dated 11 December 2019

28 January 2020

CONTENTS

EXECUTIVE SUMMARY

Introduction and context

1 The Commerce Commission's Fibre input methodologies draft determination 2020 (**IM Rules**) and Draft Decisions (**Reasons Paper**) represent significant progress towards the establishment of the utility style regulatory model for fibre in New Zealand.

2 Fibre to the home is a generational technology update critical for enabling social and economic participation and growth. It has been delivered successfully on time and on budget and we have increasing demand for fibre services. Our fibre to the home network is a long-term asset that will continue to serve consumers, businesses and the economy in New Zealand for decades to come. Getting the new regulatory regime right is critical for supporting the long-term benefit of end-users of fibre access services.

3 Good regulation involves a consistent set of principles to a set of circumstances. If the characteristics are the same, then the same forms of regulation can be expected. However, if they differ, then there should be a different approach.

4 Our submission presents guiding themes which support the Commission's three economic principles and provides detailed responses on key issues, including continuing to focus on the multiple layers of regulation that have evolved. Our objective for this submission is to support the development of incentive-based regulation that enables the continued delivery of high quality, innovative services for consumers and fair returns for investors. If incentives are right there can be decreased prescription within the regulatory system over time.

5 We welcome the Commission's ongoing focus on the economic principle of financial capital maintenance (**FCM**), its new recognition that the unique Crown financing arrangement was 'debt like' and not costless, and recognition of a need for mechanisms to address Type II asymmetric risk.

6 Investors continue to monitor the transition from the Ultra-fast Broadband (**UFB**) contracts into the regulatory model carefully. This regime should ensure that innovation and investment in quality infrastructure and services, which consumers and businesses are highly reliant on, are incentivised. The transition from contract to a utility model should produce no shocks for consumers or investors.

7 The significant private sector investment in UFB has seen high market scrutiny throughout the last eight years. This scrutiny continues given the risk carried and expectations of a return on and of investment following the transition to the new regulatory framework. This is seen in the share price drop of around 10% at the time of the Commission released the Emerging Views Paper (**EV Paper**). With the release of the Reasons Paper, in addition to other activities such as the release of our FY19 results and a successful Euro bond issue, the market essentially returned share price levels to those prior to the EV Paper.

8 Beyond this sector, the ongoing work of the Commission in its implementation of this regime is sending important signals regarding the regulatory treatment of all infrastructure investment in New Zealand. This alongside the Government's recognition that New Zealand is facing a major infrastructure deficit, which, if not

addressed, will impact our economic future and our social and environmental wellbeing.[1]

Guiding themes

9 Before summarising our responses to the Reasons Paper, we outline the themes, developed in the context of the Commission's economic principles of supporting FCM, ensuring the appropriate allocation of risk between Chorus and end-users, and recognising the asymmetric consequences for end-users of under/over investment. These principles underpin the purpose statement of the Act and are aimed at ensuring New Zealand will continue to benefit from a vibrant telecommunications market. These themes guide our response to the Reasons Paper.

9.1 **Ensuring a no-shocks transition is delivered** – We see a smooth, no-shocks transition for consumers and investors as a key element for the transition between the existing contractual framework for UFB services and the Part 6 regime. Getting this transition right ensures risk is appropriately shared between end-users and Chorus under the new regulatory system. This means avoiding value shocks and ensuring that only those services covered by the UFB open access deeds (**Deeds**) and agreements are regulated. The Commission's draft interpretation of the scope of the fibre fixed line access services (**FFLAS**) appears to a capture some contestable unregulated services. This does not reflect the transition from the contractual model to a regulatory model, bypasses usual market analysis processes and has the potential to distort competition. Such proposals are also inconsistent with the Commission's own commentary to consider removing assets subject to competition in the future. To the extent there is any lack of clarity in the regulatory boundaries, this could also lead to disputes and unnecessary costs in the system.

9.2 **Providing regulatory predictability** – Once implemented, IMs are intended to provide a predictable regulatory environment for both regulated firms, their customers and consumers. A predicable environment will allow Chorus to respond appropriately to incentives to achieve a fair return on and of capital and provide quality, innovative services to end-users. Predictability doesn't mean that things never change but that changes are reasonably foreseeable and within reasonable expectations. We see opportunities to improve predictability, for example by the Commission placing greater reliance on the section 162 purpose statement rather than the mandatory consideration to promote competition where, in agreement with the Commission's expert advisors, we see limited scope for its use.

9.3 **Considering the regime as a whole** – We continue to support the Commission's three economic principles, in particular the FCM objective. Chorus' ability to manage risk is a key principle in the Commission's

[1] Minister for Infrastructure, *Establishing a new independent infrastructure body*, Cabinet Paper DEV-19 – SUB - 0021 https://treasury.govt.nz/sites/default/files/2019-02/infra-4073757.pdf

consideration of FCM. We encourage the Commission to carefully consider the impact of the multiple layers of regulatory rules Chorus faces (which other utilities do not) when considering whether we can reasonably manage risk, including risks relating to the recovery of our costs.

9.4 **Recognition of Risk** – The new fibre regulatory framework should recognise the risks faced by investors both prior to and following implementation. This appropriately reflects the need to balance risks between Chorus and end-users to ensure end-users can benefit from on-going investment and innovation. To achieve this, we encourage the Commission to:

- Better reflect the risk that investors faced in the pre-implementation period so that the Commission's approach is not seen as retrospectively de-risking the UFB project. This includes recognising that the pre-implementation regulated return on investment be considered one regulatory period based on expectations in May 2011, the need for a higher asset beta during construction, and applying the *ex-ante* allowance for Type II asymmetric risk to the pre-implementation period.

- Ensure that the forward looking cost of capital appropriately reflects ongoing risk, for example through an appropriate uplift for the mid-point estimate of the cost of capital and recognises the need for an appropriate asset beta.

9.5 **Building an incentives-based regime** – Parliament's objective for the new fibre regulatory framework was to provide certainty and stability for consumers through the setting of anchor services, ensure Chorus could recover a fair return on and of its investment through a revenue cap and to provide flexibility to meet the ever-changing demands of the end-user, commercial and technological environment.[2] The Reasons Paper risks moving beyond this approach to one with a high level of prescription more appropriate for circumstances where investment time horizons can allow for detailed Commission scrutiny. For example, the proposed capex IM has the potential to treat Chorus in much the same way as Transpower, notwithstanding our considerable differences in market power and technology and market dynamics, which suggests that differences should occur in applying regulation.

[2] Telecommunications (New Regulatory Framework) Amendment Bill, First Reading Speech, Minister of Communications. https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb_20170816_20170816_28

SUMMARY OF OUR SUBMISSION

Overview

10 Chorus agrees with many of the draft decisions contained in the Reasons Paper. Our primary comments on the draft decisions relate to:

- What is within the scope of the BBM, namely FFLAS;
- Valuation of the financial loss asset to more accurately reflect the actual risks investors took in the initial UFB build; and
- Cost of capital and allowance for Type II asymmetric risk.

Scope of the regulated service

11 We largely agree with the Commission's list of services that may fall within the FFLAS definition if the statutory requirements are met for a particular service.

12 However, in some instances, the Commission's interpretation goes beyond the policy intent of moving UFB services into the new regulatory framework and the definition in the Telecommunications Act 2001 (**Act**).

13 Regulation of the access services is founded upon principles of limited competition. Where services are competitive, or potentially competitive, regulation need not apply as it risks distorting competition and there are risks of cherry picking what regulation applies which creates uncertainty.

14 The focus of this regime is access services. There are other provisions in the Act that enable regulatory consideration of non-access services. Care is also needed to recognise the specifics and differences of this regime compared with other utilities/Part 4 of the Commerce Act which could lead to layers of regulation on contestable, unregulated services.

15 Including non-access services in the definition of FFLAS bypasses the processes that would normally apply when regulating a previously unregulated service, for example consideration of the relevant markets, whether there is any market failure and the costs and benefits associated with regulation. It is also inconsistent with proposals to recognise competition in other areas of the regime.

16 The following are not FFLAS as defined by the Act:

16.1 **Traditional backhaul services** – These provide transport beyond the relevant handover point for the access service.[3] In contrast, FFLAS are, by definition, access services. There are regulated forms of backhaul determined outside the BBM regime, though mostly commercial forms are provided today. Backhaul services are not required as part of the UFB contract regime and are not part of

[3] We have both layer 1 and layer 2 handover points under our UFB agreements today.

the Deeds. The Commission has run a separate backhaul study on those services and found no evidence to suggest market failure that requires further regulation today. The direct fibre access service (**DFAS**), while included specifically as a backhaul input for mobile services, is carried over the access network and from our perspective is also an access service – as the name suggests.

16.2 **Network extensions through new property development builds and network services such as design and build services** – The Reasons Paper indicates these are interpreted to be FFLAS in themselves. In fact, these are built activities, not FFLAS, which are not regulated today, contestable and not part of the policy leading to the FFLAS regime. Once built, FFLAS may be provided over that infrastructure. The design, build, maintenance and tender for such work is not FFLAS within the definition in the Act. The cost of network extension will form part of the regulated asset base (**RAB**), and any capital contributions will be considered in assessing the value of the assets. These assets will not be included in the RAB until they are 'commissioned' so that FFLAS can be carried over them. An approach that excludes design and build activities from the definition of the regulated service, but subtracts capital contributions from regulated asset values, is also consistent with the approach under Part 4 of the Commerce Act (**Part 4**) and ensures there is no double-recovery of capital costs. In the event fibre is built in a subdivision but the houses are never built, so connections can't be made, there will never be any FFLAS which require conveyance of telecommunications signals.

Pre-implementation financial losses

17 We agree with the Commission that the character of Crown financing was 'debt-like', and its approach of calculating the benefit received by fibre providers of concessionary Crown financing based on the avoided cost of debt. The loss 'asset' is critical to the FCM principle and meeting the statutory intent to provide a reasonable opportunity for a return on and of capital. The regulated return on investment parameters are the critical point here for ensuring FCM can be achieved. Having an opportunity to make a fair return is the key to ensuring end-users benefit from continued investment and innovation. For completeness this does not in itself compensate for all risk undertaken by investors. It deals with the build of an asset ahead of demand and gives Chorus an opportunity to make a fair return on and of investment.

18 We diverge on the following issues, which we think require further analysis:

18.1 **Regulated Return on Investment (RROI) for financial losses** – The RROI calculation should be based on investor expectations held at the time the UFB agreement commenced (i.e. May 2011). The allowed revenue should reflect the risks expected at the date that agreement was reached.

18.2 **Asset beta for financial losses** – A higher asset beta is appropriate in the pre-implementation period as higher systematic risk in the build period arises due to higher operating leverage, higher demand and longer term cashflows. The Commission has proposed an asset beta of 0.49. Our independent economic experts advise that the asset beta for the pre-implementation period should be at 0.65, to reflect the higher level of systematic risk compared to the post-implementation period.

18.3 **Risk-free rate for financial losses** – We remain of the view that the risk-free rate period should match the fibre pricing period of May 2011 to December 2019. If the Commission determines that the pre-implementation period is not a regulatory period, then consistency with commercial practice and the Commission's retail fuel market study points to a 10 year term for the risk-free rate.

18.4 **Tax adjusted market risk premium (TAMRP) for financial losses** – In accordance with our view about the appropriate risk-free rate for financial losses, the Commission should apply its TAMRP estimate of 7%, which was the rate prevailing in 2011. If the Commission determines that the pre-implementation period is not a regulatory period, then it is more reasonable to apply a TAMRP of 7% from 2011 to 2016, 7.25% from 2017 to 2019, and 7.5% from 2020.

18.5 **Debt premium** – Our independent economic experts propose a single estimate based on a five year historical average of debt with BBB credit rating as at May 2011, and allow a term credit spread differential for longer dated bonds where the provider actually issues longer term debt. This is consistent with the risk applied in the calculation of Crown financing and with the leverage assumed in the estimation of the asset beta. It is more principled than the Commission's proposal to calculate the debt premium prevailing at the beginning of the year in which the median loss has been incurred because it is consistent with treating the pre-implementation period as a single regulatory period.

18.6 **Leverage for financial losses** – We disagree with the proposals that higher leverage during the construction period are offset by arguments for a lower leverage due to the compensation for losses. Our independent economic experts advise it is not apparent why an arrangement under which there is postponement of recovery of revenue would necessarily result in a lower leverage during the initial construction period. As a result, our independent experts recommend leverage of 40%.

18.7 **Percentile uplift for financial losses** – The 50th percentile is at odds with the pre-implementation period as well as other utility regulatory precedent. Our independent economic experts note that the 75th percentile was the regulatory precedent available in 2011, when fibre prices were fixed until 2020. Standing in an investor's shoes at 2011, this is a reflection of expectations at the time fibre commitments were made.

18.8 ***Ex-ante* allowance** – We welcome the Commission's approach to applying a framework to test whether an asymmetric risk premium is required in the form of an *ex-ante* allowance. The Commission is proposing an allowance of 10bps. Independent economic experts have considered the application of the framework to Chorus' circumstances. Their analysis using the same model based on more evidence as to the risk of asset stranding and considering how that risk varies for different asset categories, results in an illustrative allowance closer to 59bps (with a more precise result able to be calculated once the RAB is determined). We consider that the allowance should be applied to both the pre-implementation period and the post-implementation period because those Type II risks apply in both circumstances.

Post implementation key points

19 **Asset valuation** – We largely support the Commission's proposals for asset valuation, future capital additions and that, in the event of deregulation, recognising principles of good regulation, assets be removed from the RAB as well as a portion of the financial loss asset. The higher systematic risks of this should be reflected in the asset beta, and the higher risk of asset stranding should be considered in the asymmetric risk premium.

20 **Initial asset valuation** – Determination of the initial RAB remains a key point of certainty for which we encourage early visibility. Without visibility of the Commission's view of the initial RAB, it is difficult to put forward a PQ proposal that has the capital and operational expenditure to match.

21 **Roll-forward of the RAB** – We have a roll-forward calculation similar to the Part 4 regime. Our key views on this are:

21.1 **RAB indexation** – We agree with applying RAB indexation to FFLAS, for the post-implementation period.

21.2 **Depreciation** – We agree with the ability to apply a non-standard depreciation profile.

22 **Cost of capital** – We support adoption of the overall conceptual framework from Part 4 for determining the cost of capital. Estimating cost of capital underpins the FCM principle because if it is underestimated firms will not get a fair return on and of capital and will not be incentivised to innovate and invest. Getting this right is therefore critical if end-users are to benefit from that investment and innovation. We diverge on the application of this framework for a number of parameters:

22.1 **Asset beta** – The Commission is proposing an asset beta of 0.49. However, using a large sample approach, our independent economic experts[4] have calculated a postimplementation asset beta of 0.60. As one sense check this is supported by an estimate of 0.63 implied by the recent Ofcom proposed asset betas for the Openreach and Other UK Telecoms components of the BT Group.

22.2 **Debt premium** – We retain our view that a BBB credit rating is more consistent with the notional leverage derived from the comparator set and the higher systematic risk for FFLAS relative to the comparator set, rather than BBB+ as proposed by the Commission.

22.3 **Leverage** – Our independent economic expert advises that a leverage of 31% is consistent with a BBB rating. Alternatively, a higher level of leverage (34%) would be consistent with the Commission's proposed credit rating of BBB+.

22.4 **Percentile uplift for risks of mis-estimation of the cost of capital** – We continue to be of the view that an uplift is required to reduce the probability of the Commission underestimating the cost of capital and to align with

[4] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [121].

reasonable expectations. This aligns with consideration of asymmetric risk, the FCM principle and outcomes for the long term benefits of end-users.

23 **Tools to address the risk of asset stranding** – We support the Commission's recognition that asset stranding is potentially material. While allocating some of the risk to fibre providers, allowing them to mitigate the risk with the following tools is important to support our ability to continue to invest with confidence and for end-users to benefit from that investment:

23.1 **Depreciation and asset lives** – Changing depreciation profiles, or shortening asset lives, to allow costs to be recovered more quickly;

23.2 **Retaining assets in the RAB** – Allowing the recovery of some (but not all) costs; and

23.3 ***Ex-ante* allowance** – As noted above, NERA's analysis results in an illustrative allowance closer to 59 bps. NERA uses the same model based on more evidence as to the risk of asset stranding and considering how that risk varies across asset categories.

Key Input Methodology components

24 **Cost allocation** – We agree with a principled-based approach for cost allocation, and specific rules where required in line with the aims of incentive based regulation. We don't agree with the Commission's proposal to limit the allocation of unavoidable costs. Chorus has the financial incentive to avoid costs, reuse existing assets in the network, and seek contributions towards regulatory assets.

25 **Taxation** – We agree with the Commission's decision to recognise tax losses should be carried forward within FFLAS activities and used to offset future taxation in respect of those activities. We also support the Commission's evolved thinking from the EV Paper to now cap the taxation asset base (**TAB**) as at 1 December 2011.

26 **Quality** – We support specifying minimum requirements for availability and performance dimensions. There is insufficient certainty about the future quality measures and metrics which the Commission might set.

27 **Expenditure** – We support the Commission adopting an *ex-ante* 'propose and approve' approach for Chorus' capex projects and programmes. We agree that Chorus has a specific capex profile. It is appropriate to adopt a less prescriptive approach compared to Transpower due to our different market circumstances, in particular because the pace of change in the telecommunications commercial and technological environment is significantly different from that in the electricity sector.

28 **Crown financing workbook** – We welcome the Commission releasing the Crown financing workbook, and respond to methodology in Appendix B.

29 **IM Rules** – In the timeframe available we have also reviewed the draft IMs and suggested a number of proposed changes on key issues. We support an additional consultation process on the technical drafting. As part of our submission we include a table responding to the IM Rules. Our independent economic expert, Sapere, also include with its report suggested changes to the cost of capital IM to reflect proposed

changes. We note that the Commission has yet to release the Process and Rules IM and draft decisions. Given the need to take a holistic approach as to how all the IMs inter-relate, some of our drafting may require amendment in light of those additional IMs. In addition, the fact that Chorus is subject to ID but not to price-quality regulation (**PQR**) in other LFC areas will need to be reflected in the IMs. Refer to Appendix C – IM Drafting Proposed Changes.

30 Our submission is laid out as follows:

- Regulatory Framework for Input Methodologies
- *Appendix A – Draft Decisions and Reasons for Input Methodologies*
    - Topic 1A: Valuation of Assets Input Methodology – excluding Financial Loss Asset
    - Topic 1B: Valuation of Assets Input Methodology – Financial Loss Asset
    - Topic 2: Allocation of Common Costs Input Methodology
    - Topic 3: Cost of Capital and Risk Input Methodology
    - Topic 4: Asymmetric Risk
    - Topic 5: Quality Dimensions Input Methodology
    - Topic 6: Capital Expenditure Input Methodology
    - Topic 7: Treatment of Taxation Input Methodology
- *Appendix B – Crown Financing Workbook*
- *Appendix C – IM Drafting Proposed Changes*

REGULATORY FRAMEWORK FOR INPUT METHODOLOGIES

- While we generally agree with the services listed in the Reasons Paper as FFLAS, backhaul services, network services and property development services are beyond the statutory definition and the underlying policy to transition UFB services to the new regulatory framework. If these three categories of services were included that would be a significant extension of regulation to unregulated services today, and importantly, without the necessary evidence to demonstrate a market failure that warrants it.
- Backhaul falls outside FFLAS based on the statutory definition, previous Commission decisions on copper access services, the application of section 166(2)(b), and recognition in policy papers and the Commission's backhaul study[5] that these are generally competitive services.
- Network services and property development services are not "*telecommunications services*" as defined in the Act. This is clear given other statutory provisions. These are network build and maintenance activities resulting in a fibre network over which FFLAS may be provided – but not FFLAS themselves. The Commission has oversight of the relevant expenditure through the asset valuation IM, which provides that any capital contributions connected with design and build activities are subtracted from regulatory asset values. The Commission will also have oversight of our capex and opex during PQR.
- This is consistent with the approach under Part 4. The regulated services under Part 4 are limited to "*conveyance of electricity by line*". Design and build of network assets are not conveyance of electricity, so would be excluded.

Regulations under section 226

32 Section 226 regulations came into force in November last year. By those regulations:

32.1 Chorus and other local fibre companies (**LFCs**) are subject to information disclosure (**ID**) for all FFLAS; and

32.2 Chorus is subject to PQR for all FFLAS, except where a service is provided in a geographical area where the regulated fibre service provider is another LFC.

33 We respond to the Commission's Reasons Paper and IM Rules with this in mind.

Defining FFLAS

34 The draft decision adopts the statutory definition of FFLAS, without further elaboration in the IM Rules. We agree with this approach. However, to implement the IMs, ID

[5] Commerce Commission (11 June 2019), *Section 9A Backhaul services study*.

and PQR it's important to have clarity on the scope of the regulated services. The Commission has helpfully indicated its preliminary views in its Reasons Paper.

35 While we generally agree with the Commission's interpretation of the services caught by the FFLAS definition, we disagree in two respects:

35.1 The Commission has defined FFLAS to include backhaul services (such as ICABS) for layer 1 fibre access services. This is inconsistent with the statutory definition and the statutory requirement to set the first specified points of interconnection (**specified POIs**); and

35.2 The Commission has included network services and property development services within the definition of FFLAS, which again is inconsistent with the statutory framework.

36 The Act and associated regulations, provide for FFLAS to be regulated under Part 6 without the Commission undertaking the types of assessment for regulatory intervention required in other parts of the Act and in other regulatory frameworks (for example, as carried out under the European framework). This is because of the focus on FFLAS, given they are access services, as having the characteristics of an enduring economic bottleneck in the context of current technical and economic circumstances.

37 This legislative approach places a particular duty of care on the Commission to ensure it takes a view of FFLAS focusing solely on fibre access services.[6] If the Commission has concerns with actual or potential competition problems in adjacent markets, these are most appropriately addressed through the Schedule 3 processes. We note the recent amendments to the Act streamlined the Schedule 3 processes to support the Commission regulating new services where necessary.

Backhaul services

38 We maintain our view that backhaul services, such as ICABS, are outside the scope of FFLAS, reflecting the normal concern with regulating bottleneck access services, consistent with regulation under the Fibre Deeds, the UFB agreements and the Commission's interpretation of the words "*access to, and interconnection with [the relevant network]*" for copper regulated services.

39 The Commission determined the specified POIs under the Act last year (**POI Decision**).[7] The specified POIs reflect the points of interconnection for the layer 2 FFLAS and set the boundary of the regulated network. The Commission didn't specify POIs for layer 1 services recognised under our UFB agreements. In its accompanying reasons paper, the Commission said:

---

[6] The Commission's specified points of interconnection decision is important as to whether backhaul services for layer 1 services are included in the FFLAS definition. The Commission itself recognised that the Act doesn't provide a clear-cut indication as to whether the Commission is to specify layer 1 points of interconnection and layer 2 points of interconnection. Commerce Commission (19 December 2019), *Specified points of interconnection – Reasons paper,* [35].

[7] Commerce Commission (19 December 2019), *Specified points of interconnection – Reasons paper*.

39.1 It considered ICABS should be included in scope of the FFLAS definition; and

39.2 One of the purposes of not specifying layer 1 points of interconnection was that this would likely exclude ICABS from the FFLAS definition.

40 We disagree with the POI Decision not to specify layer 1 points of interconnection. The starting point in the Act was that the Commission was directed to specify at least those points of interconnection that apply under the UFB agreements. Our UFB agreements, which gave effect to the UFB initiative, include both layer 1 and layer 2 points of interconnection. As we explained in our submission on the POI consultation paper, 'points of interconnection' refers to points where a Retail Service Provider's (**RSP's**) network can connect to Chorus' fibre network, including both layer 1 and layer 2 handover points.

41 We agree with the Commission that had it specified layer 1 points of interconnection under the UFB initiative, as in our view it was required to do under the Act[8], ICABS would have been excluded from the FFLAS definition, as would other backhaul services beyond the specified POI. Our view remains that this outcome is consistent with the text, structure and purpose of the Act, as set out in our previous submissions.[9]

42 As a result of the POI Decision, as it currently stands, a range of services will become regulated that have not previously been subject to regulation nor control under the UFB initiative, and that don't give rise to the same competition concerns as bottleneck access services. The Commission has previously recognised the distinction between actual and potential competition for access and backhaul services in its backhaul study. MBIE recognised the same point in its review of the Act. In that review, MBIE emphasised:

42.1 Domestic backhaul assets operate in markets that are competitive or have the potential for competition;[10]

42.2 Telecommunications services such as national backhaul were therefore excluded from the review and expected to continue to be subject to Part 2 of the Act;[11] and

42.3 Direct fibre access service (**DFAS**) was specifically exempted from this policy decision for backhaul services on the basis that it was concerned with

---

8 Telecommunications Act 2001, section 231(5).

9 In particular our *Submission in response to the Commerce Commission's invitation to comment on its proposed approach to the new regulatory framework for fibre dated 9 November 2018*, dated 21 December 2018, pages 29 – 32 and *Submission in response to the Commerce Commission's fibre regulation emerging views dated 21 May 2019*, dated 16 July 2019, page 19.

10 Ministry of Business, Innovation and Employment (July 2016), *Telecommunications Act Review: Options Paper,* p 33.

11 Ministry of Business, Innovation and Employment (July 2016), *Telecommunications Act Review: Options Paper,* p 21 and 56.

connecting large commercial users (including mobile networks) including from non-premise access sites.[12]

43 Unless corrected via an amended notice, as permitted under the Act, the POIs Decision will potentially harm competition in the markets for backhaul services, contrary to section 166(2)(b), by extending regulation. This will be to the long-term detriment of end-users.

44 We note that even on the Commission's approach, with which we disagree, backhaul (and other services) will only be FFLAS where they meet the requirements of the Act. In particular, the services must:

44.1 "*Enable access to, or interconnection*" with the "*fibre network*", defined as the network between an end-user premises or non-building access point (**NBAP**) and the associated specified point of interconnection; and

44.2 Not extend beyond the boundary of the "*fibre network*" unless they are "*necessary and proximate to the fibre network*" (such as co-location services at the point of interconnection).

45 Under the Commission's approach, layer 1 or managed throughput fibre services will be FFLAS only where they are "*provided over the fibre network to transport FFLAS between central offices and POIs*". This will include ICABS and some other layer 1 backhaul services. It will not include backhaul services:

45.1 Between points of interconnection in different candidate areas with the specified POI; and

45.2 Where the NBAP or end-user premises is outside a UFB candidate area, services that provide backhaul beyond the point of interconnection nearest to that end-user or NBAP, associated with that end-user or NBAP in accordance with the POI Decision.[13]

46 In addition, we note the Tail Extension Service (**TES**) isn't a FFLAS. TES is a layer 2 service providing transport across our network from the point of interconnection associated with the end-user or NBAP to an alternative handover location. TES involves the extension of the access service beyond the relevant handover point for the service to a distant point of interconnection. TES for the transport of layer 1 services is not a service we offer. And it is typically impractical to provide a simple layer 1 backhaul service (i.e. dark fibre) over such distances.

---

[12] Ministry of Business, Innovation and Employment (July 2016), *Telecommunications Act Review: Options Paper,* p 33; Cabinet Economic Growth and Infrastructure Committee (22 May 2017), *Review of the Telecommunications Act 2001: Final Decisions on Fixed Line Services, Mobile Regulation and Consumer Protection,* at [42].

[13] Commerce Commission (19 December 2019), *Specified points of interconnection – Reasons paper*, at [61].

Network services / property development services

47 Network services and property development services are not FFLAS and can be removed from the Commission's list of types of services that meet the FFLAS definition.

48 FFLAS includes telecommunications services that "*enable access to, or interconnection with*" a fibre network. The Commission says this supports a view that the definition of FFLAS is not limited to services delivered directly over a network (although this is generally its approach). Without offering further reasoning in support, the Commission then says the following services come within the definition of FFLAS:

48.1 **Network services** – Network engineering and other services provided for a fibre network (including, but not limited to, network design, build and maintenance services); and

48.2 **Property development services** – Services to develop properties, subdivisions, and NBAPs to support the provision of FFLAS (including, but not limited to, design, pre-wiring, cable and duct fit-out).

49 The draft decision to include these services makes the boundaries of the regulated service definition vague and unpredictable. The description provided in the Reasons Paper isn't precise enough to allow us, or other LFCs, to clearly delineate what activities do and do not form part of the regulated service. Given the importance of clearly defining the scope of the regulated service, the boundaries of the regulated service need to be clarified.

50 In any event, this interpretation is inconsistent with the Act. The words "*enable access to, or interconnection with*" a defined network are based on equivalent wording in the description of the copper designated access services in Part 1 of the Act.[14] Each of these services refers to a service involving telecommunication between an end-user and handover location using bottleneck network infrastructure. This is distinct from the activity of constructing the network infrastructure.

51 In the case of network services and property development services, there are further specific indications in the Act's structure that, despite the apparently broad scope of the definition of "*telecommunications services*", these don't fall within that definition. The Commission's description of these services appears to include a range of situations in which Chorus engages with property developers, owners of multi-dwelling units or communal living providers such as retirement village operators, or end-users to install communal or end-user specific infrastructure (that Chorus will own and operate) in exchange for a capital contribution. However, if those activities constitute the provision of a telecommunications service, then our engagement with those

[14] This is consistent with our earlier submission on why backhaul services are outside the definition of FFLAS too.

parties would potentially violate the business line restriction preventing us from providing retail services to end-users.[15] That can't be the correct interpretation.

52 We routinely undertake network deployment services in return for capital contributions and this is entirely appropriate. In fact, the Act makes clear that receipt of a capital contribution from an end-user for the installation of Chorus-owned infrastructure is permitted. The Act specifically contemplates Chorus obtaining capital contributions from end-users.[16] It follows that engaging with end-users to design and build Chorus-owned assets in exchange for capital contributions does not constitute the provision of a telecommunications service that we're restricted from undertaking. An interpretation that includes these activities within the definition of telecommunications service creates an inconsistency between sections 69O and 177.

53 If the Commission's policy concern in including these services in the FFLAS definition is to ensure the costs of network deployment and revenue derived from it (i.e. by way of capital contribution) is accounted for in the BBM, this is achieved conventionally though other mechanisms. As described later, where the deployed network is commissioned to provide FFLAS, its construction costs enter the RAB after account is taken of the capital contribution received (as envisaged by section 177(6)). It is not necessary for network deployment services to be a FFLAS to achieve this outcome.

54 Accordingly, it is not necessary to include property development and network services in the regulatory service definition to ensure appropriate account of the costs and revenues associated with the provision of FFLAS. The relevant questions are:

54.1 Is the asset 'used' to provide the regulated service (in whole or in part);

54.2 If yes, then it is added to the RAB (subject to cost allocation) and the further question is: at what value?

55 If a capital contribution has been received in respect of the asset then the regulated supplier has already had their capital investment returned to them (at least in part) so that contribution should be subtracted from the value of the asset to avoid the regulated supplier being compensated twice.

56 The treatment of capital contributions doesn't require that property development and network services be included in the regulated service definition. The treatment of costs and revenues associated with these activities follows from the asset valuation IM, guided by the purpose statement which prohibits double-recovery of the investment.

57 This is consistent with the usual approach under Part 4. Design and build activities do not constitute part of the regulated electricity lines service as defined in the Commerce Act. But that notwithstanding, capital contributions received in the course

[15] Telecommunications Act 2001, section 60O.

[16] Telecommunications Act 2001, section 177(6).

of undertaking these activities are accounted for in regulatory asset values under the asset valuation IM.

How regulations apply over time to matters that will vary

58 We agree with the Commission:

58.1 That future regulations under section 226 may vary the scope of regulated FFLAS over time - regulation and deregulation;

58.2 That there is a legislative requirement to apply a wash-up mechanism for any over or under revenue recovery. We note the Act provides for a symmetric, unconstrained wash-up for FFLAS for the first regulatory period (**RP1**). We look forward to engaging further on this during the regulatory processes and rules IM (**Processes and Rules IM**) consultation; and

58.3 In determining the PQ path, the Commission can smooth revenues over multiple regulatory periods, noting this will also be consulted on separately in the Processes and Rules IM draft decision.

Relevance of Part 4

59 We agree with the Commission that Parliament deliberately based the regulatory model in Part 6 on the existing model in Part 4.

60 As discussed in our Process and Issues Paper submission, we summarise the following differences as also relevant to the application of Part 6:[17]

60.1 **A single network** – We have a single network providing both regulated and unregulated services with dynamic asset utilisation. The BBM only applies to fibre.

60.2 **Differentiated regulated services** – We offer, and the regime continues to allow, differentiated FFLAS services to meet a range of RSP and consumer demands.

60.3 **Constructed ahead of demand and at an early stage of maturity** – Our network is constructed ahead of demand and we are currently in a 'build' phase.

60.4 **The transitional challenge is significant** – Chorus' systems and asset management framework are set up to support today's requirements. There is a significant operational challenge in moving to a BBM.

60.5 **The regulatory environment is more complex** – We are faced with other constraints (which Part 4 regulated industries are not) such as non-discrimination, equivalence of inputs (**EOI**), anchor services, other mandatory

[17] *See* Chorus (21 December 2018), *New regulatory framework for fibre*, at [80].

fibre services, geographically consistent pricing, and unbundling, that all need to interact.

Purpose statement in the Act

- The application of section 162 and section 166(2)(b) is also key to regulatory predictability and driving an incentives-based regime.
- Much of the Commission's discussion about the section 162 purpose statement and the mandatory considerations in section 166 has been covered in our submissions on the Commission's Process and Issues Paper[18] and EV Paper. We won't repeat our previous responses here, but we comment on a few specific issues below.
- We reiterate our earlier submissions on the interplay between sections 162 and 166(2)(b), in particular that section 162 has primacy.
- We agree with the Commission's expert panel that the relevance of section 166(2)(b) is likely to be limited and some "*screening approach*" is appropriate. Our suggested approach to competition screening appears consistent with the panel's analytical framework.

Incentives regime

61 The Commission's discussion of section 162 recognises that the outcomes consistent with those in a workably competitive market (**WCM**) can be promoted through incentive regulation, such as incentives under revenue cap regulation for minimum quality standards (and associated penalties), and through ID regulation with the implied threat of further regulation.[19]

62 The Commission acknowledges that incentives regulation is an imperfect substitute for workable competition. We agree. One of the reasons why it's imperfect is that it can involve substituting regulatory judgement for the competitive process and/or, in the case of identifying and implementing efficiency-enhancing opportunities, for the regulated suppliers' judgement.

63 Incentive-based regulation is preferable to outcome-based regulation because it's likely, all other things being equal, that a properly incentivised regulated supplier will bring greater knowledge and experience to the task of innovating in favour of efficiency and improvement than an external regulator.

64 Incentive-based regulation can be contrasted with outcome-based regulation. Under outcome-based regulation, the Commission directly specifies commercial or market

[18] Commerce Commission (9 November 2018), *The Commission's invitation to comment on its proposed approach to the new regulatory framework for fibre*.

[19] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [2.129].

outcomes, rather than incentivising suppliers to achieve those outcomes. The downsides of outcome-based regulation are:

64.1 The Commission frequently has less information than suppliers regarding costs, market dynamics and consumer preferences, and is therefore not well-placed to specify efficient market outcomes;

64.2 This approach to regulation is more administratively costly than incentives-based regulation; and

64.3 It creates risks to suppliers and/or consumers to the extent that the Commission's determinations do not represent efficient outcomes.

65 Any regulatory framework obviously will typically combine both approaches. But, in general, we endorse the Commission's traditional approach of preferring incentives rather than specifying outcomes for the reasons set out above.

66 Therefore, we are concerned that a number of the draft decisions represent a shift towards outcome-based regulation, and that this may be inadvertent rather than representing a fully explicated strategic decision on the part of the Commission.

67 The Commission identifies minimum quality standards and pecuniary penalties as part of incentive-based regulation. This aspect of the regulatory model is more akin to outcome-based regulation. We are concerned that aspects of the draft decisions, including the approach to quality standards and capex, appear more consistent with an outcome-based regulation approach than true incentive-based regulation.

Interplay between section 162 and section 166(2)(b)

68 As set out in our submissions on the Process and Issues Paper and EV Paper, we remain of the view that the Part 6 purpose statement in section 162 has primacy over the objective in section 166(2)(b) ("*the long-term benefit of all relevant telecommunication's end-users*"). Decisions made in situations where section 166(2)(b) is considered relevant should always be consistent with section 162. We make two comments on the Commission's position on this issue.

69 First, we welcome the development in the Commission's views since the EV Paper, although we don't necessarily agree with the Commission's approach to the interaction between sections 166(2)(b) and 162.

70 The EV Paper proposed criteria to resolve potential conflicts between the two objectives in section 166(2). In the Reasons Paper, the Commission has properly stated it must decide what best gives, or is likely to best give effect, to both objectives in section 166(2)(a) and (b). We agree there is a complementary relationship between these objectives in most instances. The analysis of the Commission's experts similarly suggests that a large part of the Commission's promotion of competition will

not require invoking section 166(2)(b).[20] As the existing regulatory framework – which is based on regulated wholesale access to LFC networks – is by its very existence already promoting service competition in end-user markets.[21]

71 Second, to the extent that the Commission has rightly recognised the risk of regulatory error for preferring market developed outcomes, this applies equally to its decisions aimed at promoting competition. The Commission's focus should be on creating incentives for efficient competition, rather than selecting 'winners' or 'losers' to assist in a competitive process. The Commission should be, in considering the section 166(2)(b) objective, neutral as to any outcome in the competitive process. This includes where fibre proves the dominant technology choice for consumers, provided efficient competition is incentivised and inefficient competition is disincentivised.

IMs and predictability

72 The Commission recognises that providing a stable and predictable regulatory framework was an objective of Parliament in introducing Part 6. This encourages regulated suppliers to make irreversible investments with increased confidence in an expected return on the investment. Consumers in turn enjoy the benefit of a reliable quality service through a lower required cost of capital,[22] but only if the desired predictability is delivered.

73 It also recognises that its role in giving effect to the section 162 purpose is one of the ways to promote certainty in its decision making under Part 6, as well as in setting the IMs.[23]

74 We agree that the use of the 'competition screening' test to determine whether section 166(2)(b) is relevant will assist in providing clarity to regulated suppliers and end-users. However, our approach to section 162 better promotes certainty in applying it to Part 6 of the Act.

Competition screening

75 We agree the Commission should adopt a competition screening test to determine whether section 166(2)(b) is relevant to a particular decision when exercising its discretion.

---

[20] Vogelsang and Cave (19 November 2019), *Framework for promoting competition*, at p 3.

[21] Vogelsang and Cave (19 November 2019), *Framework for promoting competition*, at p 7.

[22] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [2.225] - [2.226].

[23] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [2.238.2].

76 In our previous submissions, we noted the Commission should clearly define the relevant market(s) in which it is seeking to promote competition, set out why it considers there is a real prospect of workable competition in those markets and consider how different forms of competition in different markets will be affected by its decision.[24] We indicated the Commission should base this assessment on evidence, and detail the evidence on which it relied. This is important, as any exercise of the Commission's discretion will inevitably impact competition.

77 Our approach appears consistent with the analytical framework proposed by the Commission's expert panel, which sets out the same sequence of steps for analysing promotion of competition decisions: definition of the market, assessment of the state and development of competition, evaluation of the desirability of promoting competition and decision.[25]

78 Instead the Commission has proposed to consider, as screening questions whether each IM decision:[26]

78.1 Has a potential to impact competition in any telecommunications market (in either a positive or negative way);

78.2 Has a role in mitigating risks to competition at any market level; or

78.3 Could be used to promote competition at a given market level that would result in expected net benefits to telecommunications end-users in the long term.

79 While we do not have particular objections to these questions, we question the merit of reformulating the statutory criteria. This exercise doesn't appear to assist the analytical task before the Commission in a meaningful way. It's not obvious to us that the three screening questions do significant independent work. One of the ways (but not the only way) in which an IM decision may impact competition in a telecommunications market is if it mitigates the risks to that competition or, alternatively, by promoting it. It's not possible for an IM decision to have a role in mitigating risks to competition if it does not have the potential to impact competition.

80 In saying this, we assume the Commission will focus on the *process of competition*, rather than particular competitive outcomes or competitors. If the questions are meant to be read more broadly than this (e.g. the reason risks to competition is separately identified from impacting competition is because risks to competition is meant to identify and protect particular individuals or classes or competitors), then we would, however, disagree.

---

[24] *See* Chorus (21 December 2018), *Submission on initiation to comment*, at [26].

[25] Vogelsang and Cave (19 November 2019), *Framework for promoting competition*, at p 1 – 2.

[26] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [2.254].

81 Assuming our interpretation of the Reasons Paper is correct, the more important point is, in responding to these questions, the Commission should be specific and evidence-based. In each case, the Commission should identify:

81.1 The market(s) that the IM decision has a potential to impact actual or potential workable competition in (either positively or negatively; and

81.2 The reasons for this view based on evidence available to it.

82 We acknowledge this analysis requires some effort from the Commission. So, a pragmatic and proportionate approach is to limit this more precise consideration to issues where either:

82.1 The Commission or an interested person has identified section 166(2)(b) as relevant - that the Commission's decision has the potential to impact workable competition in a relevant market; and

82.2 It is proposed that consideration of section 166(2)(b) would lead to a different outcome than if sections 162 and 166(2)(a) were the sole consideration. Again, as the Commission has noted, this is expected to be rare.

83 This approach would ensure the Commission places its effort where section 166(2)(b) may produce a different outcome. Rather than spending that effort undertaking routine section 166(2)(b) screening assessments where no issue has been identified.

84 Of course, if this analysis delivers a situation where consideration of section 166(2)(b) would lead to a different outcome than if sections 162 and 166(2)(a) were the sole consideration, then a further careful consideration would be required to determine the appropriate course of action given the tension between the requirements.

85 The approach is again consistent with the advice of the Commission's expert panel. The expert panel noted that, while the analysis of the required framework may require a large amount of information and analysis, this should only be done for markets (and, we say, decisions) where either promotion of competition might be warranted. A more cursory analysis should indicate which these are.[27]

86 The assessment of the relevance of section 166(2)(b), will need to have appropriate regard to the structure of regulation under Part 6 and other parts of the Act. In particular, the assessment should consider whether an IM decision that may promote competition in the abstract will have that effect, or is best promoted via the IM decision, where other instruments in the Act exist to address that specific concern. This means that there is less scope for section 166(2)(b) to be relevant to decisions about the risk of competition being lessened by FFLAS used as inputs into competitive services where those risks are addressed by non-discrimination and equivalence obligations under Part 4AA and regulation of the terms and conditions of the DFAS and unbundled fibre services under Part 6. It is important to consider other regulatory instruments are also in place when considering if section 166(2)(b) should be applied.

[27] Vogelsang and Cave (19 November 2019), *Framework for promoting competition,* p 2.

Key economic principles

- We support the Commission adopting only three key economic principles:
  - Real FCM;
  - Allocation of risk; and
  - Asymmetric consequences of over and under investment.
- These economic principles should be sufficient tools for the Commission to reach regulatory decisions that promote the section 162 purpose and, to the extent the Commission considers it relevant, the objective in section 166(2)(b). How they are implemented though impacts the regime's predictability and our ability to achieve real FCM.
- A holistic approach is also important when considering the application of these principles.

Real FCM

87 We agree with the Commission's position on real FCM. Consistency with real FCM needs to be achieved over the life of the assets to ensure consistency with similar WCMs. A commitment in the IMs to this effect promotes certainty in relation to the return on and of capital over the life of relevant assets.

Allocation of risk

88 We welcome the inclusion of risk allocation as a key economic principle. When it's applied consideration also needs to be given to the appropriate incentives faced by all parties.

89 We encourage the Commission to carefully consider the impact of the multiple layers of regulatory rules we face (which other Part 4 regulated industries don't) when considering whether, and how well, we can reasonably manage risk. This includes risks relating to the recovery of our costs.

90 We are concerned by any suggestion, that because of Chorus' size, we can bear substantial risk.[28] Our ability to finance our capex programme is reliant on remaining financeable, and end-users long term interests will be promoted by not overloading Chorus with too much risk.

[28] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [2.181.3].

Asymmetric consequences of over and under investment

91 We also support the Commission's decision that the asymmetric consequences from under or over investment are relevant when setting the regulatory framework. However, we disagree with the conclusion about whether asymmetric consequences exist and what to do if/where they do. The cost of capital uplift section discusses this further.

No need for additional economic principles

92 We support the Commission's decision that there is no need for additional economic principles.[29]

Incentives framework underpinning the application of Part 6 regulation

93 We agree with the Commission's proposal to design incentives to encourage regulated suppliers to behave in a manner consistent with consumers' interests. However, in reality:

93.1 To date many elements in the Reasons Paper are more reflective of an outcome-based regulation approach to regulation; and

93.2 The incentives framework discussion is focussed on the regulated supplier's behaviour. The Commission also needs to consider the incentives that may be created for other parties.

94 We encourage the Commission to re-examine its draft decisions in light of its statements over many years regarding the role of incentives in regulatory policy. An approach where the Commission directly exercises its own judgement in relation to matters that would otherwise be the province of regulated suppliers:

94.1 Requires the Commission to make decisions subject to a significant information asymmetry;

94.2 Dramatically increases the costs of regulation; and

94.3 Constrains suppliers and customers from reaching commercially satisfactory outcomes based on revealed consumer preferences.

IMs under Part 6

95 We support the Commission only setting IMs on the mandatory IMs set out in the Act, which achieves an appropriate balance in terms of regulatory predictability and flexibility.

[29] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [97] - [99].

APPENDIX A – DRAFT DECISIONS AND REASONS FOR INPUT METHODOLOGIES

TOPIC 1A: VALUATION OF ASSETS INPUT METHODOLOGY – EXCLUDING FINANCIAL LOSS ASSET

Key features

- We agree with the draft decision to:
  - Adopt a principles-based regime for asset valuation with, like the Part 4 regime, mostly general rules and certain specific rules prescribed where required;
  - Develop a single asset valuation IM that applies under both PQ and ID regulation, where rules, processes and requirements are consistent unless a different approach is required to provide for differences between the forms of regulation;
  - Adopt generally accepted accounting practice (**GAAP**) rules as part of the asset valuation IM, where they are consistent with relevant regulatory objectives;
  - The initial value of an asset is determined based on the cost of that asset, net of specified capital contributions.[30] This includes no ex-post efficiency test;
  - Applying indexation to the RAB from implementation date; and
  - Allow fibre suppliers to have the option to propose a non-standard depreciation profile.

Recommendations

- Determination of the initial RAB as early as possible to provide certainty.
- Capital contributions to be treated consistently with GAAP, as it's not practical to recreate historical information.
- Commissioned assets to be treated consistently with accounting treatment. For Chorus, this occurs when the asset is 'available' to use.

[30] We assume the Commission intends to use the same definition of capital contributions for the initial core fibre asset value as it does when calculating the loss asset value. If a different treatment of capital contributions was applied between the initial core fibre asset value and in the calculation of the loss asset value, the outcome would be inconsistent with FCM.

- Interest during construction in the RAB for pre-implementation, should be based on Chorus' accounts and not capped at cost of capital.

Initial RAB

96 Determination of the initial RAB remains a key uncertainty. Without visibility of the initial RAB, it's difficult to put forward a PQ proposal given its obvious relevance to our capex and opex. It's important then that the initial RAB is determined as soon as possible to allow us to take it into account in our PQ proposal.

Assets eligible to enter the RAB at date of commissioning

97 We agree with the draft decision that assets should enter the unallocated RAB in the year in which the asset is first employed (i.e. the year in which the asset is 'commissioned') by the regulated supplier when providing regulated FFLAS.

98 This is consistent with the Act, which states assets are eligible to be included in the RAB if they are constructed or acquired by a regulated supplier, and in the year in which they are first employed (i.e. 'commissioned'), wholly or partly, in the provision of regulated FFLAS.[31]

99 We interpret 'commissioned' consistently with accounting treatment, as is standard practice in Part 4. The value of commissioned assets is required to be the cost incurred by the provider under GAAP, and this will include interest incurred over the period of construction until the asset enters the fixed asset register (**FAR**) under GAAP. For Chorus, this occurs when the asset is available for use. The effect of this is that the cost of the asset as recognised by the IMs will include the cost of financing during the construction period but ending when the asset is available for service.

100 For Chorus to have an expectation of FCM *ex-ante*, assets must enter the RAB from the time that the calculation of interest during construction ends, which is when assets are available for use. This approach recognises we have built our network ahead of demand and consumers don't need to be connected before the asset is recognised in the RAB.

Review of costs for assets constructed pre-implementation

101 We support the draft decision not to undertake a review of costs for assets constructed pre-implementation nor to make pre-implementation costs subject to an ex-post efficiency review:

[31] Telecommunications Act 2001, sections 177(1) and 177(6).

101.1 This is consistent with precedent and government policy choices, reducing the scope for any future price shocks;

101.2 Ignoring any previous revaluations of assets in the pre-implementation period is appropriate. Revaluing assets may instead introduce additional asymmetry into the regime for which compensation would be needed;[32] and

101.3 Accepting changes in the pre-implementation period as a result of implementing IFRS 16 is consistent with GAAP and reduces complexity when regulatory treatment aligns with accounting standards.

102 We note the Commission plans to defer its decision on other IFRS changes, and how they are treated in the BBM, until the Processes and Rules IM consultation. We look forward to contributing to this process.

Capital contributions

103 We disagree with the draft decision to depart from GAAP for the treatment of capital contributions for the following reasons:

103.1 It's problematic for the pre-implementation period, as it would involve complex re-work of data over a number of years to implement;

103.2 An assumed allocation would have no guarantee of accuracy, as we can't recreate information that doesn't exist; and

103.3 What may happen in practice, due to the inconsistency between areas where the Commission has made mutually incompatible decisions – e.g. using actual depreciation from the accounts and then netting off capital contributions (which the accounts have not done, and do not do).

104 This approach is at odds with the Commission's expressed desire to adopt a simplified approach to the losses calculation by making use of existing data and granularity. It would also be at odds with the legislation for pre-2011 assets, which directs the Commission to use the existing financial accounts in the losses calculation.

Interest during construction capped at cost of capital

105 While we support the draft decision to exclude working capital from the RAB and to include interest during construction in the RAB (capped at cost of capital) post-implementation, we don't support the interest included being capped at cost of capital for the pre-implementation period.

[32] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [23].

106 If the cost of capital is different to the interest applied during construction, it would require a lot of complex work to go back and change the methodology to historical data for little benefit. This is because:

106.1 There may be little difference in the rates in practice; and

106.2 The value of works in construction which attract the interest is relatively small.

Roll-forward of the RAB

Key features

- We agree with the draft decision:
  - To calculate the RAB roll-forward, similar to Part 4:

    RAB (end of year) = RAB (beginning of year) – Depreciation + Capital Additions – Capital Disposals + Revaluations
  - That the initial value of any fibre asset added post-implementation is the cost incurred by a regulated supplier in constructing or acquiring an asset and less any depreciation determined under GAAP;
  - The cost directly attributable and not directly attributable to regulated FFLAS is determined by applying the cost allocation IM;
  - To be consistent with GAAP in the treatment of intangible assets, and transactions for the sale and purchase of assets;
  - Assets repurposed for FFLAS should be added to the RAB at 'carrying value';
  - That a default depreciation method consistent with GAAP applies with the ability to put forward an alternative depreciation method for some or all assets in the PQ proposal (e.g. airports style depreciation method); and
  - Indexation of the RAB using the consumer price index (**CPI**).[33]

Recommendations

- We make a number of recommendations to improve the workability of the draft requirements. If any changes from existing requirements today are required, then the intended objective needs to be clear so the level of granularity is fit for purpose and unnecessary changes aren't imposed – where changes are appropriately

[33] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [31] - [34] and [37] - [38].

justified, then it's important to bear in mind that any transition is likely to take time (**transitional principle**).

- While we support the Commission prescribing a minimum level of granularity that regulated suppliers must provide when recording assets in the RAB, asset granularity should align with existing data, accounts and systems unless there is justification to depart.
- Appropriate quantities held of network spares shouldn't be assessed on historical reliability. What matters to Chorus is restoration times and fault rates.
- In the event of deregulation, while we agree it's principled to remove assets from the RAB as well as a portion of the financial loss asset, the Commission should reflect the higher systematic risks in the asset beta and the higher stranded asset risk in the Type II asymmetric risk allowance.

Minimum level of asset granularity

107 We agree with the draft decision to prescribe a minimum level of granularity that regulated suppliers must provide when recording assets in the RAB, rather than imposing highly prescriptive requirements.

108 However, we don't agree with the proposed level of granularity, in particular when determining the initial RAB. Asset granularity should instead align with existing data, accounts and systems unless there is good reason to depart. If changes are necessary for the collection of information in future, then the transitional principle should apply.

109 Aligning the level of granularity in the first instance with existing data, accounts and systems would be consistent with the Commission's preference for simplification in the IMs. This is especially important for the pre-implementation period, as calculation of the initial RAB is a one-off exercise and we have practical restrictions on available data. It would also remove any subjectivity associated with trying to get to a level of granularity beyond what exists.

110 The Commission's proposed level of granularity would require us to re-work historical data, which would be time consuming and complex and, in most cases, we cannot practically do it. In the context of Part 4, the Commission has generally not required regulated suppliers to restate their prior disclosures when additional disclosure requirements have been added.

111 If future asset granularity was required on a go-forward basis, we see value in utilising a transitional principle with the aim to develop our data over the coming years to a point where we can meet the 'right' level of granularity.

112 The following table sets out what data we have available and the current limitations.

Table 1: Chorus views on minimum level of granularity

Category	Level	Level of granularity available in the FAR?	Agree?
Network layer	Layer 1, Layer 2, other	Yes – using OSI layer definition.	Yes
Asset type	Feeder fibre, distribution fibre, roadside cabinet, customer premises, equipment etc	Yes – can identify fibre cable, duct, cabinets. Note – we're unable to distinguish between assets used for feeder and distribution because our systems don't capture these costs separately. For example, distribution fibres are recorded / settled as fibre service lead-ins.	Yes
Geographic location	Address, building, area	Layer 1 – generally down to approximately one of 700 copper exchange service areas (**ESAs**). Layer 2 – location typically 'national', some are shown to be in one of the seven regions, or recorded at a specific building. IT assets – national (no location details). Geographic location information currently reflects copper ESAs, which is not fit for purpose in the FFLAS world.	No – we don't agree the level of granularity proposed by the Commission is necessary.
Shared with other parties	Shared with entity #	Data not available at source – costs in the FAR reflect Chorus' proportion of shared value, not the total value. We do not have visibility of other parties' assets in our FAR.	No – we don't collect this information.
Shared with other services	Shared with power lines, copper, telco cables / assets	Data not available at source but analysed outside the FAR by applying a cost allocation methodology.	Yes – as part of cost allocation.
Special assets	Assets supporting unbundling assets relating to a POI	Data not available at source – we don't uniquely identify services supported by assets in the FAR and we cannot easily identify these from our network record systems. To get this information would require further analysis / allocation processes for which we would not be able to guarantee the accuracy of the information.	No – we do not have the data to do this.
Non-UFB initiative assets	Core fibre assets not employed in the provision of UFB FFLAS	Data not available at source but will be analysed outside the FAR for the purpose of calculating the loss asset.	Yes – this is required for the calculation of the loss asset. But is unlikely to be relevant going forward.

Appropriate quantities held of network spares to consider historical reliability

113 While we generally agree with the draft decision on network spares, the appropriate quantities held shouldn't be based on historical reliability. This isn't practical when historical performance is not a predictor or driver for how many spares we need to hold (compared to Part 4 industries where historical reliability makes sense). Technology moves quickly in the telecommunications sector, where new versions of equipment (e.g. layer 2 assets) don't perform the same as their predecessor.

114 What matters in practice are restoration times and failure rates (typically determined by equipment manufacturers), as these are more reflective of how the number of spares held are determined. We suggest the Commission removes the reference to historical reliability and instead refers to good telecommunications industry practice.

Adjustments to the RAB following deregulation

115 We agree with the draft decision, following a deregulation review[34] and a decision to deregulate by the Minister, the asset valuation IM should provide for the removal of the deregulated assets from the RAB (including a portion of the financial loss asset).

116 However, there should be no optimisation of assets for emerging competition, providing Chorus with some flexibility (e.g. rebalancing prices towards those where recovery is more certain, subject to constraints) to maximise its opportunity to recover its maximum allowable revenue (**MAR**).

117 It's important the Commission's other decisions don't erode this commitment against optimisation and impose 'optimisation by stealth'. This would be a concern if restrictive pricing rules were to be introduced in the future that sought to segment our cost base into different product families, which limited our flexibility to allocate costs.

118 Our other concerns are:

118.1 If the Commission is proposing removal of a portion of the financial loss asset in the event of deregulation, then the higher systematic risk should be reflected in the asset beta; and

118.2 The methodology for allocating losses across different assets needs to ensure they are not overly allocated to assets that are susceptible to competition (e.g. layer 2 assets, and low-cost geographies) as this could result in an unreasonable proportion of the loss asset being withdrawn from the RAB if deregulation occurs. In other words, the financial losses associated with the lowest cost geographies are likely to be smaller per customer, meaning that if a low cost area is deregulated, then less than a proportional fraction of the financial loss should be removed.

[34] Telecommunications Act 2001, section 210.

TOPIC 1B: VALUATION OF ASSETS INPUT METHODOLOGY – FINANCIAL LOSS ASSET

Key features

- Establishing the appropriate financial loss asset is essential to ensuring the overarching aim of FCM is achieved. The regime's intent is to provide an opportunity for a return, not a guarantee. We note, importantly, that the ability to carry forward losses does not in itself compensate for the risk undertaken by investors.
- We generally agree with the approach described in the Reasons Paper for calculating the financial loss asset, including:
  - A BBM calculation, which includes the relevant regulatory RROI, will be used to determine the accumulated unrecovered returns for each regulated supplier up until the implementation date;
  - UFB revenues will be subtracted from associated UFB costs for each year or part-year of the loss period to determine the shortfalls in revenues;
  - The present value of the shortfalls at implementation date will then be calculated by applying the regulatory RROI as the discount rate;
  - Regulated suppliers to determine business rules for calculating the UFB revenue with an explanation in the PQ proposal;
  - In calculating the financial loss under the BBM we support including:
    - UFB opex and the cost of assets acquired before 1 December 2011, if they generated UFB revenues after 1 December 2011;
    - A portion of shared costs (opex and assets) attributed to UFB determined by the cost allocation IM; and
    - The proposed cash-flow timing factors will apply to each item in the calculation.

RROI for financial losses

- **Single regulatory period** – The approach for estimating the RROI in the pre-implementation period significantly undervalues the risks taken by investors and compromises FFLAS regulated suppliers' ability to receive an appropriate return during this period. The pre-implementation period should be considered as one regulatory period and treated accordingly.
- **Risk-free rate** – The term should match the fibre pricing period of May 2011 to December 2019.

- **Asset beta** – A higher asset beta is appropriate for the pre-implementation period. Sapere proposes 0.65.
- **TAMRP** – The pre-implementation period should be considered as one regulatory period, then the TAMRP should remain at 7.0%.
- **Debt premium** – A BBB credit rating is consistent with the approach to Crown financing.
- **Percentile uplift** – 75th percentile for the pre-implementation period.

Crown financing

- We support the Commission applying the building block approach as it has recommended. It's transparent and straightforward to apply.
- A credit rating of BBB to calculate the avoided cost of debt is appropriate for the Crown financing adjustment but raises consistency issues to be resolved in the estimation of the regulated return on investment.

RROI in the pre-implementation period

120 We support:

120.1 The Commission calculating the financial loss asset using the BBM approach; and

120.2 Matching the discount rate used to calculate the present value of financial losses at the implementation date to the RROI used to calculate the required return on capital under the BBM calculation.

121 However, we disagree with the draft decision to determine the regulatory RROI at the beginning of each year of the pre-implementation period.

122 We therefore disagree with the draft decision to set the regulatory RROI in the pre-implementation period based on:

122.1 A risk-free rate that varies each year, with the term of the risk-free rate based on the number of years remaining until the implementation date;

122.2 The debt risk premium prevailing at the beginning of the year in which the median loss is incurred, with the term equal to the remaining years until the implementation date;

122.3 A notional credit rating of BBB+;

122.4 A TAMRP that is 7.0% for the period until the IMs are determined in 2020, and only then increased to 7.5% for the remainder of the pre-implementation period; and

122.5 Other parameters of the RROI, namely asset beta and leverage, are fixed across the pre-implementation period and do not differ between the pre-implementation periods and post-implementation periods.

123 It remains our view that the pre-implementation period is economically equivalent to a regulatory period and as such the RROI should be determined based on investor expectations in May 2011 when the services, prices, and quality parameters were set.

124 The Commission should treat the pre-implementation period as a single regulatory period – May 2011 to 31 December 2021. This approach was explained in our EV Paper submission and is supported by both Houston Kemp[35] and Sapere.[36] In addition, it's consistent with the legislative purpose statement and the principle of FCM. The accumulated losses in the pre-implementation period reflect the difference between the return investors would have expected between May 2011 and December 2021 and the actual return. In contrast, the Commission's approach doesn't maintain the FCM principle over the pre-implementation period and is therefore not consistent with the purpose statement.

125 As Sapere's report notes, the obligations in the contracts between Crown Infrastructure Partners (**CIP**) and the FFLAS providers included price caps, risk sharing arrangements, and quality service obligations. These obligations were set initially until 31 December 2019 and then extended by legislation to 31 December 2021.[37]

126 The Commission's observation that "*price caps were not set with reference to the expected costs of the regulated providers*"[38] is at odds with the reality that an investor signing a contract with a price specified for a long period decides whether or not to enter the contract on the basis of their expectation of the costs that they would face over the period of the contract.

127 If the Commission doesn't agree that the pre-implementation period is akin to a regulatory period, then the appropriate alternative is to treat the 2011-2022 period as a commercial environment, which is consistent with the Commission's recent retail fuel market study.[39]

---

[35] Houston Kemp (12 July 2019), *Risk free rate, debt premium and TAMRP*, p 10.

[36] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [43].

[37] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [32].

[38] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [5.89.1].

[39] Commerce Commission (5 December 2019), *Market study into the retail fuel sector, Final Report*, at [B13].

Applicability of NBN Co decision

128 We disagree with the inference taken by the Commission[40] regarding the ACCC decision to adopt a cost of capital for NBN Co based on the ten-year risk-free rate determined for each year plus a margin of 350bps, because:

128.1 The ACCC decision set the rate of return *prior* to the start of the regulatory period, a point which was considered fundamental. Investors knew upfront what the 'rules of the game' would be;

128.2 The problem being addressed by the ACCC was not in relation to the expectation of losses as implied by the Commission, but instead due to the lack of suitable benchmarks to set the cost of capital parameters; and

128.3 The decision to reset the prevailing risk-free rate each year was proposed by the provider and noted as a practical solution in unique circumstances. It was specifically noted that this "*should not be taken as reflective of an approach the ACCC would adopt where appropriate benchmarks and/or observable risk premium were available*".

Term of the risk-free rate

129 Consistent with the discussion above, we disagree with the draft decision to reset the risk-free rate each year, setting the term as the number of years until the implementation date. This proposal is inconsistent with the Commission's established approach, which is applied in the post-implementation period. It is also inconsistent with the Commission's stated rationale to setting the risk-free rate.

130 The risk-free rate should be based on the prevailing rate prior to the UFB tenders in May 2011. Setting the risk-free rate based on a 1 May 2011 estimation date is consistent with the Commission's proposal for determining the cost of capital in the post-implementation period. As Sapere notes, this approach also aligns with the Commission's typical approach of assuming that expectations around the cost of capital are reset at the start of each regulatory period and therefore that the market forms expectations for the duration of the regulatory period.

131 In contrast, the approach recommended by Dr Lally fails to account for the rationale that underpins the financial loss asset. Dr Lally suggests that the exercise is simply to identify the appropriate rate at which to compound forward the losses. In fact, as Sapere explains, the exercise is to determine the value of the losses in the pre-implementation period, which should in turn reflect the expectations faced by investors at the point the investment decision was made in 2011. Consistent with the Commission's orthodox approach, that entails utilising the risk-free rate at the outset of the relevant period.

[40] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [5.92].

Debt premium

132 We disagree with the simplified approach proposed by Dr Lally to determining the debt premium for the RROI in the pre-implementation period. The Commission should apply the same approach to calculating the debt premium in the pre-implementation period as it does in the post-implementation period.

133 As outlined by Sapere, the proposed approach:[41]

133.1 Appears to be focused on the opportunity cost of funds, rather than the estimate of the annual recovered returns on investment;

133.2 Is circular, in that the RROI is required to determine the year in which the median loss occurs which is intended to be an input to estimating the RROI. This circularity arises given the Commission's choice of the relevant benchmark for the debt premium, which is dependent on the calculation of financial losses, which in turn is dependent on the choice of the relevant RROI, including the debt premium;

133.3 Is an unnecessary approximation, as it is possible to calculate the actual debt risk premium with relatively low effort. Sapere notes that to align with its finding that the pre-implementation period is equivalent to a regulatory period, it is appropriate that the debt is benchmarked to the five-year historical average of NZ issued BBB rated bonds; and

133.4 Is based on drawing a link between two unrelated values: the annual loss and the debt premium.

TAMRP

134 If the Commission doesn't accept our argument that the pre-implementation period should be treated as a regulatory period, then correspondingly, the TAMRP should be adjusted to reflect this. While we support the adjustment proposed, without any exceptional economic events since 2015 it is unlikely that the TAMRP sharply moved from 7.0% to 7.5% immediately prior to the re-estimation in 2019.

135 To reflect this, and as with the Commission's approach to the timing of cash flows, it would be appropriate to adopt an estimate of 7.25% for the TAMRP from 2017 to 2019, and 7.5% thereafter.

Asset beta

136 On the basis of Sapere's report, we propose the Commission adopts a larger comparator sample to derive the asset beta. This avoids the subjectivity inherent in a refined comparator sample. And we propose it consider other estimates of a FFLAS-

[41] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [65].

only beta. We expand on and discuss this approach in detail in Topic 3: Cost of Capital and Risk Input Methodology.

137 As explained in our EV Paper submission,[42] and in Oxera's accompanying advice,[43] the asset beta for the pre-implementation period should be higher than for the post-implementation period to reflect the greater systematic risks in the pre-implementation period. The greater systematic risk, and therefore a higher asset beta in the pre-implementation period, arises due to the higher operating leverage, higher demand risk and the longer-term cash flows in the construction and early growth phase of the investment in FFLAS.

138 Sapere supports this analysis and recommends an asset beta of 0.65 for the pre-implementation period, given the estimate of asset beta of 0.6 that would apply for the post-implementation period.[44]

139 We note the Commission's own expert, CEPA, acknowledges the impact of operating leverage on asset beta "*in the roll-out phase and while demand (and therefore connections) is growing*".[45] Although CEPA declines to comment on submitter views in relation to the appropriate asset beta for pre-implementation of the new regulatory framework,[46] we assume it would not disagree with our submission that the asset beta in the pre-implementation period (i.e. construction phase of the UFB initiative) should be deemed to be higher than in the post-implementation period (i.e. post-construction phase of the UFB initiative).

140 The draft decision to apply the same asset beta in both periods appears to be based on a view that it is simply too difficult to quantify an adjustment. However, as outlined in Sapere's report, there are a number of asset beta estimates, including those provided by Crown Fibre Holdings (**CFH**), NBN Co, and Openreach that provide guidance and a basis on which to make that judgement.

141 As Sapere cites:

141.1 In March 2011, CFH estimated a cost of capital for FFLAS suppliers using an asset beta between 0.50 and 0.65.[47] CFH also cites asset beta estimates of

---

[42] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [41] - [43].

[43] Oxera (15 July 2019), *Compensating for systematic risks*, section 2D.

[44] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [8].

[45] CEPA (17 October 2019), *Cost of capital for regulated fibre telecommunication services in New Zealand: Asset beta, leverage, and credit rating – Response to submissions*, p 25.

[46] CEPA (17 October 2019), *Cost of capital for regulated fibre telecommunication services in New Zealand: Asset beta, leverage, and credit rating – Response to submissions*, footnote 64, p 29

[47] Finance and Expenditure Select Committee (2011), p 4.

0.50 to 0.65 for NBN Co (Australia) in 2010, and 0.52 to 0.65 for Openreach (UK) in 2009; and

141.2 Oxera estimated and asset beta of 0.95 in 2011, by assuming a linear extrapolation of asset betas at different points in time.

142 After considering these estimates, and in recognising the higher systematic risk in the pre-implementation period relative to the post-implementation period, Sapere concludes an asset beta of 0.65 should be adopted for the pre-implementation period.

143 We note Dr Lally's suggestion that in the absence of a suitable comparator sample "*the choice must be between a beta estimate of zero and that for the regulation situation.*" Sapere disagrees and notes that if no estimate were available, an (equity) beta of one is a more intuitive assumption (than zero), which means adopting the average market risk.

Leverage

144 Based on Sapere's report, we propose the Commission adopt a notional leverage of 40% for the pre-implementation period.

145 The Commission considers that the arguments presented for a higher leverage during the construction period are offset by arguments for a lower leverage due to the compensation for losses. However, as Sapere notes, it is not apparent why an arrangement under which there is postponement of recovery of revenue would necessarily result in a lower leverage during the initial construction period.

Credit rating

146 As Sapere notes, the appropriate credit rating for calculation of the debt premium is BBB.[48] In arriving at their conclusion, Sapere consider that the best way to determine an appropriate level of default risk is to consider the approach adopted by comparable firms, including the actual credit rating of Chorus.

Uplift

147 We disagree with the draft decision not to apply an uplift to its mid-point estimate of the RROI in the pre-implementation period. The mid-point estimate does not reflect the reasonable expectations investors would have held in May 2011 of a normal return over time. Sapere's report suggests the Commission should apply an uplift of the 75th percentile for the pre-implementation period.

148 Sapere explains:[49]

148.1 The appropriate perspective is the investor expectations in May 2011;

---

[48] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [58].

[49] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [32] - [39] and [92] - [94].

148.2 In May 2011, investors would have had a clear expectation that prices were fixed for the period until 2020. This period is therefore the economic equivalent of a single regulatory period;

148.3 An uplift is consistent with the government's economic policy at the time. The UFB initiative was expressly intended to accelerate investment and the 2011 GPS focused on mitigating concern about the potential costs to consumers of under-investment and lack of innovation. At the time, the government's concern was to assure investors they would achieve a normal return given the risk to which they were exposed in 2011, in rolling out a new technology; and

148.4 An uplift is consistent with the Commission's regulatory practice at the time, where the Commission applied the 75th percentile to energy and airport companies, and therefore investors would reasonably have formed the expectation that this would also apply to FFLAS.

149 Alternatively, if the Commission can't accept the pre-implementation period as a regulatory period, then it should be viewed as a commercial environment. In a commercial environment, investors would have had to accept from late 2014 the Commission's decision amending the cost of capital percentile for Part 4. This means the approach would be to apply the 75th percentile from 2011 to 2014, and then the 67th percentile from the date of the Commission's amendment decision.

Crown financing

150 The Commission and Dr Lally have accepted in principle Incenta's advice, as put forward in our EV Paper submission, including that:[50]

150.1 The concessionary Crown financing to Chorus effectively allows it to avoid interest on a portion of its debt rather than to shift a portion of its full project risk to the Crown; and

150.2 Consequently, the EV Paper Method 1 understates the value of the loss asset for Chorus.

151 As Incenta's report explained, as Crown financing only permitted Chorus to avoid a portion of debt financing – but not to transfer a portion of its full project risk – then Chorus will bear a residual risk in relation to investments funded with the Crown financing. Achieving real FCM requires recognition of this residual risk.

152 Given the importance of the Commission's findings on the nature of Crown financing, this should be reflected in the drafting of the IM Rules, including the determined methodology to provide certainty for regulated suppliers. Proposed drafting to this effect is included in our response to the IM Rules and in Sapere's expert report.

153 The Commission has also discussed three different approaches for incorporating Crown financing into the calculation of losses, namely:

[50] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [65] - [68].

153.1 The *building block approach*, whereby the avoided interest payments associated with Crown financing (net of tax effects) is deducted from the annual UFB cost, flowing through to the annual loss calculation;

153.2 The *adjusted WACC method* whereby the cost of capital would be adjusted downwards to reflect the effect of the concessionary finance; and

153.3 The *standalone avoided financing cost method*, whereby the annual benefit from Crown financing is kept separate and offset from the loss calculated without considering the Crown financing, and where the Crown financing benefit is carried forward at the avoided cost interest rate.

154 We are comfortable with applying the *building block approach* as the Commission has recommended, noting this is essentially the same as Incenta had assumed,[51] and is transparent and straightforward to apply. Although we note the Commission's adviser concluded that the *standalone avoided financing cost method* is theoretically more correct and would result in a higher estimate of the loss asset for Chorus.

155 We also agree with the Commission that the *adjusted WACC method* shouldn't be applied as it would add unnecessary complexity to the calculation (which would include using a cost of capital that varies over time with the size of the concessionary Crown financing as a proportion of Chorus' RAB).

156 Incenta's report also dealt with a series of further technical implementation issues that may be material to the benefit that is ascribed to Crown financing that were not addressed either by Dr Lally or the Commission in its Reasons Paper.[52] The key propositions that are important for the calculations are:[53]

156.1 **Term assumed for the *avoided debt*** – When deriving the avoided cost interest rate, the Commission should assume that Chorus would have financed in the same manner that the Commission assumes in the cost of capital calculation, including that Chorus would have used interest rate swaps to

---

[51] The equation that Incenta discussed was a rearrangement of the Commission's equation that expressed the 'return on assets' line item as the sum of (i) a normal return on the Chorus-funded UFB assets, and (ii) a return commensurate with the residual risk on the investments funded via the Crown financing (where 'residual risk' refers to the difference between the return that investors would require on the project overall absent Crown financing (i.e. cost of capital) and the value of the risk that was transferred to the Crown).

[52] The Commission has provided a workbook alongside its draft decision detailing the Commission's treatment of Crown financing. However, given key inputs like the avoided cost of debt are hardcoded into the workbook, it is not transparent or clear as to what the Commission's proposed approach for deriving this variable is, or indeed whether the Commission has considered this matter in depth.

[53] In the EV Paper, the Commission's preferred method assumed that Chorus would avoid the full project risk associated with the investments that were funded with Crown financing, and the Commission proposed applying the regulatory cost of capital to calculate the avoided financing cost. Implicit in that proposal, therefore, was that the avoided financing cost would be calculated using assumptions that are consistent (e.g. with respect to the timing of interest rate observations) with the regulatory cost of capital. Whilst we disagreed (and the Commission has accepted) that the full project risk has not been transferred (and so a cost of capital rate is not appropriate), we agree with the Commission's implicit assumption for using consistent assumptions between the regulatory cost of capital and the avoided cost interest rate.

modify the duration of debt instruments (i.e. to align the term of the risk-free element with the term of the regulatory period).

156.2 **Date(s) at which interest rates are observed** – The key outcome of the calculations is to produce a fair estimate of the residual risk that Chorus bears in relation to the investments that have been funded via the Crown financing. For this outcome to be achieved, it will be necessary for consistent assumptions to be applied between the calculation of the regulatory cost of capital (which is intended to reflect the return investors would require absent the Crown financing) and the avoided cost interest rate (which should reflect the extent of the cost of capital risk that investors do not bear because it has been transferred to the Crown). If the base interest rates applied between the calculation of the cost of capital and the avoided cost interest rate are observed at different times, then the volatility in interest rates over the pre-implementation period could easily imply that the Crown bore all of the project risk or virtually none, either of which would be inconsistent with the nature of the Crown financing.

157 In addition, while we support the Commission's proposed approach for calculating the avoided interest payments relating to the Crown financing, there is an inconsistency in the relevant credit rating that is assumed in the cost of debt applied to the portion of RAB that is funded by the Crown, as opposed to the cost of debt applied to the portion of RAB funded by Chorus.

158 This decision seems to be arbitrary, as the Commission assumes that the use of Chorus' actual credit rating is required by the Act for calculation of the notional cost of debt relating to Crown-funded RAB but not for calculation of the notional cost of debt relating to Chorus-funded RAB.

159 We refer to Appendix B – Crown Financing Workbook for a technical response to the Commission's calculations.

Setting of the initial tax asset values

Key features

- We agree with the draft decisions, including:
  - To determine the initial tax asset value at implementation date by rolling forward the value of the asset as at 1 December 2011, and to ignore the effect that transactions after that date may have on the tax asset value;
  - To cap that initial tax asset value at the RAB value as at 1 December 2011;
  - To require the same level of audit and assurance in setting the initial tax asset value as is required in setting the RAB;
  - When calculating the value of initial financial losses, to apply the tax methodology outlined in the tax IM from 1 December 2011; and

- To assume that any tax losses that are modelled for regulated services – including when calculating the financial loss asset – are carried-forward until there is sufficient taxable income generated by the regulated activity, thus ignoring the tax position of any wider group.

160 We are pleased the Commission has accepted Incenta's submission on the appropriateness of determining the initial tax asset value as at 1 December 2011, given that the BBM approach is being applied back to the beginning of the UFB initiative to calculate financial losses.

161 The Commission indicates the initial tax asset value should be established and rolled forward in accordance with the Income Tax Act and other IRD rules,[54] meaning the starting point would be to depreciate costs according to tax depreciation rates. Under those rules, there are certain circumstances in which the initial tax asset value could be reset. One such circumstance is the tax depreciation clawback for certain transactions, where assets rather than shares in a business are traded, and the seller may also have a tax liability. We are also pleased the Commission has accepted Incenta's submission that the taxation asset value shouldn't be reset as a consequence of a transaction, but rather than the previous tax asset value should be carried forward as if the transaction did not occur.

Cost allocation rules applicable to the calculation of the financial loss asset in the initial RAB

Key features

☐ We agree with the draft decision, including:[55]

- A principled approach that applies direct attribution and allocates shared costs using ABAA;
- All costs employed for the UFB initiative that are directly attributable to UFB must be allocated to the financial loss asset;
- Shared costs are to be allocated using measures and statistics that are reviewed and updated for each disclosure year (or part disclosure year) of the loss period; and
- Consistency with the allocations used for determining the initial RAB.

[54] We do have some concerns with adjustments the Commission has proposed when deriving aspects of the tax calculation (notably the notional deductible interest) in relation to the financial loss asset that were not discussed in the Reasons Paper, and which are addressed in our response to the IM Rules.

[55] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [74] - [90].

Recommendations

- We seek clarity on the process the Commission intends to carry out on allocating costs to the financial loss asset, including:
  - The criteria to be applied on selecting the appropriate allocator from the default list; and
  - How the Commission will provide assurance it has applied cost allocation correctly.
- Additional default allocators to better reflect the UFB network.

Allocating shared costs

Process for allocating costs

162 The Reasons Paper and draft IM Rules are unclear on the process for allocating costs to the financial loss asset. We would like further detail in the final IMs to provide certainty on:

162.1 The process the Commission intends to carry out;

162.2 The Commission agreeing to comply with the same rules that would apply to Chorus, using a causal relationship and, where this cannot be established, a proxy that is the most reasonable in the circumstances; and

162.3 Given the Commission is less familiar with Chorus' data, how it will provide assurance that it has applied cost allocation correctly.

163 The Commission's reasoning suggests it will conduct cost allocation itself (as opposed to Chorus) by selecting one of the default allocators proposed.[56] However, given the knowledge and understanding Chorus has on cost drivers and associated data, we propose a supplier-led approach, which the Commission subsequently reviews.

164 Getting the allocators right is important given allocators selected for the pre-implementation period need to be consistent with the forward-looking cost allocation approach (in particular for capex). The Commission in theory favours the use of causal allocators post-implementation. However, it seems to prefer proxy allocators pre-implementation. The Commission choosing allocators for the pre-implementation period will effectively 'lock us in' to the allocator it selects, despite the Commission's decision to favour a supplier-led approach to cost allocation to the post-implementation period, consistent with the Part 4 approach.

165 A further issue with the Commission's approach is the workability in the application of ABAA. This requires us to determine a causal allocator and, if one is not available,

[56] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.500].

explain our reasoning for adopting a proxy. However, if the Commission chooses the allocator, then it would also need to provide a reasoned decision.

Default allocators

166 If proxy allocators are to be used, then we agree some prescription of default allocators is useful for simplifying and providing confidence in the cost allocation approach to calculate the financial loss. We support the following allocators:

166.1 Number of connected customers, end-users or premises;

166.2 Number of ports;

166.3 Revenue;

166.4 Capital office space; and

166.5 Peak traffic.

167 We set out below our recommended amendments to the default allocators proposed by the Commission, which better reflect the UFB network. This also recognises the implications of the requirement for consistency with the forward-looking cost allocation approach:

167.1 **Average traffic** – Remove, as it's not a cost driver. Peak traffic is more appropriate and used for dimensioning traffic;

167.2 **Used length of linear assets** – Similar to 'central office space' but applicable for linear assets such as ducts;

167.3 **Power usage** – Add to list to allocate power and air conditioning property;

167.4 **Number of events** – Add to list to be used to allocate various opex categories using cost of staff and systems responsible for handling relevant events (e.g. faults can be used to allocate labour costs spent on faults). Others include orders, cancellations, incidents and marketing campaigns. This could also be weighted by cost as copper and fibre tend to have different cost structures; and

167.5 **Equally proportionate mark-up (EPMU)** – Add to list as it allows for the mark-up of overhead or common costs over other relevant costs by pro-rating costs based on costs allocated in other relevant cost categories.

TOPIC 2: ALLOCATION OF COMMON COSTS INPUT METHODOLOGY[57]

Key features

- We generally agree with the draft decisions on the cost allocation IM, including:[58]
  - All costs directly attributable to regulated FFLAS must be allocated to regulated FFLAS;
  - All costs not directly attributable to regulated FFLAS or to other services must be allocated using the accounting-based allocation approach (**ABAA**);
  - Regulated suppliers choose and justify causal cost allocators, and suitable proxy cost allocators with an explanation and rationale to support them, if causal allocators are not available;
  - The Commission's definition of causal allocators for both opex and asset values;
  - Regulated suppliers must apply the cost allocation IM to determine the opex in the categories that will be required under ID;
  - The Commission will review allocators and the reasoning for using the allocators provided by regulated suppliers;
  - Not to have a cost allocation IM specific to double recovery during the past loss period; and
  - Regulated suppliers must not double recover the costs shared across services regulated under both Part 4 and Part 6.

Recommendations

- We recommend changes to the draft decisions to improve the workability of the cost allocation framework.

[57] The Commission uses the term '*shared costs*' and '*common costs*' interchangeably to refer to costs that are common to two or more types of services, but not directly attributable to an individual service. As per the Commission's EDB Input Methodologies Reasons Paper (December 2010), it would be more appropriate to refer to '*shared costs*' – defined in the allocation steps as costs that are not directly attributable to the regulated service or unregulated services. This terminology is desirable as it avoids any confusion with the different concept of '*common costs*' in economics (where the Commission referred to in that 2010 Reasons Paper as '*economic common costs*'), where '*common costs*' are all costs that are not incremental costs.

[58] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [100] - [106].

- Inclusion of the optional variable accounting-based allocation approach (**OVABAA**).
- Review of allocators relative to a set of benchmark allocators is not required.
- No IM Rules for regulated suppliers to separately identify costs based on characteristics such as products or level of network functionality.

OVABAA

168 We don't agree with the draft decision to exclude OVABAA from the cost allocation IM.[59] The Commission makes several arguments for rejecting OVABAA,[60] but doesn't consider the contribution it can make or the economics of cost allocation in general.

169 Under economic principles in a WCM, the allocation of costs to any service or group of services over the long term:

169.1 Has the lower bound of incremental or avoidable cost, and in competitive markets the provision of the service would cease if revenue was insufficient to recover incremental or avoidable cost;

169.2 Has the upper bound of stand-alone cost, as new entry (including bypass of the service) would be encouraged if this was not the case; and

169.3 The amount of cost that is allocated to any service reflects the amount that can be recovered from that service, which in turn reflects the conditions in the market.

170 What's important, is that in a competitive market firms will make decisions as to whether or not to enter a market based on the incremental cost of that entry. It's accepted in regulatory economics literature that requiring a regulated business to recover an accounting allocation of cost from unregulated activities can create an artificial barrier to its participation in those activities. For example, Sappington (2000) comments:[61]

> *For instance, the regulated firm will tend to supply too little of its unregulated services when expanded sales of unregulated services reduce the fraction of common costs allocated to regulated activities, and thereby reduce authorized revenues from regulated services. In essence, the cost allocation procedure acts like a tax on unregulated activities, and so restricts their supply...*

---

[59] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [104] - [106].

[60] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.400] - [3.401], [3.404] - [3.408].

[61] Sappington (2002), *Price regulation and incentives, In: Cave, Majumdar and Vogelsang (Eds), Handbook of Telecommunications Economics, vol. I*. North-Holland, Amsterdam.

171 The Commission's assumption that all unregulated services would be expected to make some contribution to common costs is not unreasonable. However, there is no basis for assuming that every service would be capable of generating a surplus over incremental cost consistent with an accounting-based allocation of shared costs. The accounting-based allocators the Commission requires will be based upon a measure of the physical use of the assets rather than the conditions in the relevant market. There will be occasions when the provision of an unregulated service is able to generate a surplus over incremental cost, but not a surplus that covers the accounting-based allocation.

172 In these circumstances, a fine tuning of the allocation would be required to make provision of the unregulated service financially viable and provide an incentive for provision – this is the purpose of OVABAA.

173 The Commission's main concern is that OVABAA will lead to FFLAS being over-allocated shared costs, which would place FFLAS users at a competitive disadvantage to alternative technologies in downstream retail markets. However, OVABAA actually deals with circumstances where an unregulated activity could make some contribution to incremental cost and reduce the cost of FFLAS, but where the service could not generate the full ABAA allocation. Here, the activity would be made unprofitable and would not be provided, however, provision using OVABAA would instead lead to reduced FFLAS prices.

174 When considering Chorus' entry into related unregulated markets, there may be circumstances where Chorus could generate revenue in excess of incremental cost, but not enough to cover the full ABAA. OVABAA would have two effects:

174.1 Making Chorus' entry into that unregulated market profitable would reduce FFLAS prices as a contribution is made to common costs; and

174.2 By removing regulatory barriers to entry, will enhance competition in the related market.[62]

175 In addition, the Commission's reference to Chorus' past investment in unregulated innovative services is not relevant to the exclusion of OVABAA because these investments have not been made under the new regime. It also cannot be assumed that those investments would have been made if returns were required to exceed an ABAA.

176 We agree that the use of OVABAA should be subject to appropriate controls such as justification to depart from the standard ABAA allocation and requirement for directors to certify this.

[62] Unregulated firms will enter a market where revenue is expected to exceed incremental cost, rather than exceeding an accounting-based allocation of costs.

Review of allocators

177 While the Commission should have a role in reviewing chosen allocators and the associated reasoning, we disagree with benchmarking our allocations.

178 Benchmarking is over and above what the Commission does for other regulated suppliers under Part 4 and seems at odds with a principled approach which allows regulated suppliers flexibility to decide allocators that best suit their circumstances and cost drivers. Instead, the Commission is going to benchmark our allocations based on a set of default allocators which may not have any links to Chorus' actual cost drivers because it doesn't know our business like we do.

179 In addition, this removes certainty from the regime that the IMs seek to achieve, by giving the Commission full discretion to reject our allocation approach without providing any reasoning or following any process / criteria for assessment. We seek further clarity on how this would work in practice due to the lack of regulatory predictability.

Allocation of costs between different types of regulated FFLAS

180 We agree there should be no prescriptive cost allocation IM Rules for allocating shared costs between different types of regulated FFLAS for RP1.

181 However, we disagree regulated suppliers should separately identify directly attributable costs and shared costs based on characteristics including products or level of network functionality. The primary purpose of cost allocation for PQR is to ring fence the regulated service from unregulated services.

182 As mentioned in our EV Paper submission,[63] allocating costs to different types of regulated FFLAS is not appropriate at this time as we have other constraints under the regime (including the anchor service and geographically consistent pricing), which are set irrespective of cost. These mechanisms don't make sense when costs are allocated by service.

183 As there is likely to be a significant cost to generating and reporting on this information, the Commission should have a clear purpose as the requirement will ultimately impose costs onto consumers.

Cost allocation rules applicable to avoiding double recovery

184 We agree with the draft decision:

184.1 Not to have a cost allocation IM specific to double recovery during the past loss period; and

[63] *See* Chorus (16 July 2019), *Fibre emerging views submission,* at [107] - [111].

184.2 Regulated suppliers must not double recover the costs shared across services regulated under both Part 4 and Part 6.

185 Analysys Mason[64] has reviewed TERA's report and agree with the Commission's conclusion. The significant extra cost and delay wouldn't be justifiable, and any additional delay would add uncertainty.

Cap on shared costs based on the unavoidable cost[65]

186 We understand the Commission's concern to ensure that costs that can be avoided as the demand for copper falls away are not able to be recovered through FFLAS. However, we disagree with the draft decision to impose a cap on the allocation of shared costs to UFB (or FFLAS) at an amount no higher than the unavoidable costs that would have been incurred if the regulated supplier were to cease supplying services that are not regulated FFLAS (i.e. the 'unavoidable amount'). This cap is unnecessary.

187 Under the Part 6 regime the application of a price or revenue cap provides the incentive to avoid inefficient costs. If there is a concern about the incentives we face, then the focus should be to remedy those incentives, rather than to apply outcome-based regulation measures such as these that add complexity and uncertainty without any corresponding benefit.

188 Reducing the cost base as demand for copper falls away can be achieved by reducing operating expenditure, disposing of assets, or seeking alternative (and additional) revenue sources for the use of our existing assets and activities (see discussion on OVABAA).

189 If the Commission is determined to include this mechanism, then:

189.1 The 'avoidable cost' should include only forward-looking expenditure that a prudent firm could avoid, i.e. to ensure that it's not a mechanism for TSLRIC-style optimisations; and

189.2 Be applied only in exceptional circumstances where a company had a record of inefficient or imprudent expenditure.

[64] Analysys Mason (24 January 2020), *Response to TERA paper on "over-recovery"*, p 5-9.

[65] Also applicable to Topic 1B: Asset Valuation Input Methodology – Financial Loss Asset.

TOPIC 3: COST OF CAPITAL AND RISK INPUT METHODOLOGY

Key features

- Cost of capital is one of the key inputs under the Part 6 regulatory framework. By approximating the return on capital that a hypothetical investor would require for an investment of equivalent risk, there is a clear link to real FCM. Without the right cost of capital, a regulated supplier will not have the opportunity to earn normal returns on an investment over the lifetime of the asset.

Recommendations

- We encourage the Commission to review its assessment in light of Sapere's analysis:
  - **Asset beta** – The Commission is proposing an asset beta of 0.49. However, using a large sample approach, Sapere has calculated an asset beta of 0.60.
  - **Debt premium** – Our view remains that a BBB credit rating is more consistent with the notional leverage derived from the comparator set and the higher systematic risk for FFLAS relative to the comparator set, rather than BBB+ as the Commission proposes.
  - **Leverage** – The Commission has adopted 31% as the level of leverage, based on CEPA's analysis that this level is consistent with Chorus' actual BBB rating. So, if the Commission continues with BBB+, the leverage should be 34%.
  - **Percentile uplift for risks of mis-estimation of the cost of capital** – Our view remains that an uplift is required to reduce the probability of the Commission underestimating the cost of capital.

Cost of equity

Service-wide

190 We support the Commission taking a service-wide approach when determining the cost of capital for FFLAS, including a service-wide asset beta.

191 As explained in our EV Paper submission,[66] Oxera's view is the demand risk exposure of Chorus and other LFCs is fairly similar. So, the same sector-wide asset beta would

[66] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [129] - [131].

adequately capture the total systematic risk exposure of both Chorus and other LFCs.[67]

Asset beta

192 Asset beta is a measure of the association between a company's returns and market returns and varies with a wide range of factors, including income elasticity of demand and operating leverage. However, as Sapere notes, there are no established analytical relationships that can be employed to determine the degree of influence of any of the factors.[68]

193 Selection of the appropriate companies to form a comparator sample therefore requires simultaneous judgements of comparability on these fundamental economic factors without knowledge of either the absolute or relative degree of impact of the factors. The choice of the comparable companies for asset beta is therefore among the most challenging of the tasks involved in the estimation of the cost of capital.[69]

194 As Sapere explains,[70] the degree of difficulty in developing a suitable comparator sample is well illustrated by the dissonance between the sample initially selected by CEPA and Oxera's preferred sample. This difficulty is particularly acute given the absence of pure-play FFLAS comparators. To address this, Sapere recommends taking a larger set of companies broadly related to the entity in focus, without detailed checking for comparability, and using this larger set to estimate the asset beta.[71] This approach averages out any lack of comparability for particular companies across the sample.

195 The Commission followed a similar approach in the 2010 and 2016 IM Reviews, where it noted that using a broad sample of (74) companies would avoid "*…the need to make subjective judgement calls regarding whether each of the 74 companies from the draft comparator sample should be included...*".[72]

196 Sapere obtains a range of 0.54 to 0.65 for developed country companies based on data for the period 2012 to 2019.

197 Sapere also provides two estimates of FFLAS-specific asset betas:

197.1 A fibre asset beta of 0.61 is implied based on an overall Chorus 'group' asset beta of 0.5 and the Commission's estimate for copper activities of 0.43; and

---

67 Oxera (15 July 2019) *Compensating for systematic risks*, section 3.

68 Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [115].

69 Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [115].

70 Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [118].

71 Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [121].

72 Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [121].

197.2 Using the current Ofcom beta estimates, a revenue-weighted asset beta for NZ FFLAS of 0.63 is estimated.

198 Sapere proposes an asset beta for FFLAS of 0.60. It notes that this is in accordance with the results of the large sample comparison and the decomposition of Chorus' asset beta. This value is also close to the mid-point of the range of estimates from Oxera (0.53) to the Ofcom based estimate (0.63).

Asset beta – reasonableness check

199 We ask the Commission to reconsider its draft decision that the simple average of CEPA's comparator sample appropriately reflects the systematic risk facing FFLAS. Even using the larger comparator set may underestimate the systematic risk associated with providing FFLAS. The Commission should apply a reasonableness check on the asset beta derived from the comparator set used and, if required, make an adjustment. This approach is consistent with Sapere's discussion of the broader evidence for an asset beta of 0.60.

200 In addition, this seems at odds with the Commission making an adjustment for gas pipeline businesses in 2016 when estimating the asset beta to reflect relatively higher risk compared with the comparator sample.[73]

201 We have reviewed the analyst assessments of Chorus' asset beta provided in Table 3.7 of the Reasons Paper and noted some errors and omissions. We provide a comprehensive table of February and March 2019 asset betas from analysts below:

Analyst	Asset beta (Feb/Mar 2019)
UBS	0.5*
Credit Suisse (Jarden)	0.5**
Woodward	0.5
Deutsche Bank	0.54
Macquarie	0.64
New Street Research	0.7
Forsyth Barr	0.6***

* *While UBS applies their estimate of 0.5 to fibre, we consider that the method and description of the asset beta show that it is for all of Chorus rather than a fibre specific value.*
** *Commission has double counted the asset beta.*
*** *This is the only assessment of Chorus FFLAS-only, rather than Chorus overall.*

202 The average of these figures is 0.57 and, with the exception of Forsyth Barr, all are asset beta estimates for Chorus' overall business (consisting of both lower risk copper access and higher risk fibre access services), rather than Chorus' FFLAS. It's therefore reasonable to assume that Chorus' FFLAS would have a higher asset beta assessment

[73] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1392] – [3.1393].

across the board, in accordance with the asset beta estimate presented by Forsyth Barr (0.6).

TAMRP

203 We agree with the draft decision to increase the estimate of the TAMRP from 7.0% to 7.5%, as discussed in Topic 1B: Valuation of Assets Input Methodology – Financial Loss Asset.

Risk-free rate

204 We support the draft decision to set the risk-free rate in a similar way to Part 4, which includes:

204.1 Using the return on NZ government bonds as a proxy;

204.2 Using prevailing rates;

204.3 Using a three-month determination window; and

204.4 Matching the term of the risk-free rate to the regulatory period (resulting in a three-year risk-free rate initially, followed by a three- to five-year risk-free rate, dependent on the length of future regulatory periods).

205 As explained in our EV Paper submission[74] and in Houston Kemp's paper,[75] the Commission's approach to estimating the risk-free rate is well established and we are not aware of any relevant framework differences, or new information, which mean the Commission's Part 4 approach can't be appropriately applied in the post-implementation period for FFLAS under Part 6.

Credit rating

206 We disagree with the Commission's decision that an appropriate credit rating is BBB+. As explained in our EV Paper submission,[76] Oxera's report[77] and Sapere's report,[78] an appropriate credit rating for FFLAS is BBB.

207 The Commission has chosen a credit rating benchmark on the sole basis of investment grade ratings. This undermines the process of using the comparator sample for

---

[74] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [147] - [148].

[75] Houston Kemp (12 July 2019), *Risk-free rate, debt premium and TAMRP*, p 3-5.

[76] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [149] - [157].

[77] Oxera, (15 July 2019), *Compensating for systematic risks*, section 4B.

[78] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [98] - [102].

estimating the related parameters of asset beta and leverage. It results in an inconsistency between the debt premium and leverage – the Commission has used BBB+ for estimating the debt premium, yet the Commission's proposed leverage is consistent with a credit rating of BBB.

208 As Sapere notes, expert advisers to the European Commission (The Brattle Group, 2016) and Ofgem (PricewaterhouseCoopers, 2009), have recommended estimating the target credit rating from the target leverage, or vice versa. This ensures the estimated cost of debt is consistent with the asset beta and leverage assumptions.[79]

209 This interrelationship between the parameters is also supported by CEPA.[80]

210 Sapere explains a BBB+ credit rating is inconsistent with the Commission's approach to calculating Crown financing, which is based on Chorus' actual credit rating of BBB. The Commission's approach means the cost of debt applied to the Crown financed portion of the RAB is higher than the cost of debt applied to the Chorus-funded portion of the RAB.[81] The appropriate course of action is for consistent assumptions to be applied across these two debt cost estimates, and that a BBB rating is appropriate for the reasons provided above.

Debt premium

211 We support the draft decision to estimate the debt premium at each determination of the cost of capital by using an historical average approach and a TCSD, including:

211.1 Using a historical average approach (not prevailing rate) to estimate the debt premium;

211.2 Using a five-year debt premium with a TCSD;

211.3 Using a hierarchy of bonds; and

211.4 Having regard to the Nelson-Siegel-Svensson (**NSS**) curve.

212 However, as explained above, we disagree with the draft decision that an appropriate credit rating is BBB+. The Commission should estimate the debt risk premium with a BBB rating. We expect the Commission's approach will result in under-compensation,

---

[79] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [100(b)].

[80] "*To achieve a given credit rating, service providers with a lower asset beta would therefore be able to support a higher level of leverage relative to those with a high asset beta, other factors held constant. This implies that if we consider the average asset beta and average leverage of the comparator sample to be appropriate for the fibre providers, the average long-term credit rating of the sample would be consistent with this".* CEPA (20 May 2019), *Cost of capital for regulated fibre telecommunications services in New Zealand: Asset beta, leverage and credit rating*, p 45.

[81] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [101].

within the range of 0.15 to 0.25bps, of the relevant debt premium associated with Chorus' debt financing.

213 We also disagree with the proposed hierarchical approach in the Reasons Paper to bond selection to estimate the debt premium. The proposed approach would result in little, if any, weight to the actual debt premium incurred by the only FFLAS supplier subject to PQR. As explained in our EV Paper submission,[82] the hierarchical structure the Commission adopts should place the most emphasis on bonds regulated suppliers of FFLAS issue, followed by bonds other infrastructure service providers or New Zealand corporates issue.

214 Sapere refers to the Commission's use of the NSS curve.[83] We agree with Sapere that it is unclear how the Commission has used the NSS curve in its analysis. We would appreciate some clarity on this.

Debt issuance costs

215 We ask the Commission to reconsider the proposed allowances for debt issuance costs. The Commission hasn't considered the additional costs for foreign bond issuance costs. It's reasonable to include foreign bond issuance costs because the New Zealand market is unlikely to have sufficient depth for the size of bond issues Chorus needs.

216 We estimate that the additional costs of issuing a foreign bond is approximately 3bps (although we note this will be transaction dependent). These costs arise from higher legal costs (1bps to 2bps for a 5-year transaction) and credit charges associated with cross currency swaps (2bps for a 5-year transaction).

217 As Sapere notes, including these additional costs, a five-year period would have costs of 0.22% to 0.27%, with a mid-point of 0.25%. The adjusted value for a four-year regulatory period is 0.31% and 0.42% for a three-year period.[84]

TCSD

218 We don't agree with the draft decision to use the TCSD adjustment premium values calculated for other regulated industries, which are based on BBB+ bonds. The Commission should change the TCSD adjustment premium values to match the credit rating of BBB for FFLAS.

Leverage

219 As explained above, the draft decision on leverage is inconsistent with the approach to estimating the debt premium. The proposed leverage of 31% is consistent with a

---

[82] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [159] - [160].

[83] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [103].

[84] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [104] - [108].

credit rating of BBB. However, the Commission has used BBB+ for estimating the debt premium, which would be consistent with a leverage of 34%. The Commission should be using a leverage consistent with the credit rating.

Cost of capital uplift

220 We agree with the draft decision:

220.1 That consideration of a cost of capital uplift is important because the Commission's estimate of the cost of capital (i.e. its 'mid-point estimate') may not result in a regulated supplier expecting to earn a normal return; and

220.2 To publish the mid-point estimate of the cost of capital and the standard error for the purposes of ID regulation of FFLAS.

221 However, we disagree with the draft decision to use the mid-point estimate of the cost of capital for the purposes of PQR of FFLAS. We expect the Commission to set the cost of capital for FFLAS at or above the 67th percentile of the cost of capital range, because:

221.1 This is necessary to reduce the probability of under-estimation to less than 33%; and

221.2 While an assessment of the asymmetric consequences of under-investment is complex and difficult to quantify, the qualitative case for an uplift is compelling.

The mid-point estimate

222 Assuming the Commission's estimator of the FFLAS cost of capital is unbiased, there is a 50% probability that the estimate of the cost of capital is less than that necessary to expect a normal rate of return.

223 The estimator of the cost of capital is subject to considerable uncertainty. This is illustrated by the difficulty in estimating the asset beta. As already discussed above, Sapere explains the degree of difficulty in developing a suitable comparator sample as illustrated by the dissonance between the sample initially selected by CEPA and Oxera's preferred sample.[85]

Cost of capital percentile

224 We agree with the Commission that the framework for considering the cost of capital percentile properly focusses on the long-term asymmetric consequences for consumers of mis-estimation of the cost of capital, as against the potential for some consumers to pay higher prices in the short term (the Commission describes this as a certainty, but for the reasons given below this is an over-simplification) considered in terms of the objectives in section 162.

[85] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* at [118].

225 We have considered the quantification of the asymmetric consequences of under-investment and we agree with the Commission that it is complex and difficult, and any results likely to be imprecise. The qualitative case for an uplift, however, is compelling. We note the Commission relied on the qualitative rather than quantitative case for an uplift when considering the appropriate cost of capital percentile for electricity and gas businesses under the Part 4 regime.[86]

226 We also note the Commission applied an uplift for gas pipeline services, without any direct quantitative analysis demonstrating the net benefits of an uplift to the mid-point cost of capital.[87]

The case for an above mid-point cost of capital

227 We disagree with the draft decision to apply the mid-point cost of capital. The cost to consumers of under-investment in FFLAS are likely to outweigh any potential price increase FFLAS consumers may experience as a result of applying an uplift to the mid-point estimate of the cost of capital.

The price consumers pay for FFLAS

228 The Commission's regulation of Chorus' FFLAS, being a combination of revenue cap and price capped anchor services, has a material bearing on the Commission's considerations.

229 As we explained in our EV Paper submission,[88] and Houston Kemp explained in its report,[89] Chorus can't increase the price of anchor services. So, an uplift to the cost of capital would not result in increased costs for anchor service consumers (or consumers of other FFLAS services that are substitutable or 'anchored' by anchor services).

230 While it is true prices may rise for other FFLAS services, this will only occur where consumers see the added value of a premium service. Any price increases should be measured from a long-term perspective. Given the dynamic nature of the telecommunications sector, any long-term effects of price increases will be offset by

---

[86] "*In exercising our judgement, we consider some conservatism in selecting the percentile (i.e. erring on the high side) remains appropriate. Doing so recognises* ***there is fundamental uncertainty regarding the appropriate WACC percentile, and that the long-term costs to consumers of under- and over-estimating the WACC are asymmetric. Therefore, erring on the high side is likely to be in consumers' interests. Doing so reflects otherwise unquantified (or unquantifiable) factors that are likely to result in greater benefits to consumers in the long term, in terms of efficient investment and innovation that meets current and future consumers' demand at the quality that they want***. [emphasis added]. Commerce Commission (30 October 2014), *Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services, Reasons Paper,* [2.38] - [2.39].

[87] Commerce Commission (30 October 2014), *Amendment to the WACC percentile for price-quality regulation for electricity lines services and gas pipeline services, Reasons Paper,* at [1.24] - [1.26].

[88] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [175].

[89] Houston Kemp (15 July 2019), *WACC Uplift – Asymmetric consequences of under-investment,* at [4.3.1].

long-term benefits to consumers from the continuous investment in resilience, reliability, innovation, and network upgrade and expansion.

231 As Sapere explains,[90] even though an uplift may increase the price consumers pay, the price may still be a bargain as the estimate of the cost of capital plus uplift may still under-estimate the true cost of capital and have negative longer-term consequences for consumers.

Impact of under-investment

232 We agree with the Commission that the relevant categories of investment for considering the case for an uplift are network expansion, innovation and reliability/resilience. The Commission should consider the overall benefit of all the investment categories, rather than separately, before making any judgements on the net cost to the consumer of under-investment.

233 An uplift (at least equivalent to that applied for other regulated utilities) is necessary to incentivise further investment in ongoing network expansion (which was an explicit policy objective of the regime), innovation and network resilience/reliability. There is:

233.1 Significant benefit to consumers of network expansion. The Commission should not ignore the network externalities effect and the potential increase in the digital divide between UFB and non-UFB areas as a result of under-investment.

(a) As our EV Paper submission explained, one of the explicit policy outcomes the government sought from the new regulatory framework was to incentivise Chorus to keep building its fibre network beyond the UFB footprints currently agreed.[91]

(b) As recently as late last year, Minister Faafoi signalled to Cabinet his concerns with the disparity between urban and rural users.[92]

(c) While the number of New Zealanders in non-UFB areas may be small, the Commission fails to acknowledge the potential network expansion relating to the growth in the number of NBAP connections, be they for 5G cell sites, advertising hoardings, bus stops, CCTV, traffic lights, or any of a host of future IoT and Smart Cities applications.[93] This type of growth was illustrated by Comcast in a recent IoT article.[94]

---

[90] Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* [133].

[91] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [17].

[92] Cabinet paper (6 November 2019), *Connectivity in New Zealand*, Hon Kris Faafoi, at [7].

[93] Refer to Topic 5: Quality Dimensions Input Methodology for discussion on limitations of quality measures for promoting investment.

[94] https://www.iotworldtoday.com/2019/11/04/smart-cities-projects-growing-in-importance-for-comcast/

(d) Competition will not sufficiently incentivise network expansion into non-UFB areas. The Commission has misinterpreted analyst reports' references to "*the importance of Chorus converting customers and end-users to regulated FFLAS to protect against future potential competition from 5G (and more immediately from current fixed wireless)*" as applying to FFLAS in non-UFB areas, when analysts are referring to the conversion of customers to regulated FFLAS within planned UFB areas.

233.2 Significant benefit to investment in innovation. Investment in innovation is not limited to incremental upgrades to the capability of the FFLAS network. Innovation can take many forms, some of which have not been thought of yet. The Commission should be careful not to make decisions that may lock-out the potential for future innovation as we move beyond the build phase.

233.3 Significant benefit to investment in reliability/resilience.

(a) As our EV Paper submission explained, using Waiheke as an example, an outage can cause significant harm to the end-users of FFLAS (which may include mobile consumers), and alternative technologies do not sufficiently mitigate this harm.[95]

(b) There have been a number of public-private partnerships (**PPPs**) relating to fibre investment. Participation in these types of partnerships is dependent on the private investor's ability to earn a normal return. The Commission's decision to apply the mid-point estimate of the cost of capital weakens the case for participating in these types of PPPs.

(c) We note the Commission has stated quality requirements could be used, rather than a cost of capital uplift, to provide an incentive for Chorus to provide the level of quality that reflects consumer demands.[96] We disagree and refer to our discussion on this in Topic 5: Quality Dimensions Input Methodology.

Cost of capital range – ID

234 We accept the draft decision to:

234.1 Estimate a cost of capital range by estimating and combining individual parameters' standard error;

234.2 Set the standard error at zero for leverage, corporate tax, debt issuance costs and risk-free rate;

234.3 Set the standard error at 0.0015 for the debt premium; and

[95] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [191].

[96] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1466].

234.4 Set the standard error at 0.015 for the TAMRP.

235 However, we disagree with the draft decision to set the standard error for asset beta at 0.13, which the Commission has based solely on the estimates for the latest five-year period 2014 to 2019. There is no reason to rely solely on one single five-year period to determine a long-term estimate of the standard error that will apply over a period exceeding five years. The approach to estimating the standard error of asset beta is also inconsistent with the approach to determining the asset beta, the latter relying on the estimates from two consecutive five-year periods.

236 We note the Commission's concerns that the very large standard errors for the five-year period of 2009 to 2014 imply a range of two standard deviations around the mean of between -0.1 to 1.07. The Commission also refers to TPG Group's asset beta across 2009 to 2014 as a "*significant outlier*", with its monthly beta greater than two and weekly beta greater than one.

237 While TPG Group's asset beta might be qualified as a "*significant outlier*" because of its monthly beta of 2.27 and weekly beta of 1.10 in the period 2009 to 2014,[97] we note the same qualification could apply to Sejong Telecom given its monthly beta of 0.05 and weekly beta of 0.09 in the period 2014 to 2019. Both are close to or below the minimum of the implied range of 0.07 to 0.91 based on the standard error of 0.21.

238 Based on the above, the Commission should reconsider its approach to determining the appropriate standard error for asset beta. If the Commission is concerned about the implied range of 0.07 to 0.91, the Commission should at least adopt the mid-point value between the simple average of 0.21 and the minimum standard error of 0.11. Adopting the mid-point between the minimum value and the simple average would result in a standard error for asset beta of 0.16, with the implied asset beta range of 0.17 to 0.81.

239 Adopting the implied asset beta range of 0.17 to 0.81, based on the standard error of 0.16, is equivalent to excluding 19 monthly and weekly observations from the asset beta sample for the period 2009 to 2014 and 2014 to 2019. On the other hand, adopting the Commission's implied asset beta range of 0.23 to 0.75, based on the standard error of 0.13, is equivalent to excluding 30 monthly and weekly observations from the asset beta sample for the period 2009 to 2014 and 2014 to 2019.

240 This demonstrates that the Commission's proposed asset beta range, based on the standard error for asset beta of 0.13, is not consistent with the asset beta estimate the Commission derived based on the comparator sample and the relevant two consecutive five-year periods.

Cost of capital - reasonableness test

241 We disagree with the Commission's view that its estimate for FFLAS is close to Ofcom's Openreach estimates. As Sapere notes, Ofcom's estimate for asset beta for

[97] CEPA report shows TPG Groups monthly beta of 0.58 and weekly beta of 0.15 in the period 2014-2019.

Openreach and Other UK Telecoms components of BT Group is significantly higher than the Commission's point estimate of 0.49 based on the limited sample developed by CEPA.[98]

242 In addition, as Sapere notes, the Commission has mistakenly used *real vanilla* cost of capital estimates by Ofcom and then incorrectly compared those against the Commission's *nominal post-tax* cost of capital for FFLAS.[99] When this error is corrected, all Ofcom's cost of capital estimates for Openreach and Other Telecoms lie above the Commission's post-tax cost of capital for FFLAS of 4.88%.[100]

243 Also, Ofcom in its recent draft decision,[101] has attributed different cost of capital estimates to dark fibre as opposed to FTTP and active leased lines, as shown on Figure 1 below. This means the Commission's cost of capital for FFLAS should be compared against the weighted average of Ofcom's cost of capital estimates for Openreach and Other Telecoms.

Figure 1: Ofcom's cost of capital - proposed split of services

Openreach	Other UK telecoms
Copper access lines	FTTP
FTTC	Active leased lines
Dark Fibre - access and inter-exchange circuits	
Duct and pole access (DPA)	

Source: Ofcom, Promoting investment and competition in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26, Annexes 1-23

244 Based on the report[102] which the Commission used to derive various Ofcom's estimates specified in Figure 3.7 of the Reasons Paper, it is evident that the Commission's asset beta for FFLAS of 0.49 is set significantly below Ofcom's estimates in 2019 for Openreach (0.55) and Other UK Telecoms (0.65). In contrast, the Commission's estimates of asset beta for electricity and gas businesses (respectively 0.35 and 0.40) and Ofgem's recent estimate for electricity and gas businesses in the UK (0.38), as shown on Figure 2 below.

---

98 Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* [127].

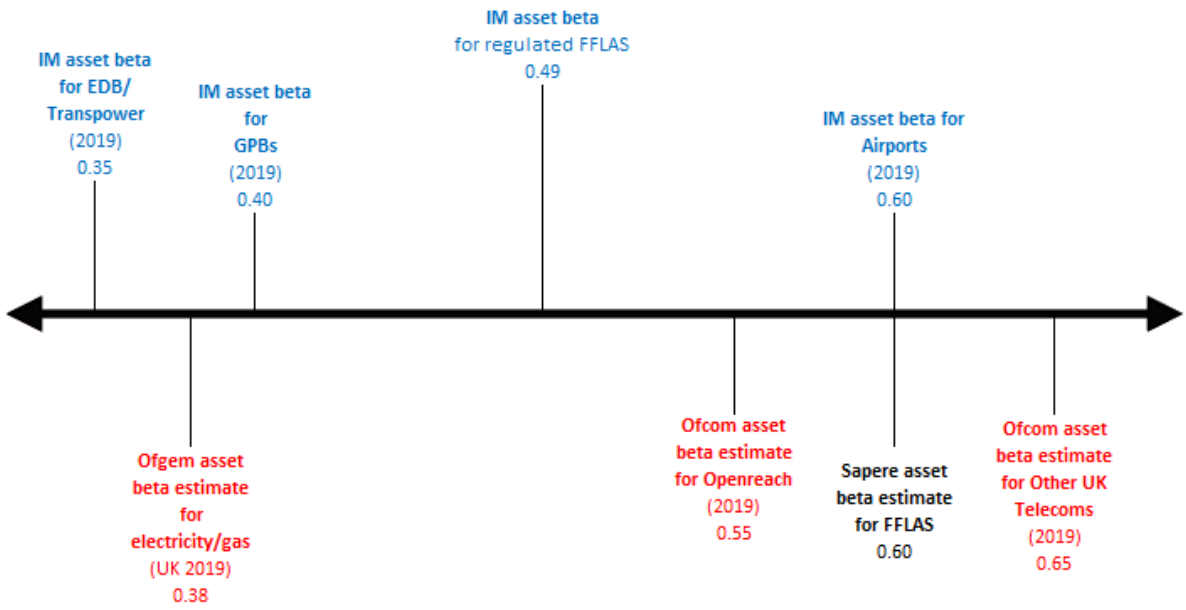
99 Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* [138].

100 Sapere (13 January 2020), *The cost of capital input methodologies for fibre,* Figure 1, p 32.

101 Ofcom - https://www.ofcom.org.uk/consultations-and-statements/category-1/2021-26-wholesale-fixed-telecoms-market-review

102 https://www.ukrn.org.uk/wp-content/uploads/2019/09/2019-UKRN-Annual-Cost-of-Capital-Report-Final-1.pdf

Figure 2: Asset beta reasonableness test



245 We note the Commission, in its asset beta reasonableness check, refers to the "*PwC estimate for Chorus*" and the "*Average broker estimate for Chorus*". Direct comparisons are not appropriate, because those asset beta estimates reflect the supplier-specific (i.e. Chorus) rather than service-specific (i.e. FFLAS) risk profile. The distinct levels of risk for Chorus' copper and fibre access services means the average asset beta for Chorus will be lower than a FFLAS asset beta. The only market estimate of asset beta for FFLAS that the Commission could use as a benchmark is the asset beta of 0.6 used by Forsyth Barr.

Cost of capital applied to ID

246 We support the draft decision to:

246.1 Require an ID cost of capital so the Commission can undertake profitability assessments in the future for regulated suppliers;

246.2 Determine ID cost of capital determinations annually to allow comparison to disclosure profitability information;

246.3 Publish the regulatory cost of capital within one month of the start of the disclosure year; and

246.4 Publish the mid-point and standard error of the regulatory cost of capital for the purposes of ID regulation.

TOPIC 4: ASYMMETRIC RISK

Type I asymmetric risk

- The draft decision for an ex-post compensation mechanism for Type I asymmetric risk is consistent with the overarching FCM objective, by providing protection or compensation to the regulated supplier in the case of a catastrophic event.

Type II asymmetric risk

- We support the Commission's recognition that asset stranding risk is potentially material, and allocating some of the risk to fibre suppliers, allowing them to in turn mitigate the risk with the following tools:
  - **Depreciation and asset lives** – Changing depreciation profiles or shortening asset lives, to allow costs to be recovered more quickly.
  - **Retaining assets in the RAB** – Allowing the recovery of some (but not all) costs; and
  - **An *ex-ante* allowance** – Applying a framework to test whether an asymmetric risk premium is required in the form of an *ex-ante* allowance. The Commission proposes an allowance of 10bps. However, NERA's analysis using the same model but based on more evidence as to the risk of asset stranding and considering how that risk varies across different asset categories, results in an illustrative allowance in the range of 31 to 87bps.
- We invite the Commission to reconsider its assessment in light of NERA's analysis.

Type I asymmetric risk

248 We agree with the Commission that compensation for Type 1 catastrophic risk is best addressed by ex-post compensation mechanisms. Protection through ex-post compensation avoids windfall gains and losses with little dampening effect on incentives.

Type II asymmetric risk

Nature of risk

249 As described by the Commission, Type II asymmetric risks are the risks to cost recovery associated with competitive entry, including technology stranding and deregulation. These risks differentiate FFLAS from other Part 4 regulated industries, where the regulatory framework is premised on an expectation of enduring market power over successive regulatory periods.

250 As our submission on the EV Paper explained,[103] the FFLAS regulatory framework is more complex than for Part 4 industries. It includes additional constraints that deprive Chorus of some of the tools that we might otherwise use to mitigate these Type II asymmetric risks. Due to a range of regulatory constraints on our pricing, we are unable to adopt the pricing profiles for FFLAS that would occur in comparable WCMs.

251 The Type II asymmetric risk we face encompasses the cumulative effect of past, present and future regulatory decisions as well as future technology and market developments.

Solutions to Type II asymmetric risk

252 We agree with the Commission that when regulated fibre suppliers are exposed to material asymmetric risk:

252.1 They may not have an *ex-ante* expectation of earning a normal return, which is contrary to the economic principle of *ex-ante* real FCM; and

252.2 This detrimentally affects incentives to invest and is therefore relevant under section 162(a).

253 In addition, we agree that asset stranding risk, and the method to address it, may reallocate the risk to either consumers or the regulated supplier.

254 We support the draft decision for regulated suppliers subject to PQR to be compensated for the risk of asset stranding via a *combination* of:

254.1 **Retaining assets in the RAB**[104] – Allowing Chorus to retain in the RAB stranded assets (no longer used or useful), subject to deregulation, to provide Chorus with maximum flexibility (within the other constraints of the regulatory framework) to recover the investment in those assets. However, as the Commission notes, retaining assets in the RAB is not a solution for economic stranding and therefore other mechanisms are required in parallel.

254.2 **Allowing for the possible shortening of assets lives (or alternative depreciation profiles)**[105] – Flexibility around the depreciation profile is an attractive way to address the under-recovery issue and allow Chorus to achieve the overarching FCM objective. But there is uncertainty about when revenues would support the shortening of asset lives. So, this tool on its own may result

---

[103] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [214] - [220].

[104] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [221] - [234].

[105] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [221] - [234].

in under-compensation. In addition, because we built out network ahead of demand, our depreciation profile needs to match expected demand, which implies deferring rather than bringing forward cash flows.

254.3 **A small *ex-ante* allowance**[106] – Recognising the risk of asset stranding, notwithstanding the measures above, by implementing an *ex-ante* allowance through the cash flows at the time of setting the PQ path, and applying to the whole RAB (including the financial loss asset).

255 However, where we have concerns includes:

255.1 **Transparency** – It's important the Commission is transparent about the sources of asset stranding risk reflected in the *ex-ante* allowance and key assumptions (e.g. the Commission assumes it will be fairly neutral or passive with respect to the encouragement of competition with asymmetric risk);

255.2 **Evidence** – The Commission's *ex-ante* allowance is based on limited evidence, as acknowledged in the Reasons Paper, with the onus on Chorus to expand upon this evidence. We note:

(a) NERA have conducted analysis using the same model as the Commission but based on more evidence as to the risk of asset stranding and considering how that risk varies across different asset categories. This results in an illustrative allowance in the range of 31 to 87bps; and

(b) There is no evidence to support the Commission taking the lowest point of the range in promoting section 162, and we disagree with it doing so.

255.3 **Pre-implementation** – We disagree with the draft decision not to apply the *ex-ante* allowance retrospectively. Chorus was exposed to asset stranding risk during the pre-implementation period, which isn't compensated for via the financial loss asset; and

255.4 ***Ex-ante* allowance shouldn't be fixed** – As the telecommunications market is dynamic, there is a risk of locking in an error if the Commission includes the *ex-ante* allowance as a fixed parameter in the IMs. It would be more appropriate to reassess the *ex-ante* allowance as part of the price-quality determination (**PQD**) for each regulatory period.

Ex-ante allowance

256 We support the draft decision to apply an *ex-ante* allowance through the cash flows at the time of setting PQ, applying to the whole RAB including the financial loss asset.

---

[106] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [221] - [234].

257 An *ex-ante* allowance not only compensates for the risk of asset stranding, but also Chorus' ability to respond to competition given we are constrained by geographically consistent pricing and other regulatory obligations.

258 Based on NERA's report[107], we recommend the Commission:

258.1 Reconsiders the impact that technological change will have on stranding risk over a 10 year period, based on the evidence in NERA's report;

258.2 When applying the Dixit & Pindyck model,[108] consider asset categories within the RAB that might be stranded and their probability of stranding;

258.3 Calculate the *ex-ante* allowance once Chorus' initial RAB has been determined;

258.4 Start with the mid-point of the range; and

258.5 Apply the *ex-ante* allowance to both the pre- and post-implementation periods.

Risk of asset stranding

259 The main stranding risk the Commission identifies is line loss due to mobile networks. However, the Commission notes evidence of asset stranding from submissions on the EV Paper was sparse. Evidence mainly came from analyst reports provided via section 98 information gathering processes.

260 However, the Commission understates the risk in a dynamic industry where there is increasing technological change and investment. NERA's report[109] discusses the evidence available and the risk emerging technologies may have on asset stranding.

Effect of competition on different network elements

261 As per NERA's analysis,[110] the risk of asset stranding is not evenly distributed across different asset categories. In the case of fixed-mobile substitution it's concentrated on the very edge of Chorus' network. For example:

261.1 Fibre lead-ins face higher stranding risk from mobile networks, as when a consumer switches from fibre to FWA, the fibre lead-in is no longer used; while

261.2 The communal network faces a lower risk as those assets may be able to still be used in the event mobile displaces fibre in a material way.

262 In addition, while the risk faced by other parts of Chorus' network differs and is lower (e.g. risks from unbundling and fixed network bypass), that does not mean these

---

[107] NERA (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' network*, at [8].

[108] Dixit & Pindyck (1994), *Investment under uncertainty*, p 200 - 207.

[109] NERA (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' network*, section 4.3.

[110] NERA (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' network*, section 5.

risks should be ignored and assigned a zero probability of stranding, as NERA notes the Commission is implicitly doing.

263 Therefore, each asset category within the RAB needs to be considered when analysing the effect of competition on the fibre network.

Methodology for calculating a more accurate *ex-ante* allowance

264 The Commission sets out a framework for estimating the *ex-ante* allowance, using the Dixit & Pindyck model. Where the *ex-ante* allowance is derived from Table 3.14 in the Reasons Paper by inputting the *percentage of RAB which is likely to be stranded* and the *probability of stranding*. We think the Commission under-estimates the risk of asset stranding based on its assumptions.

265 Alternatively, NERA[111] has proposed a more accurate approach using the Dixit & Pindyck model to estimate the *ex-ante* allowance for each asset category, as follows:

265.1 Applying the probability of stranding by asset category to determine the asset specific stranding premium;

265.2 Weighting the stranding premium by the proportion of the RAB;

265.3 Summing the weighted stranding premiums to get an overall estimate of the asset stranding premium applicable to the entire RAB; and

265.4 Starting with the mid-point of the range and considering if there are reasons to deviate (which NERA suggests there are not).

266 As the initial RAB has yet to be determined, NERA has used publicly available information[112] for illustrative purposes.

[111] NERA (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' network*, section 4.3.

[112] NERA calculations of rolled forward capex using Chorus annual reports (2012-2019) and October 2019 Investor Presentation.

Table 2: Ex-ante allowance

Asset Category	% of RAB	Stranding Risk	Probability of Stranding	Asset Allowance	Weighted Allowance
Communal Layer 1	42%	Alternative fixed networks	0-5%	0-51bps	0-22bps
Fibre lead-ins	28%	5G substitution, unbundling, bypass	10-20%	105-223bps	31-65bps
Layer 2 equipment					
Transport	29%	Immaterial	0%	0bps	0bps
Other					
Total	**100%**				**31-87bps**

267 It's envisaged that the initial RAB would provide the necessary additional information for applying this methodology by disaggregated asset categories.

Proposal for deferring estimation of *ex-ante* allowance until PQ

268 The Commission is proposing that an *ex-ante* allowance of 10bps is incorporated into the asset valuation IM and effectively locked in for the life of the existing assets.

269 It would be more appropriate for the Commission to calculate the *ex-ante* allowance for each PQD, when the detailed information of asset categories in the RAB is available.

Ex-ante allowance should be applied retrospectively

270 The draft decision is not to apply the *ex-ante* allowance to the pre-implementation period as financial losses "*neutralises these risks over the pre-implementation period*". We disagree.

271 As noted above in Topic 1B: Valuation of Assets Input Methodology – Financial Loss Asset, we reiterate that the Commission's approach to financial losses does not compensate Chorus for the relatively higher systematic risk in the pre-implementation period compared to the post-implementation period. Rather the loss calculation is merely a technique for adjusting the accounting depreciation applied when establishing the initial RAB to more accurately reflect the return of capital that was actually possible under the prices the UFB agreements set.

272 The Commission's response to Oxera's *'fair bet approach'* to estimating the required compensation for the asset stranding risks is,[113] summarised as follows:

272.1 While the regulatory regime provides some significant caps to the downside which would need to be removed, it's not an option due to requirements under the Act;

272.2 Oxera's method raises significant practical difficulties to implement; and

272.3 Regulation was clearly expected at the time of investment and would have been factored into investor's expectations.

273 First, the complexity of the Part 6 regulatory regime shouldn't be used as a reason for the Commission not to carefully consider the implementation of the relevant regulatory tool that has been used by an overseas regulator, such as Ofcom, to address asset stranding risks.

274 Second, while the regulation was expected at the time of the investment – at least if the project proved successful – the exact form and scope of regulation was uncertain.

275 Finally, as Oxera[114] noted, the prices negotiated and agreed with CFH for the pre-implementation period were well below the cost-based prices modelled by CFH using a FCM pricing methodology, where "*'real competitive tension' in the UFB tender process, which had allowed it to negotiate prices which were well below the 'price book' it had developed based on the: 'Financial Capital Maintenance pricing methodology for cost-based pricing.'*"

276 As discussed in Sapere's report,[115] the Commission doesn't recognise that if Chorus took on a risk during the pre-implementation period, then we should still be compensated even if that risk has not materialised. We disagree that if any actual asset stranding occurred in the pre-implementation period, then those costs would be recovered via the financial loss asset. This argument is inconsistent with the Commission's approach for post-implementation, where it is proposing to provide an *ex-ante* allowance for asset stranding. Indeed, if material asset stranding through competition had emerged, then it is unlikely that a building block regulatory regime would have been applied.

[113] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1323] and [3.1327].

[114] Oxera (15 July 2019), *Compensation for asymmetric type 2 risks*, p 16.

[115] Sapere (13 January 2020), *The cost of capital input methodologies for fibre*, at [82].

TOPIC 5: QUALITY DIMENSIONS INPUT METHODOLOGY

Key features

- We support a quality IM focussing on output measures of quality, setting out quality dimensions and metrics, and specifying (at a minimum) availability and performance dimensions that must apply under ID and PQR. This provides greater predictability and is appropriately balanced with flexibility.

Recommendations

- When considering setting the quality IM and PQR, it is important to take a holistic approach and consider the wider regulatory context under Part 6, other parts of the Act and the linkages within the BBM itself.
- We propose amendments to ensure the new regulatory framework provides greater predictability and is workable. In particular:
  - The IM to include explicit principles against which potential measures and standards will be evaluated. While we agree with the principles set out in the Reasons Paper, we recommend changes to the description of the principle of controllability and the principle of measurability. An additional principle should be added to avoid double regulation – the principle that the regulated supplier should be regulated by the best suited instrument for that aspect.
  - The metrics set out in the IM should be an exhaustive list of potential metrics for PQ and ID.
  - The IM shouldn't permit differentiated measures and standards by end-users.
  - The IM shouldn't permit a wholesale quality standard to be set based on end-user connection satisfaction.

Level of prescription

277 We support the Commission's statements about the dynamic nature of telecommunications markets and agree this means flexibility is important. We also agree that focusing on output measures of quality is the right approach and that an IM which specifies dimensions and metrics is generally the right level of prescription.

278 However, the draft decision to include seven dimensions is overly broad. The dimensions cover every aspect of service provision, with metrics only as examples, and without principles in the IMs against which potential measures and standards will be evaluated. This proposal would allow for any service measure or standard, leaving Chorus with little certainty beyond the existing purpose statements.

279 Therefore, to provide greater certainty and predictability we recommend:

279.1 Explicit principles are included in the IM against which potential quality measures and standards will be evaluated and to provide certainty as to their impact; and

279.2 The final list of metrics be made exhaustive, instead of examples.

Principles

280 We agree with the Commission taking a principle-based approach to the quality IM[116] and with the principles set out in the EV and Reasons Papers. As set out above, these principles should be included in the IMs.

281 Our earlier submissions have emphasised the importance of explicit principles being included in the IM.[117]

282 The Commission suggests the purposes in the Act provide certainty around the application of some principles.[118] However the existence of section 176, to ensure that sufficient certainty is provided for regulated suppliers in the IMs, suggests that more guidance is required above the statutory purposes.

283 In the absence of explicit principles around what the Commission seeks to achieve with quality measures and standards, it is difficult for us, for example, to formulate PQ proposals.

284 Professor George Yarrow specifically commented on the role of principles in providing predictability, as noted in support of our EV Paper submission:[119]

> *One strategy of good regulation is to seek to reduce the uncertainty by basing decisions on stable sets of 'principles', made known to market participants, who can then, in any given economic context, anticipate the likely outcome of the decision. This can be called 'contingent predictability': regulators have flexibility to respond to changing economic contexts, but, knowing both the current context (the 'contingencies') and the principles at work, businesses can develop reasonably accurate expectations of the decision itself. The regulatory decision making does not then add greatly to the background uncertainties of the market context.*

285 The inclusion of principles is an important part of preserving flexibility for the Commission to adapt to market developments, while at the same time providing the certainty regulated suppliers need.

---

[116] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1442].

[117] *See* Chorus (21 December 2018), *Process and issues submission*, at [219]; *see* Chorus (16 July 2019), *Fibre emerging views submission*, at [284].

[118] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1536].

[119] Professor George Yarrow (16 July 2019), *Questions relating to the regulation of fibre fixed line access services (FFLAS) in New Zealand*, p 6.

286 Principles are also necessary to ensure that, instead of looking, for example, at any dimension, metric or standard in isolation, the Commission recognises that quality regulation needs to be considered as one tool in the overall IM toolbox.

287 In the Reasons Paper, the Commission sets out characteristics of best practice regulation it would seek to apply in setting quality measures and standards. In particular, the Commission would seek to set measures and standards which are: relevant, measurable, verifiable, controllable and proportionate. We agree with application of these principles, although we have recommended changes in how they are described.

288 We suggest the description of the principle of controllability, including that a measure or standard should be *"able to be controlled (at least to some extent) by the regulated provider"* be amended. Given the potentially significant consequences for non-compliance, quality standards should not be set for matters for which regulated suppliers are only partially able to control. Therefore, the words *"at least to some extent"* should be removed from the principle of controllability. Controllability also often depends on the timeframe in question. Performance needs to be controllable within the relevant timeframe if it is going to have a performance standard attached – for example, it is not appropriate to attach a revised standard to something that will take three years to shift the dial on.

289 The principle of controllability should also recognise the uncertainty involved in forecasting and managing high impact/low probability events. This was a key issue for the recent Transpower individual price path (**IPP**) and electricity lines default price path (**DPP**) determinations. The Commission used statistical analysis, and techniques such as pooling (i.e. a breach is missing the standard for two-out-of-three years), to help minimise the risk of 'false positives'.

290 In its EV Paper the Commission expressed the principle that quality matters should be regulated by the instrument best suited to regulate that particular aspect of quality and that regulation should ensure consistency, and avoid duplication, between instruments regulating quality.[120] Our view remains that this principle is fundamental to a coherent regulatory framework. We strongly recommend the IMs include explicit recognition of the need to take account of other relevant instructions that impact on service quality. There are real risks of a framework that takes every available tool and applies it to every possible IM on the basis that the tool helps achieve the overall purpose. This approach fails to take account of the costs of overusing available tools and may double-count the benefits attributable to any one tool.

Metrics

291 The Reasons Paper includes example quality metrics in the IM.[121] However using example metrics doesn't increase certainty, as there is no limit to the potential options.

---

[120] Commerce Commission (21 May 2019), *Fibre regulations emerging views: technical paper*, at [697] - [698].

[121] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1433.2].

292 If the IM is to include all seven dimensions, we support the Commission's list of fifteen metrics. As they are comprehensive, we recommend they form an exhaustive list of metrics under which quality measures and standards can be set under ID and PQ (but with the removal of *end-user connection satisfaction* as a potential quality standard, discussed further below). These metrics provide scope to implement quality measures and standards which will achieve the purpose of quality requirements regardless of market developments.

293 Taking this approach provides certainty by narrowing the scope of potential measures and standards while maintaining flexibility about which metrics should be included and how they should be measured. It also avoids potential arguments about whether the metrics noted are appropriate or sufficient for inclusion in any ID or PQD (particularly in the absence of explicit principles in the IM).

294 The metric relating to *end-user connection satisfaction* should be removed, however, from the list of metrics under the customer service dimension for PQ only, although could be maintained for ID. We recommend it's removed as it's inconsistent with the principle that measures on which we are judged (and potentially penalised) should be within our control.

295 We currently collect consumer satisfaction data (under the NIPA, as discussed below) based on a survey which measures the end-to-end connection experience. The relevant RSP also has a significant influence on this measure, and this is borne out by the data as scores differ materially between customers of different RSPs. A subjective experience score which is influenced by parties other than us wouldn't be a reasonable compliance standard.

296 The end-user connection satisfaction surveys will continue to be carried out (and will be required under anchor service regulation). If the Commission is interested in this information, *end-user connection satisfaction* could be included as an ID metric.

297 It's important to recognise the difference in context between our current commercial obligations and the objective of the quality IM. The customer satisfaction survey referred to above is required by CIP under the NIPA. The NIPA contains a target satisfaction score and a default payment to CIP if a certain score is not achieved.

298 We have strong commercial drivers to continue to improve the customer experience of fibre installations. But, as the Commission has noted, the UFB agreements were commercial arrangements, carefully negotiated and drafted in a way that is effective for their intended purpose. That purpose was an infrastructure construction contract where one of the key commercial outcomes was connecting consumers to the network.

Different measures and standards

299 The draft decision allows for different quality measures and standards to be set based on matters over which we have no visibility and limited control. This is inconsistent with the Commission's expressed principles of good regulation. We therefore propose the reference to setting different quality measures under ID and standards under PQ based on end-users be removed.

300 While we agree different groups have different requirements, it doesn't necessarily follow that this necessitates different quality measures and standards. We have

strong incentives to build a product set containing services which meet the requirements of diverse groups. Detailed regulation of this kind isn't consistent with an incentives-based regime.

301 There are also practical issues with differentiating measures by end-users. We don't have visibility of the end-users of any FFLAS. For example, an instance of a bitstream service may support a single end-user's home broadband, where the same bitstream service might support a wireless access point providing dozens of end-users with service. A wholesale network provider has no reliable way of telling the difference.

302 It would therefore not be possible to report against measures differentiated by end-users and nor would it be reasonable to hold us to a compliance standard on that basis. Any information the Commission would like to gather on end-users would be better sourced from RSPs given their relationships with end-users.

303 The Commission also has other ways of gathering information with the distinctions given as examples of the different kinds of end-users. If the Commission has different interests as between urban and rural FFLAS it can set different measures based on geography. If the Commission has different interests as between business and residential FFLAS it can set different measures based on type of FFLAS. Though, in both cases, it would be more informative to look at differences across geography or type of FFLAS against the same measure.

Relationship between quality and cost of capital

304 The Commission has expressed a preference for attempting to use quality requirements over a cost of capital uplift as the best way to incentivise Chorus to provide the level of quality that reflects consumer demands.[122]

305 The intention of the new framework is incentives-based regulation. Any proposal to have extensive and detailed requirements relating to quality is inconsistent with that purpose and acknowledged to be not fit for purpose during the review of the regulatory framework.[123]

306 The Commission focuses on the risk that a cost of capital uplift will result in consumers paying more. However, it doesn't recognise the risk of excessive constraints that extensive quality requirements would place on us. These would mean that:

306.1 We may be unable to respond consumer requirements, which the Commission has acknowledged are changing rapidly;

[122] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1466].

[123] See for example, Ministry of Business, Innovation and Employment (July 2016), *Telecommunication Act Review: Options Paper*, p 5.

306.2 Service differentiation, which allows consumers to make individual PQ trade-offs, and innovation may be impeded by requirements that apply to all services; and

306.3 Real FCM is at risk because we are prevented from responding to market changes to achieve our allowable return.

307 Our EV Paper submission discussed in detail the risk of excessive constraint from quality requirements.[124] This risk hasn't been adequately addressed in the draft decision, resulting in no cost of capital uplift.

308 In particular, we disagree with the Reasons Paper that dynamic performance targets set at an industry moving average.[125] Other industry participants are not price controlled so they don't have to manage a fixed investment envelope and a dynamic quality target.

309 Vogelsang & Cave support the position that overusing all available tools to achieve a desired outcome risks 'over-egging the pudding' saying (in relation to pricing principles):[126]

> *In our pricing report (Vogelsang & Cave, 2019) we recommended that at this time the Commission not introduce additional pricing principles/methods besides those already available via the current tool set. We did this, because we felt that the LFCs already face a bewildering set of pricing constraints and that such principles would only address those services not already fully covered by currently available constraints.*

310 Chorus' existing non-price constraints carry significant risks.[127] These risks would be exacerbated by layering further unnecessary quality constraints through PQ, rather than applying a cost of capital uplift.

Purpose of quality regulation and relationship to other instruments

311 As set out in our previous submissions, we disagree with any suggestion to use quality measures and standards to prevent Chorus degrading FFLAS inputs to competitor services. Quality measures are not an appropriate mechanism to address this problem, particularly given the other instruments within Part 6 and in the broader regulatory framework specifically included for this purpose:

311.1 Open access, EOI and non-discrimination under open access deeds; and

---

[124] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [246] – [252].

[125] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1527].

[126] Vogelsang and Cave 2019, *Framework for promoting competition*, at p 17.

[127] Chorus' other regulatory obligations for fibre include EOI and non-discrimination obligations, DFAS regulation, anchor service regulation, and geographically consistent pricing.

311.2 DFAS regulation which is a feature of PQ specifically included to provide extensive regulatory control of the key input to wireless services.

312 A holistic view of the framework and the tools available to achieve the purpose is important when setting the quality IM and PQR. This reinforces including explicit principles in the quality IM – in particular the principle that measures and standards must acknowledge the other regulatory obligations and not duplicate any obligations or measure/constrain matters that are measured/constrained elsewhere.

313 Proposing the use of the quality measures to facilitate competition and as a substitute for a cost of capital uplift, is inconsistent with the Part 4 approach.

314 Quality measures and standards should be principally concerned with ensuring that Chorus continues to provide services at a level of quality consumers expect and does not run down its assets or degrade its services in order to maximise its return on capital. This is the aim that is most responsive to quality metrics (focusing on service reliability and performance) and is not achieved by other instruments. This translates to relatively straightforward quality metrics that focus on service reliability and performance.

315 By expanding the role of quality regulation beyond this, tools available under the framework would be expanded beyond the purposes for which they were intended too.

316 The Commission has acknowledged matters are controlled by other instruments so should not add further obligations under a PQD.[128]

317 A holistic approach is important to PQR rather than viewing each instrument in isolation. PQR under Part 6 is wider than just a PQD. All the regulatory elements must be taken together in seeking to achieve the purpose of PQR – to regulate the price and quality of FFLAS.[129] For example, DFAS was explicitly included as a feature of PQR under Part 6 to avoid degradation of the key input service to competing wireless services.[130] Trying to achieve this through a PQD would result in double-regulation and would be using the wrong tool for the job. This is inconsistent with principles of good regulation.

318 The Commission must also take care not to double count potential benefits to competition when applying section 166(2)(b). Where competition is promoted by specification of a price-capped DFAS service the same benefit to competition should not be taken into account when determining the benefits of a quality measure or standard under a PQD. Conversely, an instrument should not be regarded as necessary to achieve a particular purpose or deliver particular benefits if that

[128] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1439].

[129] Telecommunications Act 2001, section192.

[130] Cabinet Economic Growth and Infrastructure Committee (22 May 2017), *Review of the Telecommunications Act 2001: Final Decisions on Fixed Line Services, Mobile Regulation and Consumer Protection,* at [42] – [45].

purpose/benefits can be more efficiently delivered by a different instrument. Again, this is a danger that results from viewing individual instruments in isolation.

319 We understand the quality IM is intended to be enduring and it would be reasonable for the Commission to set quality measures and standards with the purpose of preventing degrading of competitor inputs if the regulatory instruments already controlling for this were removed. Therefore, the issue is best managed through an explicit principle in the IM requiring recognition of the other regulatory obligations to which regulated suppliers are subject and preventing duplication of any obligations or measurement/constraint of matters that are measured/constrained elsewhere.

Process for setting quality measures and standards

320 The Reasons Paper outlines a process involving a Commission-led consultation on quality measures and standards. This seems workable for RP1 but we'd like further clarity on how the Commission sees the process for setting quality measures and standards operating for RP2 and beyond.

First regulatory period

321 We agree that quality requirements for RP1 should be based on the UFB agreements. This is essentially required by legislation, given the anchor services regulations – a tool included explicitly for regulating quality – require specifications and conditions to reflect those under the UFB agreements.

322 We understand that the process for setting quality measures and standards for RP1 will largely be a matter of determining how and to what extent UFB quality requirements be reflected in measures under ID and standards under PQ. We support the Commission-led consultation process described in the Reasons Paper.

323 Our PQ proposal for RP1 will be submitted prior to the Commission-led consultation on quality and based on the understanding that quality requirements for RP1 will reflect those set in the UFB agreements. We note the Commission's statement that the capex IM will require the linkages between expenditure and quality levels to be set out in PQ proposals.

324 We understand the Commission proposes a Commission-led consultation on quality in parallel with assessment of our proposal. It is not clear that this would be consistent with our preferred supplier led approach. In our view consulting on and understanding our consumers' quality needs should be central to the development of our expenditure proposals.

Future regulatory periods

325 The Reasons Paper doesn't explain the sequencing and process for PQ proposals and setting quality measures and standards beyond RP1.

326 Good asset management involves dialogue with stakeholders to understand their needs and views on the PQ trade-offs. The Commission would consult on our PQ proposal but we would expect to consult with stakeholders on PQ trade-offs.

327 As we develop proposals for each regulatory period, we need to think about how we influence quality at a number of levels:

327.1 **Structural** – Many of the aspects influencing performance are built into the network, or the arrangements we use to maintain and operate the network. These are relatively slow-moving and can influence our cost base significantly over time. Capex examples include network architecture, resilience standards, and asset specifications. Opex examples include service provider and major vendor arrangements.

327.2 **Tactical** – Some things are more naturally able to be altered materially within a regulatory period timeframe, for example by ramping up asset replacement rates, altering specifications for replacement assets, enhancing system capabilities, or building extra workforce capacity.

327.3 **Incremental** – These are things we can more readily add to, or remove from, our ongoing activities, with direct flow through to altered customer or consumer experience. Examples include developing new communications channels or carrying out a proactive maintenance programme.

327.4 **Operational** – These are things we can influence through a change of emphasis or priority. They may or may not involve incremental expenditure. Examples include introducing new metrics, reporting or incentives to inform and influence operations.

328 PQ trade-offs play out at all levels over multiple regulatory periods and are complex and nuanced. Setting the direction of travel and fine-tuning performance is core business, and therefore ownership and accountability should be clear.

329 The Commission has a role to challenge and critique PQ trade-offs, and this can involve modifying a regulated supplier's proposal. In doing so it is of course appropriate for the Commission to consult on the proposal. However, any changes need to be achievable within a regulatory period timeframe and linked to underlying investment or operating cost requirements.

TOPIC 6: CAPITAL EXPENDITURE INPUT METHODOLOGY

Key features

- We generally support the draft decisions on the capital expenditure IM (**capex IM**), including to:
  - Adopt an *ex-ante* 'propose and approve' approach to assessing and approving capex projects and programmes, including a top-down assessment supported by limited 'bottom-up' review of selected projects and programmes;
  - Address the specific profile of our capex by seeking to tailor capex categories to the different nature of our capex – including addressing connection uncertainty by recognising that connection capex should not be locked into an allowance on a forecast basis without ex-post adjustment;
  - Ensure that the capex IM is enduring by determining less prescriptive rules, relative to the Transpower capex IM, and supplement the rules by tailoring detailed information requests specific to each regulatory period;
  - Not commit us to an investment plan or target, given the fast-developing technology in this sector and the potential for future efficiencies; and
  - Apply the principle of proportionate scrutiny, including to contractually committed UFB2 and 2+ spend.

Recommendations

- We seek changes to the draft decision to improve the clarity and workability of the capex IM to provide for a stable and predictable environment for FFLAS investment. The transitional principle is also relevant as we develop our systems and processes to support this process over time.
- The capex IM should require the Commission to seek feedback from Chorus on a draft information notice ahead of each regulatory period.
- The capex IM should require Chorus to provide information at an all-of-FFLAS level, rather than by UFB, non-UFB and other LFC areas, to avoid locking in legacy UFB constructs that will lose relevance as the network expands and ensure future-looking constructs are embedded in the PQ and ID processes.
- Refine the information requirements to ensure they allow information to be packaged in a logically coherent and related way, making it more meaningful and easier for the Commission and stakeholders to understand.
- The Commission shouldn't place undue weight on the risk of delayed or repeat expenditure given the limited significance of this issue in practice.

- Simplify the connections capex mechanism to better recognise linkages to the broader capex picture and mitigate any incentive to over-forecast.
- The individual capex threshold should be changed to reflect projects/programmes for which *forecast* expenditure amounts to at least $5m, and making ring-fencing an optional requirement.

Core framework

Approach to capex IM

331 We agree with the draft decision to determine a less prescriptive capex IM than Transpower's. This would mean that high-level information requirements are specified in the capex IM, with further information tailored to each regulatory period and sought by way of an information notice process.

332 This will ensure that the capex IM itself remains fit for purpose for each regulatory period. It would allow information notices to reflect any network and other changes, while still providing certainty by the capex IM specifying a minimum set of requirements.

333 This approach will ensure that the Commission has the appropriate information - no less than Part 4 regulated suppliers produce. We expect the Commission will require us to provide the right level of information for it to assess our PQ proposals and determine our capex allowance.

334 We propose the capex IM requires the Commission to seek feedback from Chorus on any draft information notice ahead of each regulatory period, at least two months before the deadline for finalising the notice. This would enhance predictability and support efficient preparation of the PQ proposal.

Presenting an enduring FFLAS view of expenditure

335 The draft decision breaks down capex information into UFB, non-UFB (rural) and non-UFB (LFC). We suggest providing expenditure information on a FFLAS basis would lead to a more enduring regime (recognising that the Commission will want to be able to distinguish information that relates to other LFC areas[131]). The UFB/non-UFB definitions are less relevant after the initial investment has been made and as the network evolves, including through reticulation of new developments spanning the boundaries of these areas, or within rural areas.

336 We recommend two options for consideration:

[131] Consistent with section 226 of the Telecommunications Act 2001, as ID applies in other LFC areas and PQR applies elsewhere.

336.1 Require information at an all-of-FFLAS level, with any more granular geographic breakdown agreed through the regulatory template and/or ID processes; or

336.2 Allow UFB, rural and LFC definitions to evolve with the network, rather than being tied to UFB agreements. These definitions (which could have different names) would essentially capture areas where there is full Chorus FFLAS coverage, full other LFC FFLAS coverage, and other areas.

337 We prefer the former approach, as we think the flexibility to determine more granular requirements for each regulatory period is beneficial given that the Commission's information will necessarily need to reflect changes in the market.

Integrated fibre plan

338 We support the requirement in the draft decision for Chorus to provide an integrated fibre plan (**IFP**) at the same time as a base capex proposal. That will in part address the minimum information requirements, and the outline of the IFP in the Reasons Paper.

339 We anticipate using the IFP to communicate our PQ proposal and meet information requirements. We support IM Rules that allow for flexibility as to how we package the components of the IFP. A rule requiring separate documents for the IFP 'report' is unnecessary. Packaging information in a way that is logically coherent makes it more meaningful and easier for the Commission and stakeholders to understand and use.

340 We disagree with the draft decision to arrange the investment report around assets. While it makes sense for some investment areas, it isn't appropriate for all. Asset based categorisation is most applicable to lifecycle investment in physical assets, which is a small part of Chorus' investment compared to Part 4 regulated industries.

341 We recommend for other classes of investment to arrange by:

341.1 **By activity** – Where new assets are created and flow into an asset view in future regulatory periods. For example, network electronics, network expansion and IT, are better broken down by activity (e.g. connections and extensions); and

341.2 **By outcomes** – Where assets are cycled to optimise a set of system outcomes, rather than managed by asset class through a traditional lifecycle approach as is typical in Part 4. For example, network electronics.

Statement on total capex

342 The capex summary in the Reasons Paper[132] indicates that total capex must remain below the approved base capex allowance. However, we understand that the Commission doesn't intend for the base capex allowance to operate as a cap, which

[132] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, p 422.

could imply the absence of a capex efficiency incentive (or an asymmetric incentive). We note clarification of this by Commission staff at the December 2019 capex workshop and support this position.

343 We expect the Commission's upcoming draft decisions on expenditure incentive mechanisms will clarify and complete our understanding of the capex rules. We consider a symmetric low base capex incentive rate and a full ex-post wash-up will produce the best outcome for consumers. Specifically, this would provide a consistent incentive to sustainably reduce costs over time with most of the benefits accruing to consumers. In contrast, a cap could encourage over-forecasting, constrain efficient optimisation between opex and capex, and encourage 'spend the budget' behaviours.

Forecasting concerns

344 The Reasons Paper discusses the risk of Chorus over-forecasting. For example, the Commission sees the primary role of the capex IM being to mitigate over-spending and over-forecasting risks.[133]

345 However, the risk of over-forecasting is mitigated in other ways. Overall, investment incentives through an appropriate cost of capital, and market drivers provide a strong incentive to deliver attractively-priced services at the quality consumers demand. The capex IM has a role in complementing and reinforcing these incentives in a BBM regime, and ensuring we take a suitably prudent, long-term view when planning and executing investment plans.

346 One of our primary interests in the capex IM is that it provides for a stable and predictable environment for FFLAS investment. As we move on from the network build phase, and into an environment of ongoing data growth and increasing dependence on reliable connectivity, it will be important to ensure investment is at a prudent level – not just the lowest possible level.

347 While we don't yet have the full picture on capex rules, we anticipate incentive arrangements that share efficiency gains with consumers would provide a meaningful incentive to avoid overspending, while not providing an incentive to over-forecast.

Delayed or repeat expenditure

348 We recommend the Commission doesn't place undue weight on the risk of delayed or repeat expenditure. To put this issue in perspective, it's worth considering the range of scenarios:

348.1 The clearest case for concern is where a discrete investment is delayed from the final year of a regulatory period into the first year of the following regulatory period and is included in two PQ proposals. With a capex incentive rate of, say, 20%, consumers would pay 120% of the cost of this project.

[133] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1558].

348.2 At the other extreme, most deferrals of expenditure raise no reason for concern. For example, a PQ proposal may assume a 20-year life for a given asset type, and Chorus may subsequently find it can safely extend the life to 25 years. The extended life would be built into asset strategies for all subsequent periods, passing significant savings to consumers. The capex incentive would only operate on replacements deferred in the first regulatory period, meaning Chorus' share of savings would be well below the capex incentive rate.

349 Most cases will sit between these two extremes, with regulated suppliers generally retaining less than the headline incentive for gains they make in extending asset lives or otherwise deferring investment.

350 We agree that the first extreme should be prevented – but it's important that the starting assumption is that deferral benefits consumers and is a key outcome of improving asset management. An over-zealous approach would risk deterring good asset management and undermining efficiency incentives, fostering a 'just deliver the plan' mentality.

Improving connections capex mechanism

351 The Commission recognises that categorisation of different types of capex is necessary to address uncertainty about a project's need, cost and/or timing that arises from approving an *ex-ante* capex allowance. We support the Commission seeking to find practical ways of addressing the various demand uncertainties Chorus will face in preparing our expenditure forecasts – particularly for the first regulatory period.

352 We have previously submitted on the inherent uncertainty in forecasting connection expenditure ahead of demand.[134] Connection spend is dependent on uptake, and in particular the rate of uptake, as consumers migrate from copper to fibre. It also depends on underlying demand, which is affected by competition from other broadband technologies.

353 While we support mechanisms to address uncertainties, we recommend the Commission:

353.1 Better recognises linkages between specific capex categories and the broader capex picture;

353.2 Mitigates any risk of over-forecasting; and

353.3 Simplifies the connections capex mechanism to support those two objectives.

354 The draft decision assumes that connection capex and base capex are entirely discrete categories, and that expenditure can be readily categorised as either base or connection capex. Following this assumption, the draft decision:

354.1 Requires that Chorus produce separate base and connection capex proposals;

[134] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [304]-[305].

354.2 Sets discrete and non-substitutable allowances for base capex and connection capex; and

354.3 Permits an adjustment to the connection capex allowance to reflect differences between forecast and actual connection volumes.

355 However, base and connection capex are not necessarily discrete categories of expenditure. Connections are integrated into our overall plans and influence many areas of investment and operations. It will not be straightforward, in practice, to categorise all expenditure as either base or connection capex. This needs to be recognised in the approach to determining the connection capex allowance. That can be achieved while not compromising the Commission's objective to address only connection demand forecasting risk in the connection capex allowance.

356 We therefore propose amendments to:

356.1 The process of preparing the base and connection proposals;

356.2 How the connection capex baseline is determined; and

356.3 The connection capex adjustment mechanism.

Connection capex proposal should be incorporated into base capex proposal

357 The Commission proposes that connection capex proposals are made as separate applications alongside base capex proposals. However, we recommend that connection capex and base capex form part of an overall capex proposal. Under this approach, Chorus would be required, as part of the capex proposal, to justify proposed baseline connection volumes and variable rates.

358 It would be better for connections to be incorporated into an overall capex proposal, including base capex. This approach recognises that connections are not a fully discrete activity but are integrated into our overall plans and influence many areas of investment and operations, including aspects of base capex. Including connection capex alongside base capex would therefore facilitate a clearer understanding of the drivers of Chorus' forecast expenditure.

359 In addition, given that base and connection capex proposals will have many elements in common, including both base and connection capex in a single proposal will lessen duplication and reduce administrative costs for both Chorus and the Commission.

Connection capex baseline

360 The draft decision requires a connection capex proposal to state any capex that Chorus considers should be included in the connection capex baseline allowance.[135] We are also required to agree with the Commission, as part of the content and form of the regulatory templates, the forecast initial unit costs and forecast volumes by connection type.[136]

361 We agree with the requirements to identify unit costs and baseline volume forecasts. We do not agree that a connection capex baseline allowance (derived by multiplying unit costs by baseline volumes) is a meaningful or necessary figure to determine. This is because:

361.1 Unit cost figures will not capture the full set of costs that respond to connection volumes. Provided our exposure to the connection adjustment mechanism is symmetric (discussed below), this is not a problem in itself; and

361.2 Unit costs are not constant across the full range of possible connection volumes. Again, this is not a problem provided base capex and the unit rates are consistently aligned with a best estimate of connection volumes.

362 The Reasons Paper proposes baseline connection capex be set at volumes regarded as 'relatively certain' over the regulatory period. We note this requirement wasn't carried over into the draft IM Rules and agree that it shouldn't be included.

363 We intend to propose a connection capex baseline based on our best estimate of the volume and unit cost of each connection type – i.e. a P50 estimate that balances our upside and downside risks for both volume and unit cost. This approach:

363.1 Improves stability by minimising the difference between forecast and actual connection volumes;

363.2 Exposes Chorus to balanced risk of capex increases or decreases, thereby mitigating any incentive to overstate the incremental cost per connection;

363.3 Supports internal consistency across our entire proposal based on a central, most-likely, view of connection volumes; and

363.4 Enables a wider set of direct and indirect connection-driven costs to be included in the variable rate.

Connection capex adjustment

364 Our preference is for the connection capex adjustment to be made to the base capex allowance, rather than having a separate connections capex category. This will enable

[135] Commerce Commission (10 December 2020), *[Draft] Fibre Input Methodologies Determination 2020*, at clause [3.6.13(2)(a)].

[136] Commerce Commission (10 December 2020), *[Draft] Fibre Input Methodologies Determination 2020*, at clause [3.6.13(4)].

us to manage the residual volume and cost risks within a single fungible base capex pool. This approach also recognises that connections-related capex should include indirect as well as direct costs and that base and connections capex cannot coherently be treated as entirely discrete categories.

365 This approach also recognises that costs do not vary consistently across a full range of volumes. Cost per connection is likely to be reasonably consistent around the P50 volume, but at much smaller or larger volumes the per-connection rate will change – e.g. as call centre volumes become sub-scale.

366 Applying the connection capex adjustment to the base capex allowance does not undermine the Commission's objectives. Consistent with the Commission's approach, the adjustment will reflect differences between forecast and actual connection volumes, but not differences between forecast and actual unit costs. However, there is no reason why Chorus should be prevented from managing differences between forecast and actual unit costs through a single fungible base capex pool. This is consistent with the Commission's approach to all other sub-categories of base capex.

367 The Commission proposes reporting requirements based on a *regulatory year*.[137] However connection capex baseline allowance, connection unit rates and forecast volumes are all proposed to be set for each *disclosure year*.[138] The period for which the allowances are set should align with the period for which they are reported.

Individual capex criteria

368 The individual capex mechanism provides for larger projects and programmes (>$5 million), where uncertainty associated with the expenditure means it's hard to evaluate at the time of base capex approval. We recommend the $5m threshold in the definition of 'individual capex' is amended to provide that the expenditure is forecast to amount to at least $5m. As currently drafted, the definition leaves open the possibility that a project with forecast costs of $5 million that ends up costing less will, after the fact, no longer qualify as individual capex. We don't think that is what was intended. Amending the definition recognises there is uncertainty up front about whether an investment will cross the threshold – for example, due to reliance on forecasts and allocator metrics (e.g. connection volumes) – but that it is the forecast cost that triggers the individual capex process.

369 We also expect uncertainties associated with individual projects will often be around the assessment framework and the economic case for investment, rather than the forecast cost. As such, the uncertainty criteria should accommodate more than just cost uncertainty.

---

[137] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1767].

[138] Commerce Commission (10 December 2020), *[Draft] Fibre Input Methodologies Determination 2020*, at clause [3.6.19(2)].

370 The Commission proposes that the $5m threshold be reviewed midway through RP1. An earlier timing may be better, as our PQ proposal for RP2 has to be submitted by March 2023 (22 months before the end of RP1).

Ring-fencing should be optional rather than mandatory

371 The individual capex mechanism would be improved by making ring-fencing an optional feature rather than a requirement.

372 Ring-fencing makes most sense where a proposal is for a discrete asset to be built. The outcome of the investment can then be defined in terms of that particular asset, its characteristics, and expenditure can be clearly related to the resulting asset. Even in this case, Chorus and the Commission should be careful about how the asset to be built is specified, so as not to prevent design refinement during the project. This may mean an output variation process is needed.

373 However, ring-fencing is more problematic where the proposal is for a particular outcome or output (rather than a particular asset) or where the investment involves modifying a stream of investment in multiple assets. The Commission's proposed definition of individual capex would include these scenarios. In those cases, it should still be possible to check that the investment is not doubling up on base capex outcomes, but it may not be possible or desirable to then manage funding as a discrete investment in defined assets. Preventing Chorus from managing these types of investments as part of an integrated programme including base capex may also drive inefficient investment strategies.

374 Given ring-fencing will not always be practical (or preferable), we recommend that individual capex proposals should include proposed treatment and supporting rationale, and that the Commission should have a discretion as to whether to ring-fence the expenditure.

Shifting base capex to individual capex should be used cautiously

375 The Commission proposes it has the ability to elect to shift investments from base to individual capex. We recommend that this is approached with caution, because:

375.1 The points above about separability of capex programme components are also relevant here. Most investments cannot simply be carved out without re-planning the residual programme. Such re-planning may need to address factors such as technology paths, resourcing and delivery, system optimisation, and other dependencies; and

375.2 Removing projects from the base capex pool can make it more difficult to manage the aggregate uncertainty of the pool, even if the removed projects have high individual uncertainty. A key feature of the base capex mechanism is that including a diverse set of investments helps reduce aggregate uncertainty and provide flexibility to manage programme delays or cost overruns.

376 The Commission's proposed ability should be used only in exceptional cases and then only after the Commission and Chorus have used reasonable endeavours to agree the treatment. There should be a requirement on the Commission to consider the impact on base capex uncertainty before it proposes moving capex from a base capex proposal to individual capex. This would be a counterbalancing consideration that may help ensure the base capex interdependencies are identified and base capex does not become inflexibly small.

Network expansion

377 We have concerns as to whether the capex assessment factors will ensure predictable treatment of network expansion investments. There is value in developing clearer economic criteria upfront, but we appreciate this is unlikely to occur prior to submission of our RP1 PQ proposal. We anticipate that economic criteria and considerations for network expansion is an area where we could lead engagement ahead of our RP2 proposal.

Evaluation of capex proposals

378 We generally agree with the draft evaluation criteria and approach to evaluating and scrutinising our capex proposals – including the expenditure objective and the use of the *good telecommunications industry practice* standard. It's important we have clarity as to how the Commission will assess our proposals, as this will inform our preparation, review and assurance processes.

379 Consistent with our previous submissions, we support the Commission seeking to apply the principle of proportionate scrutiny where it considers it appropriate, e.g. contractually committed UFB2/2+ spend.[139]

380 The Commission proposes to use a broad list of assessment factors in applying the evaluation criteria. Applying the principle of proportionate scrutiny, we anticipate that the Commission will consider each factor only to the extent it's relevant. It would be helpful if the Commission could confirm that this will in fact be the approach.

Common capex

381 The Commission signals it may require PQ proposals to cover information about the whole project or programme, including capex that is common to FFLAS and non-FFLAS.[140]

---

[139] *See* Chorus (16 July 2019), *Fibre emerging views submission*, at [328] and [345]-[347]; *see* Chorus (21 December 2018) *Process and issues submission*, at [75.3].

[140] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at p 451.

382 We anticipate that common capex (and opex) will be a feature of our PQ proposal. To address the uncertainty the Commission identified in relation to cost allocation,[141] it would be appropriate for an ex-post process to allow forecast allocators to be updated with actual allocators (e.g. actual connection numbers), and as a result the MAR.

Base capex information requirements and process

Financial information requirements

383 Table 3.16 of the Reasons Paper sets out minimum information requirements for a base capex proposal. We disagree with relevant financial information to include evidence of efficiency improvements in proposed expenditure.[142] We recommend the Commission limit this requirement to *key input costs* only.

384 Identifying the level of information proposed, including reasons, would be difficult for any business, especially if this requirement is broadly applied across all input costs. This is particularly so for Chorus, given we are still at the beginning of developing mature asset management practices.

Sufficiency of information

385 We disagree with the proposed principle that information provided by Chorus should be sufficient for the Commission to evaluate the PQ proposal against the expenditure objective, having regard to the relevant assessment factors.[143]

386 Not only is that standard subjective, it seems at odds with the Commission's stated decision to apply a top-down approach, with sampling at greater depth (i.e. limited bottom-up review of selected projects and programmes as required).[144] We think the Commission's expectations should be met by Chorus providing the prescribed information.

---

[141] See paragraph 284 of the Emerging Views paper: "*… a less prescriptive approach [to allocation] is better suited to an environment of high future uncertainty. We consider that uncertainty exists in relation to technology changes, take-up of FFLAS* ***and the level of sharing between FFLAS and non-FFLAS****…." (emphasis and square bracket added).*

[142] Commerce Commission (10 December 2020), *[Draft] Fibre Input Methodologies Determination 2020*, at clause [3.6.8(1)(e)].

[143] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1721].

[144] Commerce Commission (19 November 2019), *Fibre input methodologies: Draft decision – reasons paper*, at [3.1590] and [3.1617] - [3.1627].

Audit and certification, independent verification and consultation requirements

Key features

- We generally agree with:
  - Director certification of capex proposals.
  - Submitting an independent verifier's report along with our base capex proposal.
  - The Commission consulting on Chorus' base capex proposal.

Recommendations

- We seek changes to the draft decision to improve the clarity and workability of the capex IM.
- Certification requirements should be aligned with Transpower, rather than requiring an external audit report which is likely to prove cumbersome and expensive without adding value beyond the assurance provided through director certification.
- For individual capex proposals, an independent verifier requirement only to apply for large investments.
- While the Commission consults on the base capex proposal, Chorus is best placed to consult with stakeholders on PQ trade-offs.

Audit and certification

387 The draft decision includes director certification and a report by an auditor for capex proposals. While the requirement for director certification is consistent with Transpower, the audit report is an additional requirement. The audit report requirement should be amended and aligned with the requirements that apply to Transpower.

388 The Reasons Paper observes that Transpower has voluntarily commissioned audit opinions for its last two base capex proposals and the requirements proposed for Chorus simply formalises this practice. Our concerns are:

388.1 A public audit report prepared for reliance by external parties is viewed very differently than a report intended for more limited reliance;

388.2 Codified audit requirements restrict our ability to design an integrated and efficient approach to assurance to support director certification;

388.3 The proposed requirements are likely to leave Chorus with a limited pool of potential assurance providers, resulting in a cumbersome and expensive assurance process;[145] and

388.4 It's not clear this cost and complexity is offset by any material improvement – director's certification is the 'gold standard' and taken seriously by any business, as evidenced by the steps Transpower takes to support its director certification.

389 We also have concerns with the focus of the required audit opinion – "*underlying systems and accounting standards*", as:

389.1 Forecasts and proposals tend to have limited reliance on underlying financial systems; and

389.2 Accounting standards are predominantly directed at historic financial performance rather than generating or presenting forecasts.

390 This focus of the audit opinion wouldn't overlap with the focus of the required director certification, therefore wouldn't replace the need for other assurance activities.[146]

391 Finally, the proposed director certification includes two clauses that are consistent with Transpower requirements plus an additional clause – *information provided is true and correct*.[147] The Commission provides no rationale for the additional clause and we are concerned it may unintentionally complicate the certification process. Terms carry specific meaning to assurance practitioners based on other assurance standards, so a small change can have implications to assurance procedures, and therefore the additional requirement should be deleted.

Independent verification

392 We agree Chorus should submit an independent verifier's report along with our base capex proposal. We are currently working with an independent verifier on our PQ proposal for RP1.

393 However, we are less confident an independent verifier will add value for all individual capex proposals. The Commission may wish to consider applying the independent verification requirement only to larger individual capex applications – e.g. for

[145] We note that we have begun the process of procuring assurance services for our RP1 proposal and have already found that the draft IM requirement for an external audit report is complicating this process.

[146] We also note the Reasons Paper incorrectly describes the difference between internal and external audits. These differ in their audience (internal vs. external) and their focus (broad and future looking vs. narrow and historic) rather than in who carries out the work (both are usually carried out by independent external parties).

[147] Commerce Commission (10 December 2020), *[Draft] Fibre Input Methodologies Determination 2020*, at clause 3.6.3(1)(b).

investments greater than $10m for RP1 – and allow for the scope of verification to be agreed in the first stage decision-making.

Consultation requirements

394 We agree the Commission should consult on Chorus' base capex proposal, as is standard practice. The extent to which Chorus has undertaken its own consultation prior to submission should be included in our PQ proposal and an assessment factor the Commission to consider in their evaluation.

395 As we note above (refer to Topic 5: Quality Dimensions Input Methodology), we understand the Commission proposes to lead consultation on quality in parallel with its assessment of our PQ proposal. We note the Commission's requirement that the capex IM will require linkages between expenditure and quality levels to be set out in our proposals.

396 However, Chorus is best placed to lead consultation on quality standards. This is an essential aspect of our business as well as good asset management.

397 We are well placed to evaluate the differing needs of RSPs and consumers, balancing PQ trade-offs as required. Where the Commission retains its role of scrutinising and assessing our PQ proposals, ultimately determining Chorus' capex allowance within a PQD.

398 We have good feedback loops on aspects of PQ trade-offs via engagement with RSPs, where we see how consumers respond to price versus performance choices. In a BBM regime, our goal is to generate or formalise other feedback loops – e.g. on resilience, complementing existing mechanisms.

399 We are best placed to take a holistic approach to consultation, to navigate the challenges of sensitive and confidential information, and to chart a direction for long-term structural aspects of quality.

TOPIC 7: TREATMENT OF TAXATION INPUT METHODOLOGY

Key features

- We agree with the draft decisions for the tax IM, including:
  - To calculate tax costs using a tax payable approach;
  - To the extent practicable and subject to other relevant provisions in the IMs, to use the cost allocation IM and the Income Tax Act 2007 when calculating regulatory taxable income;
  - To disclose returns under ID regulation using a post-tax cost of capital and a vanilla cost of capital. Each is useful alongside the notes that can accompany ID. While post-tax cost of capital is often more readily understandable, vanilla cost of capital is more accurate where tax losses exist and allows for better comparison between regulated suppliers;
  - To use the vanilla cost of capital to set maximum revenues under PQR. As Incenta submitted, this only has a practical effect where a regulated supplier is making a tax loss;
  - To calculate debt interest attributed to the regulated FFLAS using a leverage and cost of debt as determined in the cost of capital IM and the asset valuation IM, as appropriate for each component;
  - To ignore the tax position of a regulated supplier's wider group when estimating tax costs and to notionally carry forward any tax losses generated by a regulated supplier of regulated FFLAS to the following disclosure year. We are pleased the Commission acknowledges, in line with its practice under Part 4, that there is no clear case for considering the wider group's tax position; and
  - To leave the regulatory tax asset value unchanged where assets are acquired, where those assets are used to supply regulated services, which in our view encourages efficient transactions as between suppliers of regulated services.

400 We respond to the treatment of taxation for the pre-implementation period in Topic 1B: Valuation of Assets Input Methodology – Financial Loss Asset.

APPENDIX B – CROWN FINANCING WORKBOOK

We have reviewed the Commission's Crown financing workbook released 17 December 2019, with our feedback listed in the following table. Some of this detail may be a reflection of the workbook being simplified for illustrative purposes only. We are happy to provide more detail to the Commission.

Issue	Comment
Avoided cost of debt	This parameter is a numerical input but it is unclear what the proposed method is to calculate the avoided interest cost.
Calculations are in end year terms rather than revenue date terms	EDB disclosure calculations are represented in revenue date terms. For consistency, the loss calculation should be revenue date terms, where the annual financial loss calculation would become: *Financial loss year (revenue date terms) = UFB revenues – (UFB + avoided financing cost building block)/TFrev*
Unallocated costs and asset value have been excluded	The financial losses should be based on the unallocated total costs (including opex and asset value) multiplied by an appropriate attribution profile. That is, the unallocated capital figures simply come from Chorus' financial accounts (subject to the required adjustment to unwind the Crown financing adjustment to depreciation) and so aligns with the Act's prescribed opening value for the same core fibre assets. This in turn means that the unallocated RAB and depreciation should be inputs to this model. If the attributed calculations are based on the unattributed costs, it wouldn't be necessary to calculate the attributed depreciation profile.
Open values as at 1 December 2011	The workbook sets the opening values for the first period (FY2012) of the attributed asset value, revenue and other costs to zero. Therefore, the impact on the financial loss calculation ignores any actual revenue earned or pre-demerger asset value.
Straight line depreciation.	Depreciation is calculated as: *Depreciation = (opening NBV) / (weighted average life)* When depreciation is based on the NBV, the denominator should be the weighted average *remaining* life.

Issue	Comment
	Note, as described above, if the depreciation is based on the unallocated depreciation reported in Chorus' accounts (subject to the Crown financing adjustment) then the depreciation calculation isn't required and will be more accurate as it is based on the actual depreciation in the accounts.
Timing of depreciation on capex	As a result of the above calculation, the depreciation on new capex for each period effectively starts at the beginning of the next period, rather than in the period of commissioning as proposed in the IM Rules. Consistency with Chorus' accounts would require depreciation to occur after the date of commissioning (i.e. some depreciation occurs in the period of commissioning, depending on the date of commissioning).
Timing factor for capex (TFvca) applied in the roll forward calculation	The timing factor for capex has been included in a timing adjusted RAB roll-forward calculation rather than the return on asset equation. That is, the RAB adjusted roll-forward calculation is based on: *Adjusted Closing RAB = Opening RAB + Capex + (TFvca – 1) * Capex – Depreciation* This approach is inconsistent with Return on Asset calculation used for the EDB disclosures and understates the return on asset value in the UFB costs, and therefore will understate the Loss Asset Value.
Notional deductible interest in tax calculation	The interest deduction calculation should include a half -ear adjustment to reflect an average mid-year interest payment which is consistent with the interest deduction calculation used for the EDBs (i.e. this calculation should include a divisor of (1+RoD)^).5). In addition, the CIP funding adjustment should also reflect CIP funding payments during the period by using the average of the opening and closing CIP funding balance for a period. The amended equation becomes: *InterestDeduction = [((OpeningRAB + OpeningLoss) * L * RoD) – (AverageCIPFunding * Avoided_RoD)] / (1+RoD)^0.5*
Cost of equity	Cost of equity is calculated as: *Cost of equity = (risk-free rate) + (equity beta * TAMRP)* Where the tax adjustment on the risk-free rate should be included as follows: *Cost of equity = (risk-free rate * (1 – tax rate)) + (equity beta * TAMRP)*
Second and Third options for financial loss calculations	Timing adjustment factors have been excluded and would be required.

APPENDIX C – IM DRAFTING PROPOSED CHANGES

We respond to the Commission's IM Rules, refer to attachment Appendix C – Draft IM Determination table of Chorus proposed changes.