Fibre Input Methodologies: draft determination

Submission | Commerce Commission

28 January 2020

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Executive summary

The Government has set in place the Part 6 regulatory framework to provide oversight of Crown funded UFB networks. Operators of UFB networks are expected to have market power and the Commission has been tasked with applying information disclosure (**ID**) and price-quality (**PQ**) regulation to UFB fibre providers.

Cost allocation and caps

We support the Commission's proposal to review and approve regulated providers proposed cost allocators through the PQ process and to impose a cap on common costs that may be allocated to regulated services. Regulated providers have incentives to maximise the allocation of costs to the regulated services, and to distort competition in both adjacent and downstream markets, and in future fibre markets.

However, even with the proposed approach, the risk remains that regulated providers can act on incentives to push the costs of the legacy copper network and expansion into competitive markets onto fibre end users. Therefore, to further mitigate this risk, we recommend that the Commission augment the proposed approach by:

- Including high level benchmarking of key cost categories against other wholesale only infrastructure providers and regulatory cost models to make transparent where "unavoidable" and standalone cost caps are likely to have been exceeded; and
- The Commission giving itself the option in the IM to impose a cap on cost allocations where benchmarking suggests that – after further investigation - a cap might be warranted or where the maximum allocation to FFLAS has been set as part of a capex proposal.

Double recovery and past losses

Identifying the losses incurred by providers in providing fibre services under the UFB agreements, if any, is not a straight-forward task. UFB providers have deployed fibre networks in the context of their existing businesses and funding arrangements, and shared costs are inevitable.

All parties agree that the double recovery of costs results in excessive profits and is not supported by the Act. We believe that a properly specified incremental or avoided cost approach, as proposed by some submitters, would avoid double recovery and should be the preferred approach. However, the Commission's proposed approach allocates shared costs to FFLAS and other services and this raises the real prospect of double recovery.

The draft seeks to mitigate the concern through the choice of cost allocators and their consistent application over time. However, the approach assumes that the cost allocators are consistent with the implicit recovery of costs from other unregulated services. TERA advise that miss-recovery can occur where costs are allocated to fibre independently to the revenues from copper[1].

Accordingly, TERA proposed a "cross check" based on total costs and revenues across regulated copper and fibre services to identify any disconnect relating to recovery[2]. The draft agrees in principle to a 'cross check' against the 'total cost recovered from copper and fibre', and this was a factor in defining causality and limiting the choice of allocators to a defined set[3]. However, without the recommended TERA reconciliation across allocated costs and revenues the prospect of miss-

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[1] TERA Consultants "Study on potential cost over-recovery in the BBM model for fibre services" (31 July 2019) (**TERA**), page 14. TERA sets out the potential disconnect between revenue provided and technical cost allocations with the example of duct assets. TERA also advise the same concern with opex, and potential double recovery relating to asset lives.

[2] TERA, page 27.

[3] Commerce Commission *Fibre input methodologies: Draft decision – reasons paper* (19 November 2019) (**Draft Decision**) at [3.526] and [3.527].

recovery remains. For example, we believe that the approach will not fully capture the FPP funded contribution to improved network performance.

Given past losses are expected to be significant - with real implications for end-user prices and regulatory framework risk - it is not unreasonable for the Commission to critically consider claims for past losses and apply the cross check as proposed by TERA. If the cross check indicates a disconnect, the Commission is then able to make a top down adjustment to augment the proposed bottom up approach.

Quality dimensions

We support the joint RSP submission relating to service quality. Quality is a key concern for RSPs because the quality and reliability of the fibre services we purchase from wholesale providers directly impacts the services we can provide to our customers.

Telecommunications services are complex, the quality and technical specification of services are readily amended, and changes made may not be transparent to the Commission or end-users. Our key concern is that fibre suppliers facing only high-level obligations will have the incentive and ability to amend services in a way that reduces quality or distorts competition, and shift costs and risks on to RSPs and end users. PQ permitted prices will likely become disconnected from provider risk and services provided over time.

We appreciate the difficulty for the Commission of setting technical specifications, but without transparency it will be difficult to assess whether funded costs and risks are being pushed on to other parties. Therefore, RSPs propose that - in addition to enhancements to proposed quality dimensions - the Commission:

- Make fibre service quality transparent by requiring disclosure of fibre wholesale agreement reference offers through information disclosure requirements (enabling access seekers and the Commission to identify quality reduction or shifting of risk); and
- Require a change control process that will ensure service quality change is signalled early and can be implemented with least customer impact, providing similar benefits to price smoothing.

Cost of capital

On the face of it, the draft doesn’t fully take account of the implications of the UFB arrangements and regulatory framework (comprising a revenue cap and washup) in its WACC considerations.

For example, while CEPA considered the implications of the UFB arrangements and regulatory framework in recommending the asset beta, the Commission proposes to inflate the asset beta on the premise that wholesale provider comparators with long term contracts are likely to have a lower risk than UFB fibre providers. It is unclear why wholesale providers in a competitive market would face less risk than a UFB provider in partnership with the Crown with guaranteed expected regulated revenues. PPPs are generally expected to result in a better sharing of risk and lower costs.

The Crown also retained several key risks in UFB arrangements and its unclear how these benefits have been factored into the draft. I the absence of any other information, the only conclusion can be that the proposed approach over-states the required WACC for fibre providers. The UFB arrangements and regulatory framework all point to UFB provide risk lower than the wholesale group comparators. The Commission could have gone further and selected a point closer or lower than the wholesale group average, perhaps at the average EDB comparator set level.

Introduction

1. Thank you for the opportunity to comment on the Commission's Fibre Input Methodologies Draft Determination (**draft determination**) and Reasons paper (**draft decision**). The Commission's draft sets outs out the rules and processes that it will apply to price-quality (**PQ**) regulation of Chorus fibre services and LFC information disclosure (**ID**).

2. The Government recently marked the completion of the first stage of its UFB programme, with fibre connectivity now available to 79% of New Zealanders. The Minister set out that key UFB policy objectives of the programme had been met[4], noting:

   The policy objectives of UFB1 were:

   - *To cover 75 per cent of the population by end of 2019;*
   - *To cover all schools and hospitals and 90 per cent of businesses by the end of 2015;*
   - *To provide services of at least 100 Mbps downstream, upgradable to 1000 Mbps;*
   - *The UFB infrastructure was to be owned by wholesale only Local Fibre Companies (LFCs) or a structured, separated Chorus; and*
   - *Open access network with non-discrimination.*

   All of the above policy objectives have been met.

3. Government has established the Part 6 regulatory framework and the Commission is now tasked with applying the legislative framework.

4. With commercial arrangements agreed and regulatory framework in place, the Commission implementation of Part 6 will in many ways determine whether UFB is a success. The choices made by the Commission will determine whether: UFB fibre services remain affordable to many end users; competition is promoted, and; whether the framework delivers the promised certainty to the sector.

5. The Commission draft draws from its Part 4 approach. This is understandable as Part 4 has been applied over several years to infrastructure providers with economic similarities to fibre network providers and is a useful reference point. However, there are key legislative, technical and competitive differences relating to the regulation of fibre markets. There are differing views relating to the implications of these differences and the effort the Commission should reasonably apply to addressing concerns raised by these differences.

6. We haven't attempted to comment on all aspects of the draft nor reconcile all the elements of the proposed framework. Rather, we have focused on the key concerns raised in our earlier submissions.

Cost allocation

- We support the draft proposal to review and approve cost allocators through the PQ determination process. Regulated providers have clear incentives to inflate the price of regulated services and distort competition through cost allocations. The Commission may wish to confirm that approved forecast values includes the cost allocators themselves, i.e. the approved forecast isn't limited to the input values to an allocator.

- The proposed unavoided cost test is a useful cross-check that can provide efficient signals if properly applied. Problems with underling data means that the proposed cost allocation

[4] https://www.beehive.govt.nz/release/nz-top-10-connected-nation-stage-one-ultra-fast-broadband-roll-out-completed

approach is unlikely to expose avoided costs and the Commission should put its mind to the medium-term implications of regulated providing withdrawing a product line.

- We recommend the Commission complement the approach with requiring more detailed data and benchmarking key costs against other wholesale fibre providers and regulatory models. The Commission should give itself the option to set allocation caps when benchmarking suggests cost allocations exceed standalone (**SAC**) or unavoidable cost caps and a cap is warranted. The cap should also apply where capex proposals

- A cap should also apply where the Commission sets the maximum that can be recovered from FFLAS in approving capex proposals.

We support the Commission's proposed proposal/approve approach

7. Cost allocation decisions are important because these decisions will determine how much end users of regulated services will pay for services – i.e. the level and relative recovery of shared costs with other end users, and over time - and competition outcomes related markets.

8. The draft decision proposes that operating costs and asset values directly attributable to the provision of FFLAS services must be allocated to the regulated service. Any operating costs or assets not directly attributable to regulated services will be allocated using causal cost allocators or proxy costs where a causal cost cannot be established. An operating cost causal allocator is based on drivers that lead to an operating cost being incurred during the 12-month period, and an assets causal allocator is one which influences the employment of an asset.

9. There are a range of plausible allocators and the proposed approach - on its own - leaves significant discretion with regulated providers. We should expect Chorus and LFCs in exercising any discretion to act on natural incentives to maximise regulated costs and distort competition in adjacent and downstream markets, and prevent future competition developing in fibre markets.

10. Accordingly, we support the Commission's proposed approach based on transparency[5] coupled with Commission review and approval of cost allocators through the PQ process[6]. It's difficult to see any process being permitted by the Act that leaves discretion with providers without Commission oversight where there are clear provider incentives to exercise any discretion in a way that is inconsistent with required s166 outcomes.

11. The Commission may wish to clarify how the allocators will be approved in practice. The draft determination provides that, where an allocator type or metric forecast used to forecast an asset or cost allocator has been approved by the Commission in an ID or PQ determination, then the allocator type or metric forecast must be consistent with the determination values[7]. We appreciate that the allocator type is defined to set out the basis for attribution or allocation of an operating cost or asset value and this likely is intended to include the cost allocator decision. However, it could also suggest that the forecast relates only to the inputs that quantify a cost allocator rather than the allocator itself. The Commission may wish to clarify that the approval extends to selection of the causal allocator.

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[5] Draft decision at [3.375]
[6] Draft decision at [3.383], [3.426] and [3.455]
[7] Draft determination at [3.1.1(4) and (5)]

The Commission should apply the proposed unavoided cost cap with a standalone cost cross-check

12. In our earlier submissions we proposed that the Commission apply a stand-alone cost (**SAC**) cap to the allocation of shared costs. This is a common and widely applied allocation rule that is necessary for efficiency.

13. The Commission identified a number of problems with a SAC: the implied network optimisation is inconsistent with a BBM that takes account of existing assets; the standalone cost of a new network would likely be higher than the depreciated cost of the network; and, as most duct costs relate to labour and machinery, the incremental cost of installing ducts of varying costs is likely to be small[8].

14. Accordingly, the Commission proposed a cap based on unavoidable costs – i.e. the residual costs once the avoided costs of other not-regulated services are removed – as better reflecting required s162 outcomes.

> *2.1.3(4) The allocation of common costs to regulated FFLAS must not be higher than the unavoidable costs that would be incurred if the regulated provider were to cease supplying services that are not regulated FFLAS.*

15. We agree the unavoided cost test is a useful cross-check that can provide efficient signals if properly applied.

16. In theory, common costs are unlikely to change when a product line is withdrawn. However, the proposed cost allocation approach will inevitably result in direct costs - which would otherwise be avoidable - being categorised as shared or common costs. This could be due to the granularity of the underlying data, the loose relationship between allocators and actual cost drivers, or cost changes that will occur outside the window within which the cost allocator is effective (i.e. some optimisation of the business would be possible with lower costs if the provider deletes a product line).

17. As explained in the draft decision, for example, disaggregated data is likely to result in higher level of direct cost attribution because a larger pool of assets is more likely to include shared costs[9]. The same concern applies to an avoided cost analysis.

18. Accordingly, we agree the Commission should put its mind to the reasonable avoided costs if a regulated provider were to stop unregulated product lines. As set out in the Commission's example, this analysis would capture costs avoided over time and in practice as regulated providers reshape their businesses or redeploy assets.

19. We believe the unavoided cost and SAC caps are important in order to minimise the risk that the Commission's Part 6 implementation:

    a. Unnecessarily brings through legacy copper inefficiencies and costs into the fibre business. The Government implemented a separate fibre RAB approach to, amongst other reasons, minimise legacy copper assets and efficiencies being carried forward. The proposed approach means that, for example, capacity that will otherwise never be required for fibre services and sunk costs will be increasingly allocated into the fibre business. There is a significant risk that the regulated fibre business ends up being the "dumping ground" for legacy assets and costs; and

[8] Draft decision at [3.416] and [3.418]
[9] Draft decision at [3.446]

b. Provides Chorus and LFCs inefficient incentives to maintain or build complex businesses and unnecessary functionality, using regulation to delay making efficiencies or subsidising an option to expand in to competitive adjacent and downstream markets.

   A complex business and services are significantly more costly to support than a simple one. Therefore, while a regulated provider may choose to maintain an expensive business in order to have an option to expand down the value chain, for example, this decision should be based on commercial driver rather than a free option funded by regulated services; and

c. Undermines potential competition from unbundled layer 1 based operators. The proposed approach to setting cost allocators risks failing to reflect that layer 1 services are significantly less complex and lower cost to support than layer 2 services – allocating complexity (and what should be a layer 2 cost) to the layer 1 service.

20. Accordingly, we recommend that the Commission supplement the proposed approach by:

a. Ensuring regulatory provider data is collected or maintained at a granular level as anticipated by the draft decision[10]. On the face of it, the draft does not prescribe the data that must be used for allocations at this stage[11] and there is a risk that the relevant data is lost[12].

   We recommend the Commission consider clarifying that regulated providers should retain relevant disaggregated underlying data that would permit a proper assessment of avoided costs should this be required (subject to recommended benchmarking below);

b. Include in ID requirements - or as part of the Process and Rules IM – an obligation to benchmark key cost categories against other wholesale only infrastructure providers and cost models. The purpose of the benchmarking being to highlight whether unavoidable and SAC caps are likely to have been exceeded and a closer look and adjustment is warranted.

   We do not believe this benchmarking need be onerous. Cost data is increasingly being reported by other LFCs and overseas wholesale fibre providers and in regulatory cost models[13]. While network assets might be less comparable for geographic and path dependency reasons, we expect there will be useful information relating to systems assets and opex (which are likely more driven by business complexity and volume); and

c. The Commission giving itself the reserve power to specify the maximum allocation of cost to regulated FFLAS, i.e. specifying in the IM that the allocation of a common

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[10] Draft decision [3.444]
[11] Draft decision [3.451]
[12] Loss of data is noted as an issue for past loss calculation, Draft decision [3.474]
[13] NZ LFCs and an increasing number of overseas wholesale only networks are publicly reporting their costs. For example, price benchmarking in our 9 August 2019 submission on the WACC emerging views paper at [66] was drawn from public report. Further, regulators are increasingly assessing and making transparent costs, i.e. Ofcom recently released the modelled and estimated the costs of a new entrant FTTP provider (between GBP8 and GBP12). See Ofcom https://www.ofcom.org.uk/consultations-and-statements/category-1/2021-26-wholesale-fixed-telecoms-market-review

cost to regulated FFLAS must be no higher than that determined by the Commission in any PQ determination (adding this to the allocation constraints at 2.1.3).

This would be used for unavoided and SAC cap purposes. However, capex proposals will likely include investment in assets that will be used for both regulated FFLAS and other services. Consideration of new investment should ensure that the proportion expected to be allocated to FFLAS shouldn't exceed the benefits to fibre users or SAC recovered from fibre end users shouldn't exceed the benefit and a cap may be identified.

Asset valuation and double recovery

- All parties agree that double recovery of costs results in excessive costs and is not supported by the Act. However, the Commission's proposed approach allocates shared costs between FFLAS and other services and this raise the real prospect of double recovery.
- TERA has advised that miss-recovery of costs can occur over multiple dimensions. Accordingly, TERA proposed a "cross check" based on total costs and revenues across regulated copper and fibre services to identify any disconnect relating to recovery.
- Given past losses are expected to be significant - with real implications for end-user prices and regulatory framework risk - it is not unreasonable for the Commission to critically consider claims for past losses and apply the cross check as proposed by TERA. If the cross check indicates a disconnect, the Commission is then able to make a top down adjustment to augment the proposed bottom up approach.

Past financial losses

21. The Commission has been tasked with identifying any losses incurred by providers in providing fibre services under the UFB agreements.

22. This is not a straight-forward task as losses are not being assessed against a textbook standalone infrastructure project but seek to identify the actual financial losses faced UFB providers whose participation was based on the provision and funding associated with an existing business. For example, Chorus is the provider of regulated copper broadband services which both shares infrastructure, and are expected to be replaced by, the UFB fibre network over time.

23. Submissions highlight the different positions on past losses. This isn't surprising as there are significant costs and implications for end users, and Chorus has remains highly profitable throughout the prior regulatory framework period. Vodafone notes this is likely the most significant decision the Commission will make, with some analysts predicting it could total as much as $2b for Chorus alone[14]. Over the same period as losses are claimed to have occurred, Chorus has achieved significant average returns on equity of over 24%[15].

<u>Proposed approach results in the possibility of double recovery</u>

24. Several submitters proposed that the Commission take an incremental or avoided cost approach as best capturing the nature of the fibre network built in the context of an existing business[16]. However, the Commission notes that a firm in a workability competitive market would expect all

[14] Vodafone *Submission on Commission's proposed approach* (21 December 2018) at [80]
[15] Vodafone (21 December 2018) at [83]
[16] Vodafone submission on Fibre Regulation Emerging Views, (16 July 2019)

services using a shared asset to contribute towards the recovery of the costs of the shared asset[17]. The Commission proposes to apply the general allocation methodology – i.e. fully allocating shared costs using causal cost allocators (**FAC**) – as a consistent, transitional and proportionate approach consistent with ensuring a normal return on common assets.

25. It's unclear why the proposed FAC approach is superior to an incremental or avoided cost approach. While no evidence has been presented that a FAC approach is necessary to guarantee a normal return on shared copper network assets, we know that the approach is prone to double recovery and will increase prices to fibre end users. There is no evidence in the draft that FAC delivers a better outcome than Vodafone and Frontiers' proposals for end users.

26. Nonetheless, all parties agree that double recovery of costs results in excessive profits and is not supported by the Act. Accordingly, the Commission's proposed approach must be carefully specified to minimise potential double recovery and reasonable efforts made to ensure this does not occur in practice. We agree that it would be impractical to fully ensure no double or under-recovery, but the Commission should take reasonable and proportionate measures to minimise the risk of over or under recovery and address the major sources of concern[18].

27. We support the Commission seeking to reduce the risk of double recovery. The draft proposes to mitigate the double recovery concern through the choice of cost allocators - i.e. metrics based on how the asset is employed and ensuring the avoided costs of other services are not allocated to the regulated service – and their consistent application over time.

28. However, the proposed past losses approach is based on allocations that differ between the past losses calculation and that implied by the copper business and the potential for double recovery remains. TERA advise that miss-recovery can occur where costs are allocated to fibre independently to the revenues from copper[19].

29. Accordingly, TERA propose a cross check based on total costs and revenues across regulated copper and fibre services[20]. The draft agrees in principle to a 'cross check' against the 'total cost recovered from copper and fibre', and this was a factor in defining causality and limiting the choice of allocators to a defined set[21]. This is not equivalent to cross check TERA proposes. While the proposed approach allocates costs based on how an asset is employed, the TERA approach seeks to understand how costs have been recovered across Chorus copper and fibre services (to identify a gap). In which case, for example, the approach would need to reflect the FPP funded replacement of the copper as it transitions to fibre.

30. The Commission should apply the TERA cross check to as a cross check on the results it is seeing from its bottom up approach. If there is a material discrepancy - and therefore evidence of double recovery – the Commission could then apply a top down adjustment to proposed losses. A top down check to validate the outcomes of a bottom up regulatory model is a common approach taken by regulators.

31. We do not believe it is unreasonable or disproportionate to validate the past loss estimate by applying the TERA cross check. The cross check will make transparent whether there is material double recovery – which is not supported by the Act – and as Vodafone highlights past

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[17] Draft decision at [3.102], [3.366] and [3.479]
[18] Draft decision at [3.528]. For example, the TERA recommended approach is practical and reasonable cross check that will make any double recovery transparent.
[19] TERA Consultants "Study on potential cost over-recovery in the BBM model for fibre services" (31 July 2019) (TERA), page 14. TERA sets out the potential disconnect between revenue provided and technical cost allocations with the example of duct assets. TERA also advise the same concern with opex, and potential double recovery relating to asset lives.
[20] TERA, page 27.
[21] Commerce Commission *Fibre input methodologies: Draft decision – reasons paper* (19 November 2019) (Draft Decision) at [3.526] and [3.527].

losses will likely constitute a significant proportion of the RAB and materially increase prices for end users.

Adjusting for performance improvement

32. The draft also considered prescribing that, for fibre assets, meeting the service level requirements of the FPP determination is to be regarded as a causal driver of investment. In the end, it proposed not to proceed with this option as it considered the definition of causality can be worded to address usage for both regulated FFLAS and services that are not regulated FFLAS[22].

33. However, any allocation approach based on separately identified causal costs rather than how assets were funded is unlikely to fully reflect and correctly allocate the cost of network performance improvement anticipated by the FPP.

34. The Commission has been clear that the FPP price was set to fund Chorus' transition to fibre over time[23].

> *186. We recognise that in some areas there is a gap between the modelled service which we used to set prices for the regulated UBA service and the actual regulated UBA service. However, our model used to set the regulated UBA prices was based on a hypothetical efficient network built using modern equivalent assets. This met the TSLRIC definition, which requires us to determine forward-looking costs over the long run. Therefore, it is inevitable there is (and there will continue to be in the short term) a gap between the modelled network and Chorus' actual network, which uses ATM technology and microwave radio backhaul.[144]*
>
> *187. While there are differences between the modelled network in the FPP and Chorus' actual network,* ***our view is that the TSLRIC price we set in the FPP compensates Chorus so that its network and the modelled network become broadly consistent over time.*** [emphasis added]

35. Accordingly, while FPP prices were expected to be enough to compensate Chorus for deploying the fibre network at the rate implied by the TSLRIC model, the proposed cost allocation approach captures only those assets which are deployed and shared by copper and fibre services. The different allocation between causal costs and that implied by FPP prices is a cause of potential double recovery. The Commission should consider its proposed approach further.

36. We further believe it would be practical to assess the level of FPP anticipated network quality contribution through the TSLRIC model. The TSLRIC model identifies depreciation that would be expected to be applied to the network. In practice, Chorus invested around $33M per year to sustain the copper network over this period and the residual could be applied as a shared cost to be allocated to all copper and fibre services[24]. The TSLRIC model sustained the current capability but also funded the transition to the fibre network.

37. Chorus has further signalled at the workshop that it anticipates submitting substantive capex proposals for physical network replacement within the IM model. If this were to eventual, Chorus could further retain the benefit of end user funded - but not otherwise made - investments in the network through past losses period, while pushing the deferred investment into later Part 6 fibre funded periods.

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[22] Draft decision at [3.441]

[23] Commerce Commission [UBA review XX] See the UBA 30R https://comcom.govt.nz/regulated-industries/telecommunications/projects/review-of-uba-non-price-terms?target=documents&root=87756

[24] Survey of Chorus annual reports. There was no discernible dip during the period when the Commission was setting benchmark prices.

38. There is a substantive risk that the proposed causal cost approach, on its own, will result in a mismatch in allocations used for BBM purposes and those anticipated by the FPP network performance improvement. Therefore, we agree that the Commission specifically identify FPP performance improvement as an allocator and undertake a cross check to remove any double recovery.

Other adjustments

- The tax benefit of losses should be applied against the group tax position at the time the loss is identified. Chorus has not incurred these losses in practice and a firm operating in an otherwise competitive market would offset losses against profitable lines. While the draft notes that the impact is limited to the time value (as the loss is applied in later periods), if there are large losses the impact on end user prices will be material.

- We support the Commission applying its discretion to setting depreciation. In addition to the smoothing of revenues, the Commission may wish to give itself the ability to set accelerate depreciation to reduce risk over the life of assets. However, the Commission should also specify technical asset lives through information disclosure to provide a benchmark against which any departure for the reasons set out in the draft occur.

- We agree with the Commission's approach to capital contributions. Crown UFB funding relates to specific equity and debt funding, and this does not limit recognition of other Crown grants and concessions. The Commission should be alive to adjusting for RBI and other Crown grants (liquidated damages) in PQ determinations.

<u>Tax benefit from past losses</u>

39. The Commission proposes to carry tax losses forward within the fibre business rather than recognise them against wider group profits at the time that they occur[25]. As noted in the draft, end users would be slightly worse off through higher prices under the proposed approach to the extent of the time value of money for the deferral period.

40. We agree there is no obvious allocative or dynamic efficiency at stake. However, it's unclear why the provider should capture the benefit rather than end users or that there is minimal value at stake. Vodafone notes that loss estimates have been as high as $2b and, if calculated losses were half this amount in practice, it could add around $1 per month to end user prices.

41. Chorus has had the benefit of setting these tax losses against other revenues - i.e. it hasn't actually incurred these losses by virtue of participating in UFB - and a multi-product firm in a competitive market has the benefit of offsetting taxes. Consumers should share in these efficiencies and benefits.

42. We recommend that the Commission net off the benefit at the time is occurs. The proposed approach further appears to add unnecessary complexity for little benefit. If the time value of money is not material as suggested in the draft, then there should be no concern with the approach.

[25] Draft decision at [3.1984] and [3.1953]

Depreciation

43. The Commission proposes to approve the asset lives and depreciation that will apply to regulated providers asset[26]. We support the Commission doing this as it's an important parameter for setting prices.

44. Generally, defining depreciation over the life of an asset is a common cost allocation problem – the key choice being to apply a profile over time that is in the best interests of end users and satisfies s166 considerations. As Professor Yarrow notes in his advice, firms in competitive markets can take different approaches to recovering cost over the life of an asset.

45. Therefore, the Commission could use depreciation to smooth revenues and prices as required by Act, but the efficient management of risk over time could also be considered. For example, interest rates are currently low and an option may be taken to increase depreciation in early years to smooth prices and to better mitigate the risk of higher interest rates in future periods. Accordingly, the Commission may wish to give itself the option to set asset lives.

46. In addition, the Commission should also consider setting standard technical asset lives to provide a baseline against the rates applied in practice can be compared, i.e. so that applied rates ultimately align with technical lives over the life of an asset.

47. The Commission set out the benefits of standard assets lives in the context of its 2010 IM decision[27].

> *E10.8 Asset lives therefore have a significant effect on the time profile of depreciation charges. To the extent that depreciation is reflected in pricing, asset lives can determine the extent to which current or future consumers pay for assets.*
>
> *E10.9 Some regulatory regimes in overseas jurisdictions specify standard asset lives. Standard asset lives ensure that the depreciation charge in each period: a. is consistent from business to business for the same asset type; and b. is appropriately allocated over the expected useful economic life of an asset.*
>
> *E10.10 A standard list of asset lives may also reduce regulatory costs and provide more certainty for EDBs, GPBs, and consumers.*

48. The benefits would apply in this case where standard lives complement and provide a comparator to the lives applied in practice. There could be further transparency benefits to have standard lives for major asset classes in layer 0, layer 1 and layer 2.

Capital contributions

49. The Crown has funded fibre assets through UFB equity and debt financing, but also through RBI grants and grants in lieu of contract penalties.

50. This funding is readily identified as, for example, RBI funding was applied to specific assets and likely set out in agreements with CIP. For example, the Auditor General reported that liquidated damages were applied to acquiring UFB outcomes[28].

> ***Liquidated damages are redirected to enhance the network***
>
> *3.36 In our view, Crown Fibre's application of liquidated damages is creative and appropriate. Liquidated damages for commercial partners materially breaching contracted requirements are a*

[26] Draft determination [2.2.7(5)] and [3.2.2]
[27] 2010 EDB/GPB IMs at [325] in the document and [349] in the relevant IM
[28] https://www.oag.govt.nz/2016/ufb/docs/ufb.pdf

financial penalty payable to Crown Fibre. Throughout the whole roll-out to date, liquidated damages have been applied on only two occasions. These were applied to two commercial partners on different occasions where the existence of, and potential for enforcing, performance levers alone did not influence the desired turnarounds.

3.37 When Crown Fibre enforced penalties in these two instances, rather than retaining the payments, it directed that the payments be reinvested in parts of the network that were additional to what those commercial partners had been contracted to build. This resulted in enhancements to the network.

51. In effect, liquidated damages were applied as grants to providers for additional network assets.

52. Our concern was that other Crown funding through these other mechanisms may not be considered for the purposes of the BBM model, and that this would have a material adverse impact for end user prices. The draft clarified that Crown funding and capital contributions are defined terms in the Act, and that funding through these other mechanisms is unlikely to be considered Crown Financing for the purpose of the Act (it not being debt or equity financing for the purposes of UFB).

53. We agree with the Commission's approach. The process should ensure that Crown contributions to assets that fall outside the s164(1) definition of equity and debt financing are captured. This means that Crown use of liquidated damages, implicitly applied by CIP as a grant to UFB partners, and grants through the RBI programme and fibre lead-ins should be treated as capital contributions for BBM purposes.

Quality

- We support the joint RSP submission. Regulated providers have an incentive to reduce quality, but to also shift costs and risk on to access seekers and end users.
- RSPs appreciate that it would be difficult for the Commission to set service specifications. Therefore, we propose that the Commission require disclosure of wholesale agreement reference offers through ID and require a change process. This would make any concerning changes transparent to access seekers and the Commission.

54. We support the joint RSP submission relating to service quality. Quality is a concern across RSPs because the quality and reliability of the fibre services we purchase from wholesale providers directly impacts the services we can provide to our customers.

55. Telecommunications services are complex, the quality and technical specification of services are readily amended, and changes made may not be transparent to end-users. Our key concern is that fibre suppliers, if faced with only high-level obligations, will have the incentive and ability to amend services in a way that reduces quality or distorts competition, and shift costs and risks on to RSPs and end users. There is the risk that PQR permitted prices become disconnected from the provider risk and services provided in practice.

56. We appreciate the difficulty for the Commission of setting technical specifications, but without transparency it will be difficult to assess whether funded costs and risks are being pushed on to other parties. Therefore, generally, we propose that in addition to the proposed quality dimensions the Commission:

    a. Make fibre service quality transparent by requiring disclosure of fibre wholesale agreement reference offers through information disclosure requirements (enabling the Commission to identify quality reduction or shifting of risk); and

b. Require a change control process that will ensure service quality change is signalled early and can be implemented with least customer impact, providing similar benefits to price smoothing.

57. The RSP submission further proposes that there be specific measures relating to regulated provider responsiveness to access seekers, and improvements to the Quality dimensions set out in the draft. The support the joint RSP submission on these matters.

Cost of capital

- On the face of it, the draft doesn't fully take account of the implications of the UFB arrangements and regulatory framework (comprising a revenue cap and washup) in its WACC considerations.
- CEPA considered these factors, amongst others, in recommending the asset beta. The Commission rejected this advice and, instead proposed a higher asset beta on the basis that wholesale only comparators with long term contracts had a lower risk than fibre providers with UFB agreements and guaranteed expected regulated revenues.
- The Commission needs to look at the implications more closely. At the minimum, it should accept CEPAs recommendation. However, there are strong reasons for the Commission to apply a lower asset beta, relying on EDB benchmarks and reflecting the benefits of UFB arrangements.

58. On the face of it, the draft decision does not fully consider the benefits to UFB providers of UFB arrangements and features of the regulatory framework.

59. The UFB framework – i.e. mandated revenue cap and washup, proposed approach to demand forecasting, and commercial arrangements which share downside risks with the Crown – all point to fibre providers facing minimal risk. However, it's unclear from the draft how the Commission is considering Chorus risk in light of the framework. For example,

UFB arrangements, revenue cap and wash up reduce provider risk

60. CEPA carefully considered the implications of the regulatory setting on demand risk and growth opportunities, concluding Chorus had similar or lower risk than the comparator wholesale only and vertically integrated firms[29]. CEPA further cross checked the proposed asset beta range (0.42-0.51)[30]

> *We consider that this represents a reasonable range, and is supported by the following factors:*
>
> - *In the 2016 Part 4 IM decision, the Commission set asset betas of 0.35 for the EDBs, 0.40 for the GPBs and 0.60 for airports. An asset beta of 0.46 for the fibre providers (within a range of 0.42 – 0.51) appears sensible in the context of these decisions, as it reflects that cyclicality in the profits of telecommunications companies is likely to be higher relative to the energy networks, and lower relative to that of airports.*

[29] https://comcom.govt.nz/__data/assets/pdf_file/0025/147841/Cambridge-Economic-Policy-Associates-CEPA-Cost-of-capital-for-regulated-fibre-telecommunication-services-in-New-Zealand.-Asset-beta,-leverage-and-credit-rating-21-May-2019.pdf For example, see tables 2.2 and 2.4 of the CEPA XX 2019 report.

[30] https://comcom.govt.nz/__data/assets/pdf_file/0025/147841/Cambridge-Economic-Policy-Associates-CEPA-Cost-of-capital-for-regulated-fibre-telecommunication-services-in-New-Zealand.-Asset-beta,-leverage-and-credit-rating-21-May-2019.pdf , page 43. Was 0.42 – 0.51, subsequently revised to a range of 0.41-0.49.

- *The Commission set an asset beta of 0.43 for the unbundled copper local loop (UCLL) and unbundled bitstream access (UBA) services offered by Chorus through its copper network.*

61. CEPA proposed that the Commission adopt the average of the wholesale only and integrated provider groups. It's unclear why FFLAS provides with arrangements that include Crown funding and support, an enduring RAB and guaranteed FCM funding (subject to minor efficiency incentives) are seen as being exposed to more risk than a wholesale provider in a competitive market with long term contracts.

62. Further, the Commission earlier considered the impact on risk in its 2015 review of applying a revenue cap and washup to EDBs. Dr Lally advised that a price capped business has the theoretical expectation of a higher asset beta than revenue capped business[31]. In other words, revenue cap and wash up arrangements lead to less systematic risk than where price cap regulation applies. Dr Lally advised that, while there was no clear evidence of the size of the difference, the Commission could address the difference through comparator selection.

> *38 Secondly, and notwithstanding the theoretical expectation that price-capped businesses would have higher asset betas than both ROR regulated and revenue-capped businesses, there is no empirical study that provides a clear conclusion on the effect of regulation on beta. In the face of this uncertainty, and until better evidence becomes available, I consider that one should keep an open mind. Accordingly, in respect of the New Zealand DPP (price-capped) businesses, the best course of action would be to limit the comparators for them to either US ROR regulated or price capped businesses, depending upon which seems more appropriate, and I consider that the better comparators would be US price-capped businesses (including those also subject to earnings sharing in order to produce an adequate sample size), with the data used to estimate the betas being limited to the period* in which the price capping prevailed. […]

63. Nonetheless, the Commission has rejected CEPA's recommendation to give equal weight to wholesale only and integrated provider comparator sets and, instead, increase the weighting to vertically integrated providers (increasing the asset beta and WACC accordingly)[32].

> *3.017 […] We believe that there is some justification that wholesale companies have characteristics, such as the nature of the long-term contracts they typically employ, that means they are likely exposed to less systematic risk than regulated FFLAS. […]*

64. Rather than using comparator selection to better reflect the benefits of the UFB commercial and regulatory arrangements, the Commission proposes to weight asset beta comparators to firms less in common with regulated fibre providers.

Crown funding reduces the risk of other funding

65. Alternatively, while the draft considers Crown funding and, in part because funding is unlikely to be converted into equity in the future, concludes that it should considered debt for the purposes of determining WACC.

66. However, the draft does not consider in any detail the implications of the funding arrangements for provider risk. For example:

    a. What are the implications of an option to convert Crown funding into equity are? For example, while highly unlikely to be exercised, the conversion options could have the effect of truncating the fibre provider downside returns if the project was less

[31] Dr Martin Lally report to Commerce Commission *Review of further WACC submissions* (23 November 2016)

[32] Draft decision at [3.916]

successful than expected. This truncating would suggest an adjustment to the average WACC so that the expected return is maintained;

b. What are the implications of an option to re-phase Crown funding between periods? In July 2014 Chorus entered into a conditional agreement with CFH, which gave Chorus the option of bringing forward the present value of CFH funding of up to $178 million[33]. This could imply, for example, a sharing of risk or insurance that enables a higher debt level; and

c. What are the implications for provider risk of UFB arrangements whereby Crown funding for core network is paid as customers connect? The Crown intended to assume the demand risk. While UFB partners could negotiate away from this proposal (as Chorus did), the risk was still with the Crown.

67. We're not claiming that this fully considers the implications of UFB arrangements. However, it's unclear from the draft whether the Commission has undertaken a complete and critical review of UFB arrangements to assess the implications for the required return.

68. Without consideration of UFB arrangements and regulatory factors that minimise risk faced by fibre providers, the proposed approach can only over-state the required provider WACC. The UFB arrangements were expected to result in a better sharing of risk, with the Crown assuming many of the risks associated with the programme.

69. CEPA considered these factors in recommending the approach to the asset beta, finding that over several dimensions Chorus and LFCs have the same or lower risk than the comparator sets[34]. However, the Commission has proposed an asset beta that implies fibre providers risk is are more comparable to vertically integrated telecommunications providers than to wholesale only infrastructure providers. Alternatively, the proposed approach implies that Government PPPs likely result in a less efficient sharing of risk and higher costs than commercial arrangements and long-term contracts.

70. At a minimum, the Commission should revisit CEPA's recommended asset beta. Further, the regulatory framework and commercial arrangements all point to Chorus facing risk at - or lower - than the wholesale group comparators. We believe the Commission could go further and select a point closer or lower than the wholesale group average, possibly close to an average EDB comparator set which shares similar Part 4 regulatory parameters.

[End]

[33] Chorus 2014 annual report at page 4

[34] As above, see tables 2.2 and 2.4 of the earlier CEPA report.