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Public Version

Submission in response to the Commerce Commission's Proposed Analytical Framework for Considering an Uplift to the TSLRIC Price and/or WACC (2 April 2015)

Chorus

EXECUTIVE SUMMARY

1 This submission responds to the Commerce Commission's "Agenda and topics for the conference on the UCLL and UBA pricing reviews" paper dated 2 April 2015 (**Consultation Paper**).

2 The Consultation Paper proposes an analytical framework for assessing an uplift to the TSLRIC price for the UCLL service, and/or an uplift to the mid-point WACC estimate for UCLL and UBA. We agree that it is appropriate for the Commission to consider such an uplift as part of the UCLL and UBA pricing reviews.

3 Central to such a framework is an assessment of whether the welfare benefits of an uplift exceed the welfare costs, and the Commission's assessment needs to be guided by section 18. While the Commission has proposed a consumer welfare approach, our view is that a total welfare approach is required. This is supported by:

3.1 The express wording in section 18, and in particular its emphasis on efficiencies and the *long term* benefits of end-users;

3.2 The legislative history of section 18, including the direct adoption of the same wording in section 1A of the Commerce Act and the emphasis in the Fletcher Inquiry. Case law on section 1A of the Commerce Act is clear that a total welfare standard is to be adopted;

3.3 Features of the market – including direct competition from LFCs, intermodal competition (including mobile services) and the risk of obsolescence – which introduce asymmetric risk in relation to the TSLRIC price which needs to be taken into account in order to set the long run total price for UBA and UCLL.

4 A total welfare approach is supported by HoustonKemp in their report *Comment on the Commerce Commission's paper: Agenda and topics for the conference on the UCLL and UBA pricing reviews*, 8 May 2015 and attached as **Appendix A** to this submission. CEG has also previously supported a total welfare approach.[1] Contrary to views expressed at the recent Commission FPP conference, Professor Hausman does not support a consumer welfare approach of the type articulated by the Commission, but an approach much closer to what we describe as total welfare, as he explains in his report attached as **Appendix B** to this submission.

5 If the Commission were to adopt its proposed consumer welfare approach it would not adequately account for investment incentives. The risk is stark – as HoustonKemp notes, there is a considerable amount of future investment required both in copper and fibre. For example, ongoing investment in the nationwide copper network will be required for some time – as highlighted by the recent spike in bandwidth growth as a result of increased video streaming. While UFB will cover 75% of New Zealanders (which in itself is not without risk), consumers will continue to demand better broadband nationwide – with UFB2 and RBI2 the first cabs off the rank. And this is against a backdrop of about 80% of Chorus' revenues being

[1] For example, see CEG "Welfare effects of UCLL and UBA Uplift" (March 2015) paragraph [98].

regulated. If the UCLL and UBA prices are too low, there is nowhere to "make up the difference" to support this future investment.

6 Investors will be watching the Commission's uplift decision carefully. Any suggestion that the Commission will depart from orthodox and well-understood approaches to the long-term benefit of end-users by favouring short-term price reductions over long-term investment and innovation will be a matter of serious concern for all investors in regulated and potentially regulated businesses in New Zealand. Some may hesitate to invest in future if the signal from the Commission is that as soon as investment is committed it will be treated as sunk and thereby does not require recognition of the investment risk taken.

7 There are a number of potential frameworks for assessing an uplift to the price and/or WACC estimate. In its report *Welfare effects of UCLL and UBA Uplift*, March 2015, CEG proposed a quantitative welfare analysis using the Frontier-Dobbs model. We believe this is the best approach for determining an uplift, and HoustonKemp agrees. HoustonKemp notes that the CEG model is better suited to resolving the questions the Commission is seeking to answer.

8 If the Commission chooses to continue with its proposed analytical framework, HoustonKemp recommends:

8.1 An iterative model, which allows for the adjustment of the WACC uplift to account for the migration benefits, rather than separate consideration of the net benefits of a price increase and the net benefits of a WACC uplift. If the considerations remain separate, there is a risk of significantly under-estimating the total benefits of a WACC uplift;

8.2 Taking a total welfare approach;

8.3 In terms of the estimation of the benefits of migration:

(a) Expanding the benefits to include the implications of the UCLL price on investment in the fibre network;

(b) Taking account of the additional spill-over benefits resulting from the increased migration, in terms of the increase in GDP;

(c) Adopting a cross-price elasticity assumption towards the upper-end of the estimated range;

8.4 Taking into account further asymmetric costs associated with setting the WACC, including: assets that improve (or retain) system reliability and quality; expansions or upgrades to the copper network; and unregulated assets.

9 Again, if these matters are not addressed, there is a risk that future investment is not adequately incentivised.

SUBMISSION

10 We agree that any analytical framework for assessing an uplift should seek to analyse:

10.1 The WACC uplift due to the benefits of ensuring timely investment in new technologies; and

10.2 A price uplift due to the benefits of faster migration to fibre.

11 We believe that an uplift is required to ensure there are no chilling effects from estimation error over the parameters which go to the TSLRIC cost calculation, particularly the WACC. It is important that the WACC and/or price be set at a level that sends the right signals for investment, especially investment which involves significant capital in innovative technology.

12 In this submission we:

12.1 Provide the New Zealand context that supports the Commission's consideration of an uplift;

12.2 Explain how section 18 guides the Commission's approach to assessing an uplift;

12.3 Briefly summarise CEG's proposed approach, supported by HoustonKemp;

12.4 Summarise the changes that we propose are needed if the Commission continues with its proposed analytical framework.

13 This submission is supported by:

13.1 A report from HoustonKemp, attached as **Appendix A**;

13.2 A report from Professor Hausman, attached as **Appendix B**;

13.3 A report from CEG, attached to Chorus' cross submission of 20 March 2015.

New Zealand context

14 The New Zealand context (as well as the section 18 framework) supports the Commission erring on the side of an uplift to the TSLRIC price and/or the WACC component of the price. Without an uplift, there is a real risk of a chilling effect on future investment.

15 Contrary to views from other parties, the need for future investment is very real:

15.1 The copper network is nationwide (and covers both urban and rural areas) and will be around for some time so will require maintenance by Chorus. Limits on fibre migration may result in significant maintenance requirements as Chorus must ensure the copper network continues to be reliable while the UFB network is established;

15.2 The existing copper network may need augmentation/upgrading over time (particularly, but not only, in the areas where 25% of New Zealanders are not covered by the UFB footprint). This has already been the case as a result of bandwidth growth following retail offerings such as Netflix, Lightbox, and Neon. **[RI:**

]. This necessitates copper investment that Chorus can ill afford – particularly following the IPP decisions (as has been well documented);

15.3 There are significant end user benefits from fibre migration;

15.4 UFB will cover about 75% of New Zealanders but its roll out is not without risk despite being contractually committed, due to the very real impact regulatory pricing has on Chorus (again, as illustrated by the IPP decisions);

15.5 UFB and RBI2 are the first cabs off the rank for new investment but there will likely be more as rural customers demand higher quality services. In addition, fibre networks will need maintenance and upgrades over time; and

15.6 The FPP investment signals will impact on our ability to bring forward and extend fibre investment and on other LFCs' investment activities.

16 This investment comes against a backdrop of about 80% of Chorus' revenues being regulated. If the UCLL and UBA prices are underestimated, there is nowhere for Chorus to "make up the difference" to fund this future investment. This has been illustrated by the challenges that have arisen from the IPP price, with discretionary investment on hold pending the conclusion of these processes.

17 Other investors will be watching the Commission's uplift decision carefully. Any suggestion that the Commission will depart from orthodox and well-understood approaches to the long-term benefit of end-users, by favouring short-term price reductions over long-term investment and innovation, will be a matter of serious concern for all investors in regulated and potentially regulated businesses in New Zealand. Some may hesitate to invest in future if the signal from the Commission is that as soon as investment is committed it will be treated as sunk and thereby does not require recognition of the investment risk taken.

18 We are concerned that the Commission's framework has not adequately accounted for investment signals. It is simply not correct to say that there is no investment that needs to be incentivised. The correct risk adjusted return on investments needs to be provided in the Commission's consideration of the TSLRIC price and WACC as this will impact on the investment incentives of Chorus, other telecommunications providers in the market and the investments of entities in other markets that are, or in future may become, regulated.

Section 18

19 The Commission's task is to set TSLRIC prices which promote competition for the long-term benefit of end-users. The long-term focus of the section 18 purpose statement means:

19.1 The promotion of competition for the long-term benefit of end-users cannot be solely focused on the short term benefit of lower prices;

19.2 The Commission should err on the side of an uplift to the TSLRIC price, or at least to the WACC component of the TSLRIC price. An uplift is needed to ensure a normal return can be achieved and to ensure that incentives to innovate and invest exist – which is consistent with the section 18 purpose; and

19.3 The Commission must take a "total welfare" approach, as that terminology has been used in the New Zealand regulatory context, in order to ensure that the long-term benefits, such as efficiencies and investment incentives, are considered.

20 Focusing on the long-term benefit of end-users is consistent with the express words of the section 18 purpose statement in the Telecommunications Act (**Act**) and the extensive body of regulatory precedent both here and in other jurisdictions.

The section 18 framework

21 Section 18(1) is the compass for considering any uplift as part of the TSLRIC exercise; requiring the Commission to consider the promotion of competition for the long-term benefit of telecommunication end-users through regulation (in this case, using forward-looking TSLRIC pricing).

22 Subsections (2) and (2A) specify particular matters that the Commission must consider when determining whether any particular step, such as selecting a price point, will promote competition for the long-term benefit of end-users. In this way, subsection (2) and (2A) provide an elaboration as to how the primary purpose statement in subsection (1) is to be interpreted. To extend the compass metaphor, they provide the manual for setting it.

23 As a result, as part of its analysis of whether an uplift will promote competition for the long-term benefit of end-users, the Commission must consider:

23.1 The efficiencies that will result, or will be likely to result, from a decision (in this case any uplift decision); and (for the avoidance of doubt)

23.2 The incentives to innovate that exist for, and the risks faced by, investors in, telecommunications services that involve significant capital investment and that offer capabilities that are not available from established services.

24 As the Commission has previously accepted in applying section 18 to similar contexts, section 18 requires the Commission to consider if an uplift will create or promote efficiencies (namely allocative, productive and dynamic efficiencies) for the long-term benefit of consumers. This also means it needs to take account of incentives for

investment which result in innovative services, mindful too of the risk involved with significant capital investment.

25 Contrary to views expressed at the recent Commission conference on the FPP processes, the "promotion of competition" reference in section 18(1) does not play a gate-keeper role, determining whether the Commission can then go on to consider investment in innovation. Rather promoting investment in innovative services should, in and of itself, assist to promote competition for the benefit of end-users and this is reflected in the direction to the Commission in subsections 18(2) and 18(2A) that the Commission consider these matters when determining whether an action will promote competition for the long-term benefit of end-users.

26 This objective was expressly considered by the Fletcher Inquiry when establishing section 18:[2]

> To promote the long-term interests of existing and potential end users of electronic communications services by any or all of the following:
>
> - facilitating efficient competition in markets for electronic communications services;
> - promoting any-to-any connectivity to the extent that it is efficient;
> - encouraging the efficient use of, and the efficient investment in, the infrastructure by which electronic communications services are provided.
>
> In respect of this objective, efficient means:
>
> - productive efficiency – this is achieved where individual firms produce the goods and services that they offer at least cost;
> - allocative efficiency – this is achieved where the prices of resources reflect their underlying costs so that the resources are then allocated to their highest valued uses (i.e. those that provide the greatest benefit relative to costs); and
> - dynamic efficiency – this reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

27 We agree with the Commission's statement that section 18 requires it to give greater weight to dynamic efficiencies due to the requirement to consider the long term.[3] As was noted by the High Court in its 2014 decision on the UBA IPP price Chorus may charge, section 18(2A) clarifies that this is required under section 18(1).[4]

28 In order to encourage investment in telecommunications services to ensure efficiencies result in benefits for end-users, investors must have an expectation of a normal return (i.e. NPV neutrality). This is a central tenant of regulation, and we don't believe other parties disagree with this.

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[2] Report of the Ministerial Inquiry into Telecommunications (September 2000) "Fletcher Inquiry" at page 42.

[3] Refer Commerce Commission "Draft pricing review determination for Chorus' unbundled copper local loop" at [174]. (Draft UCLL Determination).

[4] *Chorus Limited v Commerce Commission* [2014] NZHC 690 at [34]. Refer also to Sapere's report "Comment on How to Best Give Effect to the Purpose of Section 18 in Relation to UBA Pricing" (30 January 2013) refer in particular to paragraphs [64] to [67] and [71] to [72].

29 Section 18(2A) makes it clear that particular consideration must be given to incentives to innovate in capital investment that offers capabilities not available from established services. The High Court has noted that innovation can occur in relation to developing existing services, to provide improved quality of telecommunications services, or the introduction of new services.[5]

30 The UCLL and UBA prices will have a wide impact on investment incentives. An uplift is needed in such circumstances as it is impossible to carry out the TSLRIC FPP pricing exercise accurately and there are asymmetries which are not accounted for. This is particularly the case for WACC which can never be directly observed, especially given the importance of WACC as a signal to investors.

Total welfare standard

31 Section 18 requires a total welfare standard analysis given:

31.1 The wording of section 18, particularly its emphasis on efficiencies and the *long term* benefit of end-users; and

31.2 The legislative history which led to section 18, including its direct adoption of the same wording in section 1A of the Commerce Act and the emphasis of the Fletcher Inquiry.

32 Section 18 intentionally mirrors the wording in section 1A of the Commerce Act.[6] Case law on section 1A is clear that a total welfare standard is to be adopted and there is no need to tie every benefit or efficiency back to consumer benefits.[7] The legislative history of section 1A also makes it clear too that the wording "long-term benefit of end-users" is a total welfare standard.[8]

33 Similarly, the legislative history leading to the use of the same wording in section 18(1) is clear that a total welfare standard is to be adopted. In responding to submitters who argued that the wording "long-term interests of end-users" could be interpreted as giving greater weight to consumer welfare, the Fletcher Inquiry rejected this, stating:[9]

> The Inquiry does not agree with this view. Any inappropriate compromise or bias against producer surplus would not be in the long-term interests of end users. Further, as noted above, all of the elements of the objective require efficiency, such as efficient competition or efficient investment, which the Inquiry considers protects the long-term interests of providers. The Inquiry also notes that innovative and efficient competition in electronic communications

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[5] *Chorus Limited v Commerce Commission* [2014] NZHC 690 at [34].

[6] Telecommunications Bill 2001 No 124-2, Select Committee Report, at page 8.

[7] *Powerco Ltd v Commerce Commission* HC Wellington, CIV 2005-485-1066, 23 December 2007 at [47], [60] and [147] and also refer to Court of Appeal [2008] NZCA 289 at [24] and the relevant line of authorities particularly *Air New Zealand v Commerce Commission (No6)* (2004) 11 TCLR 347 at [241] and also *Giltrap City Ltd V CC* (2003) 10 TCLR 831 (CA); and *Tru Tone Ltd v Festival Records Retail Marketing Ltd* [1988] 2 NZLR 532 (CA).

[8] See the comprehensive summary of that history, and the relevant jurisprudence, in *Powerco v Commerce Commission* HC Wellington, CIV 2005-485-1066, 23 December 2007 at [46] – [49]. [56] – [72]. The High Court in that case concluded that the section 1A purpose statement did not apply to Part 4: at [148].

[9] Fletcher Inquiry at page 50.

> services, which its recommendations are designed to support, will create opportunities for producer surplus through efficient investments in the supply of innovative services. It will also erode that surplus away over time through competition, which will likely set the stage for further innovation.

34 Similar statements were made by the Select Committee considering the Telecommunications bill.[10]

35 The Commission has considered in the past, particularly in relation to telecommunication regulation decisions, that it must place greater weight on dynamic efficiency so not to jeopardise incentives for investment which has long term benefits for consumers.[11] For example, in the Commission's consideration of the regulation of mobile termination, it expressly stated that it considered section 18 to be similar to section 1A and that the two sections are designed to achieve similar ends. This required the Commission to consider not just the consumer welfare test but also the net public benefit. The long term impact on end-users required consideration of inefficiencies on society.[12]

36 James Mellsop, at the UBA IPP price review conference, also commented in relation to s 18(2):[13]

> …I was in Treasury when this was drafted and I opposed having subsection 2 because to me it's already in subsection 1 …What I'm saying though is that without obviously any legal input here, it's the same to me and the standard economic analysis would be if there are trade-offs, so between productive efficiency …and dynamic, you would tend to in making a decision favour the dynamic because that is the long-term interests of end users.

37 At the ICN Annual Conference in 2011 the Commission was also clear that it considered its primary goal was to promote total welfare and that it applied such a standard. It also stated that it defined consumer welfare as consumer surplus and long-term consumer welfare as being promoted in markets that maximise total welfare.[14]

38 Focussing on a consumer welfare standard would be a radical departure from the Commission's previous position and is contrary to the requirements of the Act – as it fails to take account of the "long term" benefit to end-users. It is also not supported by the authority cited in the Consultation Paper.[15]

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[10] Telecommunications Bill 2001 No 124-2, Select Committee Report, at page 8.

[12] Commerce Commission "Reconsideration Final Report on whether mobile termination should become a designated or specified service" (21 April 2006) at [42] to [45].

[13] Transcript from Commerce Commission UBA IPP Price Review Conference, 13 June 2013 at pages 204-205.

[14] ICN "Competition Enforcement and Consumer Welfare – Setting the Agenda" at pages 13, 25, 29 and 31-32.

[15] The Consultation Paper cites as authority for the proposition that a consumer welfare test should be adopted (at [34] and n7) Commerce Commission "*Amendment to the WACC percentile for price quality regulation for electricity lines services and gas pipeline services: Reasons paper*" (30 October 2014), Attachment A, page 120-136, a determination made under Part 4 of the Commerce Act. That paper in turn cites at [A4] the decision of the High Court under Part 4 of the Commerce Act in *Wellington International Airport Ltd v Commerce Commission* [2013] NZHC 3289at [222] and [686] (the *IM judgment*). However, Part 4 of the Commerce Act has a different statutory purpose statement that is deliberately different from the general purpose statement of the Commerce Act on which s18 of the Act is based. The High Court in the *IM judgment* at the passages cited by the Commission refers to *Powerco Ltd v Commerce Commission* [2008 NZCA 289 at [23]. That case

Economic support for an uplift

39 In considering the need for an uplift, the (current) telecommunication markets context in New Zealand is also relevant (as well as the wider New Zealand context noted earlier), namely that there is:

39.1 Direct competition from cable and local fibre companies (**LFCs**) for fixed line access services;

39.2 Inter-modal competition, particularly with mobile services;

39.3 Competition at the downstream retail market between RSPs and specific universal obligations and non-discrimination requirements have been imposed on Chorus to ensure a fair playing field at that level; and

39.4 An ever present risk of telecommunication technology becoming obsolete and the investment risk this generates.

40 CEG has advised that these elements of the market introduce asymmetric risk in relation to the TSLRIC price and need to be taken into account in order to set the long run total price for UCLL and UBA services (refer CEG "Asymmetries Paper" (Feb 2015)). Chorus' is not seeking more than a TSLRIC price. Rather, an uplift will address the asymmetries which need to be taken into account. No matter how well the Commission might attempt to estimate an accurate TSRLIRC price, there is still room for parameter and forecast error.[16] Allowing for this is appropriate to set the right incentives and to enable NPV neutrality.

Economic support for a total welfare approach

41 As CEG have already explained, consideration of the "long-term benefit of end-users" would direct an economist to a total welfare standard, not a consumer welfare standard. A consumer welfare analysis would mean that prices would be reduced to marginal cost. This would not, however, be for the long term benefit of consumers as it would not encourage investment or innovation and would lead to market exit.[17] Accordingly, the section 18 objectives would not be promoted. Any firm that fails to

concerned the express net acquirer test from imposing control in under the old Part 4 provisions in s52. However, as noted by the Court of Appeal in *Powerco*, that test imposed a different standard from the general total public benefits test implied by the s1A purpose statement in the Commerce Act: *Powerco*, at [26]. The *Powerco* decision goes on to recognise that the general approach under the Commerce Act is different, citing *Tru Tone Ltd v Festival Records Retail Marketing Ltd* [1988] 2 NZLR 352 (CA); *Giltrap City Ltd v Commerce Commission* (2003) 10 TCLR 831 (CA); and *Air New Zealand v Commerce Commission (No 6)* (2004) 11 TCLR 347 at [235], [241] (HC).

[16] Refer for further discussion to Sapere's report "Comment on how to best give effect to the purpose of section 18 in relation to UBA pricing" (30 January 2013) at [73]ff.

[17] At the conference, Tom Hird elaborated the point in the following terms (p 355):

> "I'm not entirely sure what a consumer surplus only focus would look like and how you define that, but if the idea is you're defining consumers to be - you're divorcing them from being involved in any way in the ownership or production side, and so even if, and focusing on just their role as consumers, then it's clear if that's the definition, then on average in general the thing that maximises consumer welfare will not be the most efficient outcome overall. So, I think that's the critical issue here. If you're going to define consumers in that way, then you're leading yourself to say, well, that's where we're going to make an inefficient decision."

recover its cost of production, including a normal return on capital, will exit the market. A normal return (i.e. NPV neutrality) must be the expectation. [18]

42 Similarly, HoustonKemp advises that a total welfare consideration is indicated by the wording in section 18. It requires the Commission to target overall economic welfare as this provides a standard that is a better measure of the impact of the Commission's decisions on New Zealanders as a whole and ultimately promotes the long-term interests of consumers by providing price signals that are more consistent with efficient investment incentives, thereby promoting dynamic efficiency.[19]

43 As HoustonKemp notes, the Commission appears to be taking an even narrower approach to consumer welfare here than that taken for other industries[20] and it jeopardises consideration of the *long term* benefit considerations. This puts at risk consideration of the benefits from investment that Professor Hausman identifies will result in long term benefits to consumers and which would also lead to significant gains in economic welfare.[21]]

44 We also note that both Professor Vogelsang and Professor Cambini have advised the Commission to take account of wider welfare effects than pure consumer welfare considerations. Professor Cambini has commented that some potential benefits from UFB deployment have not been considered, including the value of network externalities in fibre adoption.[22] He specifically urges the Commission to consider either:

44.1 Adding an aggregate effect from the wider external benefits of the welfare analysis; or

44.2 Adding to the UFB demand a further shift related to the increase in GDP per capita.

45 Professor Vogelsang also urges the Commission to consider the spillover effects on the economy of UCLL pricing.[23]

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[18] CEG "Welfare effects of UCLL and UBA Uplift" (March 2015) at paragraph [98].

[19] HoustonKemp "Comment on the Commerce Commission's paper: Agenda and topics for the conference on the UCLL and UBA pricing reviews" (May 2015) at section [3.2].

[20] Even in the Commission's consideration of the WACC percentile to be adopted for electricity and lines businesses, (where the Commission considered a consumer welfare standard should be applied), the Commission indicated that consideration of producer surplus can also be a suitable proxy for dynamic efficiency considerations. See Commission's "WACC percentile reasons paper" at [2.37]. See also Sapere on UBA.

[21] Professor Hausman "Response to the Commerce Commission's Draft Determination Uplift" (18 February 2015) see for example paras [17] to [20], [44] to [45], [52], and [59] to [69] and "Clarification as to what welfare standard I think is required for the Commission's analytical framework of potential TSLRIC and/or WACC uplifts" (1 May 2015) paras [5], [7] and [12].

[22] Professor Cambini at pages 5-6 and 9-15.

[23] Professor Vogelsang "The effects of the UCLL contribution to the UBA aggregate on competition for the long term benefit of end-users in New Zealand telecommunications markets" (2 July 2014).

CEG proposed framework

46 CEG has already provided a paper with quantitative analysis which seeks to address the same questions the Commission is now considering.

47 CEG sought to model the welfare effects of misestimating the price to consider whether it indicated if the price of UCLL and UBA services should be increased ("uplifted") to address the uncertainty in estimating the TSLRIC price, including the WACC component of the exercise. It did this by first considering the effect of uncertainty on incentives to invest in existing and new infrastructure capable of providing enhanced and/or new services. CEG then considered the effect a higher UCLL and UBA price would have on migration to fibre-based services and the welfare gains this might deliver. This is very similar to the exercise the Commission is currently considering with the framework it has set out in its Consultation Paper.

48 We asked HoustonKemp to independently review the Commission's framework to consider the extent to which it was suited to resolve the questions sought to be answered by the Commission. We also asked HoustonKemp to consider how the Commission's proposed framework might be improved, in line with the questions asked in the Commission's conference agenda paper. The HoustonKemp paper is set out at **Appendix A**.

49 HoustonKemp considers, and we agree, that the CEG analysis is better suited than the Commission's to resolve the questions sought to be answered by the Commission.

The Commission's proposed framework

50 If the Commission chooses to instead adopt its proposed framework, we suggest that there are a number of improvements which can be made to it. We refer to the HoustonKemp paper set out at **Appendix A** for the detailed reasons as to what improvements should be made and why. We do not repeat all the points here but note some key aspects of concern.

Dealing with uncertainties

51 The Commission's proposed framework only focuses on the uncertainty as to the estimate of the WACC. However, all parameters of the Commission's model are subject to uncertainty and will affect the return (and therefore the expectation of NPV neutrality) Chorus can expect for the UCLL and UBA prices. As is widely recognised, any given determination of a regulator is likely to include some estimation error.[24]

52 The TSLRIC exercise the Commission is currently carrying out has numerous variables it must consider, such as deciding what modelling parameters, forecasts and estimate it must adopt. It will not be possible to determine a precise, correct estimate of the TSLRIC cost. This could mean NPV neutrality is jeopardised.

53 HoustonKemp notes that setting the regulated WACC below the WACC Chorus uses when making its investment decisions (the 'actual' WACC) will lead to asymmetric risk, particularly impeding its ability to invest. This is a key reason why regulators

[24] Refer to the discussion of Sapere Group Ltd (Shepherd and Davey) "Comment on how to best give effect to the purpose of section 18 in relation to UBA pricing" (January 2013) at [74].

often apply an uplift as the long term consequences of setting a regulated price too low are far greater than the consequences of setting a price too high. The Commission's framework goes some way to quantifying the consequences to consider an appropriate balance however, as we note below, improvements should be made to better encapsulate the full scope of relevant considerations.

54 CEG's framework seeks to take a similar balancing exercise and in our view provides a more robust framework. In particular, the CEG development of the Frontier-Dobbs model usefully serves as a proxy for modelling the uncertainty the Commission is dealing with. CEG's framework provides a more flexible model, in which the effects of variations in particular parameters can more readily be identified, and which may be more conducive to expansion of the factors being considered.

Investment in new services

55 As noted above, investment incentives are critical to section 18 and consideration of an uplift issue. The Commission's framework does not consider the signalling effect of UCLL and UBA prices, rather than the WACC, in terms of deterring or delaying investment in new services that could be substituted for the existing service. Substitution issues are not just limited to migration to fibre. The Commission's framework is not capable of considering this effect.

56 Further, as HoustonKemp observes, the Commission has not accounted for additional benefits from investment in:

56.1 System reliability;

56.2 Expansions and upgrades to the copper network; and

56.3 Unregulated assets, including UFB and expansion and development of fibre services.

57 System reliability is crucial given the importance of telecommunication, including internet communications, to modern life and New Zealand's economic dependence on these forms of communication. We have already made extensive submissions and provided expert advice on these matters and do not repeat them here. But we note for current purposes the importance of considering the cost of network outages as discussed by HoustonKemp. HoustonKemp provides some approximate measures for consideration.[25]

58 Chorus has, until the IPP decision, sought to plan and invest to ensure its network is resilient, not simply in terms of pro-active maintenance but also to ensure spare capacity to deal with growth and outages. Our ability to make such investment is hampered and it will have a damaging impact on our network's reliability, to the long term detriment of end users.

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[25] HoustonKemp "Comment on the Commerce Commission's paper: Agenda and topics for the conference on the UCLL and UBA pricing reviews" (May 2015) at section [5.3.2].

59 In terms of upgrades and expansions in the copper network, areas outside of the UFB areas would benefit from further investment. The introduction of Netflix and Lightbox and their effect on bandwidth growth in recent months illustrates the difficulty well.

60 We have also previously expressed concern about the treatment of contractually committed investment. Under the proposed framework, the whole aim of incentivising investment would be defeated as a business would not be able to attract investment knowing the uplift would stop after committing capital. The Commission's approach sets the uplift at zero at precisely the time when an uplift is needed to reward the new investment (as it would in a competitive market).

61 The Commission's current proposal as to how it intends to treat Chorus' UFB investment is of similar effect. At the time Chorus signed the UFB contract UBA prices were $44.98 per month. The current draft determination proposes to set prices at $38.39 per month. The price has the potential to jeopardise the UFB investment, and certainly any further UFB investment, given the proposed chill on investment once it becomes contractually committed.

62 As HoustonKemp and CEG also both note, the WACC the Commission sets now will impact on potential investment in new technologies.[26]

Improvements to be made

63 The Commission should carry out sensitivity tests to determine a reasonable band for its estimate of the optimal WACC.

64 It should also look to expand the modelled benefits to properly capture investment and efficiency concerns, as required by s 18 of the Act. At a minimum, this would require consideration of:

64.1 The cost of outages and the impact of investment decisions on the reliability of the network;

64.2 The constraint the price plays on new investment, including in establishing UFB, particularly given the financial constraints the IPP has placed on the capex needed to make this investment; and

64.3 The signal the TSLRIC price (including the WACC) sends to future investment.

Assessing the value of migration to fibre

65 The Commission proposes for considering the migration to fibre issues is broadly sound in the sense that it attempts to compare the marginal costs and benefits associated with an increase in UCLL prices.

66 However, as noted by HoustonKemp, there are risks associated with separating the WACC and price uplift issues as the Commission does – namely that it may lead the

[26] HoustonKemp "Comment on the Commerce Commission's paper: Agenda and topics for the conference on the UCLL and UBA pricing reviews" (May 2015) at section [4.3] and CEG "Welfare effects of UCLL and UBA Uplift" (March 2015).

Commission to dismiss the migration benefits if the net effect is negative. For the purpose of assessing an optimal WACC uplift, it is the gross benefits from migration that should be considered rather than the net benefits. Whether or not the Commission's approach of considering the marginal costs and benefits is appropriate will depend on the way in which the Commission intends to combine these frameworks to identify the total net benefits of a WACC uplift.

67 HoustonKemp recommends:

67.1 Expanding the benefits considered in the model to include the implications of the UCLL price on investment in the fibre network as the UCLL price will affect:

(a) The incentives for investment in those parts of the fibre network that are not currently subject to contractual commitment, including future expansion or upgrades to the network;

(b) The implications on Chorus' financial health and therefore the risk of the company not being able to meet its contractual obligations; and

(c) Retailers' incentives to invest in supporting systems.

67.2 Taking account of spill over benefits resulting from the increased migration, in terms of the increase in GDP. Relevant studies suggest that a significant proportion of these spill overs directly benefit end users in their role as consumers of telecommunications services. Professor Cambini also recommends that the spill over benefits are considered due to the benefits to end-users;

67.3 Adopting a cross-price elasticity assumption towards the upper-end of the estimated range as the following factors suggest that this elasticity may be relatively high for New Zealand:

(a) During the initial period of introduction of the fibre services, take-up rates will be below long-run levels given customers' natural inertia in adopting new technologies – this potentially suggests a greater responsiveness to price relativities; and

(b) The price differential between UFB and copper-based services is likely to be relatively small or non-existent suggesting an increase in the price of UCLL services could have a more significant impact on migration to the fibre network given the quality differential