Submission by Pat Duignan on the Telecommunications Act Review: Options Paper

Context of this submission

1. This is a personal submission, independent of Chorus, the LFCs and the RSPs[1]. It is based on my experience as a member of both the Commerce Commission Part 4 and Telecommunications Divisions, from 2009 to last December. This includes the development of the Part 4 Input Methodologies and the full TSLRIC network modelling which determined the price caps applying to Chorus' copper service until 2020. I also draw on my experience as General Manager Finance of the Telecommunications Corporation of New Zealand (TCNZ) as well as my earlier Treasury experience regarding TCNZ's corporatisation and privatisation.

2. The Telecommunications Act Review Options Paper ("the options paper") consults on options regarding the implementation of utility-style regulation of fixed line services, with price-quality regulation to be based on the building blocks model (BBM) (hereafter "Part 4 type regulation").

3. The options paper envisages that the purpose statement governing regulation of fixed line services will largely replicate the Part 4 purpose statement (with references to "consumers" becoming references to "end-users"). The Commission will be required to set input methodologies ("IMs") for the regulation of fixed line services mirroring the requirement under Part 4 of the Commerce Act. The telecommunications IM decisions will be subject to a merits review by the High Court if an interested party seeks such a review.[2]

4. The options paper notes "*For many [input methodology] matters, the Commission already has an established approach under Part 4 (for example, in the treatment of taxation). Largely replicating the input methodology requirements from Part 4 (in addition to the purpose statement …) should lead the Commission to take a consistent and predictable approach to fixed lines services*."

5. The Part 4 IM determinations were subject to a judicial review regarding whether the price adjustment process at the start of each regulatory period should be specified as an IM and were subject to merits review appeals in regard to 58 aspects of the IMs. The Supreme Court agreed with the Court of Appeal that the starting price adjustment process was not required to be specified as an IM. The High Court's merits review

[1] I am an expert member of the ACC Investment Committee. The ACC invests in both Chorus and RSPs. Exposure to any private sector entity is limited to no more than 3% of the ACC portfolio. The ACC Investment Unit is making its own separate submission on the options paper and this submission reflects my personal observations rather than the ACC's view.

[2] Under the Commerce Act, appeals against Commission determinations, including merits reviews, are heard by a High Court judge sitting with at least one lay member. The options paper does not comment on whether the provision for lay members will apply to merits reviews of telecommunications IMs. I should note I might be regarded as having an interest in this aspect since I am currently a lay member under the Commerce Act.

judgement[3] dismissed all but two of the merits review appeals[4]. The details of that judgement will have important implications for the Commission's determination of the telecommunications IMs.

6. Having helped determine both the Part 4 input methodologies and the current copper service price caps, I focus in this submission on issues which could thwart achievement of the objective of a transition to the new regulatory framework that will be highly regarded by end users, investors and other interested parties.

7. This submission focuses on identification of possible implications of the Part 4 IMs in regard to the preferred options set out in the options paper. I see analysis of these implications as the way in which I can best contribute to the development of policy given the constraints on my time. The implications I have identified reflect the views Commissioners reached during the Part 4 IM development and my interpretation of implications of the High Court's merits review judgement. Obviously my analysis relates to the implications if the legislation largely replicates the Part 4 regulatory structure. My analysis may be viewed as jumping into details before the overall framework is decided but this is a case where the "devil is in the detail" and decisions that are not based on the details will likely result in significant difficulties.

8. The analysis is not an opinion on the extent to which the judgement would be legally binding on the Commission. I simply assume that the Commission's default position would be that it wished, and felt compelled in most respects, to be consistent with the merits review judgement.

9. I expect that my former colleagues would nevertheless seek to avoid dysfunctional outcomes but my identification of such possibilities may assist Ministers and their advisers in avoiding a repetition of the regulatory shocks of the type experienced regarding the UBA price. In the limited time I have been able to devote to preparing this submission I have not been able to propose comprehensive solutions to the dysfunctional possibilities I identify but I expect that further consideration will allow solutions to be found. I may be able to assist in the quest for such solutions at a later time.

The essence of my submission

10. The essence of my submissions on specific topics presented below is that I urge the Ministry of Business, Innovation and Employment, Ministers and the Select Committee (who will consider the envisaged legislation) to ask, in regard to every decision that the

[3] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC [11 December 2013] – hereafter "the High Court judgement" (or "the merits review judgement").

[4] The successful appeals related to inclusion of a provision for reopening the IMs in response to a catastrophe and a one year change of date for the airports' valuation.

Commission is to make, is it clear that the matter can be decided by consideration of the new fixed line services purpose statement?

11. If it is not clear how the matter could be decided on the basis of that purpose statement, then I suggest those responsible for the amending legislation should consider whether the Commission be provided with a clear basis for a decision in one of three other ways:

    1. by including specific guidance in the legislation,

    2. by including either a broader outcome objective in the legislation's purpose statement or an objective focussed on the transition to the new regime; or

    3. by providing in the legislation for a government policy statement to be applicable in the context of IM determination (rather than being limited as at present to proposals for regulation of additional services).

The determination of the Initial Regulatory Asset Base valuation

12. The analysis that follows takes as its starting point the options paper's Valuation Methodology Option 2, whereby the Commission decides on the valuation methodology. This is the paper's preferred option.

13. The High Court devoted around one third of its 657 page merits review judgement to asset valuations - essentially the determination of the initial regulatory asset base (RAB) – and devoted another third to the cost of capital.

14. The main valuation issue was that the electricity lines and gas pipeline appellants proposed that the initial RAB be based on a new replacement cost valuations (being technically optimised deprival valuations - ODVs), rather than the Commission's valuation which was an earlier replacement cost valuations updated to the start date of the Part 4 regulation for capex, depreciation and CPI-indexation. The Commission and appellants agreed that new valuations would have increased the aggregate initial RAB by $1.9B.

15. The Commission developed, with the support of its expert advisors, a number of alternative perspectives on workable competitive markets, such as the role of long term contracting. That analysis challenged the standard view that prices in a workable competitive market will tend to track the replacement cost value of the assets deployed to produce the goods or services involved. For example, the Commission argued "*As noted at page 27 of the Experts' Report of May 2010, in a workably competitive market, the existence of long-term contracting may mean that asset values at the start of any period would tend to reflect the past bargains between consumers and suppliers, not simply the costs of replacing assets today. Based on this analysis,*

adjustments to prior existing valuations to reflect current replacement costs are not required".[5]

16. One impetus for development of these perspectives was that section 53P(4) of Part 4 provides that starting prices "*must not seek to recover any excessive profits made during any earlier period*". Submitters argued during the IM development consultations that the Commission's opposition to new replacement cost valuations offended against this section. They argued that opposition was based on a concern that new valuations would "cement in" excessive profits that the appellants had earned because the revaluation gains would not have been accounted for as income in any period. The alternative perspectives enabled the Commission to argue that, from a long term contracting analysis, an earlier replacement cost valuation dating back to commencement of regulation could be more appropriate than a new valuation, independent of concerns about past excessive profits.

17. The High Court suggested that it is not clear that 53P(4) applies to the asset valuation IMs at all, as opposed to the 53P price resetting process (para 742). This could imply that the Commission need not have had concerns regarding 53P(IM) in developing the IMs. The High Court noted, however, that this was an after-thought which had not been explored in its hearings. Thus the High Court indicated it did not see its analysis as being dependent on the view that 53P(4) does not apply to IMs. Clearly it is desirable that the proposed legislation definitively resolves whether 53P(4) is intended to apply to IMs.

18. The High Court rejected many of the alternative perspectives the Commission had developed, as irrelevant to the issue of the initial RAB. The conclusion of its analysis was that only the outcome of limiting excessive profits plus the general objective of maintaining investor confidence were relevant to deciding the initial RAB. At the risk of oversimplifying the High Court's position, the conclusion of its analysis can be summarised as simply that a "line in the sand" approach is appropriate on its own terms without needing the support of the perspectives the Commission had developed. The Commission's description of its line in the sand approach, quoted in para 775 of the merits review judgement, is that it "*adopted the prior valuations as a line in the sand, on the reasonable understanding that these were high enough to allow at least a normal return on capital for past investments, which was then confirmed by the lack of evidence from suppliers that this would not be the case*".[5]

19. The High Court's rejection of the Commission's attempts to develop a more analytical justification for not adopting a new valuation as the basis for the initial RAB has significant implications if BBM regulation of fixed line services is implemented by simply replicating the Part 4 provisions.

20. Specifically, it is arguable that given the High Court judgement, the Commission would find it difficult to base the initial RAB on any approach other than identifying an earlier regulatory replacement cost valuation of the assets required to provide the fixed line services or undertaking a new valuation. In my assessment there is only one valuation

[5] EDBs-GPBs Reasons Paper footnote 221

that is a credible candidate as an earlier regulatory replacement cost valuation, namely the TSLRIC valuation as at December 2015.[6]

21. The options paper proposes a single RAB encompassing both copper and fibre assets. At first consideration it may seem surprising that the TSLRIC valuation, which was developed to price copper services, would serve as the initial RAB for the combined copper and fibre assets. That is however correct conceptually. The TSLRIC model costed the assets required to provide fixed line services at current or better quality, utilising currently deployable technology, to all premises in New Zealand to which Chorus is required to provide such services. The fact that some provision of fixed line services is currently by way of fibre, i.e. the UFB, and the majority is by way of the copper network does not invalidate the TSLRIC valuation as the replacement valuation for both networks. (The issue of how Chorus' capex expenditure on deployment of the UFB is taken into account, if at all, is examined later together with the issue of the Government provision of funding.)

Implications of the "line in the sand" approach

22. It is useful to consider first how the application of the "line in the sand" approach might work out if the December 2015 TSLRIC valuation is the basis for the initial RAB and then to consider the alternative of a new valuation and possibility of a historic cost valuation.

23. A first observation is that in discussing the "line in the sand" approach the High Court observed that "*the Commission acknowledged in a footnote*[7]*... that some submitters had argued that existing regulatory valuations could, in theory, be inconsistent with suppliers having the opportunity to earn at least a normal rate of return. That would only be possible, the Commission observed accurately, if suppliers had been pricing in a certain way in the past. No submitter – the Commission argued – had provided any evidence to suggest that suppliers have been pricing in this way in practice*".[8]

24. In the case of fixed lines services, however, Chorus could argue that from December 2014 to December 2015 the Commission's benchmarked UBA price cap resulted in overall revenues being constrained below the levels which the TSLRIC modelling has now indicated would be required to yield a normal return on the assets involved. The majority[9] decision to not backdate the TSLRIC prices thus results in Chorus being able to

[6] The Commission analyses the switch from a TSLRIC optimized replacement cost valuation to a depreciated optimized replacement cost valuation, after a period of TSLRIC pricing, in its "Final pricing review determination for Chorus' unbundled copper local loop service" 15 December 2015, at Table E1, Scenario 2, on page 374. The UCLL price has been set under a TSLRIC pricing principle, or benchmarking of overseas prices based on that principle, since its regulation. Thus I assume the Commission would apply that analysis in deriving the initial RAB.

[7] EDBs-GPBs Reasons Paper footnote 226.

[8] High Court judgement para 769

[9] I favoured backdating to December 2014 and dissented from the Commission decision not to backdate the TSLRIC prices.

claim it has not been able to obtain a normal return on its assets for that period.[10] Chorus could use this as a supporting argument in favour of a new valuation as at 2020. As discussed later, however, it is by not clear that a new valuation would benefit Chorus.

25. A second observation, of greater significance, is that the current regulated fixed line service prices are "tilted annuity" prices. An "annuity price" is constant throughout the regulated period whereas a "tilted annuity price" increases (or decreases) in line with the projected average price inflation (or deflation) of the assets and operating expenditure of the regulated entity. The UCLL price is an around 1.6% inflation tilted annuity price while the UBA additional costs price is an around 1.9% deflation tilted annuity price resulting in an overall inflation tilted annuity price for the bit stream service over the period to 2020 because the UCLL price is more than twice the UBA additional costs. Since the bit stream service is the substantially predominant service provided by Chorus, the analysis that follows focuses on the pricing of that service. My analysis generally applies to both a price cap, or a revenue cap, form of regulation.

26. An annuity price is analogous to a table mortgage in that initially, in the near term after such a price is established, most of dollar amount of the price paid is required to provide the return on the value of the assets deployed. Only a small proportion of the constant price is left to be accounted for as compensation for depreciation of the assets. (Similarly, the periodic servicing payments under a table mortgage initially are mainly assigned to meeting the interest on the principal outstanding with only a small contribution towards repayment of the principal.) As the depreciation reduces the value of the assets deployed, the amount required to provide the return on the depreciated asset value reduces. Thus in later periods a larger proportion of the constant price is left to be accounted for as compensation for depreciation of the assets. Thus under an annuity price depreciation is higher in later periods which is often described as depreciation being "back loaded". A tilted annuity price reflecting projected inflation (i.e. an "inflation tilted annuity price") results in depreciation being even more "backloaded".

27. In contrast to annuity pricing, the standard pricing approach under Part 4 is that price (and revenue) caps are based on straight line depreciation with a constant dollar amount accounted for as compensation for depreciation. (The Part 4 IMs do include provision for prices to be based on non-standard depreciation i.e. non-straight line depreciation but this is seen as requiring special justification.)

28. For a given initial RAB, pricing based on standard depreciation will be higher than an inflation tilted annuity price for the first half of the assets average life and will fall below the inflation tilted annuity price only during part of the second half of the assets average life.[11]

[10] A very approximate assessment suggests that the regulated prices prevailing prior to December 2014 did result in Chorus obtaining at least a normal return on its fixed line services earlier than that date.

[11] The contrast between tilted annuity pricing versus straight line depreciation pricing is fully explained in the paper "Costing methodologies and incentives to invest in fibre", Charles River Associates, July 2012" which the Commission has used as a reference in its papers on these issues.

29. The above implies that the current bit stream inflation tilted annuity price is recovering less depreciation than a standard Part 4 price would recover in respect of the same RAB. Consequently a switch to standard Part 4 pricing would involve an increase in the price. Furthermore, less depreciation will have been recovered by 2020 by the current tilted annuity prices since they were set in December 2015 than would have been recovered by standard Part 4 pricing (footnote 5 references a relevant Commission analysis).

30. At this point in the analysis, it should be recalled that the initial RABs for electricity lines and gas pipeline businesses were set on the basis of earlier ODV valuations updated to the start date of the Part 4 regulation for capex, depreciation and CPI-indexation.

31. A direct translation of the Part 4 approach to the setting of an initial RAB for Chorus' bit stream services (copper and fibre combined) could result in the RAB being set based on the December 2015 TSLRIC network valuation updated by deducting the depreciation that has been recovered in the tilted annuity prices over the five year period to 2020 and adding the capex Chorus has expended on the (combined copper and fibre, i.e. UFB) networks over the five year period plus the inflation in the tilt of the tilted annuity prices.

32. It is almost certain that the result of the update described above would be a substantially higher RAB. The issue of how a substantial increase in allowable prices could be avoided is discussed in a later section below.

The treatment of Chorus' UFB capex and Government funding assistance

33. A obviously key aspect of the updating described above is the addition of Chorus' UFB capex expenditure, which is very substantial. Several issues would be relevant in regard to this, including treatment of the funding assistance provided by the Government through Crown Fibre Holdings (CFH).

34. The Part 4 IMs provide that where capital contributions finance an increase in assets that is taken into account so, in effect, the regulated entity does not earn a return on such assets. The funding provided by CFH is reduced or zero interest financing. In as much as this differs from standard capital contributions, the Part 4 IMs do not prime facie specify a treatment. One approach would be to treat the net present value of the reduced cost of the funding as if it is a capital contribution.[12] That treatment would be a moderate offset to Chorus' UFB capex.

35. It is likely that Chorus would argue that if the NPV of the reduced or zero cost funding is to be treated as a capital contribution, the losses incurred between the construction of the UFB network and take up by end users should be also taken into account. Chorus could be expected to argue the reduced cost funding is provided in recognition of these losses. There is no obvious counterpart in the Part 4 IMs to the losses in question. The

[12] The funding will not have been repaid as at 2020 and the calculation of the net present value benefit would involve assumptions about the future payment profile.

Commission would of course fully consider the case presented by Chorus. The Commission decision on this issue is not easy to predict. In particular it is not at all clear how the Commission could derive a conclusion from the proposed purpose statement. The UFB contracts were the result of a negotiation between the Government and Chorus (and the LFCs). Only those parties have fully informed insight into what treatment of the reduced or zero cost funding and the losses would be compatible with the agreements reached. Accordingly, my view is that the Government should provide the Commission with clear guidance on the treatment of the UFB capex and the Government provision of funding.

A new optimised replacement cost valuation?

36. The alternative to basing the initial RAB on the December 2015 TSLRIC network valuation is for the Commission to undertake a new valuation. On a first consideration this would avoid the need to decide on the treatment of the UFB capex and of the losses incurred between the construction of the UFB network and take up by end users. Under a conventional replacement cost approach most of capex prior to the valuation date would be irrelevant to the valuation since it simply overbuilds the existing copper network.

37. A practical consideration is that the option paper envisages that the Commission will determine the IMs well before 2020. A valuation as at a time between now and 2020 would have the awkward consequence that, on a conventional approach consistent with the Part 4 IMs, the part of the UFB build that post dates the date to which the valuation relates (hereafter the “valuation date”) would be incorporated in the updating of the valuation but most of the capex incurred prior to that date would not be recognised. This outcome would appear arbitrary and some modified approach, i.e. different from the Part 4 updating, would likely need to be considered.

38. The actual result of a new valuation cannot be predicted at this point of time since the valuation would depend on price changes yet to happen. Unless inflation rebounds very considerably from its current low levels, however, it would seem quite probable that a new valuation as at a date close to 2020 would be lower than the result of updating a valuation based on the 2015 TSLRIC modelling in the a way consistent with the Part 4 approach. Thus it seems likely that Chorus, the regulated entity, would be opposed to the initial RAB being based on a new valuation - a reversal of the position regarding the Part 4 IMs. The Commission position would probably also be reversed, with it favouring a new valuation.

39. The above analysis suggest that Chorus might prefer the third example used in the options paper to illustrate Valuation Methodology Option 3, whereby the Commission is provided with legislative guidance to assist its decision on a valuation methodology. That example is expressed in terms of the legislation stating that the Commission must not adopt a “replacement cost” valuation methodology for RAB valuation. The options paper comments “this option would be consistent with our position that TSLRIC is no longer appropriate in a post-2020 environment and would remove the option of a new

replacement cost valuation but would not necessarily prohibit the use of a previous TSLRIC valuation". As discussed above it seems likely this prohibition would result in a higher RAB than if the Commission could undertake a new valuation. This outcome may not have been what the option paper envisaged.

40. A new valuation that resulted in part or all of the UBF capex being ignored, i.e. having no effect on the valuation derived, would invoke severe criticism that the Government, having entered into a contract for provision of the UFB, has by legislation deprived Chorus of the opportunity to earn a return on that investment. The reality is of course that continuation of the current regulatory regime would simply entail consideration what if any changes were required to update the TSLRIC model. Thus a new replacement cost valuation would not be fundamentally different from the process involved if no changes were made to the regulatory regime.

41. As explained earlier the switch from titled annuity pricing (under the current TSLRIC pricing principle) to standard Part 4 type price setting (based on straight line depreciation) would result in a higher price initially (with lower prices eventually). From an unsophisticated end user's perspective the change would be seen to have had a detrimental effect.

42. In summary both the updating of the December 2015 replacement cost valuation or a new replacement cost valuation would almost certainly result in a substantial increase in allowable prices under the standard Part 4 pricing approach based on straight line depreciation. To avoid that outcome the Commission would need to modify the depreciation profile or defer the price increase. That is the subject of the next section.

The use of a non-standard depreciation profile to avoid price increases

43. The options paper proposes that the Commission would be empowered and required to smooth the impact of the switch to a Part 4 regulatory approach by modifying the depreciation profile. It seems clear that this would in practice require adoption of a non-standard, i.e. non-straight line depreciation profile, at the start of the new regime in 2020. Specifically, the initial depreciation rate for Chorus' assets would need to be set on average below the straight line rate equivalent to the expected life of the assets.

44. As the terminology "standard depreciation" to refer to straight line depreciation indicates, the norm under BBM regulation, i.e. Part 4 type regulation, is that pricing is based on straight line depreciation. In contrast a depreciation profile that is backloaded as in annuity or inflation tilted annuity pricing is the norm under regulation based on the TSLRIC pricing principle.

45. Arguably, the association of backloaded depreciation with TSLRIC pricing is logically consistent. TSLRIC pricing implies that the regulated entity is to be fully exposed to the risk of technological obsolescence but with that balanced by retention of revaluation gains i.e. full protection regarding price inflation. Backloaded depreciation is part of the full exposure to technological obsolescence. In contrast BBM regulation as implemented

under Part 4 displays no intention that the regulated entity is to be exposed to technological obsolescence. Straight line depreciation is more consistent conceptually with this than backloaded depreciation.

46. The above observations are not intended to suggest that it would be incompatible with good regulatory practice to set prices under a Part 4 purpose statement in which depreciation is backloaded i.e. initially lower than the straight line rate based on the assets expected lives. It would however be "non-standard" and, arguably, that very wording does imply a onus on policy makers to justify the resort to a non-standard approach which clearly is disadvantageous to the regulated entity.

47. The combination of basing prices on a new valuation that can be described, or at least caricatured, as not being affected by and therefore not "recognising" the UFB capex and then adopting non-standard depreciation to the detriment of Chorus will be vulnerable to misrepresentation.

48. A well coordinated and extended explanation of the justification for the change in the regulatory framework and the expected outcome would be very important to reduce the risk of investor misunderstanding and disenchantment leading to a loss of confidence.

A historic cost valuation?

49. The options paper lists a depreciated actual cost valuation as the first in its list of valuation methodologies. The paper comments that "in principle this approach is not controversial; however it often not possible in practice as accurate information on historic costs, revenues and rates of recovery may simple not be available".

50. The option paper's view is that "*The valuation of UFB assets is, in principle, likely to be a relatively straightforward exercise, as the deployment of the networks has been supported by a robust information disclosure regime that has captured the actual costs of the build. However it may be more challenging to assign an appropriate value to copper assets that are, in some cases, decades old, have been overbuilt by new fibre assets, and for which it is unclear whether accurate actual historic cost information is available.*"

51. On this matter I can bring to bear my personal experience as very junior Treasury investigating officer for the Post Office prior to the separation of its three branches – the Telecommunications service, the Postal Service and the Post Office Savings Bank. As, in effect, a Government Department, the Post Office was not required to record or maintain asset records that would pass scrutiny for the purpose of an asset valuation of the type envisaged in Part 4 regulation.

52. The corporatisation of the Telecommunications service, as TCNZ, did involve putting an aggregate value on the assets being sold by the Crown to the new company but that valuation was an assessment of the net present value of the cashflows forecast to be earned by the new company without an major focus on the actual cost of the assets.

53. The records kept by TCNZ and following separation, Chorus, will have complied with accounting standards.[13] They would in principle meet the requirements for a historic cost valuation of assets created since formation of TCNZ but difficulties would be likely.

54. At the time of TCNZ's corporatisation the copper network was in place to serve nearly all premises then existing in New Zealand. It is difficult to see how a historic cost valuation of the pre-corporatisation assets can be developed that would be defensible as an accurate valuation. In any event, the price at which TCNZ was sold to investors would arguably be more relevant.

55. On possible approach would be to value the pre-privatisation assets at the enterprise value at which TCNZ was sold and then to add the capex revealed by TCNZ's accounting data and deduct depreciation to arrive at a depreciated historic cost valuation. In order to justify the use of a value thus derived as the initial RAB a number of tests would need to be considered as the option paper indicates. In terms of the Merits Review judgement the Commission would need to satisfy itself that TCNZ had earned at least a normal return on the assets since privatisation.

56. In order to assess the issues involved in deriving and testing a hybrid privatisation enterprise value plus post-privatisation depreciated actual cost valuation for validity an analysis of the data available from TCNZ's records would be required. I am not in a position to assess this, but as noted difficulties would be likely.

57. It is relevant to note that an initial RAB based on estimates of depreciated actual cost would appear to be a considerable more dramatic change from the TSLRIC pricing principle regulatory regime than the other options. The legislation implementing the UFB agreement included provision for a regulatory review but it is probable accurate to conclude such an outcome would be viewed as unexpected. It would probably attract significant investor complaints therefore.

Cost of capital issues

58. In contrast to the position regarding the initial RAB, the Part 4 Cost of Capital IM would be able to be translated over to the telecommunications IMs in a very straightforward fashion. One aspect would be that obviously a Beta estimate appropriate to a fixed line services would be needed but the analysis required is essentially already completed. The required Beta was derived during the setting of the copper service prices using a methodology consistent with the Part 4 Cost of Capital IM.

59. In developing the telecommunications IMs, the Commission would naturally be required go further than just assuming the Part 4 Cost of Capital IM is appropriate for the the new telecommunications IMs or that the Beta derived in the setting of copper prices is appropriate for regulation post 2020. The Commission would need to examine anew its

[13] I relied on TCNZ's accounting system records in the role of General Manager Finance of TCNZ from 1995 to 2001.

previous work on Cost of Capital but that work would be able to inform its examination, provided the legislation included an appropriate provision.

60. The Part 4 provisions regarding development of IMs explicitly authorised the Commission to include past analysis in its considerations, subject to a process to ensure this was appropriately disclosed and could be submitted upon by interested parties. An explicit provision of this type was vital since merits appeals under Part 4 are based on a closed record i.e. only analysis/information that has been in front of the Commission is admissible as evidence.

61. Thus a provision authorising consideration of past analysis would be needed to allow the Cost of Capital work undertaken in the setting of the copper prices to be used in the development of the telecommunications IMs.

62. Despite the Beta used in the setting of copper prices being derived using a methodology consistent with the Part 4 Cost of Capital IM, there is a major issue that would probably result in the telecommunications IM resulting in a higher Cost of Capital than the estimate used in setting of the copper prices. That issue is the "WACC uplift" to the 67th percentile estimate that is applied under the Part 4 IMs.

63. During the setting of the copper prices, the application of the WACC uplift was rejected as not being justified, i.e. not being beneficial to end users, under a TSLRIC pricing principle regulatory regime. The analysis underlying this decision was that under a TSLRIC pricing principles investment decision by the service provider do not have any direct impact on the regulated prices and consequently a WACC uplift has no direct effect on the investment incentives of the provider.

64. In contrast to the lack of a relationship between WACC and incentives for investment under a TSLRIC pricing principle, a provider's capex directly affects the pricing or revenue cap to which a provider is subject under Part 4 type regulation. Consequently, since a WACC uplift does provide investment incentives for a provider under Part 4 type regulation, such an uplift potentially is beneficial for end users.

65. The Commission would as in other aspects of the Part 4 Cost of Capital IM need go further than just assuming a uplift is justified in as a component of the telecommunications Cost of Capital IM.

66. Assuming the Commission did conclude that a WACC uplift is justified, which seems a likely outcome, the consequence would be that the fixed line price or revenue caps set under the telecommunications IMs would be higher than the TSLRIC pricing principle based prices even before consideration of differences in the normal depreciation approaches under the two regulatory regimes. In order to achieve a transition to the new Part 4 regulatory regime without a significant price increase, the Commission would need to apply a depreciation approach that deferred depreciation even more than under inflation tilted annuity pricing.

Treatment of Chorus assets in LFC areas

67. The options paper seeks views on whether Chorus assets in LFC areas should be excluded from the RAB.

68. The exclusion of such assets would logically be linked to exclusion of the Chorus end users in such areas from the assessment of demand/revenue. If assets deployed in LFC areas per end user are lower in cost than the average per end user for the whole network, then exclusion of these stress would result in higher price or revenue caps.

Conclusion

69. As noted earlier this submission focuses on identification of possible implications of the Part 4 IMs in regard to the preferred options set out in the options paper. I see analysis of these implications as the way in which I can best contribute to the development of policy given the constraints on my time.

70. I should note that issue not directly related to the Part 4 IMs, such as the treatment of demand, are clearly very important. I will read the submissions of others on those issues with great interest.

71. Finally, I stress that I have sought to take an impartial approach in the analysis set out above, not favouring the interest of any of the industry parties.

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