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# Cross submission on consultation paper outlining Commission's proposed view on regulatory framework and modelling approach for UBA and UCLL

## 20th August 2014

Public version (there is no confidential version).

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## 1. Executive Summary and Introduction

1.1 In this cross-submission, we return to focus mainly on the legal and regulatory framework for the FPP process. What emerges from this round of submissions is a greater need to achieve a higher level of clarity on that framework.

1.2 While we note other submitters' concerns around timing, the need for a draft model reference paper, etc, we do not add to what has already been submitted, as to the concerns in this area, and as to sufficiency of consultation.

1.1 This cross-submission has been prepared by Rob Allen and Michael Wigley.

### Overview of our approach to s 18

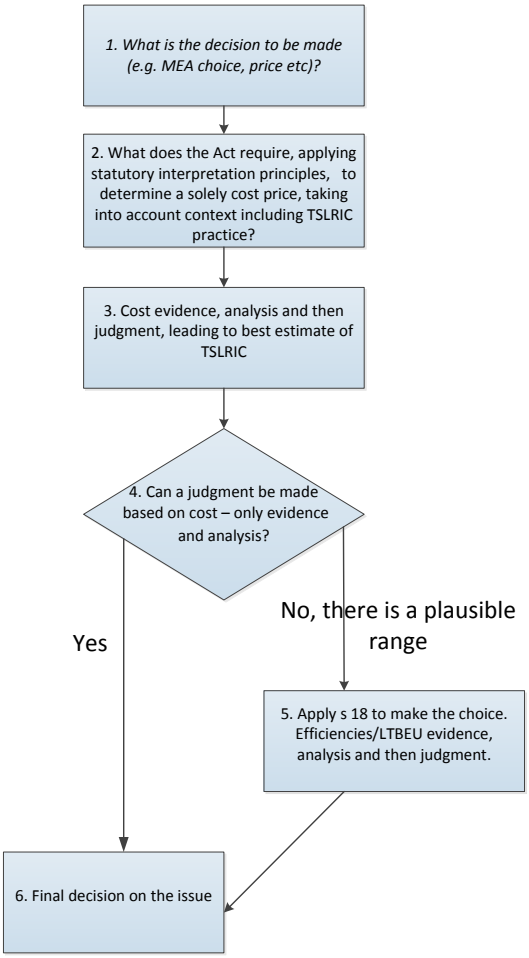
1.2 We deal with s 18 as follows:

(a) We identify a key area of agreement with Chorus: it notes in its submission that: "*It is important not to assume or overstate the scope for [section 18] discretion. As we have previously submitted, some important modelling decisions are made plain in the Act (and section 18 is therefore not relevant)….*".

(b) We refer to the Spark and the Vodafone submissions to show that there are problems with getting the FPP right unless the Commission is particularly careful in the structure and sequencing of its approach and how it applies each step. Spark said *"The Commission has considerable discretion in the design choices for its FPP models…".* Vodafone said: "*The Commission has a wide discretion in determining the TSLRIC parameters*". In fact the Commission has no discretion: the Commission must exercise **judgment** among choices of approach not **discretion** (so we agree with the Chorus statement above, save as to the reference to discretion). .

(c) Normally use of such words – judgment or discretion - wouldn't matter too much but, as absence of clarity on key issues and steps remains a major concern, we submit that it is important for the Commission to be clear about its approach.

(d) For this reason we have prepared the following flow chart to help the Commission delineate the steps. A court would typically delineate each part of its judgment in such a way and we submit that the Commission should do so too so that it is clear what steps are being taken and in what order:




(e) The latest submissions lead us to submit that it should be clarified that the FPP process must start by interpreting the Act correctly (Step 2 above), in relation to each decision required (there are multiple decisions), applying standard statutory interpretation principles.

(f) Basic to interpretation of the Act are the purpose in the Act and the context in which the Act operates.

(g) As to purpose:

(i) Contrary to what Chorus states, the purpose of this FPP exercise is not a s 18 purpose (that is, LTBEU, static and dynamic efficiencies with the s 18(2A) overlay). The purpose is to derive the, solely, cost based price. TSLRIC is unambiguously defined that way. Purpose is not just about what is in the purpose statement (s 18).

(ii) Section 18 is only relevant:

(A) At the interpretation stage, only where the Act is unclear as to meaning, in which event, s 18 can be used to help interpret. (Our view is that the Act is clear enough, and the continuous risk with applying s 18 is a departure from pure cost-based decisions, which is contrary to the Act and its clear requirement that the price is to be solely cost based); and

(B) If there is a plausible range of options, all consistent with deriving the cost based price: s 18 can be used to help resolve the impasse (but that will not often be required).

(iii) As to context:

(A) As the IM judgment states,[1] *"In law, context is everything".* Clearly the gaps in the briefly stated TSLRIC definition are to be filled by reference to international and domestic TSLRIC practice (with care given to variations in approach away from the requirements in our Act);

(B) Such use of context is a matter of routine statutory interpretation, but always subject to the words of the Act. (The words can also be interpreted, where required, having regard to that context, as the Commission is correctly doing by reference to the core functionality approach to choice of MEA);

(C) Context is not about s 18 LTBEU and efficiencies as they are not about deriving the cost.

(iv) In short, interpreting the Act, including relying on context, is about deriving the optimal (best estimate) TSLRIC cost-based price. Every decision leads to that. Below we highlight the value at each step of that best estimate approach.

(h) We have also realised from others' submissions that the common use of "*efficient*" for both TSLRIC and for s 18 could incorrectly conflate the two when they have separate meanings in each context. We have clarified this below to show that the common use does not mean that s 18 is relevant to the cost-analysis (beyond involvement at the plausible range stage). "*Efficient*" cost feeds into a s 18 efficiencies analysis (eg an efficient cost is often regarded as the most efficient from an efficiencies perspective). But s 18 efficiencies do not feed into the former.

1.3 We have also clarified where plausible range issues arise: they can arise at each decision stage and not just in the final price point selection (but the need to decide from a plausible range will be rare).

1.4 We have drawn together these developments by using the choice from MEA candidates as an example: this example is central to this submission as it is a working illustration.

**LFC and Chorus UFB asset sharing with hypothetical operator to be part of the model**

1.5 WIK and Network Strategies have valuable insights as to asset sharing but there is some uncertainty given assumptions that Chorus as a whole is relevant to the modelling as opposed to the correct position that this is all about Chorus' copper

[1] At [104]

network and its hypothetical efficient equivalent. We have therefore clarified our submission on this point,

### Robust evidence and analysis

1.6 We support WIK's and Network Strategies' concerns around the absence of evidence supporting Professor Voselgang's paper. That amounts to economists' support in practice for the legal concerns we have expressed in terms of required approach. As the High Court said in the IM judgment, in a passage applicable to the FPP (the more so as the Commission's practice is to require quantitative CBAs for decisions such as these FPPs):

> "Where a proposition is simply asserted by economists, we give it little or no weight".

### Scorched node versus scorched earth

1.7 In light of Network Strategies and Vodafone observations, and in particular, in light of the Information Request Notice to Chorus since submissions, we return to this issue.

1.8 Absent more detail as to the degree of scorching and optimisation/modification, if any, it is not possible to deal with this other than at a high level. What is apparent, however, are the high hurdles (if not unsurmountable barriers) to a scorched node approach, even if modified (both at the MEA selection stage and at the stage of modelling the chosen MEA).

### Protecting Chorus revenues and its position as separated suppliers

1.9 Chorus submit that protecting its revenues is material as is its status as a separated supplier. We outline why that is not so, as confirmed by the Vodafone TSO Supreme Court case.

### What is meant by forward looking costs?

1.10 Chorus submits that the Commission has no choice but to apply current replacement cost to legacy assets such as ducts, seemingly based on the TSLRIC definition revolving around forward looking costs. This is an important issue and we suggest to the Commission that it produce a consultation paper on the interpretation of forward looking costs.

### Analysys Mason

1.11 The Analysys Mason report appears to be somewhat inconsistent; arguing that the Commission should, in effect, base the TSLRIC determination as closely as possible on Chorus' actual network and costs, but arguing that TSLRIC is based on a hypothetical efficient operator where it suits e.g. Analysys Mason argue that the Commission's definition of incremental cost ["*the cost of supplying the service as an addition to Chorus' other services*"] "*is inappropriate as it is Chorus-specific. The Commission is not modelling Chorus' incremental cost: it has chosen to model the incremental cost of a hypothetical operator*".[2] This is somewhat convenient because if incremental cost is defined, absent any other

[2] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.1.

service, it collapses into stand-alone cost (including all fixed and common costs).

1.12 We agree with Analysys Mason RBI fixed wireless footprint "… is not an appropriate means to select the technology to be used and its geographical extent … The Commission are using the current network situation to select the geography in which to use fixed wireless solutions. However, this is not consistent with the Commission's own rejection of arguments based on the current network configuration of existing operators (notably Chorus) …"[3]

**CEG**

1.13 The CEG review of Vogelsang paradoxically argues that a higher UCLL price "*could potentially have some negative impacts for competition …* ",[4] describes the competition as "*business stealing*",[5] and concludes *"… a higher price for the UCLL – which would reduce the likelihood of unbundling taking place – would promote competition for the LTBEU …*"[6]

1.14 The issues CEG's report on "*Demand in forward-looking cost models*" raise, in relation to the Commission's proposed approach to TSLRIC, is not an objection to the Commission's proposed approach per se but rather an objection to TSLRIC. To the extent this is true, CEG's views are irrelevant as the Commission is required to apply a TSLRIC price under the FPP for UCLL and UBA services.

**Regulated prices should reduce substantially**

1.15 Chorus' relies on incentives to invest arguments to justify higher copper prices. Various submissions through the consultation process has argued that incentives to invest in copper are of limited relevance. This is highlighted by Network Strategies comments above, and by the fact that copper investment accounts for only about 10% of Chorus' capex ($69m in 2013 out of total capex of $681m, and $49m in 2012).[7]

**Terrain**

1.16 We note and agree with the submissions of Network Strategies, Telecom and Vodafone on the substantive impact terrain assumptions (hard rock, soft rock etc) can have on costing, and that the Commission's previous TSO terrain assumptions should not be relied on.

1.17 We turn now to the body of our submission.

[3] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.9.

[4] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 19.

[5] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 61.

[6] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 63.

[7] 2013 Chorus Annual Report.

## 2. Section 18

### Introduction

2.1 We bring together the strands in this section in the summary above, rather than, here, linking the points below.

### A key area of agreement between us and Chorus; statutory interpretation

2.2 There is a key area where we agree with Chorus: section 18 is not relevant where modelling decisions are made plain by the Act. Chorus states in its submission, in that regard (highlighting added):

> "200 Where we may disagree with the Commission is in relation to the scope for basing decisions on section 18 when applying the final pricing principle.
>
> 201 The Commission quotes the comments of Justice Kos that statutes providing for economic regulation "present a chart of medium scale at best". However the Commission does not specify what it takes from that observation.
>
> **202 It does not follow from that high level observation about economic regulation generally that in the TSLRIC context specifically the Commission has discretion at every step. It is important not to assume or overstate the scope for discretion. As we have previously submitted, some important modelling decisions are made plain in the Act (and section 18 is therefore not relevant)…."**

2.3 We do not agree with the way that Chorus goes on to interpret the Act, nor with the concept that there is discretion at any stage as we note below. But the Chorus views above are the key conclusion underpinning our views on s 18. There are, in our view, modelling and implementation decisions which are made plain by the Act, interpreted correctly and in context, which includes general international TSLRIC practice, and section 18 is not relevant in those instances.

2.4 In all respects, the way the Commission must proceed is governed by the specific provisions of the Act such as the TSLRIC definition, which is a solely cost assessment. Section 18 has no role unless and until a plausible range of choices is reached.

2.5 For that reason, both Chorus (at [195]), in adopting the Commission's statement, and the Commission, incorrectly state that the Commission's purpose in making the determination is "*first and foremost to promote competition…*" for the LTBEU. The Commission's purpose in making determination is first and foremost (and in fact, only) to decide the TSLRIC price: that is, to determine the cost based price. That is what the Act says: "*TSLRIC…means the forward-looking costs…*". That is a different thing from s 18. Promotion of competition, and other s 18 objectives, only flow from the cost analysis: they do not flow the other way around.

2.6 We note the alignment of Spark with our submissions, in its submissions (we also highlight Spark's use of "best estimate", to which we return below). Spark says:

> "…s18 does not override the obligation to first focus on the technical task of determining and modelling the best estimate of efficient forward looking costs when applying a TSLRIC methodology."

## 3. Spark and Vodafone approaches show continued need for clarity on s 18

3.1 By way of introduction, both Spark and Vodafone describe the Commission as having wide discretion in relation to the FPP. In isolation, that is not correct. However, they both go on to take a more correct approach, focussed away from that wide discretion.

3.2 The way in which the Commission has conflated and shortened what it is doing in the draft framework paper, followed by this unclear approach by Spark and Vodafone to "*discretion*", show that there is even more need for clarity than sought earlier in our submissions. In particular we propose that the Commission frame its approach in terms of exercising **judgment** at all stages rather than **discretion**. That includes when s 18 is being applied.

### What Spark and Vodafone say about "*discretion*"

3.3 Spark incorrectly states in its submissoin that "*The Commission has considerable discretion in the design choices for its FPP models…*". Vodafone incorrectly states "*The Commission has a wide discretion in determining the TSLRIC parameters*". [8] As we develop below, the Commission's role is about **judgment** not **discretion**.

3.4 However, both take a more correct approach later in their submissions, to this may be more about not yet focussing on getting clarity. Both recognise that any discretion is limited and that the exercise is based on TSLRIC. See for example the last quote from Spark's submissions.

3.5 And Vodafone at [D1.7]:

> "…where discretion is available the Commission must ensure, in order of priority:
>
> (a) That all judgements it makes promote and are consistent, individually and collectively, with the statutory function that it is discharging (i.e. determining the TSLRIC for UCLL and UBA services). This necessarily requires the Commission to ensure that the formula it uses falls squarely within an orthodox understanding of TSLRIC methodology. Where a question can be answered with reference to analysis of objective evidence and analysis, s 18 may not have a separate observable effect.
>
> (b) Subject to this, all judgements that the Commission makes must be consistent with s 18 of the Act. Where it faces a genuine choice as to how to proceed (for example, where it has several options each of which could equally well promote determination of the TSLRIC for the UCLL service), the Commission must consider its primary duty under s18(1) to promote competition in telecommunications markets for the long term benefit of end-users of telecommunications services.

[8] Vodafone 6 August submission heading before [D1.5].

However, s 18 considerations cannot displace a proper analytical approach to determining TSLRIC.

### The Commission exercises judgment not discretion

3.6 The Spark and Vodafone reference to discretion continues the Commission's absence of clarity on this topic in its draft framework paper, where decisions as to modelling and as to s 18 tend to be conflated. This reliance on "*discretion*" is a risky and loose way to describe what the Commission can do. To the contrary of a discretionary approach:

(a) TSLRIC is about determining to the optimally reliable level what the **cost** is. "Best estimate" of cost encapsulates this well. That is not a discretionary exercise. Rather the Commission must, at each step, use evidence, analysis and judgment to determine the particular issue so that the optimally reliable TSLRIC price is derived. The Commission has no discretion. This is about **judgment** not **discretion.** What is the best estimate of TSLRIC cost?

(b) Likewise, if and when s 18 is applied. The Commission decides what optimally meets the LTBEU and efficiency requirements in s 18. That is, again, a matter of evidence, analysis and judgment based on efficiencies. There is no discretion. This is also about **judgment** not **discretion**.

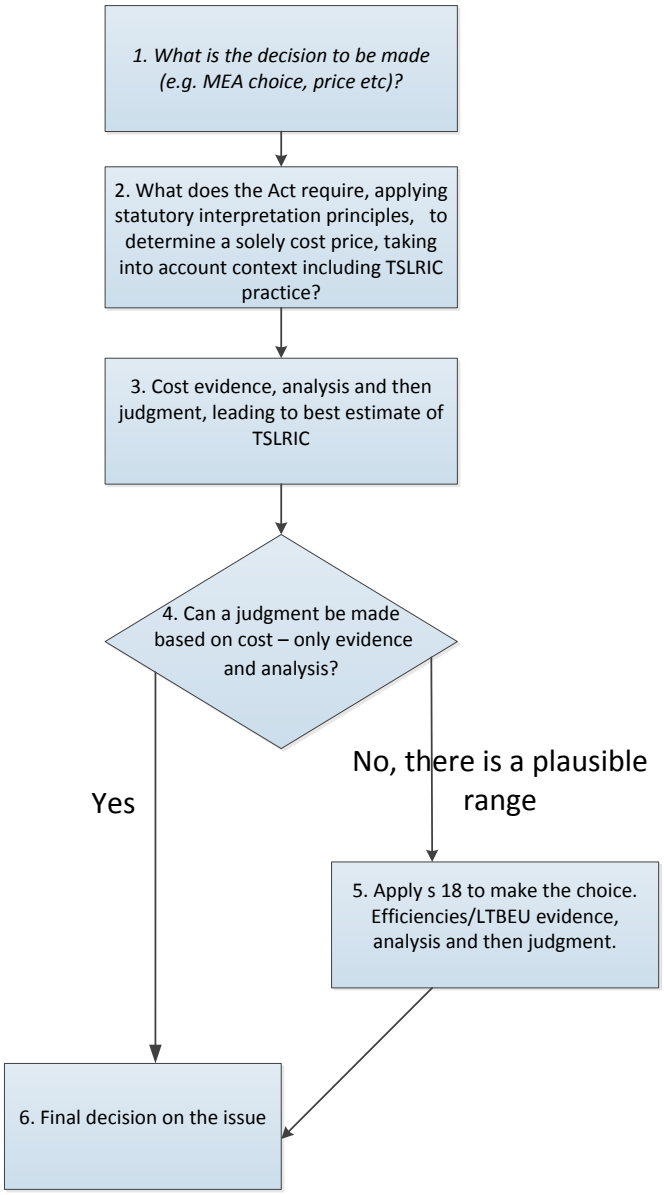
### "*Judgment*" instead of "*discretion*"

3.7 Normally using words like "*discretion*" might be a minor issue as decision makers would exercise such discretion tightly constrained by the legal framework. But that is not happening here, resulting in incorrect outcomes. Therefore the words should be carefully chosen. There are other words that could be used instead of "*judgment*" – and there is not a bright line difference - but the change to "*judgment*" from "*discretion*" will provide greater clarity to ensure the requirements of the statutory framework are met.

## 4. Flowchart

4.1 What emerges more clearly from the various submissions is a measure of agreement on approach as to s 18, but some lack of clarity and a need to be particularly clear around the approach to s 18 and the decisions preceding application of s 18. Without that, there may be ongoing problems and error.

4.2 To assist, we have drafted a simple flow chart to separate out the steps so that they are clearer, as follows (this takes account of some of the matters later developed in this submission):




## 5. An example of how the flow chart applies and "*judgment*" applies instead of *"discretion"*

5.1 Take, for example, at Step 1 of the flow-chart, the choice between a copper and a fibre MEA (removing for the purposes of this example all other MEAs and MEA variants, to keep things simple).

5.2 We submit that the Commission should, to ensure it follows what the Act requires, clearly delineate when it is taking each of the steps in the flowchart above, in relation to each key area of decision-making. Currently this is conflated and unclear, and is more problematic due to insufficient evidence and analysis

### Step 2: What does the Act require, in context?

5.3 The decision is to be made based on what MEA will best lead to the optimally correct TSLRIC price, that is, a solely cost-based price. The Act says nothing

about MEA. There is a brief formula in the Act for TSLRIC. The first thing the Commission must do is to interpret the statute, just as a court would interpret it.

5.4 That involves applying well established statutory interpretation principles, and exercising judgment as to what the Act means and requires. That is not a discretionary exercise contrary to the way Spark and Vodafone initially describe it, but take a different approach elsewhere. It is an exercise of judgment, applying statutory interpretation principles. (The authorities show that decision-makers can sometimes have a range of valid outcomes in terms of interpreting legislation, but this step is still one of judgment, applying statutory principles).

5.5 An Act is, in particular, interpreted having regard to purpose, the text of the Act, and context.[9]

5.6 Section 5(1) of the Interpretation Act 1999 provides that "*The meaning of an enactment must be ascertained from its text and in the light of its purpose*".

5.7 Critically, "*purpose*" in this context is not confined to the purpose statement in s 18. A more granular purpose trumps the general purpose in Part 2, making s 18 largely irrelevant, and wrong, for the TSLRIC exercise. That more granular purpose is to determine a price based solely on cost: the Act is unequivocally clear on that: the Commission' role is to determine "TSLRIC", as Schedule 1 states and "*TSLRIC…means the forward-looking costs…*". Section 18 is about something that is different. It is about LTBEU and efficiencies (dynamic and static with the s 18(2A) overlay). Cost pricing feeds into s 18 efficiencies but not the other way around.

5.8 Thus, s 18 is not only irrelevant to modelling decisions under the TSLRIC approach: to the contrary, applying s 18 wrongly moves the judgment away from the statutory methodology, which is solely cost based (unless by chance s 18 is consistent with cost but then s 18 would not be relevant and effective anyway).

5.9 Where meaning is uncertain, then s 18 may be used to help interpret the Act. But that is not needed here as the TSLRIC definition is unequivocally solely based on cost.

5.10 The next step is to flesh out the steps required for the TSLRIC methodology in terms of statutory interpretation. At this point, the context within which the Act operates comes to the fore. Using s 18 here would take the decision away from cost, contrary to the Act. Thus, if context and other material are turned to at this stage, that will be the TSLRIC practice internationally and domestically. TSLRIC practice is about deriving cost, on the basis that this establishes efficient build/buy decisions, and therefore mimics workable competition, when monopoly conditions mean that such competition is not available.[10]

5.11 In that exercise, rudimentary statutory interpretation principles require the Commission to do what the courts would do: ascertain the more detailed methodology that ultimately derives a price based solely on cost. International application of TSLRIC is relevant to that interpretation exercise.

5.12 The following passage (cited by us in earlier submissions) overviews the approach to context:[11]

[9] See for example Chapters 8 and 9 Burrows and Carter, Statute Law in New Zealand (4th edition)
[10] See eg the Commission's draft framework paper
[11] Burrows and Carter, Statute Law in New Zealand (4th ed) page 256. Footnotes omitted

> The Courts, and therefore the Commission, *"can rightly expect to be informed of such social, economic and contextual factors as may affect interpretation. An interpretation, illuminated by such contextual material, which places the statutory provision in its setting, can give a different, and often more satisfactory, result, than one based solely on grammatical and literal considerations. The court is better able to assess the impact of its decision on the relevant communities of interest."*

5.13 Parliament of course intends an approach based on the widely used (at least, back in 2001) TSLRIC methodology. There are however two key points not to be lost sight of:

(a) Where the Act is clear on a point, the requirements of the Act will trump international and domestic practice. For example, while we disagree with Chorus' interpretation by which the Act provides no choice but for a copper MEA, we agree entirely with the view that the requirements of the Act must be followed and that must be carefully analysed applying statutory interpretation principles (for example the core functionality interpretation is readily available having regard to context and purpose)..

(b) Whatever methodology or implementation decision is at issue, it must strictly fall within the requirements of the Act. Most relevant here is that the methodology must solely be cost based: "*TSLRIC…means the forward-looking costs*". Any option that does not achieve this (eg due to a regulatory difference in another country or a contrary path taken by the regulator in a country) is not available. Even well-established TSLRIC principles cannot be used if the Act says otherwise. See for example our submissions below on scorched earth v scorched node.

5.14 Our understanding is that all parties accept that the modelling, correctly interpreting the Act in context, requires:

(a) modelling of the hypothetical efficient network; and

(b) use of a modern equivalent asset to derive this.

5.15 Those are matters solely of c**ost**.

5.16 In summary, so far, the result of statutory interpretation is that the Commission is to assess, all things equal, what is the most cost-efficient MEA for the service. There are questions of detail under this such as whether the hypothetical network is ducted (higher capex, longer life) or aerial (lower capex, shorter life).

### Statutory interpretation: Best estimate should be the focus

5.17 Given the hypothetical nature of the modelling exercise, choice of MEA involves estimation as to what is the most cost-efficient MEA (albeit more granular and accurate at the FPP level than the IPP). The best estimate concept continues to be sensibly applied, as Chorus has in the courts, and Spark has done its latest submission, even though there are other ways of stating the same thing.

5.18 Always, the best estimate is solely cost based.

5.19 Deciding the best estimate for the MEA is a judgment. It is not discretionary. The Commission gathers evidence and undertakes analysis. It must then exercise judgment to reach that best estimate. In this sense there is only one best estimate outcome possible: there is no discretion. Other decision makers might have come to a different view on the best estimate but all decision-makers are seeking that one objective best estimate based on evidence and analysis.

5.20 It is likely that the analysis and evidence thus far will enable the Commission to make a judgment as to what is the best estimate for the MEA. That will be the decision. In the flowchart, the Commission moves directly to the end of the flowchart (Step 6).

### Step 5: s 18 assists where there is a plausible range

5.21 But if copper and fibre MEAs in our two MEA candidate example end up being in a plausible range (eg they are both in a statistical range such that they would equally lead ultimately to the best estimate of the TSLRIC cost), only then can the Commission turn to s 18 to resolve the impasse.

5.22 The s 18 analysis at this stage is also not discretionary. The Commission obtains sufficient evidence and analyses the position. It then exercises **judgment** as to which MEA to choose, based on the evidence and the analysis as to net LTBEU and efficiency effects. If for example, the judgment on s 18 efficiencies indicates net benefits in the LTBEU by having a copper MEA, the Commission would choose that MEA. That is so, all things equal: for example, there are double recovery concerns plus issues around doing the s 18 adjustment only at the end, etc.

5.23 We have already noted that evidence and analysis for both the initial cost phase and the later s 18 phase need to be far more detailed than the current approach. As we have noted, earlier Commission decisions require a quantitative CBA, and that is backed up by recent authority referred to in our submission. This reinforces our point.

5.24 Using this choice of MEA example, we note that, using the Commission's useful concept of plausible range, a plausible range is not only reached where there is a range of possible prices all of which are consistent with an optimal estimate of price (as happened in the IPP). In this choice of MEA example, if the Commission reaches the point where there are two choices of MEA which are equally consistent with optimally deciding TSLRIC, it can turn to s 18 to help make the choice between the two. However, the key point is that, usually, if not nearly always, that choice can and must be made applying only cost evidence, analysis, and judgment.

## 6. Clarity as to difference between "*efficient*" for TSLRIC (cost) and "*efficiency*" for s 18

6.1 What has become apparent from submissions is the need to be clear about what "*efficient*" means in the context of TSLRIC and how that is different from "*efficiencies*" in s 18. The differences are straightforward and generally understand but stakeholders should be crystal clear. That will reduce the risk of confusion and conflation of different requirements using the same words for different reasons. Just because s 18 and TSLRIC both use "*efficient*" is not a reason to conflate s 18 with the cost-only TSLRIC approach. "*Efficient*" has different meanings in each context.

6.2 All appear to be agreed that TSLRIC is about **efficient** cost.

6.3 "*Efficient*" in a TSLRIC sense essentially reflects the cost of the hypothetical operator in rolling out and operating the hypothetical network. At a high level, subject to choices such as duct versus poles, robustness of the network, etc, what is the least cost way of building and operating a network if the service provided by the network (here, the copper network) is being replaced? The hypothetical network that is the least cost to install and operate captures the idea of "*efficient*" in this context.

6.4 Section 18 efficiencies have no part in determining "*efficient*" cost. Section 18 only has a role when it is needed to resolve an impasse among a plausible range of efficient cost decisions. "*Efficiencies*" in s 18(2), as has been recognised frequently by the Commission, means static and dynamic efficiencies. An "*efficient*" cost price is a factor in such static and dynamic efficiencies (ie it feeds into the efficiencies analysis). But the reverse is not so: static and dynamic efficiency analysis does not feed into the analysis of an efficient cost price. Cost is cost. Section 18(2A) and LTBEU considerations do not alter that conclusion.

6.5 The IM High Court judgment confirms the position this way, at [20]:

> "[The outcomes from] a workably competitive market …. are summarised in economic terminology by the term "economic efficiency" with its familiar components: technical efficiency, allocative efficiency and dynamic efficiency. Closely associated with the idea of efficiency is the condition that prices reflect efficient costs (including the cost of capital, and thus a reasonable level of profit)."

## 7. Chorus incorrect to say that the MEA must have copper-functionality

7.1 Chorus at Appendix 2 of its submission escalates its quest, declined so far by the Commission:

(a) to require that the MEA has copper functionality such as fax and alarm monitoring;

(b) to therefore have only a copper network or P2P FTTH as the MEA, with the latter having copper emulation features costed into the MEA.

7.2 In repeating and augmenting its arguments it largely does not deal with the criticisms and submissions against its approach.

7.3 While the Commission's "*core functionality*" approach answers the Chorus submissions, and is the correct approach in context, there are other ways to deal with this issue as well.

### Forward looking approach

7.4 Consistent with the Chorus insistence that only forward looking costs are possible for the model, TSLRIC modelling is forward looking on a broader basis. The Commission is deciding the price for 5 years out from the FPP decision. This is not a decision about network use as at today with historical

considerations. It is about a forward looking network. The Commission is modelling that future. In doing so, it is having to make judgments on that future, without certainly as to what will happen. That extends beyond ultimate cost and price.

7.5 There is a simple example. Faxes (which are copper dependent) have all but been replaced by scanned documents enclosed with network-neutral emails. Already, the hypothetical network does not need to accommodate faxes.

7.6 Just as UFB will see the end of copper-only services such as copper based alarms so would the hypothetical network. A forward looking fibre network can provide the functionality just as scanned copies replace faxes. End users will migrate to new fibre services in the forward looking network.

7.7 After all, neither Chorus nor the LFCs are paying for all these plug-ins that Chorus says must be included, when rolling out UFB.

7.8 The same approach applies to TSO. Chorus assume the current deed, focussed as it is on copper, will not change. But it is likely that it will and that the TSO will move away from its solely copper focus. The TSO review under way indicates this. The Commission should decide that, probably, TSO is not a service that must be provided over copper (or copper emulation) on a forward looking network. Fibre, mobile and maybe FWA will become likely TSO platforms. Further, a fibre network will lead to the TSO being quickly replaced by obligations away from copper.

### UCLL and UBA do not supply TSO

7.9 A key point that Chorus fails to address as to TSO is that TSO is about providing services to commercially non-viable customers (CNVCs). It is a universal service obligation (USO) solution designed to ensure CNVCs in rural areas get a phone voice service.

7.10 But the CNVCs are not on the DSL footprint and are irrelevant to UBA and UCLL in terms of requiring copper services. Even if there are cross subsidies between the urban network (with DSL capability) and rural (in practice there are not), that does not change the position. The service Chorus provided over the DSL network does not deliver TSO capability.

7.11 In any event, TSO is low frequency and UBA is high frequency and so TSO is irrelevant to UBA.

## 8. Chorus non-copper network and third party elements available to lease

8.1 This is a major part of our submission. A key point is that the New Zealand experience is relatively unique as UFB is being rolled out alongside the copper network. We are not aware of any overseas precedent where this new scenario has been confronted for TSLRIC modelling (in Sweden for example, fibre and copper access were being priced together). Thus, the below submission should not be seen as a radical solution but rather as a simple application of TSLRIC to novel circumstances, namely the introduction of UFB.

8.2 In our 30 April submission at [3] (see also Item 3 in the table at [258] of our latest submission) we submitted that:

(a) The assumption for the hypothetical model is that the Chorus in situ FTTN copper network is removed and an efficient hypothetical network is replaces that FTTN copper network: it is the latter that is being costed;

(b) There is an assumption that all other features remain unchanged, such as terrain, user locations, and other potential network components outside the in situ FTTN copper network;

(c) The Commission correctly concluded in draft that the availability of leased access to electricity utilities' power poles and other facilities available from such third parties could be factored into the modelling;

(d) As part of this counterfactual analysis, it is consistent – with leasing power poles, etc -for the availability for lease of non-Chorus LFC ducts, fibre, etc, to be factored in to the modelling;

(e) Further, as Chorus is also building out a network under the UFB initiative, separate from the copper network, that should be available too for leasing to the hypothetical operator. That network is not the copper network. It is a given when the hypothetical network is built.

8.3 Both Network Strategies and WIK have valuable insights into sharing of assets and services, and we won't repeat them here. Instead we expand on their points.

8.4 The first point listed above is rudimentary. For that reason, we suspect that Network Strategies are thinking only of the existing FTTN copper network and not of other Chorus services, when they say at Page 38:

> "It should be noted however that the hypothetical efficient operator to be modelled is not competing with Chorus – it is a substitute for Chorus, and thus the issue of sharing with Chorus may be largely irrelevant."

8.5 Removal of the in situ FTTN network, for the purposes of the modelling, still leaves other Chorus network elements in place, such as UFB. The "*hypothetical network operator*" is **not** a "*substitute for Chorus*". Rather, the hypothetical **network** is the substitute for the in situ FFTN copper n**etwork**.

8.6 In particular, Chorus will still have its UFB network. The hypothetical operator can lease network capacity from Chorus' UFB network and that is to be built into the modelling.

8.7 This is conceptually correct in terms of TSLRIC methodology with its focus on efficient networks within the real world, absent the specific network being modelled. For that reason too, providing for leasing of power poles and the like (as currently proposed and agreed to by the Chorus experts) requires that other services and assets that can be leased must also be added to the model, including LFC and Chorus UFB network elements.

8.8 Taking this approach also, valuably, solves:

(a) the demand problem. It would no longer be arguable, contrary to the Commission's current position, that the UCLL and UBA prices must go up to reflect increased unit costs due to migration from copper to UFB. The network elements are shared.

(b) to some degree, the problems if the Commission decides it must accept the submissions that legacy assets (copper ducts, etc) are not to costed at historic cost. The lease price would likely be higher than the historic but at least this some way to ameliorate the poor outcome (an outcome that cannot be driven, as currently proposed by the Commission, by s 18 considerations, for the reasons above).

8.9 Chorus argue that the current market experience is that the ability to lease network elements is limited. We consider that it is important to look beyond what is happening today, to what would happen in the future if a hypothetical network is built to replace the copper network. As outlined above, this modelling is about forward looking costs in a forward looking world. Importantly also, the job of the Commission is to derive the best estimate of what is likely to happen in the future, given nothing is certain. The current position may provide some insights but that is far from the full picture, and insufficient to make the best estimate judgment as to what is going to happen, for a network being priced for 5 years.

8.10 Therefore:

(a) We agree with Chorus that, to the extent the RMA or other environmental restraints, in the future, are estimated to stop say power pole sharing, that is including in the modelling. That assessment must be forward looking. The Commission, as with all these issues, can do a best estimate on a forward looking basis.

(b) If power poles, ducts, fibre, and other network components may be available in the future, the Commission must do a best estimate as to likely pricing, relative to building over the same paths. As to the UFB footprint overlaps (Chorus' and LFCs' footprints) the best estimate will be reliable given known installed networks and plans.

(c) Third parties including the LFCs and Chorus have strong incentives to derive additional money from their investment by leasing. It is not realistic that they would refuse. "*Everyone has a price*". The hypothetical network will be rolled out one way or another (that has to be an assumption), so there is a price where the LFC, Chorus or other third party will lease. If say the hypothetical operator has the choice of only leasing poles or building a network, the electricity company can broadly charge no more than the price where it becomes more viable for the hypothetical operator to build out.

(d) The Commission can do a best estimate as to what would happen and estimate availability and lease price (for example, where power poles and LFC ducts and fibre are available over the same path, the lease price is likely to be less than if only LFC ducts are available). This is all about judgment based on the evidence.

(e) We accept the point that Chorus make about Northpower; the LFC is co-owned by the power company and therefore shared use is commercially less challenging. Commercial challenges can be factored in elsewhere (but monopoly and other dominant market power issues have no part in the analysis as it is a given that the network will be rolled out regardless; therefore, there is a price at which the third party will make access available to avoid funds going instead into a new build).

8.11 Chorus submit that the absence of duct access regulation and the like means that the only consideration is what can be done commercially in negotiations. But that incorrectly takes an historical and not a forward looking perspective:

(a) Power poles and other infrastructure that can enable or facilitate telecommunication can be added to Sch 1 of the Act by way of a Sch 3 investigation (or by statutory amendment as happened for example with UCLL and UBA). So can ducts. That is because (a) the Act defines "*telecommunications service*" as **"***any goods, services, equipment, and facilities that enable or facilitate telecommunication*" and (b) s 66 and 67(the Sch 3 enabling provisions) pivot around regulation of telecommunications services.

(b) Only Layer 1 fibre regulation is precluded under the Act until 2020. Layer 0 (eg regulated duct access) is not precluded.

(c) On the hypothetical ( a new replacement network with the FTTN no longer available), regulation can be expected, probably on a fast track, in relation to relevant potential network elements such as poles and ducting.

(d) The prospect of regulation, as has often been the case, is conducive to the parties agreeing terms more favourably to the hypothetical operator. The regulatory backstop is relevant to the commercial outcome.

## 9. Choice of MEA

9.1 While we disagree with some of the Chorus approach (such as opposition to the Commission's use of core functionality where Chorus's approach on detail around the edges would be to rob TSLRIC of its core approach) we agree with Chorus[12] that the selection of MEA involves two sequential steps:

(a) Identify the service being priced: and

(b) Select the MEA.

9.2 The Commission could be clearer on this. It seems that, by not doing so, the Commission incorrectly concluded that the UBA MEA must be copper as it builds upon the copper UCLL platform. What appears to be happening is that pricing the UBA **increment** has come to drive the approach, perhaps because of the focus is on the UBA price uplift (which has even become known as the UBA price) when UBA is a Layer 2 service that includes Layer 1.

9.3 The correct approach is:

(a) The service being modelled is the UBA service, which comprises both Layer 1 and Layer 2 (not just Layer 2). (We'll call that the "UBA Stack" given the general approach is to call the UBA increment price the UBA price: it would be safer though to describe the UBA price as what it is: the price of the stack (layers 1 and 2) and not just the price of the UBA increment).

(b) The functionality of the UBA Stack is largely technology neutral. It can be provided by fibre and wireless too. It is not dependent upon a layer 1 copper platform;

[12] See eg its 6 August submission at [223]

(c) The service being provided is not the Layer 2 increment over Layer 1. It is the UBA stack in total.

(d) There is no legal reason why the MEA for UBA needs to be copper based. To the contrary.

(e) When it comes to pricing the MEA for the UBA stack, there is a natural split between layer 1 and layer 2 fibre.

(f) In terms of relativity, the solution, for the reasons outlined in our submission, is to move the UBA incremental price up (and/or the UCLL price down) on a fibre MEA, rather than endeavour to move the UBA incremental price down (or the UCLL price up) based on copper MEA.

## 10. Requirement for robust evidence and analysis

10.1 At Item 7 under [258] of our 6 August submissions, we have outlined the legal reasons why the Commission's approach so far to the adequacy of evidence and analysis is well short of what is required. As noted, the authorities, and even the Commission's own prior decisions, require this, including a quantitative cost benefit analysis where s 18 is applied.

10.2 We agree with the WIK views where they address not the legal framework but the problems that are caused by insufficient empirical evidence. Likewise Network Strategies at their Page 19. WIK criticise the approach by Professor Vogelsang thus far at [42]-[48] of their 5 August report, for lack of empirical justification and analysis

10.3 For example WIK observe, in a passage applicable to all aspects of the s 18 analysis:

> "43….Vogelsang assumes positive welfare effects of an UCLL price increase due to a forced migration to UFB fibre networks. Without providing any proof Vogelsang claims that positive network externality effects of a UCLL price increase for UFB subscribers exceed the negative externalities on copper-based services. For us it is basically an empirical question whether this relationship holds or not. This analysis has not been conducted by Vogelsang or anybody else, at least as far as we can see…..
>
> 45. The Commission has not revealed in its consultation paper whether it shares Vogelsang's (apparently 'unconducted' quantitative) analysis, or whether, or under what circumstances, it would follow Vogelsang's implicit recommendation if it were convinced that this is the right way to go, and if that would be a feasible approach under (current) legislation. It would be a rather far reaching approach to instrumentalize the UBA and UCLL pricing decisions under a TSLRIC costing approach and then deviate from TSLRIC prices in that respect.
> 46. Any pricing approach which intends to deviate from TSLRIC pricing for externality reasons in any case has to prove empirically that the welfare losses due to price increases of such a regulatory approach are dominated by such spill-over externalities. Not to be misunderstood: We have no doubts that such positive externalities exist. We only have not seen a relevant quantification of its amount in the New Zealand context and an analysis which proofs that they are dominating the welfare losses due to price increases of UCLL and UBA."

10.4 The High Court on the IM judgment framed that point this way (a decision that is binding on the Commission here):[13]

> "Where a proposition is simply asserted by economists, we give it little or no weight".

## 11. Scorched node versus scorched earth

11.1 Network Strategies (at page 18) and Vodafone (at [G5.5]) have raised concerns about the apparently likely scorched node approach where the node location and optimisation of that scorching has not been clarified. As they note, the approach is not yet clear.

11.2 Network Strategies noted the concern that:

> The Commission … might … consider Chorus' existing nodes … Such an approach may severely compromise the ability of the model to deliver efficient forward-looking costs.[14]

11.3 In our 6 August submission, at Item 9 under [258], we noted that the Commission had not sufficiently addressed issues raised including those pointing to the need for a scorched earth approach.

11.4 Since then, the Commission has issued its latest information notice to Chorus. That notice, although not entirely clearly, appears, contrary to our submissions noted above, to continue an approach based on scorched node, with only limited optimisation, if any. For example, although details of modern equivalents of exchanges are sought, the exchanges are still copper based and appear to be at the same locations.

11.5 The position is uncertain from a perspective external from the Commission as:

(a) The Commission in draft proposes to use an FTTN MEA for UBA (and copper network elements are relevant to that); and

(b) It is not yet known how the UCLL fibre MEA will be modelled (for example, the degree of optimisation such as location of central offices away from current exchange etc).

11.6 However, the indications are that, for both UCLL and UBA, scorched nodes are to be used (it not being clear yet what those nodes are) and that there will be concerns around the level of optimisation (that is, the degree to which there will be a modified scorched node approach).

11.7 As noted above, the Commission has not yet sufficiently dealt with our submissions on this point, nor with the related issue of choice of FTTN as the UBA MEA (we observe above how the Commission is not required to use a copper MEA for UBA). Given the new notice to Chorus, and the submissions of Network Strategies and Vodafone, we return to the authorities that require a scorched earth MEA. Without more detail as to the way the Commission proposes to handle the choice between scorched node versus earth, optimisation (eg modified scorched node) and the choices of UBA and UCLL

[13] At [1475]

[14] Network Strategies, Key issues in modelling UBA and UCLL services: Commission consultation on regulatory framework and modelling approaches for FPP process, 6 August 2014, page 18.

MEA, it is difficult to be other than high-level. Hence we will not go into detail at this stage pending more detail.

11.8 One matter however is clear: that the ultimate outcome must carefully avoid historical and legacy inefficiencies, and that the selection of MEA from MEA candidates must be handled without such distortions. There are strong indications in the cases that this requires a scorched earth approach. In any event, unlike overseas regulators, the Commission is required to apply forward looking costs as required by the Act. That is different from other regulators which can use historical costs (that is one reason why the dismissal by the Commission in its framework paper of the requirement for scorched earth, based only on overseas precedent, does not appear to be correct).

11.9 It is difficult to provide more granular conclusions at this stage, absent the detail.

11.10 As to the point about comparing MEA candidates, the Vodafone Supreme Court decision (and also the decision of Young J in the Court of Appeal), provide insights. There the Supreme Court allowed an appeal against a Commerce Commission decision on TSO determinations, on matters materially the same as for the FPP. The Commission had rejected a mobile MEA, on grounds that included the need for Telecom to recover on its legacy network (the Court held that to be an error of law). The Commission had used a scorched node approach, but, for the purposes of comparison between the mobile MEA candidate, and the copper MEA, such nodes, when applied to mobile, were not efficient as mobile had nodes (towers) more efficiently located elsewhere. While the Supreme Court did not have to fully resolve that issue, when the draft approach is made available in more detail, we will submit on the implications of the judgment in relation to the specific model. Depending on the scorched node model we may conclude the Vodafone TSO cases show the approach is not permitted (the more so as the FPP legislation specifically refers to forward looking cost when the TSO legislation did not).

11.11 The Supreme Court in that case relied on the Australian Competition Tribunal judgment in *Application of Telstra* [2010] ACompT 1. The High Court in the IM case also relied on *Telstra.*

11.12 At the time, ACCC had a TSLRIC model for pricing of UCLL (called ULLS in Australia). Telstra could put forward an undertaking based on TSLRIC modelling. If ACCC considered the undertaking was reasonable, it could accept that in lieu of regulatory price setting.

11.13 The undertaking and modelling (called TEA Model version 1.3) put forward included scorched node modelling with some optimisation. The undertaking was rejected by ACCC and so Telstra appealed to the Australian Competition Tribunal. The Tribunal dismissed the appeal.

11.14 Its primary reason for doing so was the incorrect use of scorched node modelling. As the Tribunal said:

> "569 Primarily, it takes the view that the scorched node modelling used in the TEA Model version 1.3 makes assumptions about the location of the infrastructure of the ULLS and CAN that are not appropriate."

11.15 The Tribunal did not need to resolve whether scorched node modelling was:

(a) Not available at all; or

(b) Went too far in this instance by modelling too much of the providers' network.

11.16 In this regard, the Tribunal said:

> "236 The TEA Model estimates the costs that a new entrant would face for the market, ie to exclusively supply the ULLS in place of Telstra. But a hypothetical new entrant building a replacement copper network would assuredly not be constrained to the essential layout of Telstra's network, as it is a historical artefact of the period over which the network was built. Its components may all represent prudent investment decisions at the time. Alternatively, since many of those decisions were made well before Telstra was a commercially-oriented business but was part of the Postmaster-General's Department, they may not. The key point is that a new entrant would have many, many alternative network design options for reaching customers, allowing for lower costs of, for example, cables, ducts and trenches.
>
> 237 The Tribunal accepts Optus's submission that by assuming the use of existing locations of pillars, manholes and pits – and hence severely limiting the optimisation of cable routes – the TEA Model is not capable of estimating the efficient costs of supplying the ULLS. Whether this is a failure to apply the scorched node approach correctly, or a more fundamental attack upon that approach, is not to the point. Nor is this the place to decide exactly what degree of network optimisation is necessary in estimating efficient costs. But it is clear to the Tribunal that taking so much of the existing network architecture as given cannot provide a basis for efficient pricing."

11.17 An important point however is that the Tribunal's decision above does not take account of:

(a) alternative MEA candidates such as fibre and wireless; and

(b) the need to have a basis on which to compare the MEA candidates to see which is least cost.

11.18 Access seekers' and ACCC's arguments on that were rejected by the Tribunal because little evidence was produced to show that another MEA candidate would be preferable.

11.19 On this FPP, fibre, mobile, copper, and FWA MEA candidates are live (for example, the Commission having incorrectly rejected copper as being excluded by law, MEA selection for UBA should be revisited). Depending on the location of the scorched nodes, and any optimisation, in the MEA candidate selection process, scorched nodes may be unlawful. Copper exchanges for example are not correct nodes to be used for either fibre or for wireless: central offices will be more efficiently located elsewhere, as will mobile and FWA towers. Ultimately,

scorched nodes such as exchanges and cabinets will be unlawful when either or both mobile and fibre are used. It does not follow that the problems can be removed by modification and optimisation.

11.20 Returning to the information request of Chorus we can speculate:

(a) The requests of LFCs imply that the UCLL FPP, correctly, will use fibre central offices, but it appears that current exchange locations would be used, incorrectly. It is not apparent how cabinets fit. This in turn impacts the degree to which fibre paths are scorched. If they run from the current exchanges (and cabinets?), this would be incorrect.

(b) Leaving FWA only over the RBI footprint, as proposed (a) is outside the UCLL (and UBA) footprint, which is irrelevant and (b) would require nodes to be the optimal location for towers.

(c) With the current proposal to have UBA with an FTTN MEA, there is, first an example of how problematic splitting the MEAs is. If we assume that the Commission, correctly, models fibre central offices for UCLL, the exchange (and cabinet) infrastructure needed for the UBA MEA is limited, in terms of capex (required buildings, etc) and opex. Only housing for limited equipment is required (more in the nature of cabinets than large exchanges). The issue remains as to the location of the exchanges and cabinets (if they are the nodes) and consequent implications for the copper and fibre paths.

11.21 In the end, our Act clearly states that TSRLIC must be forward looking. That is not the case in other jurisdictions where scorched nodes are permitted. That rules out any compromised approach around hybrid modelling involving scorched nodes, and it also appears to rule out solving this by modified scorched node modelling. The departure from forward looking costs is not permitted and is too great, as indicated by the authorities. It is not enough for the Commission simply to say in its framework paper that it is correctly following overseas practice.

11.22 Finally on this point, this is another illustration of the need for the Commission to model a number of variants (MEA candidates, ways of modelling those MEAs and MEA candidates, scorched node v earth, etc). As has been earlier submitted, there quickly comes a point when it is too late to turn back when a later submission shows that is appropriate; that has consultation and legal compliance concerns we have raised earlier).

## 12. 5 Year regulated period

12.1 We agree with WIK, for the reasons they give, that the determination should allow for pricing to be revisited during the period.

## 13. Protecting Chorus revenues and its position as separated supplier

13.1 Chorus counsels caution in its submission, given it is not vertically integrated, cannot cross-subsidise, and is heavily reliant on regulated revenues.

13.2 The Supreme Court in the Vodafone TSO judgment considered the position where, in modelling the hypothetical efficient operator, the Commission expressly allowed higher revenues in view of the Telecom investment in its

network. It rejected a mobile MEA for that reason. This was an error of law as the provider's own position is irrelevant. The same applies here.

13.3 In any event, especially if Chorus succeeds on its argument as to its ducts and trenches being valued at current replacement cost, Chorus gets a windfall on the pricing. That is widely understood and accepted by regulators and commentators, and indeed drives the widespread move away from TSLRIC for end-of-life legacy networks. Chorus does not need a bolstered up price.

13.4 That Chorus is not vertically integrated is not relevant to the calculation of the TSLRIC price:

(a) It is the copper network being priced not Chorus as a whole: Chorus as a whole is irrelevant;

(b) The network is a hypothetical efficient network: whether the operator is separated or vertically integrated is irrelevant;

(c) In any event, Chorus and Telecom voluntarily separated; this was their choice.

## 14. Treatment of ducts, trenches and poles

14.1 Chorus submit that the Commission has no choice but to value ducts, etc at current replacement value. (The Commission in draft did not come to that conclusion but rather, decided on ORC rather than another approach).

14.2 This issue is particularly significant for the FPP and the ultimate price. It has not been possible in the limited time available to review this issue in detail. For example, it will be important to consider just what "forward-looking cost" means in the TSLRIC definition, given the Act does not define it and given the complexities in this area. For example, the DORC method advocated by Frontier has a forward-looking interpretation (but not adopted by the Commission), as does the Commission's preferred ORC method.

14.3 It would therefore be dangerous to just pick one interpretation of "forward-looking" without testing it against higher level criteria.

14.4 Suitable criteria include that prices are efficient – i.e. they promote efficient use of assets and efficient investment in assets.

14.5 We suggest that the Commission provides a consultation paper on this issue to enable submissions on this key issue. There is a helpful article by W Rogerson which is an example of such an approach: *On the Relationship Between Historic Cost,Forward Looking Cost and Long Run Marginal Cost* (Review of Network Economics (2011) Vol 2 Issue 2).

## 15. Terrain and trenching costs

15.1 Network Strategies, Telecom and Vodafone all raised concerns about terrain costs.

15.2 This will have a very substantial impact on the TSLRIC asset valuation; particularly if re-usable assets are valued at ORC.

15.3 The Commission has been entirely silent on the modelling of terrain conditions.

15.4 This highlights that the Commission's consultation is high level, there is a substantial amount of further consultation that should be undertaken before modelling begins and before the Commission issues a draft determination, and that the Commission is behind where it needs to be if it is going to make a safe draft determination by December.

15.5 Vodafone has noted that it understands that "*no new data on terrain has been gathered, and so we expect the trenching data feeding into TERA's modelling may be the same datasets as previously utilised in the Commission' TSO modelling*".[15]

15.6 This concerns us greatly as substantial concerns were raised about the TSO terrain data which we do not consider were resolved. The submissions of TelstraClear and its experts, for the second TSO determination, are particularly worth noting. We refer to the reports of Network Strategies and Bell and Ducat available in the archive section of the Commission's website. These reports make it clear that the TSO terrain data is fundamentally unsound and substantially overstates terrain difficulty.

15.7 Network Strategies have also noted that there are significant problems with this data. For example, they noted that the pre-split Chorus "*acknowledged [in the Commerce Commission terrain workshop conducted on 5 May 2004] that this dataset may not be reliable, and geophysical expert, David Bell, has previously argued that the data tends to overstate trenching difficulty is New Zealand – that is, it is skewed towards the medium to hard end, whereas in reality the easy end is the most appropriate for rural New Zealand*."[16]

15.8 Network Strategies also noted: "*While this type of analysis was previously undertaken for the purposes of the TSO … costing, at that time there was no national source of terrain data, and so the Commission was obliged to work with the subjective estimates provided by Telecom (now Chorus)*". [17]

15.9 We agree with the comments of Network Strategies,[18] Vodafone[19] and Telecom that the Commission should explore use of independent data such as from Landcare Research: "*In estimating trenching costs, the nature of the terrain to be traversed can be established using independent third party information as a primary source, and to test and verify the relevance of any additional material supplied by parties to the TSLRIC modelling process. We urge the Commission to consider the use of independent and authoritative data sources material. The best example we are aware of is Landcare Research's New Zealand Land Resource Inventory which has significant material held in a number of different databases relating to soil and rock conditions and other physical factors which may well be suitable as a primary or secondary resource for the Commission*".[20]

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[15] Vodafone, Comments on consultation paper outlining Commission's proposed view on regulatory framework and modelling approach for UBA and UCLL services, 6 August 2014, paragraph G4.3.

[16] Network Strategies, ESA field study results, 13 August 2004.

[17] Network Strategies, Key issues in modelling UBA and UCLL services: Commission consultation on regulatory framework and modelling approaches for FPP process, 6 August 2014, page ii.

[18] Network Strategies, Key issues in modelling UBA and UCLL services: Commission consultation on regulatory framework and modelling approaches for FPP process, 6 August 2014, page ii.

[19] Vodafone, Comments on consultation paper outlining Commission's proposed view on regulatory framework and modelling approach for UBA and UCLL services, 6 August 2014, paragraph G4.5.

[20] Telecom, UCLL and UBA FPP: consultation on regulatory framework and modelling approach, 6 August 2014, paragraph 151.

## 16. Additional observations about Analysys Mason's report

16.1 The Analysys Mason report appears to be inconsistent; arguing that the Commission should, in effect, base the TSLRIC determination as closely as possible on Chorus' actual network and costs, but arguing that TSLRIC is based on a hypothetical efficient operator where it suits e.g. Analysys Mason argue that the Commission's definition of incremental cost ["*the cost of supplying the service as an addition to Chorus' other services*"] "*is inappropriate as it is Chorus-specific. The Commission is not modelling Chorus' incremental cost: it has chosen to model the incremental cost of a hypothetical operator*".[21] This is convenient for Chorus because if incremental cost is defined, absent any other service, it collapses into stand-alone cost (including all fixed and common costs).

16.2 It is useful to consider the Telecommunications Act's definition of TSLRIC:

> **TSLRIC**, in relation to a telecommunications service,—
>
> (a) means the forward-looking costs over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, the service, taking into account the service provider's provision of other telecommunications services; and
>
> (b) includes a reasonable allocation of forward-looking common costs.

16.3 TSLRIC has been applied to reflect the forward looking costs of a hypothetical efficient operator (not the actual operator) but the Act's definition of TSLRIC provides one significant caveat "*taking into account the service provider's provision of other telecommunications services*". The service provider is clearly Chorus. Analysys Mason's criticism of the Commission's definition of incremental cost fails to recognise that it reflects the definition of TSLRIC in the Act.

16.4 We do, however, agree with Analysys Mason on the following points:

(a) Analysys Mason are correct that FWA should not be modelled as having the same footprint as RBI and that "*This is not an appropriate means to select the technology to be used and its geographical extent … The Commission are using the current network situation to select the geography in which to used fixed wireless solutions. However, this is not consistent with the Commission's own rejection of arguments based on the current network configuration of existing operators (notably Chorus) …*"[22]

(b) Analysys Mason are also correct that "*A consistent and principled approach would be to define the required service specification (or "core functionality") using the Commission's language) and then by modelling to find the lowest cost means of delivering the service specification in different areas using a model of specific technologies … or using*

[21] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.1.

[22] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.9.

*combinations of technologies deployed in a given area (e.g. copper + wireless)*".[23]

(c) We agree with Analysys Mason that "*The choice of ORC is consistent with the Commission's 2004 paper*".[24] This is one of the things that we are concerned about. While the PSTN TSLRIC determination was never finalised it did parallel the optimisation adopted by the Commission in its TSO determination that was found wanting by the High Court, on the basis that the optimisation was inadequate.[25] The Court noted, for example, that "*… the Commission's approach was skewed by its adherence to the historic network maintained by Telecom, with only limited optimisation beyond the core network. What was required was an assessment of the network that would have been used by an efficient service provider*".[26]

## 17. Promoting or inhibiting competition for LTBEU?: CEG review of Vogelsang

17.1 The CEG critique of Vogelsang is predicated on the economic framework used to justify trade-barriers and Governments 'picking winners'. Imposing tariffs to artificially raise the price of overseas goods and services to protect the local manufacturer is analogous to raising the price of copper services to protect Chorus' fibre business. In fact, it may be worse, given that Chorus' already receives a Government subsidy for UFB roll-out. It would be analogous to imposing a tariff on the importer at the same time as subsidising the local manufacturer.

17.2 A question CEG's analysis begs is what is efficient about artificially inhibiting competition by copper service providers against fibre, by raising UCLL services, when fibre is already subsidised? And how does this promote competition to the LTBEU?

| **CEG view** | **Wigley & Company response** |
|---|---|
| "… *we do not consider [Vogelsang's] price-effects analysis to be a sufficient basis to reach any robust findings about whether a price increase promotes competition for the LTBEU* …"[27] | We agree, and note that the Commission should not rely upon Vogelsang's conclusion that "*Overall, in my view, the positive network externality effects of a UCLL price increase for UFB subscribers are likely to exceed the negative externalities* |

[23] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.9.

[24] Analysys Mason, Response to the Commission consultation on regulatory framework and modelling approach for UCLL and UBA, 6 August 2014, section 1.13.

[25] Refer to: Orcon, Cross-submission on the further consultation on issues relating to Chorus' UCLL and UBA services, 30 April 2014, Court precedent on efficient/forward-looking costs.

Refer also to: Vodafone v Telecom [2011] NZSC 138.

[26] Vodafone v Telecom [2011] NZSC 138, paragraph [10].

[27] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 3.

| CEG view | Wigley & Company response |
|---|---|
| | *imposed on remaining subscribers of copper-based services*".[28] |
| *"… Professor Vogelsang assumes that anything that leads to higher prices for consumers will, all other things being equal, not "promote competition for the LTBEU*".[29] | This statement is tautological. If the only change is "*higher prices*" and "*all other things [are] equal*" then by definition competition, being part of "*all other things*" is unchanged and not promoted.<br><br>Further, CEG have established a strawman position of Vogelsang's view, which Vogelsang does not hold, to then criticise Vogelsang i.e. CEG incorrectly imply that the only impact of higher prices is the wealth transfer and/or deadweight loss impact. It's easy to criticise someone if you ignore one half of their argument. |
| *"… the relevant question is not what effect these price changes will have on near-term consumer welfare (as Professor Vogelsang assumes) but, rather, the effect they will have on competition. As noted above, this necessitates an assessment of the extent to which the price increase will affect firms' abilities and incentives to engage in desirable competitive conduct …"*[30] | If raising access prices per se results in greater competition for the LTBEU then: (i) imposing a Government tax on copper access services would be, ceteris paribus, a better solution as it would avoid windfall gains to Chorus [there would instead be wealth transfers between consumers and taxpayers who are approximately one in the same]; and (ii) this would suggest that designation of UCLL and UBA services under the Telecommunications Act does not promote competition to the LTBEU as it restricts prices to cost-based levels. |
| "*In our opinion, an increase in the UCLL could potentially have some negative impacts for competition … any such effects are likely to be outweighed by … a higher UCLL price would be likely to make Telecom less inclined to widely unbundle which, if it was to occur, would be likely to result in the inefficient duplication of infrastructure without sufficient offsetting benefits in terms of improved* | If this statement is valid then:<br><br>• Higher prices would <u>inhibit</u> competition to the LTBEU, contrary to the purpose in s 18 of the Telecommunications Act; and<br><br>• UCLL as a separate service from UBA should not be a designated and should be banned and/or Telecom should be excluded from using UCLL only. |

[28] Ingo 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, paragraph 5.

[29] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 9.

[30] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 18.

| CEG view | Wigley & Company response |
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| *product differentiation or market growth …*"[31] | This turns competition regulation on its head somewhat. Not only should be regulator be concerned about ensuring access to network infrastructure in order to promote competition, the regulator should be selective about the type of access that is permitted to ensure that the 'wrong kind of competition' is not promoted.<br><br>We are of the view that provided access providers should be required to provide access to their network services on an unbundled basis, and provided the services are provided on a cost-basis, the market will ensure that 'efficient' competition develops. It is not the appropriate role of the regulator to 'pick winners' and determine what type of competition is acceptable and what is not. |
| "*In our opinion, an increase in the UCLL could potentially have some negative impacts for competition … any such effects are likely to be outweighed by … the fact that higher UCLL prices can be expected to hasten migration to UFB …*"[32] | Again, if raising access prices per se results in migration externalities for the LTBEU then imposing a Government tax on copper access services would be, ceteris paribus, a better solution as it would avoid windfall gains to Chorus.<br><br>CEG are making the same mistake as Vogelsang of simply assuming there would be migration externalities from higher UCLL prices, and that higher UCLL prices would hasten migration to UFB. This ignores, for example, that higher UCLL prices could inhibit consumers taking up copper broadband services in the first place, which is a stepping stone to fibre services. And, higher copper prices would increase the cannibalisation detriment to Chorus from consumers switching from copper to fibre. It was well documented in submissions to MBIE in response to its 2013 Telecommunications Act review that this could actually harm UFB uptake. The externality may be negative not |

[31] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 19.

[32] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 19.

| CEG view | Wigley & Company response |
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| | positive. Either way it should not just be assumed or falsely treated as a "*fact*". |
| "*The primary benefits of competition are that it can … enhance productive efficiency … enhance allocative efficiency … and … enhance dynamic efficiency …*"[33] | CEG have adopted a total surplus test for benefit of competition. Section 18 of the Telecommunications Act imposes a consumer surplus test (long-term benefit of end-users).<br><br>In so doing CEG simply just assume away or ignore the "*direct*" detriment consumers suffer from artificially higher prices (wealth transfer from consumers to Chorus). |
| *"… in order to answer the original question posed by the Commission, it is necessary to ask whether unbundling by Telecom would promote competition in the LTBEU. The limited time available for this consultation has meant that this has required some speculation on our part*".[34]<br><br>"*Assessing whether an increase in the UCLL prices will promote competition for the LTBEU necessarily involves a degree of conjecture*".[35] | We have dealt extensively with the evidential requirements for decision making on this FPP. We agree the time to deal with these issues is too limited.<br><br>The view of the High Court on "*speculation*" is particularly worth noting: "*Where a proposition is simply asserted by economic experts, we give it little or no weight*".[36] |
| "*… if Telecom did unbundle it would lead to some positive effects from the perspective of improving … competitive rivalry … Weighing against any such benefits would be the considerable potential inefficiencies …"*[37] | This statement again highlights CEG's de facto objective of "*inhibiting competition for the long-term benefit of end-users*".<br><br>We reiterate the view that provided access providers should be required to provide access to their network services on an unbundled basis, and provided the services are provided on a cost-basis, the market will ensure that 'efficient' competition develops.<br><br>If Chorus and CEG considers that Telecom unbundling would promote competition but be to the long-term |

[33] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 26.

[34] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 58.

[35] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 76.

[36] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC 3289 [11 December 2013], paragraph [1745].

[37] CEG, Promoting competition: review of Vogelsang, August 2004, paragraphs 59 and 60.

| CEG view | Wigley & Company response |
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| | detriment to consumers they should provide evidence of this, not just speculate, and request the Commission undertake a review of whether designation of UCLL (separate from UBA) should be removed. |
| *"… this duplication would be particularly harmful given … the spare capacity that would be left in the existing (sunk) copper infrastructure owned by Chorus; and … the significant idle capacity that may be created on the fibre networks owned by both Chorus and LFCs."*[38] | These are detriments that any firm in any workably competitive market could claim from competition. It is inevitable that there will be winners and losers from competition, with some market participants being displaced or facing idle capacity.<br><br>CEG's arguments are arguments against competition and are better suited in trade protection rather than economic regulation. |
| "*Unless there are substantial expected improvements in product differentiation following entry (which is questionable) a primary outcome of Telecom unbundling would be the "business stealing" effect … i.e., a reduction in output per firm.*"[39] | See comments above. |
| *"… it seems likely that unbundling on the copper network would not promote competition for the LTBEU … a higher price for the UCLL – which would reduce the likelihood of unbundling taking place – would promote competition for the LTBEU …"*[40] | CEG view is clear that a higher UCLL price would inhibit competition for the LTBEU, not promote competition for the LTBEU.<br><br>As CEG also note *"… an increase in the UCLL price may have some negative effects for competition between RSPs on the copper network and other networks*".[41] |

## 18. Demand in forward-looking cost models: Further approach by CEG to inflate access prices above TSLRIC

18.1 Our general observation about CEG's report on "*Demand in forward-looking cost models*" is that CEG's objections, in relation to the Commission's proposed approach to TSLRIC, are not objections to the Commission's proposed approach per se but rather an objection to TSLRIC. To the extent this is true,

[38] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 60.
[39] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 61.
[40] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 63.
[41] CEG, Promoting competition: review of Vogelsang, August 2004, paragraph 71.

CEG's views are irrelevant as the Commission is required to apply a TSLRIC price under the FPP for UCLL and UBA services.

| CEG view | Wigley & Company response |
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| "*In our view the Commission's approach will, over time, likely set a price that is below the forward-looking cost of providing the actual regulated service*".[42]<br><br>"*Whilst TSLRIC involves re-setting prices periodically on forward-looking costs, it is axiomatic that this (and any) form of regulation must give the investor an ex ante expectation of a normal return*". [43]<br><br>*"… if prices are set below a level that would recover the incumbent's long run costs … the incumbent will not have an incentive to continue to maintain/upgrade their infrastructure* ..."[44]<br><br>"*A central element of achieving dynamic efficiency is that investors must have an expectation of getting their money back* ..."[45] | We have previously noted that, if the Commission's copper price determinations were set so low that Chorus would not be able to recover its costs, including a normal return, this would flow through also into TSO pricing, and it would be reasonable to assume Chorus' would invoke clause 7 of the TSO Deed and seek relief from the unreasonable impairment of the profitability of its fixed line business.[46]<br><br>The Commission's Input Methodology Reasons Paper is worth noting in response to CEG's claims:<br><br>Upward revaluation might be warranted if: … *EDBs and GPBs were able to demonstrate that prices set on the basis of existing regulatory valuations would prevent them from earning at least a normal return relative to the original costs of their investments before profits appeared excessive. They have not done so. Existing valuations are therefore consistent with EDBs and GPBs having appropriate incentives to invest …*[47]<br><br>Likewise, the High Court Part 4 IM Merit Appeal decision:<br><br>… we are not prepared to assume … that regulated suppliers have, in fact, suffered accounting losses to date.[48]<br><br>… no regulated supplier – other than Vector whose evidence we did not find persuasive – provided factual evidence to suggest that |

[42] CEG, Demand in forward-looking cost models, August 2014, paragraph 10.

[43] CEG, Demand in forward-looking cost models, August 2014, paragraph 14.

[44] CEG, Demand in forward-looking cost models, August 2014, paragraph 34.

[45] CEG, Demand in forward-looking cost models, August 2014, paragraph 36.

[46] Wigley & Company, Submission on consultation paper outlining Commission's proposed view on regulatory framework and modelling approach for UBA and UCLL, 6 August 2014, paragraph 208.

[47] Commerce Commission, Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper, December 2010, paragraph 4.3.65.

[48] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC 3289 [11 December 2013, paragraph [588].

| CEG view | Wigley & Company response |
|---|---|
| | the initial RAB values were such that over the lifetime of the assets the suppliers would in fact earn less than normal returns … like the Commission we think that is of considerable significance.[49]<br><br>The Commission had … the reasonable understanding that the 2009 regulatory valuations were sufficiently high for regulated suppliers to earn at least a normal return on capital for past investments. That understanding had been confirmed by the lack of evidence from suppliers that that would not be the case.[50]<br><br>And, finally, the Court's comments in relation to the Vodafone v Telecom TSO cost determination case are particularly relevant:<br><br>… the statute is not concerned with the return on legacy assets unless they are efficient.[51] |
| "*If we are looking to send a signal for efficient entry (infrastructure competition), the price floor is the costs the incumbent would incur in the long-run*."[52] | It should be recognised that TSLRIC determines the cost of a hypothetical efficient operator not Chorus.<br><br>What CEG are effectively arguing for is that the Commission either: (i) take the higher of the cost of a hypothetical efficient operator and Chorus; or (ii) regulated Chorus on the same basis as Part 4 of the Commerce Act. |
| "*In our view, modelling unit costs based on an impossibly high level of demand (unavailable to Chorus or to any feasible definition of a hypothetical new entrant) is a de facto adoption of an asset value that is less than the current optimised replacement cost. Consequently, we consider that this approach involves a breaking of the Commission's previous commitments* | See comment above.<br><br>The Commission has made no "*previous commitment…"to compensate for costs based on current replacement costs*".<br><br>Even if it had, that is not binding. We are not aware of any provision of the Telecommunications Act that enables the Commission to pre-commit to a particular methodology, prior to consulting on its TSLRIC price draft determinations or prior to making a final price determination. |

[49] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC 3289 [11 December 2013], paragraph [589].

[50] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC 3289 [11 December 2013], paragraph [638].

[51] Vodafone v Telecom [2011] NZSC 138, paragraph [13].

[52] CEG, Demand in forward-looking cost models, August 2014, paragraph 10.

| CEG view | Wigley & Company response |
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| *to compensate for costs based on current replacement costs …*"[53] | |
| " *… a case exists for setting access prices above the costs of the incumbent to reflect the external benefits that such competition would produce*".[54] | This is an argument against TSLRIC. TSLRIC must be applied without such adjustment.<br><br>Any argument for an uplift of the TSLRIC price determination is subject to the same evidential requirements as the Commission's determination of the WACC percentile under the Part 4 IMs.[55] |
| "*the Commissions [sic] previous commitments to compensate for costs based on current replacement costs*" [emphasis added].[56] | CEG have not referenced any such "*commitments*".<br><br>It is notable that this same argument was used as part of the unsuccessful Merit Appeal against the Commission's Part 4 Commerce Act RAB IMs. The Commission also supposedly had committed to something different to that contained in the IMs. |
| *"… the price floor for efficient build/buy decisions is based on the future costs that would be incurred in providing services on the existing network*".[57] | This is an argument against TSLRIC, and for Part 4 Commerce Act type regulation, and so is not relevant to the Commission's TSLRIC determinations. |

[53] CEG, Demand in forward-looking cost models, August 2014, paragraph 13.

[54] CEG, Demand in forward-looking cost models, August 2014, paragraph 57.

[55] Refer to: Wigley & Company, Cross-submission to the Commerce Commission in response to the Commission's expert reports on the cost of capital for the UCLL and UBA price reviews AND Submission on the Part 4 review of WACC uplift, 4 August 2014.

[56] CEG, Demand in forward-looking cost models, August 2014, paragraph 61.

[57] CEG, Demand in forward-looking cost models, August 2014, paragraph 69.