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Submission in response to the
Commerce Commission's Draft Determination to
amend the price payable for the regulated service
Chorus' unbundled bitstream access made under
s 30R of the Telecommunications Act 2001



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Executive Summary

EXECUTIVE SUMMARY

The Commerce Commission faces a number of choices in relation to copper pricing which could determine the degree to which New Zealand realises the benefits of the Government's Ultra Fast Broadband (**UFB**) vision. The copper framework has the potential to affect fibre both in terms of stability of the supply side and incentives and alignment on the demand side.

The UFB vision is bold. It has removed vertical integration in the telecommunications industry, created an open access infrastructure platform for all Retail Service Providers (**RSPs**) and envisages significant investment in public private partnerships (**PPPs**). And it is underpinned by supply side incentives that will support RSPs to deliver new innovative services and applications.

The investment in UFB is significant – with an eight year programme of build work. Chorus alone expects to invest around \$2.5 billion dollars on UFB, and that investment will improve the quality of broadband services in New Zealand. Better broadband will in turn bring economic growth and improved quality of life - it will bring a step change to the way New Zealanders connect globally and how they work, live and play. Realising and measuring the success of UFB for New Zealand is about the pace of deployment and uptake.

The aggregate effect of the Commission's final benchmarked UCLL decision and the draft UBA decision announced on 3 December 2012 (**3 December Decisions**) starkly highlight the incoherent policy environment. The legacy regulatory framework was set up to ensure that a vertically integrated incumbent provided wholesale services and to encourage investment. The issues that the framework was designed to address have been resolved with UFB – and it's now obvious that the framework is out of date and is at risk of undermining the Government's UFB vision - with some interpreting section 18(2A) as being of no effect and the future UFB investment being treated as sunk.

If the framework is not fixed or implemented in a way that takes account of the move to UFB, RSPs will remain focused on legacy services. And capital markets will continue to react to ongoing uncertainty and significant swings in the policy environment in New Zealand. Investors simply cannot understand how there can be ~ 60% reduction in copper prices, particularly when the changes undermine recent Government sponsored industry restructuring and generational technology change.

The amendments made to the Telecommunications Act 2001 (**Act**) in 2011 recognised the importance of policy evolution for this sector by scheduling two reviews. The Commission seems to be facing technical mandate and implementation difficulties, and this provides a strong reason to update the framework now.

Chorus supports a simple re-alignment of the policy framework to stabilise it, to assist the Commission to manage the current policy conflict. This could constructively shift industry resources and focus onto the next phase of UFB uptake – rather than focusing on legacy services - and remove the serial uncertainty that arises from the current copper regulatory regime.

In the absence of clarity on the policy framework, we urge the Commission to reconsider how it implements the current framework - including its consideration of dynamic efficiency and what best meets the long-term benefit of end-users. If the Commission corrects a number of errors, and approaches benchmarking in a way that is consistent with past decisions, the current UBA price is within the range of benchmarking options. Determining a price around current levels would be consistent with the purpose of the Act, and ensure Chorus can recover its costs.

Industry structure and investment to support UFB

As the Crown's major UFB partner, Chorus' strategy is founded on leading an industry transition to fibre. The demerger and the execution of the UFB contracts effected an unprecedented structural and cultural change in the industry. As part of this vision, we signed up to a UFB contract negotiated with Crown Fibre Holdings (**CFH**) that contains UFB build and UFB uptake objectives.

Chorus will spend around \$1.5 billion to build the communal fibre infrastructure. Of this, \$929m will be financed by the Government to the end of 2019, and then repaid. Chorus expects to spend around an additional \$1 billion to connect all of the end-users that are passed. In August 2012 we indicated we expect to spend around \$450 to \$480 million this year on fibre related capital expenditure which is around 50% of our annualised revenues.

Uptake and RSP incentives

Fibre demand is uncertain. Only RSPs can deliver the benefits of fibre to end-users, and they need the right incentives to make the transition from copper to fibre. With demand uncertain, the absence of a clearly communicated migration policy, and an unstable copper pricing framework, the relativity between the copper prices (determined by the Commission) and the UFB prices (set by contract with the Crown) will be the key incentive to focus the industry on fibre.

If implemented in its current form, the 3 December 2012 UBA price review draft determination (**Draft Determination**) will have a major impact on fibre uptake because it will substantially increase the attractiveness of copper services to RSPs and their retail customers. If RSPs are able to hold end user product prices at or near existing levels (highly likely) then their margins on copper services will be enhanced, effectively presenting RSPs with an element of windfall gain value transfer. The Minister of Communications and Information Technology (**Minister**) has recognised that it's unlikely these higher margins will be passed through to end-users. Even if the reduction in UBA prices is competed away (over some time) to end-users, it will result in a significant reduction in copper access prices which will, all other things being equal, incentivise end-users to stay on copper products longer. Either way, the significant uncertainty introduced by the draft decisions of 2012 will delay investment decisions from the major RSPs that support the transition to fibre.

Fibre uptake forecasts are being downgraded by analysts. They are questioning how Chorus can possibly achieve the Minister's aspirations for uptake of 40% to 45% by 2020 or even the minimum 20% uptake set by our UFB contract.

End-users long-term interests are served by quality price and investment

There is no competition problem that needs to be resolved through lower UBA prices. There is healthy competition in the retail broadband market today. New Zealand has one of the highest rates of broadband growth in the OECD and the highest broadband penetration relative to our GDP. The opportunity – which the UFB vision is aimed at – is to further improve the quality of services, which also goes to resilience of infrastructure.

The Commission's role is to make a decision that is in the long-term interests of end-users. We think that is best achieved through encouraging investment in higher quality broadband services – not short-term price decreases that will not increase competition or be passed through to end-users. If the Commission does not feel that it can strike that balance under the current regime, then the framework needs to be updated.

Chorus supports better broadband for New Zealand through an efficient transition to fibre. As the fibre network rolls out we also support improved broadband over copper during the transitional period and in a way that does not undermine the transition to our UFB network. A number of RSPs, for example, have requested wider VDSL2 availability and lower VDSL2 pricing as a stepping stone to fibre in the transition period.

We are willing to work with the industry, CFH, Government and the Commission on this. As Chorus' strategy is founded on leading an industry transition to fibre, if and when there is clarity on the transition framework, we expect that the grandfathering, withdrawal or pricing of copper services will act to transition VDSL2 customers to fibre within a notice period with a reasonable timeframe. To be successful the notice period needs to be discussed with the industry and be enabled within the framework. Chorus is happy to work with a timeframe that achieves a balance that ensures RSP incentives to take up fibre are not undermined and is also workable for RSPs

Capital markets need to see a return on risky new investment

Any regulatory regime that causes significant shocks in the market – whether because of framework or implementation issues – reflects on New Zealand, and will be remembered by capital markets.

While the Commission was careful to note its views were preliminary in the Draft Determination and that it is open to change, Chorus' market announcement, releases by the Prime Minister and the Minister, and the share price reaction confirm that the 3 December UBA announcements were well out of line with informed expectations. RSPs did not expect this either judging by submissions they have made in the past. Significant institutional investors read the announcements as indicative of a highly uncertain regulatory environment for an infrastructure business and exited their investments.

The Government made legislative amendments at the time of demerger to reflect the major shift in the industry, including the addition of s18(2A). They also made references to a fair rate of return in the Government Policy Statement and required this to be considered in the 2016 review. Some have interpreted the Commission's 3 December Decisions as saying that s18(2A) is of no effect. Yet the very intention of the legislative amendment was to emphasise to the Commission the importance of significant new and risky investment – such as UFB.

When making investment decisions, we think investors will look at the UFB experience and weigh that against the relative stability in other markets. There is a high level of competition for investment capital. As a country, we cannot afford to send signals that: regulatory instability can be introduced so soon after a fundamental industry restructure endorsed by the Government; or that the regulator does not appear to take account of investors' reasonable expectations to earn a commercial return on a significant risky new investment.

The UFB initiative and the right regulatory environment for investment are priorities in the New Zealand National Infrastructure Plan and pivotal to the Government's growth agenda. The Government has forecast that we need to spend \$17 billion on infrastructure in this country over the next four years and that it will look to partner with the private sector as it seeks to deploy these funds.

The perceived disconnect between Government policy and the Commission's decisions means that Chorus, and ultimately New Zealand, may face even greater challenges for global investment capital.

Now is an appropriate time to update the framework

The pragmatic choice of policy makers to change the pricing principle for UBA was a function of a demerger and defaulting to the only other principle in the Act originally set up in 2001. Retail-minus is a respected principle in many regulatory regimes for UBA. But it doesn't work in a demerged environment.

The two scheduled reviews – 2013 and 2016 - in the Act, statements of the Ministry of Business Innovation and Employment (**MBIE**) and the *Treasury Best Practice Regulation Model: Principles and Assessments* speak to the importance of ensuring that policy is updated – particularly in relation to this sector. We agree and have also publicly referred to the importance of regulatory frameworks catching up with market reality. Otherwise they will become obstacles rather than enabling the policy outcomes being sought.

We acknowledge that it is the role of policy makers to update frameworks, and the role of regulators to implement them. It is appropriate for policy makers and independent regulators to discuss policy outcomes and the regulatory approaches necessary to support those outcomes. Disconnects between policy objectives, implementation and market reality should be sensibly discussed and remedied. This is particularly important at a time of substantial investment and a complex transitional period. The New Zealand policy environment needs to move to a level of maturity where there is clarity and alignment to a single outcome – in the policy setting and in the implementation. Conflict, uncertainties and disconnects are a waste of resources and a distraction.

We have previously encouraged the Commission to consider opening Schedule 3 reviews to ensure it looks across all services or for the Government to extend the 2013 review or bring forward the 2016 review. The Government has the option to review policy at any time (as the Commission noted in its investor briefing on 3 December 2012). These options are still available.

Professor Martin Cave – the author of the ladder of investment – has also explained in his paper why the ladder of investment and TSLRIC applicable in the legacy regime is not appropriate in an environment of an efficient transition to fibre.

How we got here is understandable, if disappointing. No one anticipated that s18(2A) would potentially be interpreted as having no effect. MBIE's 2010 legislative consultation raised the risks of a disconnect between the copper and fibre price-setting regimes. Legislative amendments (including s18(2A)) were put in place following that consultation. UFB contracts were negotiated in parallel. The relativity between copper and fibre pricing is a key anchor point for negotiated entry level pricing.

In contrast to Australia (which has a very clear migration approach), New Zealand's migration policy is founded on pricing relativity between copper and fibre prices, uptake commitments in our UFB contract and the superiority of fibre infrastructure over copper. If pricing relativity is distorted by the existing regime, we risk being left behind in the global transition to fibre.

Applying the legacy framework

We think that the Commission can apply the existing framework in a way that is consistent with the Government's UFB policy. But the 3 December Decisions do not support the opportunity that New Zealand has through UFB to get higher quality broadband. Instead, they promote legacy services.

The Commission has indicated that UFB investment does not fall within section 18(2A) and changed the UCLL price in the final determination of 3 December 2012. If it maintains this view, and feels it can't or won't support a policy alignment, it is in an unenviable position. The conundrum is:

- a UBA price at levels in the Draft Determination significantly decreases relativity with UCLL but will undermine the UFB business cases and contracts; and
- a UBA price at current levels (absent the Draft Determination) increases the relativity with UCLL.

It is unclear what outcome the Commission is driving for when applying the existing regulatory framework. Previously, the Commission has focused on the ladder of investment theory - promoting the uptake the Layer 1 services and driving competition at Layer 2. But the Draft Determination seems inconsistent with that. It seems, for example, to ignore the cost of cabinetisation.

The draft UBA benchmarking is problematic

While the Commission has wide discretion and has said its view is preliminary, the \$8.93 draft price is problematic and it is very difficult to predict where the Commission will land (as it was with UCLL).

The Commission's preliminary views are based on a methodology that is inconsistent with past Commission decisions, has placed reliance on survey data it collated which the industry did not have, and is based on a number of errors. For example, the Commission has previously

rejected relying on two countries for benchmarking, on the basis that it is not robust. And the Commission has not adjusted for New Zealand's lower population density (and higher unit costs) and higher broadband speeds – both of which are important cost drivers. It also seems to ignore the cost of cabinetisation.

Other industry participants don't seem to have anticipated this outcome. Local Fibre Companies (**LFCs**) have questioned how the proposed draft could be set well below the entry level fibre price set on a price track from \$37.50 to \$42.50. Telecom previously submitted that the UBA price should be around \$17-20 and Telecom's CEO has spoken of his concern on continuing to surprise the market.

We propose a more robust approach to benchmarking in our submission. But what this highlights again is the range of judgments open to the Commission (and the fact that benchmarking can give prices in a range between \$5.09 and \$23.13). We think applying the purpose of the Act should lead the Commission to a price around current levels. We have submitted extensively on how s18 and s18(2A) should be applied – the UFB environment and the consequences of the decisions must be carefully considered.

Final pricing reviews

When setting prices, the Act requires the Commission to set an initial price by benchmarking – known as the initial pricing principle (**IPP**). The IPP can be followed by an application of a final pricing principle (**FPP**), which is generally a TSLRIC cost model. The FPP can only be applied if a party to a determination makes a request. While the Commission has implemented IPP's for the existing nine standard terms determinations (**STDs**) that apply to Chorus, it has never completed an FPP.

Chorus is seeking stability. The current regulatory uncertainty, the disappointingly low level of the Draft Determination and the incremental nature of the changes to the copper regime, means that Chorus feels compelled to apply for an FPP on UCLL – because this is the only mechanism we have to try and achieve stability. Recognising the uncertainty of regulatory processes, based on an objective and reasonably structured application of the FPP this could result in a TSLRIC-based UCLL price significantly higher than \$23.52.

The Commission seems to be encouraging the industry to ultimately apply for an FPP on UBA. While it would be preferable to wait to see the outcome of this UBA process, there is a statutory deadline for filing a UCLL FPP application, which cannot be extended. It is not clear to Chorus how the Commission could ensure that Chorus recovers its costs overall if some prices are benchmarked, and others are based on TSLRIC modelling.

In both the IPP and FPP processes, the legacy regime will need to consider the simple maths that the unit cost of maintaining the copper network will increase as transition occurs. End-users at the tail of the UFB deployment period may, subject to how copper cost modelling plays out, face higher copper prices than those in the early deployment phase. The Commission will need to consider how it aligns with the Government's averaging policy to remove urban and rural differences and how to ensure that existing and future end user interests are considered equally.

Unfortunately the timeframe for conducting an FPP will be protracted. It will be expensive and complex particularly for Chorus and the Commission. The process may not be completed before the averaged UCLL and revised UBA prices come into effect on 1 December 2014.

Applying for a pricing review determination is not our preferred approach. It will continue uncertainty for Chorus and continue focus on copper processes when the industry should be focussing on fibre migration. But absent any other intervention we consider we have no option but to request application of the FPP to protect Chorus' interests and provide fairer investment signals for the industry, and seek to find a more coherent pricing framework.

Submission

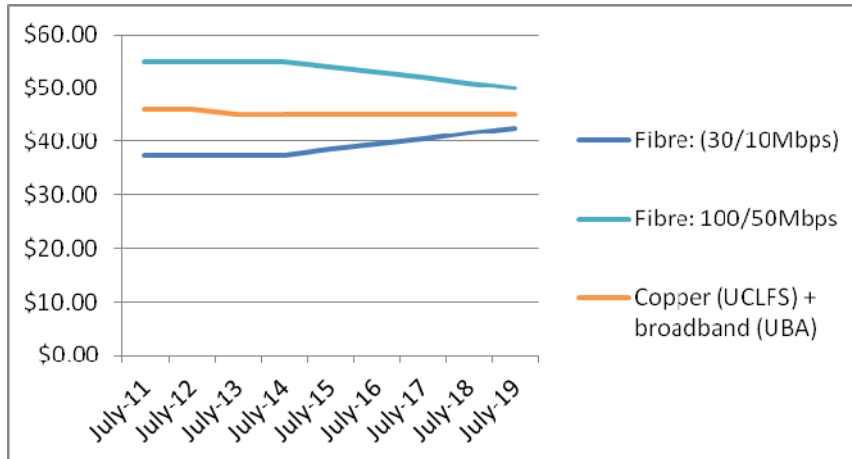


PART 1: POLICY FRAMEWORK AND THE PURPOSE OF THE ACT

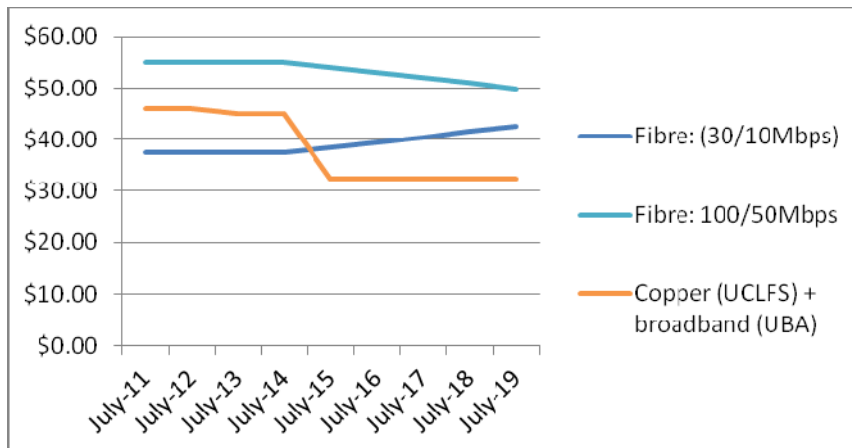
- 1 The Commission’s final decision must give best effect to the long-term interests of New Zealanders. In an environment where there is healthy competition in the retail broadband market, and Chorus and other LFCs are making a significant and risky investment in fibre, the Commission needs to balance calls for price decreases against the long-term benefit of investment and improved broadband services. We think that balance is best achieved by selecting a price point within the range of benchmark options around the current UBA price of \$21.46.
- 2 The meaning of section 18, and how the Commission undertakes this balancing exercise was well traversed by Chorus in the UCLL price review process. Since then, the Commission has issued its final UCLL determination and Draft Determination, and some have interpreted those decisions as saying section 18(2A) is of no effect and that the Commission cannot take account of any investment that has already been committed. We disagree with both of these conclusions.
- 3 Parliament has given the Commission a clear message that the focus of the regulatory regime is on the long-term, and the gains that come from infrastructure investment. It is clear that section 18(2A) requires the Commission to prioritise the successful migration to the UFB network over the short term gains from lower prices on the copper network, where there is a conflict. We acknowledge that section 18(2A) says “to avoid doubt”. But in context, the recent amendment is clearly a signal that the Commission has not put enough emphasis on the risks of investment when applying section 18 in the past.
- 4 Aside from the technical legal arguments, the Commission’s view on section 18(2A) must be of great concern to any existing or potential investors in New Zealand. It signals that the Commission (and by implication the government) is not concerned about enabling investors to make a fair return on investment once that investment commitment has been made. This comes at a time when Government has forecast that we need to spend \$17 billion on infrastructure over the next four years and that it will look to partner with the private sector as it seeks to deploy these funds.
- 5 The Commission’s conclusions also conflict with the expectation set by section 157AA(a)(iii) of the Act that the Government is concerned about regulatory regimes ensuring a reasonable return on investment.
- 6 In **Appendix E** we set out in detail the meaning of section 18 of the Act – which requires the Commission to weigh all factors that go to promoting competition in telecommunications markets for the long-term benefit of end-users. We also explain that section 18 is relevant to every choice that the Commission makes in its benchmarking process – not just the price point it selects at the end of the benchmarking process.
- 7 In terms of the impact of the Draft Determination, there can be little doubt that a UBA price of \$8.93 will undermine UFB. The success of UFB is pegged to both build and

uptake – reflected in commercial commitments to the Crown. In an environment where Chorus cannot sell directly to end-users, and demand is uncertain, RSPs will ultimately determine the pace of uptake. That means that the key mechanism for ensuring the success of UFB is the current relativity between the copper and fibre prices.

8 This is illustrated by the current copper prices relative to the entry-level fibre prices:



9 If the Draft Determination was finalised, that relativity would be significantly skewed:



10 As the Crown’s major UFB partner, Chorus’ strategy is founded on leading an industry transition to fibre. Distorting the pricing relativity means that incentives for RSPs will be skewed in favour of copper, impacting the success of fibre and recovery on investment.

11 What is all the more confusing is that there is a healthy level of competition in the retail broadband market, and New Zealand ranks high in the OECD in terms of broadband growth and first for broadband penetration relative to GDP. In other words, there is no competition problem that needs to be solved through lower UBA prices.

- 12 On the other hand, the government has been concerned about investment in telecommunications markets for years – which was one of the issues that the legacy copper regime, and more recently s18(2A), was designed to address.
- 13 This would seem to suggest that the Commission’s balancing exercise is simple – the focus should be on the long-term impact on investment and higher broadband quality, not short-term price decreases.
- 14 We are concerned that the Draft Determination has set a new expectation in terms of a potential outcome. In **Appendix I** we set out the range of views that some RSPs have given on the appropriate UBA price, which have changed over time. The Commission should view calls for a price around \$8.93 based on RSP experience with care. Unbundling by RSPs has primarily occurred in high density (i.e. low cost) exchanges – something the Commission has focused on encouraging with its de-averaging policy. Whereas Chorus offers services nationwide over both exchange-based and cabinetised lines. In an industry with flat to declining revenues, there will always be a temptation to seek lower prices to improve margin.
- 15 There is no reason to believe that a move from retail-minus to cost-based pricing should result in a price shock. Standing back, a UBA price of \$8.93 does not pass a “sense check” in terms of being a price that reflects the cost of providing UBA. For example:
- 15.1 At current UBA prices, 97,000 lines had been unbundled up to 30 June 2012. This is around 10% of all current reported broadband lines, and 6% of all voice lines. Presumably these are the lines that RSPs believe they can unbundle more economically than paying \$21.46 for UBA. If the actual cost of providing UBA is \$8.93, you would have expected unbundling to be much more widespread – across urban, rural, exchanges and cabinets;
- 15.2 We are concerned that there may be a belief that the costs of UBA are only related to software and electronics. In offering a nationwide UBA service, Chorus faces multiple other costs including co-location, SLU backhaul and IT costs;
- 15.3 Even RSPs seemed shocked by the Draft Determination, with Telecom CEO Simon Moutter saying in an interview with Bloomberg:¹
- It does annoy me that we keep surprising markets in the way we have with this decision...It's not good for New Zealand...People just completely underestimate the awareness of global investors around the propensity of New Zealand government policy to keep surprising, and causing large fluctuations and market movements.*
- 16 In **Appendix D**, we set out more examples of why a UBA price of \$8.93 does not pass a “sense check”.

¹ Telecom CEO Says Shock New Zealand Policy Rulings Vex Investors, Bloomberg, 14 December 2012

- 17 Chorus appreciates that the Commission must operate within the framework set out in the Act – and that Commission process is not the place for policy decisions to be made. If, despite Chorus’ submission, the Commission believes it is constrained to act within the legacy copper framework, without reference to UFB, then the policy disconnect needs to be resolved by the Government.
- 18 If this process continues without resolution of any policy disconnect by Government, we query in **Appendix E** how the Draft Determination fits with the Commission’s previous views on relativity and the ladder of investment. While Martin Cave has explained why the ladder of investment is irrelevant in a fibre world, our impression is the Commission still believes it is operating under this legacy framework.
- 19 As set out in Part 2 of this submission, benchmarking could result in a range of outcomes anywhere between \$5.09 and \$23.13, depending on the choices the Commission makes. We could never have predicted an outcome of \$8.93 as it is based on a number of errors and choices that are inconsistent with past Commission decisions. We remain concerned that a final outcome will be equally difficult to predict (as it was with UCLL, where the Commission took an approach that was not discussed during consultation).

PART 2: BENCHMARKING

- 20 The Commission is required to review the UBA price by undertaking a benchmarking exercise. In undertaking that benchmarking, the Commission has a high degree of discretion and a number of choices to make. In exercising that discretion, the Commission must take account of the purpose of the Act.
- 21 In the Draft Determination the Commission has used strict criteria and not made adjustments to account for New Zealand's unique circumstances (such as population density). This means the results are biased downwards and underestimate Chorus' costs.
- 22 Notably, the current UBA price is within the range of potential benchmarking outcomes when the Commission corrects a number of errors, applies benchmarking consistently with past determinations and accounts for the unique New Zealand circumstances. We think that the purpose of the Act is best met by selecting a UBA price that is around the current level of \$21.46.
- 23 The Commission has previously rejected benchmarking against two data points on the basis that it is not robust. We think it is appropriate for the Commission to expand the dataset in a way that is consistent with past decisions and takes a practical approach to a number of choices that the Commission can make. In **Appendix A** we set out the changes that we believe the Commission should make to the benchmarking dataset. These changes include:
- 23.1 expanding the dataset to include Greece and Switzerland on the basis that they use forward looking cost modelling. As well as providing a more robust dataset, we think that expanding the dataset is appropriate because:
- (a) while Greece was excluded in the Draft Determination because it used a "top-down" modelling approach, the Commission has previously accepted top-down modelling as "forward-looking cost modelling" for benchmarking purposes in the UCLL price review;
 - (b) while Greece and Switzerland were excluded in the Draft Determination because they were not verified by the regulator, there are a number of reasons why these models are safe to use – including the fact that they can be appealed to the regulator;
- 23.2 expanding the dataset to include Belgium and Switzerland, even though the comparable services have different handover points to New Zealand. We think that it is appropriate to treat these as similar services, even though they are not identical. If the Commission is of the view that some adjustments need to be made to justify inclusion, approaches have been suggested by our expert advisors as well as the Commission's experts;

- 23.3 benchmarking against services with prices that recover the full cost of providing the service. We have two concerns with the Commission's approach to speed:
- (a) in selecting the lowest speed services, the Commission has inadvertently excluded any allocation for common costs;
 - (b) the actual speed of UBA services in New Zealand is higher than the speed of the bitstream services in the benchmarked countries. One reason for this is the significant investment Chorus has made in cabinetisation in New Zealand. It's appropriate to adjust any benchmark to account for the speed difference;
- 23.4 Competition Economics Group (**CEG**), in its report *Wholesale broadband cost drivers (cost drivers report)*, has proposed a way for the Commission to benchmark against a single price point that ensures that all costs are accounted for. The Commission's expert WIK has proposed a way of using actual line speed in New Zealand to adjust for line speed differentiation. This addresses both the common cost and speed differential issues;
- 23.5 we think we have identified a mistake in the Commission's interpretation of the Danish pricing approach. This is a very technical point and is explained in **Appendix B**. If we are correct, it means the Danish price is in fact \$2.95. A benchmarked price of \$2.95 starkly highlights that there is something wrong with this process.
- 24 The Commission has also made an understandable error in assuming that population density is not an important cost driver for bitstream services. CEG set out in its cost drivers report how econometric analysis of Danish and Swedish models shows that spatial density factors are important cost drivers. If spatial density is not corrected for, the benchmarking will underestimate the cost of providing UBA in New Zealand because the benchmarked countries are more densely populated than New Zealand and so have a lower unit cost when supplying bitstream services.
- 25 In **Appendix B** we explain two possible methodologies for correcting for spatial density:
- 25.1 *Ratio benchmarking* – where the "additional costs" of the UBA service are derived by benchmarking the ratio of the additional costs of providing the bitstream service to the local loop in each jurisdiction and applying that ratio to the New Zealand UCLL price. This avoids the need to make explicit adjustments for differences in line density, population density and urbanisation – as these have already been adjusted for in relation to the UCLL price. This is similar to the approach taken by the Commission when setting the SLU price, and is supported by CEG in its cost drivers report; or
 - 25.2 *Econometric adjustment* – this involves granular analysis of the models from benchmarked countries to determine cost relationships. From this, econometric equations can be derived and used to normalise benchmarked costs, as the

Commission did in its UCLL decision. In its cost drivers report, CEG has demonstrated how this could be done by analysing the Danish and Swedish model.

- 26 In **Appendix B** we also explain that there should be an adjustment to account for New Zealand's unique circumstances. This includes an adjustment to account for the accelerated migration from copper to fibre as a consequence of the Government's UFB policy.
- 27 Such an adjustment recognises that costs on a per-user basis rise steeply as utilisation of a network decreases. In non-UFB areas, an alternative would be to increase UBA prices as nationwide utilisation decreases – but this would effectively lead to future end-users facing higher prices (due to an increasing unit cost) than end-users who have fibre available earlier and transition. In UFB areas, revising the UBA price upward to track costs in future would not enable Chorus to recover its costs as the Act requires, as end users would simply move to lower-priced fibre services. Neither of these are good outcomes for end-users or Chorus. Instead, we propose an adjustment is needed to smooth the prices over the transition period. CEG proposes a methodology for determining an adjustment, and calculates an indicative adjustment, in its report: *Effect of fibre on copper bitstream prices*.
- 28 There should also be an adjustment to allow Chorus to pass through the cost of the Telecommunications Development Levy (**TDL**), if this is not dealt with separately in the TDL process. The Commission has acknowledged that most international models used for benchmarking purposes do not usually consider levies, and it is appropriate to allow Chorus to pass through this tax (as other industry participants will).
- 29 In **Appendix C** we explain why it is appropriate to select a price point above the median to account for the asymmetric impact on end-users from regulatory error. This would be consistent with past Commission decisions. As Sapere Research Group (**Sapere**) explains in its report *Comment on how to give best effect to the purpose of section 18 in relation to UBA pricing*, the rationale that the Commission has applied in the past for selecting the median does not apply in this case.
- 30 When these adjustments are made, the benchmarked price for UBA is in the potential range of \$5.09 - \$23.13. Some of these adjustments are alternatives – the top of the range is the result of using the WIK adjustment to correct for speed distribution and the ratio benchmarking approach to recognise spatial density factors. While we are not seeking an increase in the UBA price (even though this is common in other regulated industries and open to the Commission), Chorus does emphasise that the current UBA price is within the range of potential benchmarking outcomes when a principled and consistent approach is taken. Taking into account the purpose of the Act, we think that leaving the UBA price around current levels is the appropriate outcome.
- 31 In **Appendix D** we set out the impact of each of these changes to the benchmarking approach, which we also summarise below:

Summary of changes to benchmarking approach

Change required	Cumulative Price	Commission position	Chorus position
Correction of Danish prices (potential Commission error).	\$5.09	Commission benchmark value for Denmark may include half loop price.	If regulator survey data is correct, half loop price should be removed.
Benchmark weighted average price of all speed services (to recover shared costs of delivering UBA).	\$10.22	The Commission's benchmark set contains price benchmarks of services with maximum speeds of 256kpbs and 250kpbs respectively, on the basis that higher speed prices in Denmark / Sweden represent only the incremental costs of higher speeds, no shared cost (and UBA has a minimum 32kpbs throughput).	The Commission's understanding of cost allocation in Denmark / Sweden models is incorrect. Higher speed prices contain a greater allocation of shared costs so only a weighted average of all speeds in Denmark / Sweden will recover shared cost. (See CEG cost drivers report) This adjustment and the WIK adjustment for differences in speed distribution are alternatives.
Expand the Benchmarking Set (to increase robustness).	\$11.22	The Commission's benchmark set contains only two countries: Sweden and Denmark.	The Commission has applied unnecessarily strict criteria to benchmark selection. Benchmarking with a small set is not robust. We consider there are grounds to expand the benchmark set to include Switzerland, Belgium and Greece.
Adjust to recognise the greater proportion of higher speed services in New Zealand.	\$11.54	The Commission has failed to allow for the significant differences in population density and backhaul distance between NZ and benchmark countries, since it has assumed these are not significant cost drivers for UBA.	Commission should use weighting adjustment proposed by WIK. Chorus has provided data on line speeds across our network to the Commission which showed more than 75% of lines are capable of >20Mbps. Denmark and Sweden are lower speed. This adjustment and the CEG adjustment for cost allocation across speed variants are alternatives.

Change required	Cumulative Price	Commission position	Chorus position
Account for line density either by: <ul style="list-style-type: none"> ratio benchmarking (setting the UBA price as a % of the UCLL price); or econometric adjustment 	\$17.09 if ratio benchmarking \$15.01 if making econometric adjustment.	The Commission has not allowed for the significant differences in population density and backhaul distance between NZ and benchmark countries, since it has assumed these are not significant cost drivers for UBA.	Population density and backhaul distance are significant cost drivers for UBA. There are significant differences between NZ and benchmark countries (NZ higher cost). This cost difference was recognised in UCLL, and the same cost drivers apply to UBA. One way to correct these errors is to set the UBA price as a ratio (%) of the UCLL price. Alternatively, an econometric adjustment could be made to the benchmark set. (See CEG cost drivers report).
Apply a UFB pricing constraint adjustment (to reflect mass migration to UFB).	\$22.35	The Commission has not taken the UFB migration into consideration in setting the UBA price.	The mass migration to UFB significantly reduces the customer base on copper. This must be taken into account in cost modelling UBA for NZ (using a UFB pricing constraint adjustment in the model). It has not been taken into account in the countries in the benchmark set (which have different circumstances re UFB), so an adjustment to the benchmarks is necessary. (See CEG report: Effect of fibre on copper bitstream prices).
Choose a value higher than the median of the benchmark set (to reflect asymmetric risks).	\$23.13	Commission has made no adjustment for asymmetric risk: it has used the median value of the benchmark set.	The scale of the investment in Chorus' networks outweighs the scale of investment by access seekers, and therefore the weight of risk to investment is greater in the event of a low price. This favours selection of a value above the median of the set (i.e. the 75th percentile). Alternatively an appropriate point above the median could be calculated using quantitative analysis. (See Sapere report)

PART 3: OTHER CONSIDERATIONS

Connection and transfer charges

- 32 We have some concerns with the Commission's approach to connection and transfer charges in the Draft Determination which are set out in **Appendix G**. In particular:
- 32.1 a benchmarking set of two is unsound and we have concerns about the comparability of the benchmarks used for connection and transfer charges;
 - 32.2 if the Commission continues to endorse benchmarking, then adjustments addressed in this submission in relation to the monthly rental price should also be applied to connection and transfer charges as appropriate; and
 - 32.3 the "assisted" connection charge proposed by the Commission does not appear to align with the types of connection services Chorus provides and some of the other terminology used by the Commission in defining its proposed charges is unclear to us.
- 33 In our view, a more sensible approach is to price connection and transfer charges at a rate of third party fees + administration costs + margin. We think this approach is in the best interests of the industry. Third party contractor fees are easy to identify and will provide for accurate connection and transfer charges that actually reflect Chorus' costs.
- 34 We proposed this approach in the context of the UCLL price review. In our submission on the UCLL draft determination last year we stated why we thought this was a better approach, and also that setting connection charges in the same manner as sundry charges was permitted by the IPP. There was no discussion of this issue at the UCLL conference and in the final UCLL determination the Commission stated that it disagreed with our submission but did not say why. We would like to engage with the Commission on this issue.
- 35 We also propose some definitions for connection charges that could be included in the STD. These definitions are set out in **Appendix J**.
- #### Other considerations
- 36 The Draft Determination describes a scenario where a double recovery concern is said to arise, and proposes a condition in the UBA STD to address that concern. While we support the Commission's intention, the Draft Determination misunderstands the access products involved and there is no possible double recovery in the scenario identified. We discuss this further in **Appendix H**.

Appendices

APPENDIX A - IDENTIFYING THE BENCHMARK SET

- 37 The benchmarking in the Commission’s Draft Determination has not proposed a cost-reflective price of the UBA service in New Zealand. In particular:
- 37.1 a dataset of only two observations is unsound;
 - 37.2 the Commission has applied an inappropriately restrictive interpretation of “forward-looking cost-based pricing method” and “similar services”;
 - 37.3 a mistake has been made when identifying cost drivers meaning a key cost driver – line density – has been overlooked; and
 - 37.4 the Commission has benchmarked against speeds that do not reflect the speed of service actually provided in New Zealand. The Commission has also benchmarked against speeds in a way that excludes an appropriate allocation of common costs.
- 38 To address these issues, the Commission should:
- 38.1 include Belgium, Switzerland and Greece in the benchmark set;
 - 38.2 address concerns as to comparability or similarity with adjustments where possible, rather than excluding benchmark countries;
 - 38.3 ensure that spatial cost drivers are accounted for. Chorus’ proposes two methods: benchmark the ratio of UCLL and UBA costs or make an econometric adjustment; and
 - 38.4 benchmark against a weighted average of the speed variants in each country, and make an adjustment to reflect the speed distribution in Chorus’ network.

An appropriate benchmarking set

A benchmark set of two is unsound.

- 39 As part of the UCLL price review, the Commission repeatedly emphasised that two benchmark observations was unsound. For example, in the initial UCLL draft determination the Commission stated:²

The Commission considers that using the price changes observed in two jurisdictions is not sufficiently robust to set updated UCLL monthly rental prices in New Zealand, as the observed price changes may not reflect overall international trends in costs.

² Draft reviews of the application of the initial pricing principle of, and updated benchmarking for, the UCLL standard terms determinations and consequential changes to the UBA uplift, 9 September 2012, [72].

- 40 A benchmark set of two (and in the case of class of service (**CoS**), a benchmark set of one) does not lead to a credible outcome. We appreciate that the Commission emphasised on the front page of the Draft Determination that the decision was preliminary, and that the Commission remains open to changing its view.
- 41 We set out below a number of suggestions for increasing the size of the benchmark set. In summary, the Commission should:
- 41.1 include Switzerland and Greece on the basis the models are sufficiently reliable, and top-down pricing is appropriate; and
 - 41.2 accept Switzerland and Belgium as similar services (making adjustment for any differences the Commission considers necessary).

Forward-looking cost-based pricing

- The Greek price is set by a “forward-looking cost-based pricing method”. It should be used by the Commission regardless of the fact the model takes a “top-down” approach.
- Although the Greek and Swiss models were not prepared by the regulator, there is evidence to suggest the models are sufficiently robust. The Commission should conclude the Greek and Swiss models are safe to use.

- 42 We appreciate that the Commission must be satisfied that any price point it uses must be the result of a forward-looking cost-based pricing method. This can require the exercise of judgment, as international regulators and access providers use a range of methods and models, and information on the approach taken is often not perfect.
- 43 In the Draft Determination, the Commission has been particularly conservative when considering a price point resulting from a model developed by the access provider. We agree that given the incentives the Commission is entitled to check the claim that the model is using a forward-looking cost-based method, and look for confirmation.
- 44 However, in doing so the Commission has been unnecessarily restrictive in its application of the “forward-looking cost-based pricing method” requirement.
- 45 The Commission should:
- 45.1 include Greece on the basis that top-down approaches are legitimate forward-looking cost-based pricing methods, and the Greek regulator has participated in the development of the model (as evidenced by its “checking”); and
 - 45.2 include Switzerland on the basis that industry participants are able to seek review of the existing forward-looking cost-based price but have never done so, indicating the price is fair. A regulatory structure that provides for ex-post intervention is legitimate and safe for the Commission to rely upon.

- 46 The breadth of the term “forward-looking cost-based pricing method” should not be unduly limited by differences in precise regulatory structures, provided those structures ensure that prices implemented are forward-looking cost-based prices. The terms used in the IPP capture a broad range of possible regulatory structures.
- 47 This approach is consistent with:
- 47.1 the nature of benchmarking, which is inherently more robust with a greater dataset; and
 - 47.2 regulatory comity, in that the Commission is not required to pass judgement on whether the methods used by other competent jurisdictions have been successful in implementing and maintaining pricing at the level of forward-looking costs.
- 48 The Commission’s requirements that models be both prepared or approved by a regulator, and “bottom-up” do not appear in the statutory language. The IPP has scope for a more flexible approach that the Commission has taken in the Draft Determination.
- 49 We provide specific observations on Greece and Switzerland below.
- Greece*
- 50 In both the 2007 STD and recent benchmarking review for UCLL, the Commission determined Greece meets the forward-looking cost-based criteria.
- 51 The Commission is now stating that Greece should be excluded on the following basis:³
- In Greece, the incumbent operator’s top down LRIC model is used for setting the UBA price. The model is checked by the regulator, although the extent to which the model is verified is unknown. It appears that the model does not use efficient, forward looking costs; and the top down model that is used is likely to include the current inefficiencies in the network and therefore over estimates the costs of UBA.*
- 52 We note that the Commission relied upon a top-down cost model (Czech Republic) in the recent UCLL final price determination.⁴
- 53 The raw questionnaire confirms that Greece does use a LRAIC standard and there is no difference between the cost model output and the tariff price. Accordingly, we consider that Greece meets the forward-looking criteria and should be included.
- 54 The Commission also expressed a concern that the Greek model has been “checked”, but perhaps not “verified”. It is clear the Greek regulator has had involvement in the price setting process and we are aware of no reason to suggest the model is not reliable.

³ Draft Determination [179]

⁴ Commerce Commission, *NZCC 37 Final determination on benchmarking review for the unbundled copper local loop service*, page 78

Switzerland

55 The Commission has excluded Switzerland on the following basis:⁵

In Switzerland the incumbent operator provides the model to the regulatory authority to set the price for wholesale bitstream services. The Swiss regulatory authority, BAKOM, will only review prices on demand of access seekers. The regulator has confirmed that the cost model for the bitstream services component of the network has not been reviewed. We cannot, therefore, be certain that the model meets all the requirements for efficient network costs.

56 The Swiss response to the Commission's questionnaire stated in question 8 that:

There has never been a complaint of a provider regarding this price structure and therefore this strange cost allocation was never considered by a regulatory decision. Price control takes place ex-post if there is a complaint by an alternate operator.

57 This confirms that RSPs have an opportunity to challenge the incumbent's cost modelling through a regulatory process. That the prices have never been challenged suggests that they are perceived by the market to be reasonable.

58 The Swiss price is based on a "forward-looking cost-based pricing method" and is subject to regulation. For this reason, and the reasons discussed below regarding handover points, Switzerland should be included in the benchmark set.

Comparable countries

Spatial density factors are a major UBA cost driver. The Commission needs to make adjustments to its European data points to avoid biased results.

59 The Commission's approach to comparable countries is unsound because it ignores spatial density factors which are a major UBA cost driver.

60 The Commission has used penetration and absolute numbers of DSL subscribers in the candidate countries as comparability criteria, on the basis that these were likely to be major factors driving network cost. The Commission observed that the number and penetration of DSL broadband customers in New Zealand and the benchmark countries were broadly comparable, and on this basis decided that these countries were suitable as benchmarks. As a result, it proposes to use bitstream prices from Denmark and Sweden to set New Zealand's UBA price without adjusting to ensure comparability.

61 The Commission's approach to comparability is incorrect, as it is based on a mistake as to the key cost drivers. The mistake is understandable, given the common intuition is that the costs of UBA are "all in the electronics" and not related to network effects. However, the common intuition is wrong. CEG has analysed the UBA cost models used by the regulators in Denmark and Sweden and found that – contrary to WIK's view –

⁵ Draft Determination [178]

line density is an important cost driver for bitstream services because it has a significant impact on the per customer usage of the network elements that make up the cost of providing the services. CEG also finds that:⁶

[D]ifferences in spatial density characteristics within and across jurisdictions explain a significant amount of the divergence in observed prices for wholesale broadband services across jurisdictions.

- 62 CEG has carried out econometric analysis using the Danish and Swedish cost models which demonstrates that spatial density factors are important cost drivers:⁷

Analysis of costs from the Danish and the Swedish cost models at this level shows that, as expected, there is a strong relationship between average incremental UBA costs and cost drivers canvassed in section 3 such as number of lines per DSLAM location and trench length per line.

- 63 We are concerned there may be a belief that the costs of UBA only involve software and electronics.⁸ It would be wrong to think the costs of UBA could be estimated by calling Alcatel Lucent and asking for the price of a DSLAM. As CEG demonstrates, there are significant scale effects and spatial density factors are a key cost driver. In the UCLL price review process it was accepted that the cost of service provision in New Zealand was substantially above the cost in the European Union, due in large measure to differences in national population density and urbanisation (which are proxies for the actual cost driver, that is, line density).

- 64 Unbundling in New Zealand has predominantly taken place in high density, low cost areas (i.e. urban exchanges). Unbundlers costs are not representative of national average UBA costs; the national average cost includes high cost rural areas, high cost cabinetised areas, and a share of operational support systems needed to provide a wholesale-ready service. If the Commission were to base its view of the costs of providing UBA in New Zealand on unbundlers costs only, it would have a biased view of cost and would not give sufficient weight to the significant cabinetisation investment which UBA utilises.

- 65 Since the Commission has misunderstood the key cost drivers, its benchmarked UBA price is not a robust estimate of UBA cost in New Zealand. The Commission's benchmark set includes densely populated countries (such as Denmark) which have significantly lower bitstream costs than New Zealand. The use of these prices without adjustment has biased the resulting UBA cost estimate downwards. We discuss possible approaches to making these adjustments in **Appendix B**.

⁶ CEG cost drivers report, page 1

⁷ CEG cost drivers report, page 25

⁸ See also comments by Commissioner Gale, when discussing the UBA price review, that "People in the industry have a pretty good idea of what the electronics and software costs". Interview on "Crosstalk – the Weekly Commsday Podcast", available at: <http://soundcloud.com/crosstalkcommsday/130124crosstalk>, accessed on 25 January 2013. Dr Gale commented, when discussing the UBA price review, that "People in the industry have a pretty good idea of what the electronics and software costs".

Similar services

The Commission should make comparisons with the most similar services available and seek pragmatic solutions to increase the size of the dataset.

- 66 At a principled level, whether a service is similar will be informed by whether that service can be used to set a benchmarked price that is a good proxy for the cost-based price set under the FPP. Technical service differences (or differences in the underlying technology the service is provided over) will not necessarily disqualify a service from being “similar”, especially if those differences are not a cost driver or can be accounted for as part of the Commission’s benchmarking process. Chorus makes two points in relation to similar services:
- 66.1 the Commission should benchmark against the correct speed of service;
 - 66.2 the Commission should take a pragmatic approach to handover points – accepting that services may be similar although not the same, and that adjustments may be available to increase similarity.

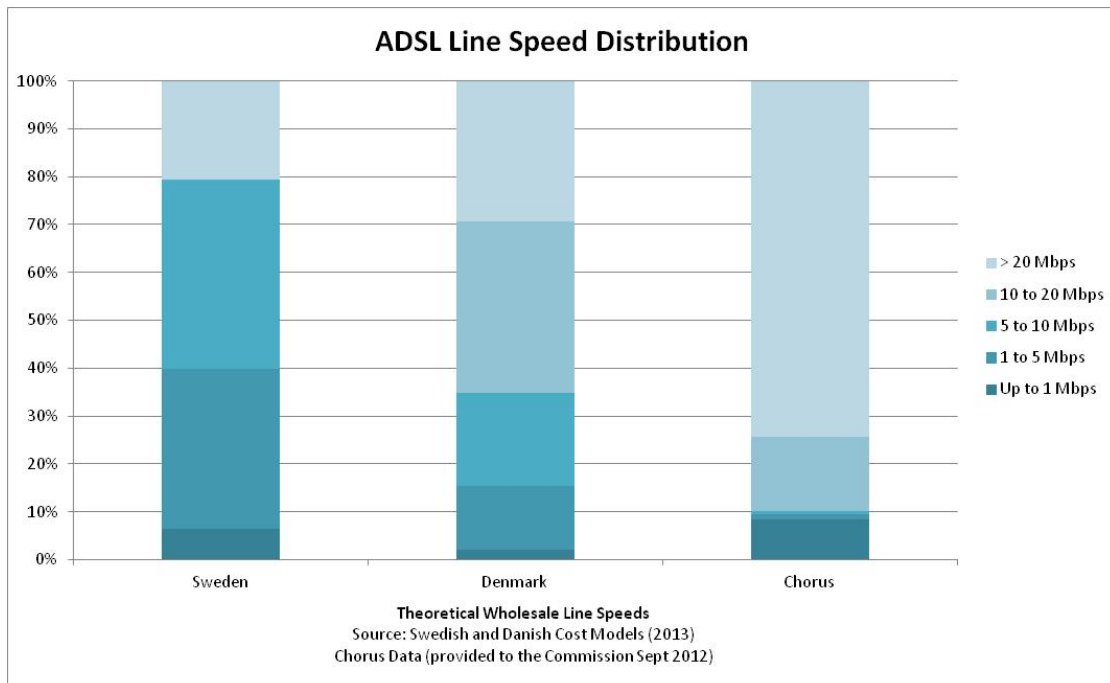
Speed of the Service

When considering speed variants in comparable jurisdictions, the Commission needs to ensure it properly captures fixed and shared costs in that country, and make adjustments to reflect the speed distribution on our network.

- 67 The Commission has benchmarked against speeds that do not reflect the higher speed of service provided in New Zealand. As a result, the Commission has underestimated the cost of UBA in New Zealand.
- 68 The Commission has identified speed and, by implication, throughput as a cost driver of bitstream services. We presume that this belief arises from the observation that prices in overseas jurisdictions are differentiated by line speed. CEG’s analysis of the Danish and Swedish cost models responsible for producing the prices the Commission is proposing to benchmark shows they calculate differentiated prices on the basis of an “allocation gradient”, which is derived from retail price schedules.⁹ In plain English, the line speed differentiation the Commission is relying on is not cost-based. The total cost of providing the bitstream service is allocated based on customer value.
- 69 The implication of this allocation method is that a speed price point will not recover the costs of providing that speed as a standalone service. Fixed and shared costs are spread across the speed variants in proportion to relative retail price, not the cost of the speed variant. The use of any one price point in isolation, as proposed in the Draft Determination, will misrepresent the total cost of providing the service.

⁹ CEG cost drivers report, page 50

- 70 As there is a range of line speeds for UBA, but a single (full speed/full speed) UBA price, the benchmarking challenge is how to reflect line speed price differentiation in overseas jurisdictions accurately back into the New Zealand context. The mistake in the Draft Determination is that it overlooks this step. As a result, it uses prices that were never intended to recover the full costs of the UBA service.
- 71 Establishing a cost-based price from either the Danish or Swedish cost models requires the application of the benchmark country's speed distribution weights to the corresponding speed variant prices, which will produce a single cost-based price. This approach captures all fixed and shared costs, which are spread across all the speed variants. CEG provides a more detailed analysis in the cost drivers report.
- 72 There is a further issue related to line speed. The Commission states that "the price points used for benchmarking the New Zealand UBA service should reflect the attributes of the service".¹⁰ The Commission has access to Chorus' line speed distribution, which shows that the maximum theoretical line speeds across 90% of UBA lines is >10Mbps.
- 73 The Swedish and Danish line speed distributions are on average below that of Chorus. This suggests that even though these jurisdictions may have a similar proportion of FTTN lines as Chorus, the line lengths in their bitstream networks are longer. Chorus has deployed cabinets closer to end-users, which means a higher speed (and cost) bitstream network relative to benchmark FTTN jurisdictions. The line speed distributions of Denmark, Sweden and New Zealand are set out in the diagram below:



¹⁰ Draft Determination [86]

- 74 We note that WIK, in section 4.4.4 of its report, sets out an approach (weighting based on New Zealand speed distribution) to reflect line speed differentiation back into the New Zealand context. This approach imports the speed attributes of the UBA service and incorporates the necessary upward adjustments to the Swedish and Danish price points.¹¹
- 75 We are proposing a pragmatic approach to benchmarking, which we believe should result in the inclusion of Belgium, Greece, and Switzerland. The reported bitstream line speeds for these countries is, again, below that of New Zealand:¹²

Benchmark country	Line speed range	% of fixed broadband lines
Belgium	≥ 144 kbps and < 2 Mbps	2%
	≥ 2 Mbps and < 10 Mbps	29%
	≥ 10 Mbps and < 30 Mbps	39%
	≥ 30 Mbps and < 100 Mbps	28%
	≥ 100 Mbps	2%
Greece	< 2 Mbps	27%
	≥ 2 Mbps and < 10 Mbps	14%
	≥ 10 Mbps	59%
Switzerland	< 10 Mbps	67.9%
	≥ 10 Mbps and < 100 Mbps	31%
	> 100 Mbps	0.2%
	Unknown	0.8%

- 76 Line speeds above 30Mbps are delivered over VDSL or fibre and therefore beyond the scope of this benchmarking exercise. After correcting for VDSL and fibre lines, the ADSL line speed distributions for Belgium, Greece, and Switzerland are as follows:

¹¹ This data does not and should not reconcile with OECD speed data. The OECD reports speed by taking an un-weighted average of retail advertised speeds in a country, which includes ADSL, VDSL and fibre. The relevant speed data for UBA benchmarking (supported by WIK in the Draft) is theoretical speed distribution of wholesale ADSL bitstream lines.

¹² Cullen International Regulatory Database, Cross-Country Analysis December 2012, Table 2 – National Broadband Targets. New Zealand figures are set in out in the table below. This is based on a Chorus network perspective where an active working line is groomed for broadband, and the premises is within 120db range of the DSLAM (120db is the network performance threshold cut-off for the provision of what we consider broadband services).

NZ Line Speed Range	NZ Electrical Noise Range
up to 1Mbps	100dB to 120dB
1 to 5 Mbps	70dB to 100dB
5 to 10 Mbps	60dB to 70dB
10 - 20 Mbps	35dB to 60dB
20+ Mbps	Up to 35dB

Benchmark country	Line speed range	% of ASDL lines
Belgium	≥ 144 kbps and < 2 Mbps	3%
	≥ 2 Mbps and < 10 Mbps	41%
	≥ 10 Mbps and < 30 Mbps	56%
Greece	< 2 Mbps	27%
	≥ 2 Mbps and < 10 Mbps	14%
	≥ 10 Mbps	59%
Switzerland	< 10 Mbps	68.1%
	≥ 10 Mbps and < 100 Mbps	31.1%

- 77 We believe the Commission can use the above figures as a guide and make an upward adjustment to jurisdictions with lower speed (and cost) bitstream networks. We note the Commission has the ability to approach the appropriate NRA to cross-check the information in the Cullen Database.

Handover Points

- Despite differences in the location of handover points, in this case it is appropriate to treat Belgium and Switzerland as sufficiently similar to satisfy the threshold in the IPP.
- To the extent the Commission has residual concerns, adjustment of data may be a better alternative to exclusion.

- 78 The Act requires a focus on services that are similar, not exactly the same.¹³ This recognises the realities of benchmarking. It also results in room for judgment, requiring an examination of the particular circumstances in each jurisdiction. In our view, the Commission has taken an unnecessarily restrictive approach to similar services. Switzerland and Belgium are similar enough, and any residual concerns can be addressed through adjustments.
- 79 The Commission has excluded Belgium from the UBA benchmark set on the basis that the handover point is not sufficiently similar to UBA. In Belgium the handover point is either co-located with the DSLAM (level 1) or at a distant switch (level 3 - further into the network than in New Zealand). Switzerland was excluded from the benchmark set as the model is not verified, but also due to the level 1 handover. We note that WIK had the following to say in relation to these jurisdictions:¹⁴

In Belgium one could use the distant node pricing as a proxy instead. On the other hand that means comparing the Belgium network with 5 handover points (distant node level) with 187 handover points at parent node level in New Zealand. However, it is our impression that the relative cost difference

¹³ We note that although there is no actual reference to "similar services" in the UBA IPP, the Commission has approached the benchmarking exercise on the basis that services must be similar because the FPP includes a "similar service" requirement, and the IPP is a proxy for an FPP.

¹⁴ WIK-Consult *Comments to the bitstream price benchmarking cost methodology*, 10 October 2012, page 23

between Belgium distant node and New Zealand parent node should be smaller than the difference between Belgium parent node at MDF level and New Zealand parent node level. In other words: The error of choosing the Belgium distant node tariff should be smaller than choosing the Belgium parent node tariff. Treating the Belgium tariff this way still leaves the option of including the Swiss tariff in the benchmark or not. Using the Belgium distant node level price and the Swiss parent node level price might be justified by pointing towards the compensating effect of price overestimation (Belgium) and underestimation (Switzerland). Obviously, this could be a source for criticism but would add two price points to the sample.

- 80 We believe that WIK's suggestion (set out above), which received no comment in the Draft Determination, is a pragmatic approach to assessing similar services that increases the small benchmark set.
- 81 We are comfortable that the distant node tariff in Belgium and the parent node tariff in Switzerland are sufficiently similar to be included in the UBA dataset, given the circumstances.
- 82 An alternative to WIK's approach is to adjust both Belgium and Switzerland level 1 handover prices using UCLL backhaul for the additional transport. UCLL backhaul is based on capacity, rather than per line, but WIK suggests a method for converting a capacity-based price to a per line price.¹⁵ Additional information would be required from Chorus in order to calculate a transport price between the MDF and FDS, such as throughput, average distance and number of users.
- 83 Despite earlier submissions on the Commission's consultation paper almost unanimously encouraging a flexible approach to benchmarking, the Commission has taken the strictest interpretation of handover point available. We consider that these two possible methods for increasing the UBA dataset, including Belgium and Switzerland, are appropriate in the circumstances.
- Class of Service***
- 84 The Commission is correct to select benchmarks for the base basic UBA price that are best-efforts.
- 85 The Commission has estimated the premiums for Chorus' enhanced UBA options based on the premium in Sweden's Bitstream DSL Pro prices, because "Sweden is the only country in the benchmark set which offers differentiated quality of service products".¹⁶
- 86 We note that the Swedish price differential does not appear to be cost-based (its cost model output shows the same cost for all three CoS).
- 87 As we said in our earlier submission, throughput can make a significant difference to the end user service experience, and it is therefore a price differentiator at the retail level.¹⁷

¹⁵ WIK-Consult *Comments to the bitstream price benchmarking cost methodology*, 10 October 2012, page 31

¹⁶ Draft Determination [134]

Identifying cost-based CoS differentials at the wholesale level is a challenge, and at this point do not have a better proposal to offer.

Technology Used

- 88 We agree with the Commission that ADSL and Ethernet protocol are the appropriate technologies to benchmark the UBA Service.

¹⁷ Chorus Submission in response to the Commerce Commission's unbundled bitstream access price review consultation discussion paper, 24 August 2012, page 17

APPENDIX B - MAKE APPROPRIATE ADJUSTMENTS

89 We propose a number of adjustments to the raw benchmark set in order to provide a more robust result that more accurately reflects New Zealand conditions. In particular:

89.1 take a ratio benchmarking approach or correct for spatial cost drivers by making econometric adjustments as proposed by CEG;

89.2 adjust to account for accelerated fibre migration;

89.3 ensure Chorus can recover the cost of any TDL contribution; and

89.4 correct a potential error with the Danish price.

Correct for spatial cost drivers

We propose that the Commission take account of spatial cost drivers by benchmarking the ratio of UBA and UCLL costs. This is a robust and pragmatic solution. In the alternative, an econometric adjustment can be made.

90 The Commission has not identified all of the material cost drivers of UBA. The Draft Determination does not recognise that spatial factors, particularly line density, are important cost drivers for bitstream services. This is a mistake that biases the benchmarking. We propose two alternative approaches that would enable the Commission to account of spatial cost drivers:

90.1 *Ratio benchmarking*: the “additional costs” of the UBA service can be derived by benchmarking the ratio of the additional costs of providing the bitstream service to the local loop in each jurisdiction, and applying that ratio to the New Zealand UCLL price;

90.2 *Econometric analysis*: CEG has detailed a possible econometric approach that takes a granular view of the benchmark jurisdiction’s cost models in order to derive cost relationships.

91 Even though some of the cost *components* of the UCLL and UBA services are different (for example electronics are a component of UBA costs but are not a component of UCLL costs), the cost *drivers* are similar for these two services. Line density is an important cost driver for both UCLL and UBA.¹⁸

92 This means that the “additional costs” of the UBA service in New Zealand are substantially above the “additional costs” of bitstream services in the more densely populated countries in the European Union. If these cost differences are not taken into account, the “additional costs” of the benchmark set will be biased downwards and the resulting UBA price will underestimate the forward-looking cost of providing the UBA service in New Zealand.

¹⁸ CEG cost drivers report, page 42

- 93 Accordingly, adjustments to the benchmark set will be required to produce an unbiased benchmark set. CEG has reached a similar view, based on its analysis of the UBA cost models used by the regulators in Denmark and Sweden:¹⁹

[I]t is appropriate and practical to adjust benchmarked prices of bitstream services to reflect differences between New Zealand's spatial density characteristics and those of the benchmark jurisdictions

- 94 There are robust approaches capable of taking account of these spatial cost drivers. We set out below two alternative approaches: a ratio benchmarking approach, and a normalisation adjustment based on econometric analysis of the drivers of average cost at individual DSLAM locations in each benchmark country.

Ratio benchmarking

- The "additional costs" of the UBA service can be derived by benchmarking the ratio of the additional cost of providing the bitstream services to the local loop price in each jurisdiction.
- This approach is simple, transparent, accounts for spatial density factors and is consistent with previous decisions where the Commission has benchmarked ratios (e.g. Sub-loop UCLL).

- 95 Under the UBA/UCLL ratio benchmarking approach, the additional costs of the UBA service are derived by benchmarking the ratio of the additional cost of providing the bitstream services to the local loop price in each jurisdiction and using that ratio (multiplied by the UCLL price in New Zealand) to set the UBA price in New Zealand. CEG supports the use of ratio benchmarking in its report:²⁰

The observed relationship between spatial density characteristics and bitstream prices provides a sufficient basis to pursue benchmarking the incremental costs of the bitstream service as a function of the unbundled copper local loop prices (what might be termed 'ratio benchmarking').

- 96 It is reasonable to expect the ratio between UBA and UCLL services in other jurisdictions to be similar to the ratio in New Zealand (and to use this approach in New Zealand) given the cost drivers of the services are similar.
- 97 This approach avoids the need to make explicit adjustments for differences in line density, population density and urbanisation between New Zealand and benchmark jurisdictions (since these factors have already been adjusted for in the context of the UCLL price review). As CEG notes in its report, adopting a ratio benchmarking approach would effectively import the normalisation adjustment used in the UCLL pricing determination into the UBA pricing determination.

¹⁹ CEG cost drivers report, page 1

²⁰ CEG cost drivers report, page 1

- 98 Ratio benchmarking accounts for spatial density factors, but is not a complete solution to the issues we have identified with the Draft Determination. Chorus' other suggested changes (such as adjusting for speed variants in a way that captures the full cost of UBA in New Zealand, adjusting for the migration off copper and selecting a price point higher than the median) would still need to be made.
- 99 This ratio approach is consistent with the Commission's approach to benchmarking Sub-loop UCLL. The Commission determined the monthly rental charges for the Sub-loop UCLL service by benchmarking Sub-loop UCLL prices as a ratio of the equivalent full loop prices in other jurisdictions, and applying that proportion (60.4%) to the monthly UCLL rental charge determined by the Commission in the UCLL STD. The Commission took a ratio approach as it was faced with a small dataset (only 6 jurisdictions).²¹
- 100 Ratio benchmarking is essentially a pragmatic alternative – appropriate in the context of an IPP – to more labour-intensive analysis to account for spatial density factors, such as econometric analysis.
- 101 An additional benefit of benchmarking a price ratio, rather than absolute prices, is that it avoids the need for currency conversion.

Econometric adjustment

- Cost relationships can be determined by undertaking granular (DSLAM level) analysis of benchmarked countries' cost models. The econometric equations derived can then be used to normalise benchmarked costs to take account of spatial density factors.
- CEG has demonstrated how this process can be done using the Danish and Swedish models.

- 102 An alternative way to account for spatial density factors is to normalise the benchmark prices. That is, make a quantitative adjustment to the benchmark prices based on the difference in spatial density characteristics between the benchmark country and New Zealand.
- 103 CEG has carried out econometric analysis using a granular view of the Danish and Swedish cost models in order to derive cost relationships which can be used to make such an adjustment.
- 104 The Danish analysis involved examining 108 individual DSLAM locations in Denmark at which the model records demand and provisions network assets. These locations vary significantly in terms of spatial cost drivers (line density and trench length per line). They also vary significantly in terms of the cost of bitstream service provision (which is calculated by the model for each individual location). Using econometric analysis, CEG

²¹ We note that the Commission also had some concerns with the 6 jurisdictions identified: "[I]n 5 of the 6 jurisdictions where sub-loop MPF rates were available, the rates were de-averaged according to 3 geographic zones." Commerce Commission *Decision 672* (Sub-loop final determination), [90].

has been able to establish robust relationships between the cost of bitstream service provision and the spatial cost drivers.

- 105 CEG has then used these econometric equations to normalise the average Danish UBA costs for the spatial density characteristics of New Zealand. This requires the Danish values to be increased significantly to produce an adjusted benchmark value:²²

Due to the sparser nature of New Zealand's demand for telecommunications infrastructure, we find that this adjustment, based on our preferred econometric model, increases the benchmarked UBA increment costs from 500 Kr to 769.5 Kr per annum in Denmark (an increase of 53.9%)

- 106 Applying the same analysis to the Swedish cost model results in an adjustment to the Swedish price of 14.1%. CEG notes:²³

The equivalent adjustment for Sweden is much smaller, which reflects the fact that Sweden's telecommunications infrastructure may more closely resemble that of New Zealand.

- 107 Similar adjustments would be required in order to normalise the benchmark prices from any other benchmark countries which are included in the final benchmark set. If the relevant cost models are available (e.g. Belgium), econometric analysis would again produce the required adjustment. Where the relevant cost models are not available, the Commission could examine the line density characteristics of the country in question, and interpolate that country between the available countries (Denmark and Sweden) on the basis of line density, which would produce an adjustment of the appropriate magnitude. CEG has produced estimates that represent adjustments to Belgium, Greece and Switzerland in its cost drivers report.

Adjustment required due to fibre migration

An adjustment should be made to account for accelerated migration to fibre services as a result of the Government's UFB policy.

- 108 PPPs were established to accelerate the delivery of upgraded fibre infrastructure and services earlier than would have otherwise occurred. The Government is clear that accelerating the migration to fibre is good for the country:²⁴

The ultra fast broadband initiative is a key part of the Government's economic growth plan. Ultra fast broadband is the way of the future.

²² CEG cost drivers report, page 41

²³ CEG cost drivers report, page 41

²⁴ John Key, Prime Minister, *PM welcomes deal to deliver ultra fast broadband* (May 24 2011), available at: <http://www.beehive.govt.nz/release/pm-welcomes-deal-deliver-ultra-fast-broadband-0>, and Hekia Parata, Education Minister and Amy Adams, Communications and Information Technology Minister, *UFB to be rolled out to hundreds more schools* (March 5 2012), available at: <http://www.beehive.govt.nz/release/ufb-be-rolled-out-hundreds-more-schools>.

Ultra fast broadband speeds delivered via these public private partnerships will revolutionise the way many businesses, schools, healthcare providers and communities operate. It will help overcome the tyranny of distance with the rest of the world, and new applications and ways of doing things will be developed.

- 109 We believe we signed up for an efficient transition from copper to fibre and that it was the Government's intention that UFB will lead to accelerated migration of wholesale bitstream services from copper to fibre. This is reflected in comments by the Minister that her aspirations for UFB uptake is 40-45% by 2020, and contractual requirements for Chorus to reach a minimum 20% uptake by 2020. This accelerated migration means that the forward-looking cost of the UBA service in New Zealand will rise steeply as utilisation of the copper network declines, since the costs of copper based services will need to be spread over fewer end users in the future. Regular UBA price resets and steeply rising prices will introduce considerable uncertainty for RSPs.
- 110 Inside UFB areas, the Commission cannot expect ever increasing copper prices to deliver the cost recovery required by the Act. The prices on the fibre network will constrain Chorus' ability to set ever increasing copper prices. Outside of UFB areas, this dynamic of rising copper prices will create equity issues - disadvantaging end-users outside the UFB area. Instead, an adjustment is needed to smooth the prices over the transition period. CEG sets out a methodology for determining an appropriate adjustment in its report *Effect of fibre on copper bitstream prices*.
- 111 This would have the effect of accelerating the recovery of the copper investment and avoiding price shocks. It also results in a more equitable sharing of the costs between today's end users and end users in the future. There is no principled reason why end-users last to benefit from UFB deployment should also bear the cost of higher copper prices, as the per unit price for copper services increases due to fibre migration. A smoothing adjustment is also consistent with the policy to average prices nationally.
- 112 Prices in the benchmark jurisdictions were not set with New Zealand's special circumstances in mind, so the Swedish and Danish cost models do not use the UFB pricing constraint adjustment recommended in CEG's report. It follows that use of unadjusted European benchmark values will result in a downwards biased UBA price that underestimates the cost of providing the UBA service in New Zealand.
- 113 Given that the current process is an IPP, it is not possible for the Commission to directly implement the solution recommended in the CEG report using a cost model. However, given that the IPP is intended to proxy the FPP, it would be appropriate for the Commission to make an adjustment to the values from its benchmark set in order to provide a proxy for the UFB pricing constraint adjustment recommended by CEG, which would allow Chorus to recover its costs.

- 114 CEG has estimated an indicative adjustment, based on its analysis of the Swedish and Danish cost models and other available data.²⁵ It finds that a UFB pricing constraint adjustment of \$2.75 would need to be applied to make sure Chorus recovers its costs.²⁶

Under conservative assumptions, the current UBA price will require upward revision of at least \$2.75 per month in order to allow for the future combined effect of the price constraint from fibre bitstream services and migration away from copper.

- 115 An adjustment to the values in the benchmark set is required to produce an unbiased estimate of the “additional cost” of providing the UBA service in New Zealand. It also ensures that all New Zealanders are treated equally and reflects a long-term approach to price setting that considers the long-term benefit of end-users.

Telecommunications Development Levy

Chorus must be able to recover the cost of any TDL contribution.

- 116 As part of the consultation process on the TDL Qualified Revenue Framework, Chorus submitted that the net revenue approach proposed by the Commission does not allow Chorus to pass through any TDL contribution the way that RSPs are able.²⁷

- 117 In the Commission’s consultation document, it drew a distinction between retail-minus price control and benchmarked prices when considering Chorus’ ability to pass through.²⁸

The Commission’s preliminary view is that, at this time, some of the regulated services are still largely based on a retail-minus price control, which would allow Chorus to pass on the cost of the TDL. It is therefore unlikely that Chorus would be constrained in passing on the TDL cost at present. However, the Commission will continue to review factors relating to this issue as the price setting mechanism is set to change in 2014.

- 118 Chorus is still of the view that this issue is best addressed by the Commission amending its approach to the qualified revenue framework for the TDL – by either taking a retail revenue approach or explicitly allowing Chorus to pass through the TDL levy as a separate line item in all STDs. However, if the Commission continues with its proposed

²⁵ CEG has used existing and available information to calculate an indicative adjustment using its proposed methodology. This includes, for example, data from Deutsche Bank. The use of this existing information does not indicate support or otherwise by Chorus of the data. We expect there to be further discussion on the appropriate inputs into the methodology during the UBA process.

²⁶ CEG, *Effect of fibre on copper bitstream prices*, January 2013, [12]. CEG have modelled the adjustment assuming a base price of \$8.93.

²⁷ Chorus *Submission in response to the Commerce Commission’s Telecommunications Development Levy Qualified Revenue Framework Discussion Paper*, 2 November 2012, [5]

²⁸ Commerce Commission, *Establishing the Qualified Revenue Framework for the Telecommunications Development Levy, consultation document*, 19 October 2012, [52]

TDL approach, then Chorus' regulated prices must account for the cost of the TDL. As the Commission noted in the TDL consultation document:²⁹

The Commission notes that regulated services account for a large component of Chorus' revenue, making this a significant issue for Chorus. The Commission considered whether industry levies, such as TDL, are included in the cost models for those countries included in benchmark sets to set regulated prices for copper. It found that levies are usually not considered in BU-TSLRIC models.

- 119 This is a matter of being consistent and principled. The Commission has never disagreed with the principle that Chorus should be able to pass through any TDL contribution. In selecting the net revenue approach the Commission asserted that the retail-minus pricing of UBA allowed Chorus to pass the cost of the levy through. We disagreed, but that is moot for these purposes. UBA will be priced on the basis of cost-based models that do not include TDL costs. Unless the Commission provides for an explicit adjustment or pass through, the TDL will become a tax on Chorus (a situation faced by no other industry participant).
- 120 We have not estimated an adjustment at this stage, but expect to be able to do so once the Commission has further progressed the TDL consultation process.

Adjustment to the Danish price

- 121 An adjustment to the Danish price may be required to remove the shared loop component, which we think has been included in error by the Commission.
- 122 When answering the Commission's questionnaire, the Danish regulator's response to the question – "please state the full local loop tariff if it is included in the WBA tariff" was:
- Only half loop included. The price of WBA without co-production costs a shared raw copper more (full loop = 68,3 kr per month, shared loop = 34,15)*
- 123 We understand this to mean that the bitstream prices quoted in the Danish cost model include the shared loop price. If this is correct, the Commission has misinterpreted this response.
- 124 The supplementary spreadsheet accompanying the Draft Determination shows that the Danish monthly bitstream price was calculated by taking the price of the 256kbit/s variant in the Danish cost model (570 kr), adding in the shared loop price (410 kr), and dividing by 12 to obtain a monthly price (81,67 kr). However, if our understanding of the Danish regulator's response is correct, the shared loop price should never have been added in, in fact it should have been subtracted to produce a bitstream uplift price.
- 125 If we have in fact identified an error, the correct Danish price (based on the Draft Determination) is 160 kr, or 2.95 NZD per month, which is the 256 kbit/s price (570 kr)

²⁹ Commerce Commission, *Establishing the Qualified Revenue Framework for the Telecommunications Development Levy, consultation document*, 19 October 2012, [51]

less the shared loop price (410 kr). It should be clear that a national average bitstream price of \$2.95 is insufficient to recover the cost of providing the service: that is, the price of the 256 kbit/s service is the wrong starting price to use in a benchmarking process (for the reasons explained in the section of this submission addressing line speed differentiation and the CEG report).

Currency conversion

- 126 Chorus made extensive submissions during the UCLL process on the appropriate way to undertake currency conversion in the benchmarking process. While a ratio approach would avoid the need for currency conversion, we reiterate our previous submissions on currency conversion.

APPENDIX C - SELECT A PRICE POINT WITHIN THE ADJUSTED RANGE

Select a price point above the benchmark mean

127 In the Draft Determination the Commission proposes to use the mean of the benchmark range. The Commission has sought submissions on specific aspects of the price point selection question. In particular:

127.1 the risks in setting the UBA price too low or too high;

127.2 incentives to invest in broadband over copper or fibre; and

127.3 relativity between UBA and UCLL.

128 We discuss each of these below. Our view is that consideration of these factors should lead the Commission to select the 75th percentile.

The impact of regulatory error

The Commission should account for the asymmetric impact on consumers of regulatory error and select the 75th percentile.

129 Regulatory error, in the sense of the Commission arriving at a UBA price that does not accurately reflect Chorus' costs, is all but inevitable. The available information is sparse to the point of straining credibility, and benchmarking is a blunt tool in the best of circumstances. For this reason the Commission correctly focuses on whether regulatory error will have an asymmetric impact on the long-term welfare of consumers.

130 In the Draft Determination the Commission has made no adjustment for asymmetric risk; it has used the mean of the benchmark set. The Commission's view is that it is uncertain whether the implications for long-term consumer welfare of a "too-low" benchmark price are greater or smaller than the effects of a price that is "too-high".

131 Chorus has engaged Sapere to consider the appropriate economic framework for assessing and responding to the risk of regulatory error, and to assess the implications for the Commission's decision on the UBA price, in terms of the foreseeable impacts in the relevant NZ markets. The attached Sapere paper *Comment on Section 18 Considerations in Relation to UBA Pricing* considers the effects of regulatory error for economic efficiency, and for investor incentives and risks.

132 Sapere concludes that these effects are likely to be asymmetrical, with the potential damage arising from underpricing UBA significantly outweighing the potential damage arising from overpricing.

133 Sapere also reviews the history of the Commission's decisions on this matter. Guided by section 18, the Commission has emphasised the importance of dynamic efficiency, and for that reason the importance of incentives to invest in infrastructure. In its first series of decisions the Commission responded to the asymmetric impact on consumers of regulatory error when selecting a price point from within a benchmarked range.

However, in several recent decisions the Commission changed that stance and selected the mean.

- 134 Sapere explains that the considerations that prompted the Commission to change its stance do not apply here. Importantly, purchasers of UBA service are not making a commensurate and counter-balancing level of capital investment, and the UBA price has an unambiguous impact on the success of the UFB network investment.
- 135 Sapere recommends that the Commission select a price point above the mid-point of the distribution to take account of the expected asymmetrical effects of error. Specifically, it recommends the Commission adopt its previous practice in circumstances where underpricing is more harmful than overpricing (such as Decision 477), and adopt the 75th percentile price point.

Incentives to invest

Low copper prices create risk for incentives to invest. This factor indicates the Commission should select a price point above the mean.

- 136 In the Draft Determination the Commission asks, separately from the regulatory error discussion, whether the UBA price has implications for the incentives to invest in the UFB network or copper local loop unbundling. The Commission expresses the view that it is not clear whether a UBA price higher than the mean will lead to investment in innovative new services over copper or fibre, since RSPs already have an incentive to upgrade to fibre to differentiate their services from copper-based services.
- 137 While everybody recognises that fibre is the long-term future for the industry, we also recognise that there is transition over the years as the deployment of the infrastructure occurs and our customers are faced with investment choices and respond to commercial incentives. As stated in the IDC report *Fifty Shades of Copper: Who Pays for the Cost of Change* (January 2013):³⁰

IDC is of the opinion that the biggest challenge for LFC's is to encourage RSPs to push fibre. RSPs arguably have little incentive to move customers to fibre due to the initial costs involved and low perceived demand for fibre. Quite simply, with wholesale copper pricing dropping, many RSPs will see better short term margins in sticking with copper rather than migrating customers to new fibre products.

- 138 They are commercial entities answerable to their own shareholders. Our customers emphasised that at the UCLL conference. For this reason, we do not share the Commission's view that it would not create a material risk to the migration to the UFB network to set a UBA price that is too high.
- 139 This is important because:

³⁰ IDC, *Fifty Shades of Copper: Who Pays for the Cost of Change*, January 2013, page 20

- 139.1 the Government has decided that the transition to the UFB network is in the long-term interests of New Zealanders (and Chorus agrees);
- 139.2 creating a risk to the transition to the UFB network is contrary to the purpose of the Act. This is explained in detail in the discussion of section 18 below. In short:
- (a) the benefits of competition and innovation on the UFB network will swamp any short term price competition benefits on the copper network; and
 - (b) the focus of the regulatory regime is on the long-term benefits that consumers derive from dynamic efficiency in the industry, and in particular the benefits that come from robust incentives to invest in infrastructure; This requires the Commission to resist the siren call of short term price decreases where this would undermine the incentives for infrastructure investment in the sector.
- 140 When addressing these issues in the context of selecting a price point in the benchmark range, it is artificial to separate these issues from the consideration of regulatory error. The Commission should be acutely conscious of the likelihood of regulatory error, and the impact that erring on the low side will have on the central purposes of the Act.
- Relativity between UBA and UCLL***
- 141 The UBA service description in Schedule 1 requires the Commission to consider “the relativity between this service [i.e. the UBA service] and Chorus’ unbundled copper local loop network service (to the extent that terms and conditions have been set for that service).” This requirement is an “additional matter that must be considered regarding the application of section 18”.
- 142 This means that the relativity consideration is relevant whenever section 18 is relevant, and is not limited to the price point selection step in the Commission’s analysis. We discuss the relativity consideration separately below in **Appendix F**.

APPENDIX D - BENCHMARKING RESULTS

Changes to be made

2013 pricing

- 143 Sweden and Denmark updated their cost models with new pricing coming into effect on 1 January 2013. This adjustment imports these prices in place of the 2012 prices used in the Draft.

Correcting Danish starting price

- 144 Correcting the Danish starting price by removing the shared loop price. Cumulative price: \$5.09.

Correcting line speed errors – common cost recovery

- 145 Adjusting for the fixed and shared cost allocation across speed variants in benchmark countries using the CEG approach, i.e. establishing a single cost-based price through weighted average of benchmark country's line speed distribution and variant prices. This adjustment and the WIK adjustment for differences in speed distribution are alternatives. Cumulative price: \$10.22.

Pragmatic approach to benchmark set

- 146 Taking a pragmatic approach to the application of forward-looking cost-based results in the inclusion of Greece and Switzerland. Cumulative price: \$11.22.

Correcting line speed errors – reflecting UBA speeds

- 147 Adjusting for line speed differentiation based on WIK's approach i.e. weighting benchmark country variant prices by the line speed distribution in New Zealand. This adjustment and the CEG adjustment for cost allocation across speed variants are alternatives. Cumulative price: \$11.54.

Correcting for cost drivers – ratio benchmarking adjustment or econometric adjustment

- 148 Adjusting for line density using the ratio of bitstream and local loop prices in benchmark jurisdictions. Cumulative price: \$17.09.

- 149 Alternatively, adjusting for line density using an econometric model developed from Danish cost model geographic data. Cumulative price: \$15.01.

Accelerated fibre migration – UFB pricing constraint adjustment

- 150 Adjusting current copper prices to account for accelerated fibre migration in future. Cumulative price: \$22.35.

Asymmetric risk adjustment

- 151 Adjusting for the asymmetric impact of regulatory error when selecting a price point within a benchmarked range. Cumulative price: \$23.13.

Sense Check

- 152 Benchmarking can produce varied results. Chorus' own benchmarking results in a potential range from \$5.09 to \$23.13, as demonstrated above. And we expect that submissions made by RSPs will provide the Commission with alternative ranges and

approaches. Therefore, any benchmark result should be sense checked against real world indicators. We have found no evidence to suggest that \$8.93 is a real cost-based price and on the contrary, indicators are that the existing price is fair. For example:

152.1 RSPs have indicated that existing market prices are highly competitive. For example, Vodafone noted at the UCLL conference that "I think the market as shown by TelstraClear's behaviour and others in recent times is pretty competitive and people are out there fighting it out";³¹

152.2 the Commission has recognised that current relativity between UCLL and UBA has led to good market outcomes:³²

Now, quite clearly the competition that we have seen to date under the Act has been highly beneficial in both the short and the long-term for end users. As parties, I think, talked about yesterday, individually end users now have much better prices, data caps are there but they're notional rather than real, and we have much better quality of service, an aggregate in terms of looking at total end users in New Zealand, our broadband rankings have continued to rise. So, it's those benefits from competition that we must have regard to;

152.3 New Zealand broadband penetration is ranked well in the OECD. Our broadband penetration is 27%. The OECD average is 26% and we are ranked above Australia. New Zealand is ranked first for penetration when compared to our GDP;

152.4 a shift in regulatory prices as dramatic as that proposed in the Draft Determination would be highly unusual regulatory practice, even when there has been a change in the price setting method. When the ACCC shift from TSLRIC to a RAB approach, it had regard to the importance of ensuring a smooth transition from one costing approach to another in order to avoid regulatory shocks.³³ When the change to cost-based UBA pricing was made, Government said it was "uncertain" and did not signal an expectation of a regulatory price shock;

152.5 we understand that UBA prices in other jurisdictions have not reduced in price at a level consistent with the price reduction in the Commission's Draft Determination;

152.6 if \$8.93 was the right nationwide price, we can assume RSPs would have unbundled far more exchanges and that unbundling would be far more widespread across exchanges and cabinets, to take advantage of what would be

³¹ Peter MacIntyre from Vodafone, UCLL Benchmarking Review Conference 19-20 September 2012 Transcript, page 231

³² Commissioner Mazzoleni, UCLL Benchmarking Review Conference 19-20 September 2012 Transcript, page 166

³³ ACCC Chairman (Graeme Samuel) Speech at ATUG 2011 Annual Conference (1 April 2011), available at: <http://www.accc.gov.au/content/item.phtml?itemId=980976&nodeId=8dcb70f9fc3d6ca16d2272d34ad45f8a&fn=Samuel%20ATUG%202011.pdf>, page 5

a huge differential between the cost of UBA and the existing price. RSPs have in fact mainly unbundled high density urban exchanges; and

152.7 the Danish model uses a WACC of 5.5%. This is significantly below the WACC that would likely be used in a New Zealand cost model, and perhaps indicates why prices in Denmark are so different to New Zealand.

153 In sense-checking, the Commission should be careful not to limit its inquiry to “electronics and software” or to RSP costs in urban exchange areas:

153.1 as with UCLL, UBA costs more to provide in cabinetised areas and rural exchanges. Costs of providing UBA in urban exchanges will give an inaccurate view of a nationally averaged UBA price that is provided over different Layer 1 inputs; and

153.2 there is more to providing UBA than “electronics and software” costs. This simplistic view overlooks both the fact that line density is an important cost driver for UBA in all parts of the network, and that in a number of areas there are additional network components, such as backhaul, needed to deliver the UBA service.

154 The graph provided as **Appendix I** demonstrates the range of statements some RSPs have made on the UBA price.

APPENDIX E - SECTION 18

- 155 Section 18(2A) emphasises the central importance of dynamic efficiency, and in particular incentives to make infrastructure investments, in promoting the long-term interests of end-users.
- 156 The inclusion of section 18(2A), and the statement of emphasis on investment incentives, was a clear message to the Commission about the way Parliament and the Government see the Act being implemented. Even if it was accepted that this may not have “changed the Commission’s task”, it is a clear message to the Commission that implementation of the Act needs to line up with the intent of section 18. Section 18(2A) is a clear signal to the Commission that there has been an insufficient focus on the dynamic efficiency objectives of section 18 and that this is required in the UFB environment.
- 157 The Commission has been non-committal on whether section 18(2A) applies to the UFB investment, despite this being a significant focus in both the UCLL and UBA pricing processes. The context for section 18(2A) being added last year, and the wording used, make it clear that the UFB investment is precisely the sort of investment that section 18(2A) is intended to cover. The suggestion that the Act may not recognise investor’s interests once large capital investments are sunk is disappointing and we think sends the opposite signal to the one that Parliament intended for the Commission in passing section 18(2A).
- 158 Section 18(2A) requires the Commission to do more than just “consider” the UFB network. It requires the Commission to prioritise the successful migration to the UFB over short term price gains on the legacy copper network, where there is a conflict. This is not controversial – it is orthodox regulatory economics to prioritise dynamic efficiency considerations over short term static gains where there is any tension. The long-term benefits to end-users from dynamic efficiency gains, in particular infrastructure investment, swamp any short term benefits from lower prices.
- 159 The Commission’s proposed copper prices are creating this conflict with the long-term dynamic efficiency gains expected from the UFB network, and the dynamic efficiency gains that will flow if investors have confidence that infrastructure investments in the future will be respected. There can be no doubt that lower copper prices will impact UFB. This was well traversed in UCLL and the Draft Determination has proposed a price significantly lower than the known contracted fibre prices that are effectively set until 2020.
- 160 Demand for fibre services is uncertain, there is no other migration policy, and Chorus cannot sell directly to end-users. The key tool for incentivising migration to fibre is the relativity between copper and fibre prices.
- 161 There is no competition problem to solve. A robust level of competition exists at the current UBA price. A significant drop in the UBA price will not materially improve competition on the copper network. But by discouraging migration to the fibre network, it will defer the significant consumer benefits of competition on the fibre network.

- 162 In the Draft Determination the Commission has considered section 18 in the context of price point selection only. While we agree that section 18 plays an important role in price point selection, the Commission should not confine application of the purpose statement to this narrow aspect of the benchmarking exercise; section 18 is relevant to every decision the Commission makes.
- 163 Section 18 requires the Commission to consider the efficiencies that will result from “any act or omission”. The Commission has failed to consider adequately, or at all, the mandatory efficiency criteria in the section which requires it to determine whether or not the result of its decision will achieve (in the long run) a *net benefit* to New Zealand. By arriving at draft prices that will clearly affect the incentive for access providers to promote UBA over UFB and reduce materially the incentive for consumers to switch from UBA to UFB, the Commission has implicitly (if not expressly) adopted the view that the long term interests of end-users are best served by a regime that promotes existing technology.
- 164 However, it has done so without any attempt to weigh up or balance the net benefits to end-users of either technology, and in doing so, has not given proper weight to dynamic efficiency and the significant capital investment in new technology – as it is required to do under section 18(2A). It has also ignored the Government’s view that the long term interests of end-users is best realised by investment in superior retail services provided over UFB networks rather than copper.
- 165 The efficiency criteria in section 18 provides the Commission with discretion to set the prices determined from any benchmarking exercise in a way that avoids a distortion to the market. In other words, in determining whether the pricing of UBA will provide a net benefit to end-users in the long term, the Commission can look to see if the pricing disparity will actually be inefficient in the sense that it stifles or inhibits investment in new telecommunications services that would otherwise provide the superior services.
- 166 In considering the context of the legislative amendments, the Commission should also consider section 157AA of the Act when considering its interpretation and application of s18(2A).

Legal framework

- 167 Section 18 comprises three parts:
- 167.1 the general purpose statement that requires the promotion of competition for the long-term benefit of end-users; and
 - 167.2 when determining whether or not, or the extent to which, an act or omission will or is likely to result in competition for the long-term benefit of end-users:
 - (a) the requirement to take efficiencies into consideration; and
 - (b) the requirement to consider the incentives to innovate that exist for, and the risks faced by, investors in large scale new investment.

168 The most relevant factor in this price review process is the risk taken by investors by investing in the UFB network. We address section 18(2A) first and then go on to address the other elements of section 18.

Innovation and investment incentives and section 18(2A)

- Parliament has given the Commission and the industry a clear message that the focus of the regulatory regime is to be on the long-term and the gains that come from infrastructure investment.
- It is clear that section 18(2A) requires the Commission to prioritise the successful migration to the UFB network over short term price gains on the legacy copper network where there is a conflict.
- The proposed UBA price will undermine the migration to the UFB network. Section 18(2A) requires the Commission to exercise its judgment to avoid that outcome.

The introduction of section 18(2A) was a clear direction that a change of emphasis is required

169 The Government is clear on the policy rationale for the UFB investment. It will bring improved productivity and economic growth by neutralising the impact of New Zealand's distance from the rest of the world.

170 The Government explicitly put this in the language of section 18 and the purpose of the Act. It stated that the interests of end-users were best served by fibre:³⁴

The Government also believes that the long-term benefit of end users is best realised by investment in superior retail services provided over the UFB networks, rather than further copper-based investment.

171 This was explained when the Government announced that the Crown had entered into public private partnerships with Chorus and three LFCs:³⁵

The ultra fast broadband initiative is a key part of the Government's economic growth plan. Ultra fast broadband is the way of the future.

³⁴ Telecommunications Amendment Bill – Supplementary Order Paper: Initial Briefing for Finance Expenditure Committee (February 18 2011) at [75 – 78], available at: http://www.parliament.nz/NR/rdonlyres/718E6DF6-91E1-4EEE-9CE1-14D6924227E6/201752/49SCFE_ADV_00DBHOH_BILL10470_1_A172407_Initialbrie.pdf

³⁵ John Key, Prime Minister, *PM welcomes deal to deliver ultra fast broadband* (May 24 2011), available at: <http://www.beehive.govt.nz/release/pm-welcomes-deal-deliver-ultra-fast-broadband-0>. See also Steven Joyce, Minister for Communications and Information Technology, *Govt starts seeking ultra-fast broadband partners* (October 21 2009), available at: <http://www.beehive.govt.nz/release/govt-starts-seeking-ultra-fast-broadband-partners>, and Hekia Parata, Education Minister and Amy Adams, Communications and Information Technology Minister, *UFB to be rolled out to hundreds more schools* (March 5 2012), available at: <http://www.beehive.govt.nz/release/ufb-be-rolled-out-hundreds-more-schools>. See also MED description of fibre in relation to other communications technology at Ministry of Economic Development website, *Ultra-Fast Broadband Initiative*, available at: <http://www.med.govt.nz/sectors-industries/technology-communication/fast-broadband/ultra-fast-broadband-initiative>

Ultra fast broadband speeds delivered via these public private partnerships will revolutionise the way many businesses, schools, healthcare providers and communities operate. It will help overcome the tyranny of distance with the rest of the world, and new applications and ways of doing things will be developed.

172 The objective was reinforced by the Minister of Communications:³⁶

Ultra-fast broadband is a game-changer for the whole country, and will see New Zealand become one of the most connected countries in the world.

It will revolutionise the way Kiwi firms do business, the way our kids learn and the way our health services deliver to us as patients.

173 The MED on its website recognises that the Government's objectives cannot be met by copper or other technologies:³⁷

Other communications technology, such as copper, cable, satellite and fixed wireless networks, are unlikely to be able to meet the government's ultra-fast broadband objectives.

174 Against this backdrop, there is some concern that the Commission has interpreted section 18(2A) as having no effect, because it is included "for the avoidance of doubt". We disagree – and believe that section 18(2A) requires the Commission to shift its focus towards long-term investment. Chorus is concerned that the Commission's focus has remained on the competition between copper and fibre, contrary to the intent of section 18(2A) and the UFB investment.

175 The addition in 2012 of section 18(2A) should be read as Parliament under-scoring the primary importance of incentives to invest in infrastructure as the focus of section 18 (and therefore the Act). In the language of economists, this drives dynamic efficiency, and dynamic efficiency delivers the largest gains for consumers over the longer term.

176 We acknowledge that section 18(2A) is framed as a "to avoid doubt" provision, and that it therefore should not alter the intent of the provision but rather clarify it. We agree that promoting investment is a focus of section 18, and always has been. However, in our view section 18(2A) was introduced to "clarify" that the Commission should give greater weight to investment risks than it had demonstrated a propensity to do. That is, the amendment "clarified" how Parliament wants the Commission to think about the long-term interests of end-users. That clarification should cause the Commission to change its approach.

177 Section 18(2A) is, therefore, of utmost importance to the Commission and the industry. It is the most recent, specific declaration by Parliament as to the focus of the regulatory

³⁶ Hekia Parata, Education Minister and Amy Adams, Communications and Information Technology Minister, *UFB to be rolled out to hundreds more schools* (March 5 2012), available at: <http://www.beehive.govt.nz/release/ufb-be-rolled-out-hundreds-more-schools>

³⁷ Ministry of Economic Development website, *Ultra-Fast Broadband Initiative*, at <http://www.med.govt.nz/sectors-industries/technology-communication/fast-broadband/ultra-fast-broadband-initiative>

regime for telecommunications and the decisions the Commission makes. The focus is to be on the long-term, and the gains that come from infrastructure investment. This goal is not to be traded for short term price drops where there is a conflict.

178 Chorus makes the following points in relation to section 18(2A):

178.1 section 18(2A) applies to the UFB network;

178.2 where there is a tension between short term price drops on the copper network and creating a risk to the transition to the UFB network then section 18(2A) requires the Commission to exercise its judgment in favour of avoiding risks to the transition to the UFB network; and

178.3 as a matter of fact, getting the UBA price wrong would create that risk.

Section 18(2A) applies to the UFB network investment

179 The Commission has expressed doubts as to whether section 18(2A) even applies to the UFB network investment, and the Draft Determination is non-committal on the point.

180 At the UCLL conference Commissioner Gale said:³⁸

My reading of s18(2)(a) is it talks about giving incentives to innovate and all the rest of it that you now know but it seems to me that all of that is entirely forward-looking because the concern is if you rip off one investor you deter all investment, all investment in this sector anyway. So, it seems to me that shock question is about, and that's why we talked about the RBI as well, that it's not so much that anybody, apologies to Chorus, is worried about damage to particularly those shareholders, it's just that investment per se in s18(2)(a) which is the investment that isn't already sunk, is what we're seeking to preserve because that's what actually looks after consumers in the long run.

181 In the Draft Determination, the Commission states that it "does not need to decide whether the section 18(2A) requirement refers to the UFB rollout".³⁹

182 As part of section 18 the Commission should of course have regard to how any decision now might affect future investment in telecommunications in New Zealand. How the Commission treats UFB investment will send a clear message to all potential investors in telecommunications and other industries as to whether New Zealand has a regulatory environment that is consistent and reliable and whether different arms of government in New Zealand are aligned on government policy.

183 But section 18(2A) is not limited to "future" investment. The section is directed to investment in "new" services. The distinction between sunk investment and future investment is not made in the section. Nor should it be: the key concern of investors is how the regulator behaves once a large capital investment is sunk. It would be

³⁸ UCLL Benchmarking Review Conference 19-20 September 2012 Transcript, page 205

³⁹ Draft Determination [120]

perverse if this very concern was carved out of a section dealing with investor incentives.

- 184 More specifically, there is no doubt that section 18(2A) was introduced in part to protect the UFB investment. Section 18(2A) was introduced by SOP No 247 following the release of the Select Committee report on the Telecommunications (TSO, Broadband and Other Matters) Amendment Bill. That SOP also removed the regulatory forbearance regime from the Bill.
- 185 The history of events was that:
- 185.1 the risks of disconnect between the copper and fibre price-setting regimes was traversed in MBIE's consultation in 2010. The relativity between copper and fibre pricing is a key anchor point for negotiated entry level pricing;
 - 185.2 a benchmarked, cost based principle on UBA was a function of demerger and not driven by concerns in the market with a retail minus approach. It was referenced as "uncertain";
 - 185.3 in February 2011, the Government introduced legislation and (1) noted there was uncertainty arising from a review of UBA; (2) chose to insert s18(2A) into the purpose statement to, we believe, enable the Commission to recognise the significant investment being made in UFB in its decision making, (3) placed a UCLL restriction on Telecom to 2014 and (4) sent signals about fair rates of return in the 2016 review clause and the Government Policy Statement; and
 - 185.4 Chorus' UFB contract was negotiated in parallel.
- 186 As we have previously acknowledged, section 18(2A) was not just about UFB. MED also stated that its proposed section 18(2A) was intended to "ensure it is explicit that investment and innovation in new markets is recognised, not just for fibre but for any new market or technology". But to date, the Commission has created doubt as to whether it believes s18(2A) applies to UFB.
- 187 The intent behind section 18(2A) is clear, and the reference to "new" investment is not as restrictive as the Commission suggests. The Commission must accept that UFB is squarely within scope of section 18(2A). Commission decisions, even in relation to copper, that ignored the legitimate interests of investors in the UFB investment would not be giving effect to section 18(2A).
- 188 It was also intended that the averaged UCLL price would be set, the UBA price updated and the UCLFS STD completed as the early phase of implementation to accompany demerger and ensure these were done well in advance of 2014. While there was uncertainty going into a regulatory process, there was no indication that anyone anticipated price shocks like those in the UCLL and UBA draft determinations.

Where there is a tension with short term price gains, the integrity of investor incentives prevails

- 189 Section 18 operates by providing the Commission with guidance about how to exercise its judgment. Where there is a tension between short term and long-term objectives, the Act informs the Commission that the purpose of the regulation is best advanced by decisions that favour longer term dynamic efficiencies. Incentives to invest in infrastructure are central to this exercise. The Act frames the Commission's task in this way because end-users will benefit the most when priority is given to longer term dynamic efficiencies.
- 190 TelstraClear is wrong when it suggests that the Commission does not have to give 18(2A) any greater weight than other factors that are "relevant" to the Commission's decision.⁴⁰ As discussed above, it is well established that dynamic efficiency considerations prevail over short term static efficiency gains where there is any tension. In passing section 18(2A) last year, Parliament sent a clear signal that the interests of infrastructure investors, including investors in the UFB network, are central to the long-term dynamic efficiency focus of the regulatory regime.
- 191 To suggest otherwise is to re-write the regulatory framework that Parliament put in place in 2011. The Commission should always have regard to investment incentives when applying section 18. But at this time, when Chorus and other LFCs are making a once in a generation scale investment, Parliament has said clearly that the interests of investors in the UFB network is a dynamic efficiency consideration that prevails over the siren call of short term static efficiency gains.

Getting the UBA price wrong would create a risk to the transition to the UFB network

- 192 We appreciate that the Commission is setting the price of a copper service. But a dramatic reduction in the price of Chorus' most popular copper bitstream service will create a risk to the transition to the UFB network. As Ovum stated in its report attached to Chorus' UCLL submission:⁴¹

To the extent that the prices of retail DSL services are reduced in response to a lowering of the UCLL price, and more effectively and widely available DSL-based services are offered, end user migration to the UFB will be dampened.

- 193 The Ovum report also observed how Australia has structured copper and fibre prices so as to ensure migration is best managed:⁴²

The NBN Co has deliberately chosen to align the wholesale price for its entry-level 12Mbps fibre service with wholesale prices for ADSL2+ broadband. The purpose of this alignment is to facilitate the migration of customers from copper-based broadband to fibre by eliminating customer incentives to remain on copper.

⁴⁰ UCLL Benchmarking Review Conference 19-20 September 2012 Transcript, page 12

⁴¹ Ovum, *Impact of UCLL price change on the New Zealand Broadband Market*, 1 June 2012, page 2, attached to Chorus' submission on Commission's revised draft UCLL determination, 1 June 2012

⁴² Ovum, *Impact of UCLL price change on the New Zealand Broadband Market*, 1 June 2012, page 6, attached to Chorus' submission on Commission's revised draft UCLL determination, 1 June 2012

194 Alignment wasn't chosen in New Zealand. The fibre prices were set to be attractive relative to copper. In contrast, any copper price set now below \$42.50 will be *lower* than the fibre prices agreed in our UFB contract. Investors have expressed their concern with the Commission's recent copper decisions and market analysts such as UBS and Macquarie have revised their fibre uptake estimates. Morningstar Equity Research made the following comment regarding the Draft Determination:⁴³

This will result in a scaled-down fibre-to-the-home network.....In our view, this draft decision undermines private-public partnerships in New Zealand. Furthermore, the uncertainty created for the government-backed fibre investments make it all the more puzzling. The NZD 929 million committed government funding in the form of equity, debt and warrants means taxpayers are at a loss, along with Chorus shareholders.

195 In our view, the fact that lower copper prices create a risk to fibre uptake is very clear.

How the Commission should take account of section 18(2A)

196 At the UCLL conference, there was discussion as to where and how the Commission should best take account of section 18(2A) when determining a price on the basis of an IPP.⁴⁴

197 Section 18(2A) is relevant to every choice the Commission makes when working towards setting a UBA price. For example, the Commission must consider section 18(2A) when it:

- (a) selects its benchmark approach, including identifying similar services and comparable countries;
- (b) identifies the additional costs incurred in providing the UBA Service;
- (c) makes any adjustments to the raw price derived from benchmarking; and
- (d) selects a price point for the UBA Service.

198 For example, we suggest that section 18(2A) should guide the Commission to make the following choices when benchmarking the UBA price:

- (a) benchmark against services with speeds comparable to the speed of service Chorus actually provides;
- (b) refer to reliable forward-looking cost-based prices rather than unnecessarily restrict the dataset with unnecessarily restrictive criteria;
- (c) take a pragmatic approach to "similar" services;

⁴³ Morningstar equity research note, 3 December 2012

⁴⁴ UCLL Benchmarking Review Conference 19-20 September 2012 Transcript, pages 196-197

- (d) adjust benchmarks to account for the migration off the copper network;
- (e) either adopt a ratio benchmarking approach or adjust for spatial cost-drivers using econometrics; and
- (f) adopt a price point above the median of the benchmark range (as discussed in detail above).

Efficiencies

- Dynamic efficiency considerations, and in particular incentives to make infrastructure investment, are central to the purpose of the Act.
- In the current market context, a successful migration to the UFB network trumps short term price gains on the legacy copper network.

199 The attached report from Sapere *Comment on how to best give effect to the purpose of Section 18 in relation to UBA pricing* discusses the efficiency focus of section 18. Sapere notes that in previous decisions the Commission has placed greater emphasis on dynamic efficiency over considerations of static efficiency, and in doing so has recognised the importance of incentives for infrastructure investment.

200 For example, the Commission has stated:⁴⁵

[T]he Commission is of the view that it is appropriate to place relatively more weight on dynamic efficiency considerations. In other words, if it were the case that setting prices too low would significantly jeopardise incentives for investment in access networks, the trade-off between higher prices and more investment on the one side and lower prices and short-term consumer gains on the other would be resolved by the Commission in favour of the former.

201 Sapere agrees that to best give effect to the section 18 purpose statement, dynamic efficiency considerations should be given priority. In the current context, the central issue is the way that the Commission's pricing decisions impact on the successful roll out of, and migration to, the UFB network. Where there is a tension between lower short term prices on the legacy copper network and risks to the successful migration to the fibre network, the UFB considerations should trump.

⁴⁵ Commerce Commission *Decision 477 TelstraClear application for determination for designated access services (interconnection)*, [155]

Promotion of competition

- A robust level of competition exists at the current UBA price.
- A significant drop in the UBA price will not materially improve competition on the copper network. But by discouraging migration to the fibre network, it will defer the significant consumer benefits of competition on the fibre network.

- 202 As a starting point, we think that a healthy level of competition exists at the current UBA price structure, at both a network and services level. As at 30 June 2012 97,000 lines have been unbundled.⁴⁶
- 203 At the services level, there is strong competition between UBA-based RSPs. This is evidenced by RSPs other than Telecom holding half of the retail broadband market as the number of broadband subscribers continues to grow.⁴⁷ The Commission's Annual Telecommunications Monitoring Report 2011 states that the retail broadband market is one of the country's least concentrated telecommunications markets.⁴⁸
- 204 A significant drop in the UBA price will not materially improve competition on the copper network. UCLL-based competition will be stifled. And the level of competition seen by end users is already robust and unlikely to be affected either way. We note the Minister's recent comment that it is "highly unlikely that retail service providers would fully pass through any wholesale cost savings".⁴⁹
- 205 At this point in the Commission's consultation process, one thing we can say with confidence is that if the UBA price set by the Commission disincentivises the migration to our UFB network, then competition will be harmed.
- 206 What is truly going to generate productivity improvements and benefit end-users in the long run are the big, innovative changes that will occur from moving to fibre technologies. It is competition on the UFB network that will deliver the greatest benefits to end-users. However, the industry has to get onto the fibre platform first. If it doesn't, ongoing competition on copper, at the expense of fibre-based competition, will result in reduced end user benefits.
- 207 UBA at or near the current price level and the capped fibre bitstream prices until 2019 will allow for genuine competition between copper and fibre, and the migration to competition on the fibre network. Chorus believes that encouraging growth over copper

⁴⁶ Chorus Limited Management Commentary, available at: <http://www.chorus.co.nz/file/5859/chorus-management-commentary.pdf>, page 24

⁴⁷ <http://business.scoop.co.nz/2012/08/24/telecoms-moutter-aims-to-stamp-his-mark-early-next-year/>, 24 August 2012

⁴⁸ Commerce Commission, *Annual Telecommunications Monitoring Report 2011*, released 30 April 2012, page 20

⁴⁹ Communications Minister Amy Adams, in Stuff.co.nz report *Broadband savings 'unlikely' to be passed on*, available at: <http://www.stuff.co.nz/technology/digital-living/8069406/Broadband-savings-unlikely-to-be-passed-on#13552668022303&ContinueSending>

will itself lead to uptake of fibre services. But a UBA price below cost will choke off competition on the fibre platform by deferring the migration to the UFB network, as explained above.

APPENDIX F - RELATIVITY AND THE LADDER OF INVESTMENT

- 208 When setting the price of the UBA service, the Commission is required to have regard to the relativity between this service and Chorus' unbundled copper local loop network service.
- 209 Relativity must be considered whenever section 18 is relevant. Section 18 is relevant to all of the material exercises of judgment that the Commission makes in the course of benchmarking to set the UBA price.
- 210 Historically, the Commission has applied the relativity requirement by reference to the so-called ladder of investment theory. The Commission has stated that its objective is to facilitate Layer 1 investment by RSPs, so that they can compete at Layer 2.
- 211 It is not clear to Chorus how the Commission is interpreting the relativity requirement and the ladder of investment in light of the fact that:
- 211.1 as a result of the prices the Commission has set so far, unbundling has primarily occurred in high density urban exchanges;
 - 211.2 a UBA price of \$8.93 would only further deter investment in rural and cabinetised areas; and
 - 211.3 the Government's policy is to have an averaged UBA price, but relativity today needs to be considered against de-averaged urban and urban Layer 1 prices, and as against UCLL and SLU lines. From 2014, the Commission will still need to consider relativity as between averaged UBA prices and "de-averaged" UCLL and SLU lines.
- 212 As set out in our UCLL submission, and supported by Martin Cave in his paper *Regulating the price of copper in New Zealand* (attached to our UCLL cross-submission), the ladder of investment on copper is not relevant where there is migration to fibre. However, if the Commission believes it is working in a legacy framework that requires application of the ladder of investment – is it only considering that in relation to high density urban areas? Or does it need a broader consideration? How does this fit with maintaining incentives for the migration to the UFB network?
- 213 We appreciate that the Commission has a job to do, and the Act puts some constraints on how the Commission does that job. However, the Commission can keep the full picture in view when considering relativity. Given the importance of understanding what outcome the Commission is working to, the Commission should articulate its view.

Legal framework

- 214 When setting the price of the UBA service, the Commission is required to have regard to the relativity between this service and Chorus' unbundled copper local loop network service (to the extent that terms and conditions have been determined for that service). This is an "additional matter that must be considered regarding application of section 18" (Schedule 1 service description).

- 215 This means the Commission must have regard to the price in the UCLL STD and the sub-loop STD likely to be operative on 1 December 2014. Both are terms and conditions determined for the unbundled copper local loop network service.
- 216 This relativity must be considered whenever the application of section 18 is considered. As discussed elsewhere in this submission, section 18 (and therefore the relativity between UBA and UCLL services) is relevant to all of the material exercises of judgment the Commission makes in the course of benchmarking to set the UBA price. For example, the Commission must consider section 18(2A) when it:
- (a) selects its benchmark approach, including identifying similar services and comparable countries;
 - (b) identifies the additional costs incurred in providing the UBA Service;
 - (c) makes any adjustments to the raw price derived from benchmarking; and
 - (d) selects a price point for the UBA Service.
- 217 At the Commission's investor briefing on 3 December 2012, the Commission suggested that Chorus has endorsed any UBA price determined by the Commission as meeting the relativity requirement. To clarify, appropriately determined cost-based prices should result in the right relativity. However, for the reasons set out in **Appendices B - D** we do not believe the Commission's draft UBA price is an appropriate cost-based price, and it is not clear how the Commission is approaching the relativity issue outside of high density urban areas.

The Commission's approach to relativity

- 218 To date, the Commission has interpreted this relativity requirement as an instruction to check that RSPs have sufficient incentive and ability – business case – to take the UCLL service:⁵⁰

... The Commission seeks relative prices that will provide incentives to invest efficiently.

In the revised draft determination, the Commission noted that despite reductions in the retail-minus UBA price, there was a significant increase in the number of unbundled lines and exchanges over the period from December 2007 to December 2011. This indicates that access seekers still face incentives to purchase UCLL, so the relatively requirement is met.

- 219 This has been consistently articulated by the Commission in decisions⁵¹ and STDs.⁵²

⁵⁰ Commerce Commission, *NZCC 37 Final determination on benchmarking review for the unbundled copper local loop service*, pages 61 - 62

⁵¹ See: Final Decision on UCLL, UBA and Sub-loop Services STDs (Decision No. 739, 24 November 2011 at paragraphs [4], [26] – [27] and [38] – [41]); Revised draft determination on the benchmarking review for the unbundled copper local loop service (4 May 2012 at paragraphs [253], [256], [264] and [266])

- 220 In the Draft Determination the Commission affirms this approach to relativity. The Commission's provisional conclusion is:⁵³

The price relativity between UBA and UCLL is one of several influences on the incentives to invest in unbundling. Other influences were noted in the Commission's original UBA STD assessment of relativity. These include the number of customers served by the access seeker from each exchange, the payback period of the investment at the exchange, access seekers' ability to offer new services when using UCLL, and the possibility of saving costs in the provision of a voice service. Our current view is that there is still a positive incentive for UCLL.

- 221 This is consistent with the so-called ladder of investment theory. According to this theory, access prices must be set such that access seekers can move over time from Layer 2 services to Layer 1 services. The relativity consideration in the service descriptions in Schedule 1 has been read as requiring the implementation of the ladder of investment theory:⁵⁴

An important role the Commission plays in the telecommunications market is to encourage the uptake of regulated services by Access Seekers, leading to increased levels of infrastructural investment i.e. the ladder of investment.

- 222 See also:⁵⁵

According to the 'ladder of investment' concept of access pricing, relative access prices should encourage Access Seekers to make efficient entry decisions, including transferring between access products, such as from the UBA service to the Sub-loop UCLL Service. Specifically, the intention is to provide Access Seekers with an incentive to move from one 'rung' to another (such as from resale to UBA to UCLL), and in doing so to increase their investment over time.

In making such an assessment, it is important to have regard to the relative costs of moving between rungs, as the Commission did in the UBA STD. In the absence of any consideration of relative costs, which is what Telecom (Group) and Telecom (Chorus) propose, the rungs may be too close (thereby encouraging inefficient investment by Access Seekers), or too far apart (preventing efficient investment by Access Seekers).

...

⁵² See: UBA STD (Decision No. 611, 12 December 2007 at [440]); Sub-loop UCLL, Sub-loop Co-lo and Sub-loop Backhaul STD (Decision No. 672, 18 June 2009 at paragraph [525])

⁵³ Draft Determination [114]

⁵⁴ Commerce Commission, *Decision 610 (Draft UCLL Co-lo STD)*, 13 July 2007, [131]

⁵⁵ Commerce Commission, *Decision 672, Sub-loop UCLL, Sub-loop Co-lo and Sub-loop Backhaul STD*, [519],[520] and [531]

the Commission notes that it has given appropriate consideration to the issue of the relativity between the regulated charges for the Sub-loop UCLL Service and the UBA Service, in setting prices that are likely to give best effect to section 18 of the Act.

223 Telecom has characterised this as akin to a price squeeze test.

224 We are keen to understand how the Commission is applying relativity in the current context.

APPENDIX G - CONNECTION AND TRANSFER CHARGES

- 225 We need to identify and recover all our connection and transfer costs. Benchmarking of these core charges raises issues in this context. As connection and transfer charges are predominantly third party costs and are therefore easy to identify, we consider that a cost-plus based approach, as used for sundry charges, is more appropriate.
- 226 We think this approach is in the best interests of the industry. In our submission on the UCLL draft determination last year we stated why we thought this was a better approach, and also that setting connection charges in the same manner as sundry charges was permitted by the IPP. There was no discussion of this issue at the UCLL conference and in the final UCLL determination the Commission stated that it disagreed with our submission, but did not say why. We would like to engage with the Commission on this issue.

Types of charges

- 227 Broadly speaking, there are three types of new connection only scenarios:

227.1 connection without visit (remote connection);⁵⁶

227.2 connection without site visit (but exchange/cabinet visit required); and

227.3 connection with site visit.⁵⁷

- 228 A "site visit" can vary in cost depending on whether the new connection requires work to the lead-in, premise wiring and/or connection and/or modem.

- 229 In addition to the connection charges, there are a number of transfer charges and relinquishment, move address and data interleaving toggle charges (**Transfer Charges**).

Benchmarking is problematic in this context

Benchmarking the connection charges and Transfer Charges is not sound based on two benchmarks and given the comparability issues.

- 230 Setting the core connection charges and Transfer Charges on the basis of two benchmarks is not sound for the same reasons set out above in respect of the monthly rental charges.

- 231 We are also concerned that the benchmarks adopted in the Draft Determination are not based on similar services and therefore Chorus will not necessarily recover its connection and transfer costs. It is important that the services are comparable to the

⁵⁶ Remote connections can be provisioned by system changes rather than manual work at the end user premises or exchange/cabinet. A remote connection incurs only administration costs.

⁵⁷ A "site visit" requires a visit to the end-users premises.

services Chorus provides today as the IPP is intended to be a proxy for the FPP, which is intended to ensure recovery of efficient costs.

- 232 Chorus has three types of connection scenarios as described above. Whereas the Commission has benchmarked one connection charge - "assisted". It is unclear what this connection charge actually covers (discussed further below) or that it would cover the connection costs Chorus actually incurs in the three scenarios set out above, if the intention was to move to one connection charge instead of three currently described above.
- 233 The Commission notes that the proposed charges for items 1.9 and 1.10 ("Other broadband service (including UBS) to any UBA service change plan" and "Any UBA service to any other UBA service change plan") are not based on comparable benchmarks but instead the Commission has calculated them by applying the current ratios between those components and the 1.32 ("Transfer of Basic UBA Service from an Access Seeker to an Enhanced UBA Service with another Access Seeker") to the benchmarked 1.32 charge.
- 234 Due to a lack of directly comparable services the Commission has also made a number of assumptions to enable comparability.

Lack of clarity in proposed approach

The terminology used by the Commission to describe connection charges is opaque and does not align with industry terminology used in practice.

- 235 In the Draft Determination the Commission has used the term "assisted" to refer to connection charges. It is unclear what the Commission intends that term to cover and how that aligns, or would recover the costs incurred, with the types of connection scenarios set out above. We request the Commission sets connection charges using clearly defined terminology consistent with that set out in **Appendix J**.
- 236 The summary of core charges (attachment 5) is also confusing. Although the current price points are listed for 1.39, 1.40, 1.41 and 2.13, there are no new prices listed to apply from December 2014. This may be taken as indicating that there is likely to be no change in price but we are unsure. Even if there is no change in price, references remain to clause 4A of the UBA STD, Schedule 2, for price points 1.39 and 1.40. Clause 4A reflects retail-minus pricing and will need to be removed or updated to reflect the cost-based pricing principle to apply from 1 December 2014.
- 237 We also note that in the description of some of the price points listed in the Draft Determination there are references to UBA "with" or "without POTS" (see price points 1.1 and 1.10). From 1 December 2014 there is only one UBA variant as discussed further below.

Proposed pricing approach

- Connection and Transfer Charges should be set in the same way as existing cost based sundry and core charges: third party fees + administration costs + margin.
- Should the Commission proceed with benchmarking connection charges and Transfer Charges, the benchmarking adjustments addressed in this submission in relation to the monthly rental price should also be applied to connection charges as appropriate.

238 In our view, the best approach for all connection charges and Transfer Charges is that charges be set at a rate that consists of: third party fees + administration costs + margin.

239 This common sense approach could be easily implemented and administered. This would also be consistent with how a number of existing core and sundry prices are currently calculated across a range of regulated products.

240 Should the Commission proceed with benchmarking connection charges and Transfer Charges:

240.1 a pragmatic approach to screening criteria would be required to ensure a large enough benchmark set although there would need to be further work to ensure the benchmarks reflected similar services (or appropriate adjustments may be required);

240.2 for the reasons set out above, the 75th percentile (rather than the median) should be taken to account for the asymmetric cost of error; and

240.3 the benchmarking adjustments addressed in this submission in relation to the monthly rental price should also be applied to connection charges and Transfer Charges as appropriate.

Benefits of new approach

241 A new formulaic approach to connection and transfer charges is the best approach because:

241.1 it makes use of readily available information to set accurate prices;

241.2 it is consistent with the Commission's approach to sundry charges and the cost-based methodology for the UBA core charges for transfer pricing;⁵⁸

⁵⁸ See items 1.9, 1.10 and 1.31-1.36. We note also that at paragraph 154 of the Draft Determination the Commission noted that "[a]s sundry charges are updated annually, the Commission's view is that we do not need to re-determine the price of sundry charges at this time".

241.3 it avoids benchmarking, and in this case avoids the particular issues with the current benchmark set:

- (a) that there are only two data points;
- (b) that the Commission has been unable to identify benchmarks for items 1.9 and 1.10; and
- (c) that the Commission has had to make a number of assumptions as to comparability.

Definitions

Definitions for connection charges should be included in the STD.

242 We have proposed definitions for connection charges to be included in the STD. These definitions reflect current industry practice and terminology. We set out these definitions in **Appendix J**.

243 These definitions should also be added to other STDs where applicable.⁵⁹

⁵⁹ This could be used to help define and clarify the interaction between STDs. We note that the UCLFS STD sets out the pricing for when the UBA Service and the UCLFS Service are taken together. If any gaps or clarifications that required amendment to the UCLFS STD were identified, we would expect to engage with the Commission and the industry.

APPENDIX H - OTHER CONSIDERATIONS

244 The Draft Determination describes a scenario where a double recovery concern is said to arise, and proposes a condition in the UBA STD to address that concern. However, the Draft Determination misunderstands the access products involved and there is no possible double recovery in the scenario identified.

245 Chorus is not the access provider of the local access and calling service, it merely provides this service as agent for Telecom. Chorus does not set the price of the local access and calling services. Chorus only receives the regulated price of the wholesale input it provides to Telecom – UCLFS, baseband or UCLL. Therefore, there is no scope for double recovery.

Double recovery

246 In the “Other Considerations” section of the Draft Determination (starting at paragraph 155) the Commission describes a scenario where it considers that clause 4B of Schedule 1 of the Act (dealing with double recovery) requires a specific condition in the UBA STD.

247 Chorus supports the principle of avoiding double recovery of costs (and its companion, no under recovery). However, the scenario described in the Draft Determination discloses some basic misunderstandings about the core access products involved:

247.1 clause 4B can only apply to services provided by the same access provider, in this case Chorus, and Chorus is not the access provider of the local access and calling service; and

247.2 from 1 December 2014 the “with” and “without POTS” pricing distinction for UBA services no longer exists.

248 We explain the access framework below.

The scenario in the Draft Determination

249 The Draft Determination observes that the UBA service and Telecom’s resold POTS service both use Chorus’ unbundled copper local loop network. Telecom’s resold POTS service is regulated in Schedule 1 as the “local access and calling service” but is not currently subject to price regulation.

250 The Draft Determination goes on to state that, as the Commission does not currently set the price of the local access and calling service, it is compelled by the Act to put in place a provision to ensure there is no double recovery of the full unbundled copper local loop price for end-users, once in the price of the resold POTS service and again in the price of the UBA service.

251 The Commission proposes the following condition to apply from 1 December 2014:

For service component charges 2.1 – 2.8 which include the Geographically Averaged UCLL component of the UBA service charge, Chorus may not assess a separate charge to the Access Seeker or any other party that includes the costs of Chorus’ full unbundled copper local loop network for that line and must, if the

non-UBA service being purchased by the Access Seeker or other party includes such costs, deduct such costs from the price paid for the other service.

Relevant access services

- 252 To understand whether there are any double or under recovery issues it is helpful to set out the access services relevant to the scenario in the Draft Determination.
- 253 At a high level Chorus provides two UBA services under the UBA STD until 1 December 2014⁶⁰:
- 253.1 "with POTS" (when the UBA service is taken by the RSP with Telecom's local access and calling service – so-called "clothed UBA"); and
- 253.2 "without POTS" (when the UBA service is not taken with Telecom's local access and calling service – so-called "naked UBA").
- 254 The UBA STD sets up a pricing distinction between the "with" and "without POTS" UBA services.
- 255 The price of the "with POTS" variant is set on the assumption that the cost of the unbundled copper local loop is recovered when we supply another service. Where an RSP takes the "without POTS" UBA variant, and so may not be buying any other service, the UBA STD requires the RSP to pay an additional amount (based on the UCLL price in the UCLL STD – "**UCLL uplift**") to ensure that Chorus recovers all of the costs of the copper local loop (i.e. no under-recovery).
- 256 Chorus is also required to provide a bundle of the UBA service with Telecom's local access service (this obligation is set out in the Act and Chorus' Deed of Open Access Undertakings for Copper Services). However, Chorus merely acts as agent for Telecom's local access and calling service (the contractual relationship for the local access and calling service with the RSP remains with Telecom).
- 257 From 1 December 2012 new sales of UBA are priced at a nationally averaged price. Where UBA was supplied on a line before that date, the urban and non-urban distinction applying to the UCLL uplift in the "without POTS" UBA service is grandfathered until 30 November 2014. From 2014 the price of UBA will be averaged and the with / without POTS distinction will not apply.⁶¹

The supply of POTS

- 258 The concern in the Draft Determination is that the POTS service is supplied over the copper local loop network, it is supplied by Chorus as agent, and the price is not regulated. The suggestion is that Chorus may double-recover the cost of the copper local loop as a result.

⁶⁰ There are UBA "variants" at a more granular level i.e. "Basic UBA", 40 kbps, 90kbps and 180 kbps.

⁶¹ The graph in "Figure 5: Net impact on Basic UBA price of moving to a cost-based methodology" in the Commission's Draft Determination adjusts the UCLL price for urban and non-urban areas to reflect the UCLL price review released last year for both existing lines and for new lines but in fact this is incorrect as the UBA prices for existing lines were frozen.

- 259 However, as the Draft Determination notes, Chorus resells Telecom's POTS service under an agency agreement (as we are required to provide the UBA service in a bundle with the local access and calling service under the Act and the Deed of Open Access Undertakings for Copper Services). This outcome resulted from the industry's desire to only deal Chorus when it took UBA in combination with Telecom's local access and calling service (a one-stop shop).
- 260 Importantly, Telecom is the regulated access provider of the local access and calling service, and Telecom has the contractual relationship with the relevant RSP for that service when provided by Chorus as agent. Telecom sets the price that RSPs pay for the local access and calling service, not Chorus. If Telecom raises the price of the POTS service, the extra revenue goes to Telecom. Chorus only receives the price of the wholesale input it sells to Telecom – UCLL⁶², UCLFS or baseband – the price of which is regulated.
- 261 So as a practical matter, the price for the POTS service cannot result in Chorus recovering more for the use of the copper local loop.
- 262 In terms of clause 4B, the fact that Chorus is not the access provider of the POTS service means that the clause does not apply.
- 263 Clause 4B of Schedule 1 of the Act provides:

*In applying an applicable initial pricing or an applicable final pricing principle, the Commission must ensure that **an access provider of a designated service** does not recover costs that the **access provider is recovering** in the price of a designated or specified service provided under a determination prepared under section 27 or 30M or a designated or specified service provided on commercial terms. (Emphasis added)*

With and without POTS distinction no longer exists from 1 December 2014

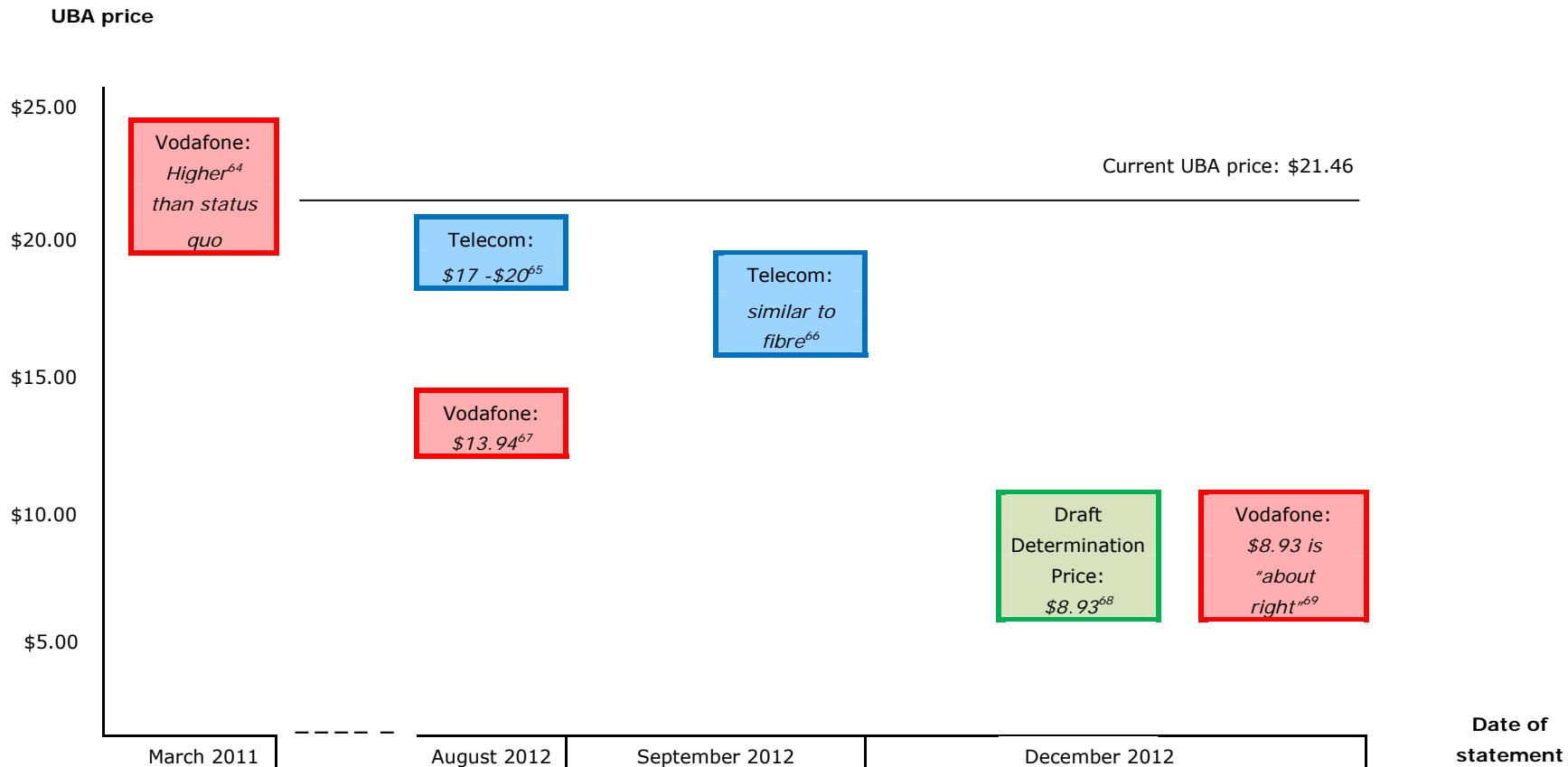
- 264 The fact that POTS is not a Chorus service, as explained above, addresses the double-recovery concern in the Draft Determination. However, the proposed condition in the Draft Determination may evidence a further confusion.
- 265 The reference in the proposed condition to "For service component charges 2.1 – 2.8 which include the Geographically Averaged UCLL component of the UBA service charge", indicates the double-recovery that the Commission is concerned about here is related to the fact that today (under items 2.1, 2.3, 2.4 and 2.5) where an RSP is taking UBA without POTS ("naked UBA") there is an uplift to the UBA price based on the UCLL price.
- 266 However, from 1 December 2014 (when the amended UBA STD will apply), the with / without POTS distinction disappears from the UBA IPP and FPP in the Act. There will only be one UBA service in future. This change will require the UBA Price List to be

⁶² After 1 December 2014 Telecom may take the regulated UCLL service if it so chooses.

amended to delete items 2.1, 2.3, 2.4 and 2.5, which set out the prices for UBA “without POTS”.⁶³

⁶³ The IPP and FPP that apply after 1 December 2014 do not include: “Plus, if no person is also purchasing a local access and calling service from Telecom...” and the MED Policy Paper *Regulatory Issues Arising from the Ultra-fast Broadband Initiative* (para 21) states: “Following structural separation, there is a need to clarify which access service should be the one that recovers the costs of the copper local loop. I believe it should be the Unbundled Bitstream Access (UBA) service as this broadband service will become, in the structurally separated environment, the fundamental input service which supports retail services, including voice.”

APPENDIX I - RSP STATEMENTS ABOUT A LIKELY UBA PRICE



⁶⁴ "The potential increases to wholesale UBA prices... will mean higher retail broadband prices for end users." – Vodafone submission on the Telecommunications (TSO, Broadband, and Other Matters) Bill 2011, at [66]

⁶⁵ "In a range from \$17 - \$20..." – Telecom submission on UBA Price Review Consultation 2012, at footnote 4

⁶⁶ "... it's difficult for me to see a scenario where we're going to end up with a massive difference between UCLL plus UBA and fibre." – John Wesley-Smith for Telecom at UCLL conference, September 2012, at pg 174

⁶⁷ Access price in NZD: Average – "13.94" – Vodafone submission on UBA Price Review Consultation 2012, at [31]

⁶⁸ UBA Price Review Draft Determination, 3 December 2012

⁶⁹ "Vodafone's Michelle Baguley said that the [\$8.93] price sounded "about right"..." – The Dominion Post, Key willing to overrule decision on Chorus, Tom Pullar-Strecker, 12 December 2012

APPENDIX J - CONNECTION CHARGES DEFINITIONS

The STD should categorise and define connection charges as follows:

- 1 *Remote Connection* means provision of a UBA connection by reactivating an existing intact circuit where Chorus incurs only administration costs:
 - 1.1 A Remote Connection includes (without limitation) some or all of the following services, as required:
 - (a) Receive validate and process service request;
 - (b) Design configuration of service;
 - (c) Configure service;
 - (d) Build an active billing record;
 - (e) Notify completion and close request.
 - 1.2 A Remote Connection does not include additional services identified as part of:
 - (a) an Exchange or Cabinet Visit;
 - (b) a With Site Visit;
 - (c) Connection and Wiring;
 - (d) Connection and Wiring with Modem;
 - (e) Wiring Only
 - 1.3 For the avoidance of doubt, a remote connection is not available where the lead-in circuit from boundary to premise is not intact.
- 2 *Exchange or Cabinet Visit*⁷⁰ means provision of a UBA connection by connecting or constructing a circuit, using existing components, at the relevant exchange or cabinet:
 - 2.1 An Exchange and/or Cabinet Visit includes (without limitation) some or all of the following services, as required:
 - (a) Any service provided as part of a Remote Connection;
 - (b) Run jumper at exchange or distribution cabinet to connect network copper to UBA port;

⁷⁰ This is specific to the UBA service e.g. UCLFS/Baseband would require an exchange and cabinet visit due to the network infrastructure.

- (c) Run jumper at passive cabinet to configure network copper;
 - (d) Connection of a splitter and run of an additional jumper to same or different Access Seeker POTS equipment.
 - 2.2 An Exchange or Cabinet Visit does not include additional services identified as part of:
 - (a) a With Site Visit;
 - (b) Connection and Wiring;
 - (c) Connection and Wiring with Modem;
 - (d) Wiring Only
 - 2.3 For the avoidance of doubt, an Exchange or Cabinet Visit is not available where the lead-in circuit from boundary to premise is not intact.
- 3 *With Site Visit* means provision of a UBA connection by connecting or constructing a circuit (including connection of existing lead-in circuit), using existing components, from boundary to premise, at end user premises (including external pillar):
 - 3.1 A With Site Visit includes (without limitation) some or all of the following services, as required:
 - (a) Any service provided as part of a Remote Connection;
 - (b) Any service provided as part of an Exchange or Cabinet Visit;
 - (c) Connect network copper to lead-in at pillar or terminal;
 - (d) Connect lead-in to premise wiring at ETP.
 - 3.2 A With Site Visit does not include additional services identified as part of:
 - (a) Connection and Wiring;
 - (b) Connection and Wiring with Modem;
 - (c) Wiring Only
- 4 *Connection and Wiring* means provision of a UBA connection by connecting or constructing a circuit (including connection of existing lead-in circuit), using existing components, from boundary to premise:
 - 4.1 Connection and Wiring includes (without limitation) some or all of the following services, as required:

- (a) Any service provided as part of a With Site Visit;
- (b) Installation of splitter at ETP or jackpoint;
- (c) Installation of additional RJ45 jack point for modem;
- (d) Rejuvenation of premises wiring between ETP and the additional RJ45 jack point (referred to in subsection (c)) using cat5E cabling (surface mounted unless cavity ready accessible).

4.2 Connection and Wiring does not include additional services identified as part of:

- (a) Connection and Wiring with Modem.

5 *Connection and Wiring with Modem* means provision of a UBA connection by connecting or constructing a circuit (including connection of existing lead-in circuit), using existing components, from boundary to premise:

5.1 Connection and Wiring with Modem includes (without limitation) some or all of the following services, as required:

- (a) Any service provided as part of a With Site Visit;
- (b) Any service provided as part of Connection and Wiring;
- (c) Delivery of Access Seeker modem;
- (d) Connection and configuration of modem (including one WiFi device).

6 *Wiring Only* means provision of customer premises wiring to support broadband.

6.1 Wiring only includes (without limitation) some or all of the following services, as required:

- (a) A visit to the end user premises;
- (b) Installation of splitter at ETP or jackpoint;
- (c) Installation of additional RJ45 jack point for modem;
- (d) Rejuvenation of premises wiring between ETP and the additional RJ45 jack point (referred to in subsection (c)) using cat5E cabling (surface mounted unless cavity ready accessible).

6.2 Wiring only does not include:

- (a) Delivery of Access Seeker modem;
- (b) Connection and configuration of modem (including one WiFi device).