



Review of the Telecommunications Act 2001: Discussion Document

Submission | MBIE

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Summary

Telecom is a strong supporter of UFB. We need pricing certainty to allow us to focus on investing for the future.

1. Faster and better broadband services are critical to improving New Zealand's productivity and global competitiveness and will play an increasingly important role in the lives of all New Zealanders.
2. Fibre, and the Government's Ultra Fast Broadband (**UFB**) initiative will be the key delivery platform for many of those services. We strongly support the Government's UFB initiative and, to the extent any are needed, will support sensible changes in policy settings necessary to ensure the successful deployment of the UFB networks.
3. As an industry, we are collectively responsible for the success of the UFB initiative, and for identifying and implementing solutions to any barriers to that success. If proposed regulated copper prices threaten the deployment of UFB, we need to find a solution for that. We believe there are solutions that appropriately balance all groups' interests.
4. Ongoing debates about copper pricing risk distracting our industry, and customers, from the far more important questions of how, as a country, we can best take advantage of the very valuable fibre assets we are investing in. Above all else, our industry needs input pricing certainty.

Demand for fibre is strong: there is no take-up problem

5. When the UFB initiative was introduced, demand for fibre services was unknown. As an industry, and certainly within Telecom, there was considerable debate about just how many customers would see sufficient benefit in migrating across to the planned fibre networks to accept the physical disruption that an installation of fibre would bring to their premises. There were more than a few cynics.
6. We launched commercial fibre services on March 28 this year. They have been a resounding success. Demand for fibre services is exceeding all of our expectations, so much so that we and our partners have faced challenges completing fibre installations quickly enough to meet that demand. These are early days, but already the take-up rate for fibre services comfortably exceeds that seen when we first introduced ADSL broadband (under the JetStream brand) in 1999. Our forecasts are for this demand to increase. We have no concerns whatsoever about Kiwis' propensity to migrate from copper to fibre.

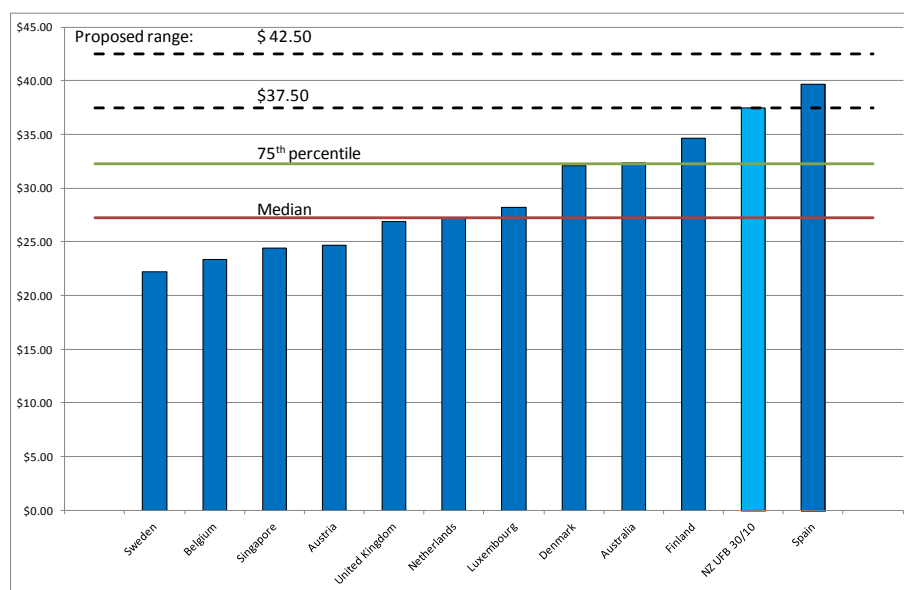
The regulatory framework must support the on-time deployment of UFB networks and provide transparency and certainty

7. If we are to continue to meet demand though, and achieve the economic benefits of investing early in fibre, the UFB networks must be built on time and in full. If the proposed regulated copper prices are not sufficient to give Government confidence that this will occur, then it is reasonable to consider whether there are sensible policy changes that could be made to address this.
8. There are no easy decisions here: any policy inevitably trades-off different groups' interests. We believe, though, that policy settings can be changed in a balanced way that works for customers and for the whole industry. To achieve that balance, any policy changes that are made must:
 - a. **Provide certainty** by setting copper prices and creating clear investment incentives now that will apply through to 2020. Of the options proposed, Option 3 in the Discussion Document provides the most certainty and the clearest incentives on Chorus, LFCs and RSPs to invest in fibre;
 - b. **Be transparent**, and limit any above-cost copper pricing increment to that which is absolutely necessary to ensure confidence that construction of the UFB networks will be completed on time; and
 - c. **Be fair** to customers and industry. In particular:
 - Broadband customers: Any policy changes must result in a fibre/copper product mix that is, in the whole, just as good for broadband customers as the existing mix is. If copper prices are to be adjusted upwards from the prices set by the Commerce Commission, the consumer loss created by this could be compensated for in a number of ways – a better performing entry-level fibre service; a corresponding downward-adjustment to the future price path for the entry-level fibre price; or providing retail service providers with unbundled layer 1 fibre access earlier than 2020 all warrant further consideration.
 - Voice-only customers: Under all of the options proposed, input prices for broadband customers will decrease from today's levels. Under Options 1 and 3 in the Discussion Document though, there is the potential for input prices to increase for voice-only customers (who, perversely, are the one group of fixed line customers who will not see any benefits from UFB). We support the proposed mechanism for protecting these customers from any such price increase;

Copper prices that materially depart from cost are unlikely to be durable. The lower bound of the proposed range for the total copper price is closer to cost than the upper bound

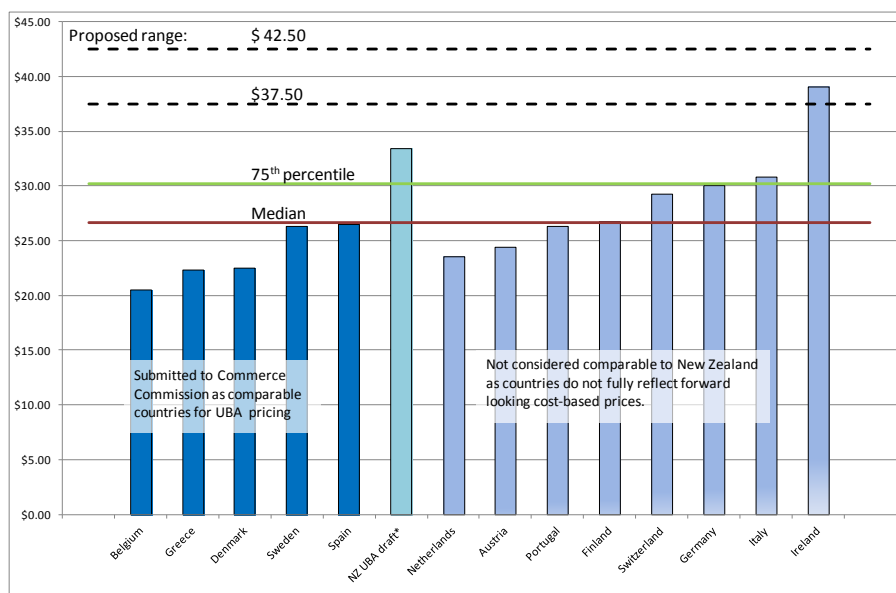
9. Ultimately, prices for wholesale infrastructure access services shift to cost, either through competition or regulatory pricing of monopoly providers.
10. If copper prices remain materially disconnected from underlying costs for any length of time, this creates incentives and distortions that the market will act on. For example, a high UBA price will inevitably result in service providers remaining focused on copper based UCLL platforms in preference to fibre services. A high total copper price will equally result in, over time, lower fixed broadband adoption as consumers drop off the network and service providers migrate to wireless platforms.
11. In considering what the appropriate range should be for the total copper price, then care must be had to ensure that price will be durable and capable of providing the certainty our industry needs. That means we need to be confident that the total copper price – if it is not to be set at cost - is set at least in close proximity to cost.
12. The difficulty of course is that we don't have a forward looking New Zealand cost model of copper or fibre costs to refer to. We do though have a wide range of data observations from other countries who have built these types of models.
13. A rudimentary comparison of published wholesale fibre prices in other countries suggests that a cost based entry-level fibre access price might sit in the NZ\$30 to NZ\$40 range:

Figure 1: wholesale fibre prices (NZ\$ per month)



14. An equally rudimentary comparison of observable UCLL+UBA copper prices from a range of countries suggests a nationally averaged cost-based total copper price might sit in a similar (or slightly lower) range:

Figure 2: wholesale copper broadband (UCLL+UBA) prices (NZ\$ per month)¹



15. Our conclusion from these data points (and we acknowledge that these are simply observations, and do not represent an exhaustive scientific benchmark) is that while the lower bounds of the Discussions Document’s proposed total copper price range (i.e. \$37.50-\$40) may be in proximity to cost, the upper bounds (\$40-\$42.50) may not. A more realistic range may well be \$35-\$40.

Implementation

16. The discussion paper outlines several proposals for implementing revised prices.
17. We support Option 3 because it delivers early certainty to our industry and our customers, and because it provides the cleanest set of incentives for retail service providers to invest in fibre services and in driving customer migration onto them. Less than 20% of lines from unbundled exchanges have actually been unbundled today, and investment in unbundling is slowing. Option 2 risks creating inefficient incentives on UCLL operators to renew that investment, which can only delay migration to fibre.

¹ The draft price shown for UCLL and UBA is the sum of two prices; the regulated price for UCLL as set out by the Commission in Determination NZCC 37/2012, and the median of the Swedish and Danish UBA benchmark prices as set out in the draft determination of 3 December 2012 and corrected to the benchmark prices set out in the Commission’s UBA Price Review Update Paper of 13 August 2013.

18. The Discussion Document indicates that if Option 3 was adopted, Government would consider grandfathering UCLL prices for some existing UCLL customers. Telecom does not have any UCLL customers, and does not comment in detail on whether this proposal is necessary or not given the three year UCLL grandfathering that has already occurred. We are however concerned at the potential for a poorly-designed grandfathering scheme to create structural damage to our markets. We must avoid any grandfathering scheme that creates incentives for UCLL operators to lock in customers, or to force migrate their customers currently served by UBA onto UCLL (and therefore further from fibre). Option 3 reduces the UBA price by the largest amount, and increases the UCLL price. Given this respective movement in prices, any incentives that encourage RSPs to shift UBA customers onto UCLL would be artificial.
19. If UCLL grandfathering is implemented, it should apply from an early date (we suggest 1 October 2013) and to specific unbundled lines only in order to minimise these incentives.

Providing certainty for investors and the industry

Take up of fibre services is largely as expected for this stage of the roll out, and demand is likely to grow

1. We strongly support the Government's UFB initiative. We have already made, and continue to make, significant investments in the capability required to deploy new telecommunication services over fibre
2. We launched commercial fibre services on March 28 this year. Demand for fibre services is exceeding all of our expectations, so much so that we and our partners have faced challenges completing fibre installations quickly enough to meet that demand. These are early days, but already the take-up rate for fibre services comfortably exceeds that seen when we first introduced ADSL broadband (under the JetStream brand) in 1999. Our forecasts are for this demand to increase. We have no concerns whatsoever about customer's propensity to migrate from copper to fibre.
3. Looking forward, we have partnered with Government to deliver the Network for Learning and established a development pipeline of fibre service enhancements. Telecom Digital Ventures has been set up to, in part, develop opportunities that will exploit and drive UFB demand. We see fibre as an exciting growth opportunity for Telecom and for our customers.
4. Indications from more mature markets are that UFB demand will continue to grow. Verizon reported that penetration on its Fios fibre network hit 38.6% by the second quarter of 2013. There is strong demand for higher bandwidth services, with 35% of Fios internet subscribers opting for its premium Quantum service, which offers speeds ranging from 50-300Mbps. Verizon reports that customers continue to upgrade to higher speed services.² While Bell Alliant is only part way through the roll out its FibreOP fibre service, it reports that penetration is already exceeding 20%. Again, Bell Alliant reports higher average revenue per high speed internet customer due to customer demand for higher bandwidth bundles and other services.³
5. These trends are repeated in the other markets currently deploying widespread FTTH networks and are consistent with customer demand trends we are seeing today in New Zealand. The reasons are fairly simple: broadband customers want fibre – they want faster and more consistent speeds, the ability to have sustained performance even with multiple users using their home or business internet connection at the same time, and the ability to take best advantage of

² See <http://www.fiercetelecom.com/story/verizons-wireline-consumer-revenue-rises-36-billion-strong-fios-adds/2013-07-18>

³ See <http://www.fiercetelecom.com/story/bell-alliant-ftth-passes-725000-premises-second-quarter/2013-08-04>

the increasing array of internet-delivered rich media services available today, such as PremierLeagePass.com.

6. It is also clear that content and entertainment services help to drive and sustain fibre demand, and there is nothing to suggest a similar path is not open to us here.

There is uncertainty about the impact of proposed regulated copper prices on Chorus' ability to complete its UFB network

7. The 2011 amendments to the Act provided for copper based broadband services to be priced on the basis of cost. In late 2012, the Commission released draft UBA prices that would reduce copper based broadband prices. Chorus announced to the market that, on the basis of current demand, pricing based on the draft decision could result in approximately \$150 million to \$160 million per annum reduction in Chorus revenue from December 2014. That in turn would cause it to rethink its current business model, capital structure and approach to dividends.⁴ From the Discussion Document, the implication taken by the Ministry appears to be that the draft price would undermine UFB and Chorus' viability.
8. Conversely, in submissions to the Commission other parties noted that the price reduction was predictable; that the three year statutory transition period - and \$400M additional UBA revenues which Chorus would earn in that time- provided Chorus sufficient time and ability to adjust its business; and that increasing prices would have significant economic costs.⁵
9. Whatever the merits of the issue, all stakeholders need to move on from the debate around copper pricing - we have to take responsibility as an industry for finding solutions to these sorts of issues that are acceptable to all parties.
10. In this case, the overarching priority must be to ensure deployment of UFB networks is completed. If the Government considers there is sufficient evidence to suggest this may not occur, then we support pre-emptive action to address that concern.

The Government should adopt Option 3 and select a price range, and a price point in that range, that balance consumer, industry and economic interests

11. Any changes to policy settings though must:

⁴ Chorus Stock Exchange Announcement, 3 December 2012, available at: <http://www.chorus.co.nz/file/8559/167839.pdf>

⁵ See Covec submission to Commerce Commission 3 September 2013 here <http://www.comcom.govt.nz/regulated-industries/telecommunications/standard-terms-determinations/unbundled-bitstream-access-service/section-30r-reviews-of-uba-std/uba-benchmarking-review/>.

- a. Provide certainty;
- b. Be transparent and durable; and
- c. Be fair to customers and the industry.

Certainty

12. Option 3 in the Discussion Document provides most certainty to our industry – more certainty in fact than the current policy settings do. Rather than waiting for up to three years for Final Pricing Principle reviews of the UCLL and UBA prices, Option 3 provides us with a settled set of copper input prices through to 2020. That certainty will in turn let us direct our investment programmes in the right places with confidence.

Transparency and durability

13. If we are to apply an above-cost increment to copper prices in order to address UFB funding concerns, this needs to be transparent. We trust that the Government has sufficient evidence to identify the nature and scope of any funding concerns, and to ensure that any such above-cost increment is limited to the smallest quantum necessary to address them.
14. In order for the above-cost increment to be durable through to 2020 though, it must be a modest increment at most. The further away we get from cost, the greater the risk that this increment will drive unforeseen market behaviour or structures, which in turn increases uncertainty for our industry. We do not have perfect cost information to use to measure the size of this increment, but we can make directional conclusions based on observable copper and fibre prices in other countries. We expand on this point below.

Fair

15. While there are differing views over the approach to pricing copper services, all stakeholders wish to see the UFB network deployed. In setting above-cost increments for copper services though, we are altering the mix of copper/fibre products and prices that would otherwise be available to customers and so it is incumbent on us as an industry to explore ways of redressing this balance in other ways.
16. If we are changing the copper prices on one side of the equation, it seems sensible to look at how we might improve customers' fibre service options in return. We see significant fibre innovation by US fibre providers driven by competition from cable, municipal and new entrant operators such as Google fibre, and it is reasonable to believe that fibre services in New Zealand will undergo similar innovations in the near-term as well – there may be relatively costless changes we can make to fibre settings by simply anticipating and accelerating these innovations. A better performing entry-level fibre service; a

downward-adjustment to the future price path for the entry-level fibre price; or providing retail service providers with unbundled layer 1 fibre access earlier than 2020 would all deliver benefits to customers and spur fibre innovation by RSPs . These initiatives are all worthy of further consideration.

Setting a price range and price point: How should we think about the connection between copper and fibre costs and what this means for an appropriate total copper price

17. There are differing views about the relationship between copper costs and those for a future fibre network.
18. We have little information on New Zealand copper or fibre network costs that would allow us to consider the relationship between the two. Accordingly, we need to look at the approaches adopted overseas.
19. We can conclude from the European debate that copper costs are related to fibre network models (summarised at Attachment 1). This makes intuitive sense as the discrete networks currently share common infrastructure and, over time, services carried by copper will simply form a subset of the richer range of services supported by a fibre network. European policy makers recommend pricing models that reconcile copper and fibre costs, but do not require a single copper/fibre price or price increases for existing services.
20. This means that while policy makers should set prices that permit cost recovery across a single view of the copper/fibre networks costs, they are not required to do this by setting a single access price. They can also consider other factors such as efficiency and equity in determining the relative share between copper and fibre based services.

Setting a price by reference to observed international cost-based prices

Copper prices that materially depart from cost are unlikely to be durable

20. The Discussion Document proposes to set the total copper price by reference to entry-level UFB prices.
21. Ultimately, even the Government can't prevent prices shifting to cost, whether the shift is brought about by competition or regulated pricing of monopoly providers. If copper prices are set at levels which are materially disconnected from underlying costs, this will create incentives and distortions that the market will act on. For example, a high UBA price will inevitably result in service providers remaining focused on copper based platforms in preference to fibre services. A high copper price will equally result in, over time, lower fixed broadband adoption as consumers drop off the network and service providers

focus investment and innovation on mobile and wireless platforms. These costs can be significant.

22. At the end of this process, for copper based prices to be durable and provide the certainty required by the industry, they must be cost reflective or in reasonably proximity to cost. Therefore the question is: how close to cost (either of forward-looking copper networks, or forward-looking fibre networks) are the UFB entry-level prices?

The best cost information we have comes from international observations

23. The difficulty is that we have very little information on fibre network costs on which to establish the connection between copper and fibre costs in New Zealand and, therefore, what the price of copper based services should be.
24. The Ministry proposes to set a total copper price that is equal to entry level UFB fibre prices. However, those UFB prices were established through a commercial tender process not a costing exercise.
25. A commercial tender and negotiation process captures a wide range of commercial considerations and private value, but not cost. For example, UFB prices were commercially negotiated with the Crown to apply for the first 10 years of the fibre roll out. This is the partial life of the asset at best.
26. Further, in a competitive process, it is the second best bidder that ultimately determines the price. The competing Chorus bidders were electricity line companies that would have faced very different risks and cost profiles to an established telecommunications network provider transitioning to a new platform. For example, the line company is likely to be less able to optimise customer demand and transition between the copper and fibre networks and would face the prospect of competition from an incumbent service provider.
27. In any case, as explained by Cave, a copper network likely has lower costs than a fibre network in the transition to fibre.⁶ This is, in part, due to the recommended shift to historic cost for legacy and shared unlikely-to-be-replicated shared infrastructure. Accordingly, fibre network costs will inevitably overstate the costs of a copper network.
28. If changes to policy settings are required to ensure UFB networks are completed, we agree that alignment of entry-level fibre and total copper prices may be a sensible approach. In achieving this alignment though, we should be open about the fact that this alignment may well result in above-cost pricing.
29. This makes it important to ensure that:

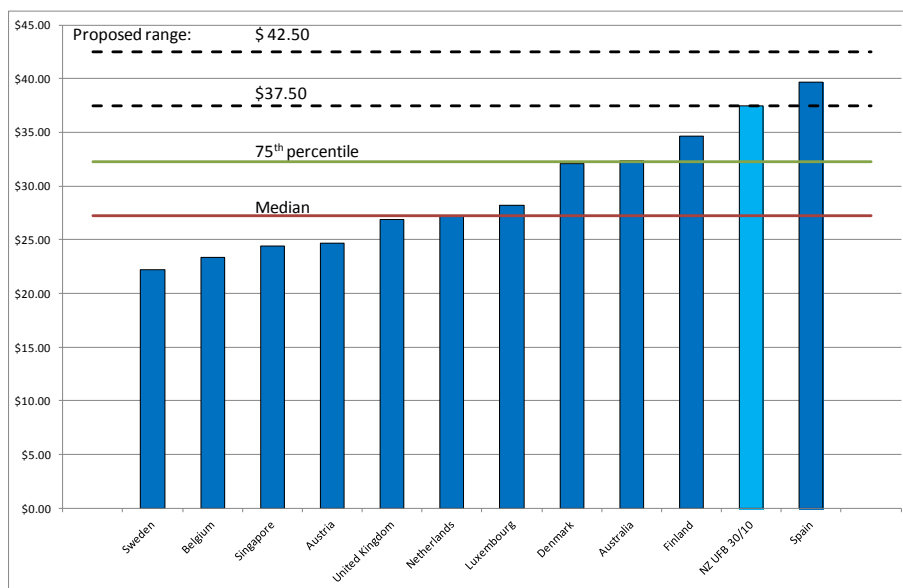
⁶ See http://repec.idate.fr/RePEc/idt/journal/CS8507/CS85_CAVE_FOURNIER_SHUTOVA.pdf.

- a. The amount of the above-cost increment is the absolute minimum needed to provide confidence the UFB networks will be completed; and
- b. The price range, and the price point, chosen are at least in close proximity to expected costs.

We should refer to international fibre and copper prices to identify the likely range of costs

- 30. We haven't had the time to properly consider likely copper and fibre costs and, without forward-looking New Zealand-specific cost models for copper and fibre networks we cannot expect to achieve a complete understanding of costs in any case. All we can do is look at the range of likely wholesale costs and use judgement to set a New Zealand copper price in that range. We believe the Government can look to overseas benchmark prices to support that decision.
- 31. In the limited time available, we have surveyed a number of countries with published wholesale prices. While not a comprehensive survey of fibre prices, this rudimentary exercise suggests that cost based fibre prices may sit in the NZ\$30 to NZ\$40 range taking a conservative approach:

Figure 1: wholesale fibre prices (NZ\$ per month)

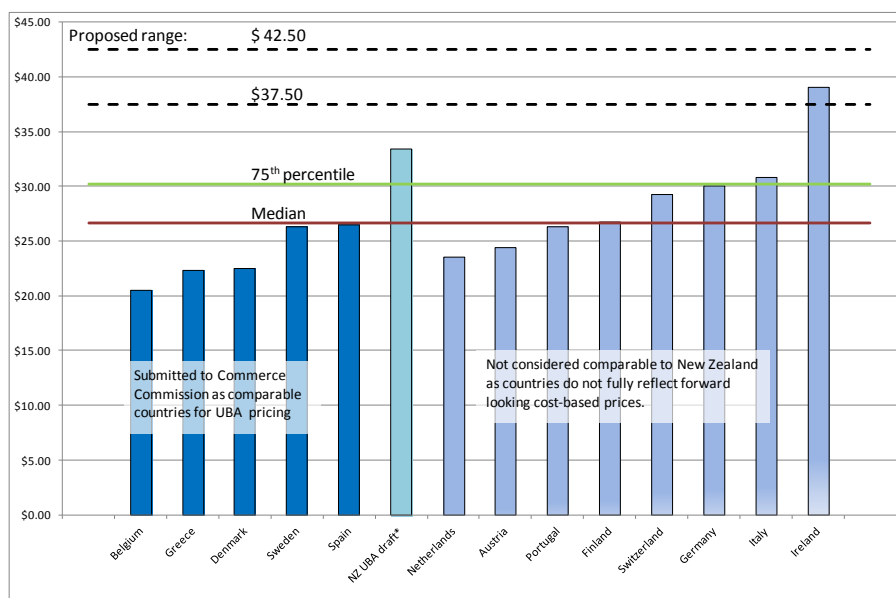


- 32. These observations are a simple collection of publicly available prices for services broadly similar to the entry-level UFB GPON bitstream service providing 30Mbps down and 10Mbps up.
- 33. The resulting sample of 11 developed countries is far from an exhaustive scientific benchmark, but does provide a directional guide as to the likely level of

efficiently incurred costs. In most of these economies, the deployment of fibre is at a broadly similar stage to New Zealand.

34. We have also collected benchmark data for copper based broadband prices (UCLL plus UBA) from a number of countries. Again, this is far from a scientifically robust benchmark – adjustments were required to account for differing approaches to cost allocations and to UBA service dimensioning. It can provide useful directional information about where total copper prices might be expected to sit, but should not be used for more than that.
35. These observations suggest a conservative range of \$25-\$35 for the cost of the total copper price.

Figure 2: wholesale copper broadband (UCLL+UBA) prices (NZ\$ per month)⁷



36. The conclusions we draw from these copper and fibre observations are:
 - a. The lower bounds of the total copper price range proposed in the Discussion Document (i.e. \$37.50-\$40) are in reasonable proximity to conservative cost ranges suggested by the observations we have found for forward-looking fibre and copper prices;
 - b. The upper bounds of the total copper price range proposed in the Discussion Document (i.e. \$40-\$42.50) are not closely proximate to the

⁷ The draft price shown for UCLL and UBA is the sum of two prices; the regulated price for UCLL as set out by the Commission in Determination NZCC 37/2012, and the median of the Swedish and Danish UBA benchmark prices as set out in the draft determination of 3 December 2012 and corrected to the benchmark prices set out in the Commission’s UBA Price Review Update Paper of 13 August 2013.

expected costs suggested by the observations we have found for forward-looking fibre and copper prices; and

- c. A total copper price range of \$35-\$40 may better approximate expected forward-looking costs.

Implementation

Option 3 minimises the incentives for further unbundling

37. Option 3 provides early pricing certainty for Chorus and RSPs. This alone leads us to prefer it over Option 1. Importantly though, it also creates the cleanest set of fibre-focussed incentives for Chorus and RSPs, by reducing incentives for RSPs to renew unbundling investments at a time when we should all be investing in fibre.
38. Unbundling investment has undoubtedly slowed, and the transition to cost-based UBA prices that was introduced to the Act in 2011 has allowed RSPs to re-focus investment programmes on fibre. But there is significant potential for further unbundling by RSPs:
 - a. Unbundled lines represent a small fraction of overall UBA broadband connections. There are around 122,000 unbundled lines compared to 620,000 exchange based lines in unbundled exchanges (total lines less cabinetised in an exchange) and 1.1million UBA connections. This means that less than 20% of the most likely to be unbundled lines have actually been unbundled;
 - b. While most urban exchanges have been unbundled, the footprints of unbundled operators differ. This means that, given the right incentives, there is a significant potential for RSPs to expand individual network footprints and create more intense UCLL based competition; and
 - c. Vodafone noted in its Telstraclear clearance application to the Commission that it has identified a number of additional exchanges that it will likely unbundle or in which it will increase existing UCLL capacity.
39. Option 2 in the Discussion Document creates a renewed incentive on RSPs to unbundle, in order to avoid above-cost UBA prices. This would inevitably shift the industry focus to driving demand on to unbundled infrastructure and away from UFB uptake and must be avoided. While Telecom does not intend to unbundle at scale, these incentives apply across the entire RSP market and will likely drive the focus of competition within it. Even if we do not unbundle, renewed investment in unbundling (and therefore copper) by our competitors will force more of our focus back onto copper broadband services. If the object of reviewing policy settings is to better protect the success of the UFB initiative, Option 2 should be quickly discarded.

Voice only customers should remain at UCFLS prices

40. There are around 500,000 voice only fixed line customers in New Zealand, of which approximately 350,000 are Telecom retail customers.
41. These customers will never see the benefits of UFB networks, and should not be expected to further subsidise their deployment.
42. Under all options proposed, the total copper price for broadband customers will decrease. But under Options 1 and 3, there is the potential for copper input prices to increase for this set of voice-only customers. That is unsupportable in policy and equity. We agree with the proposal in the Discussion Document to retain current UCLF prices for these customers.

Grandfathering existing UCLL lines

43. The discussion paper raised the possibility of grandfathering the price for existing UCLL lines.
44. The Government has also signalled that, if it adopted option 3, it would consider grandfathering of UCLL prices. This is only an issue where a decision to set a higher copper prices results in increased UCLL prices.
45. It is unclear what this grandfathering would seek to achieve. The 2011 reforms provided a three year period for UCLL operators to recover their costs and these same operators have previously indicated short pay back periods for broadband investment (less than 18 months).
46. As we do not have any UCLL lines, we do not comment in any detail on whether a grandfathering policy should be applied. We are concerned though, about the potential for a poorly designed grandfathering scheme to artificially disrupt market structures and delay customers' migration to fibre networks.
47. Under Option 3, the UBA price drops, while the UCLL price potentially increases. As we have explained above, this sets positive incentives for RSPs to focus on fibre investments. Ordinarily, we should expect this Option, to encourage RSPs to prefer to use UBA to serve broadband customers than UCLL. A UCLL grandfathering scheme that sets a future grandfathering date, though, creates a perverse incentive for UCLL operators to shift existing UBA-based customers onto UCLL ahead of that date. Every migration from UBA to UCLL defers migration to fibre networks.
48. Therefore, any grandfathering model should:
 - a. Apply from an early or passed start date. We recommend that any grandfathering should apply to lines unbundled as at 1 October 2013; and
 - b. Minimise service provider's ability to lock in customers or market share, distilling future competition from other operators or fibre network. We

recommend that, if the Government decides to grandfather UCLL prices, the grandfathering should apply to specific lines.

Phase 2 of the review

49. The Ministry notes that the future phases will consider the regulatory framework to apply from 2020. We agree that the Ministry will need to consider the wider pricing framework for fibre services following 2020 when current UFB arrangements expire.
50. We do not support the Ministry launching in to Phase 2 of the review. A number of the specific issues identified by the Ministry – such as access to transport or interconnect arrangements – can be considered within the context of the existing regulatory framework if there are policy issues to be addressed. The Ministry has not identified any specific problems and it's difficult to see the benefit of bringing these issues in to a regulatory framework review at this time.

End

Attachment 1: European policy for considering the relationship between copper and fibre costs and prices

51. The European Commission's (**EC**) recommendation this week on costing methodologies recognises that copper and fibre cost models are related.⁸ It recommends a single modelled view across copper and fibre networks based on the forward-looking costs that an efficient network operator would incur to build a modern network today. The future network can be a fibre to the cabinet or fibre to the home network depending on national circumstances. However, engineering adjustments should be made to the model to reflect the different features of a copper network. Further, components of the network that are shared by copper and fibre services and unlikely to be replaced should be costed in at depreciated historic cost (or zero cost if fully depreciated) appropriately indexed.
52. The EC recommends that the price for unbundled copper access (UCLL) that most appropriately provides certainty and incentives to invest in fibre networks is between €8 and €10 (NZD\$16-\$18).
53. The practical implication of the EC approach is that:
 - a. It recognises infrastructure and demand is shared across copper and fibre networks, and that demand transfers to fibre networks. This means that copper network costs will not increase through demand shifts;
 - b. The EU will see stable UCLL prices over time within a band between €8 and €10 (NZ\$16 to NZ\$18). This price compares to the UCLL service in New Zealand; and
 - c. Copper and fibre prices in the EU are not likely to be the same - they are unlikely to add above-cost increments to the price of copper based service in order to support a fibre network deployment or cost structure.
54. The situation in the EU is, however, very different to that in New Zealand. There are no nationwide, state subsidised FTTH deployments underway as we have here. Further, some European commentators have proposed to link copper prices explicitly to fibre, and to apply above-cost increments to copper prices in order to fund fibre deployment. For example, Martin Cave recommends that copper prices should be maintained rather than be allowed to fall in the migration to fibre.⁹ Cave uses France Telecom data to calculate the UCLL costs

⁸ See Commission recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment - C(2013) 5761 at <http://ec.europa.eu/digital-agenda/en/news/commission-recommendation-consistent-non-discrimination-obligations-and-costing-methodologies>.

⁹ See http://repec.idate.fr/RePEc/idt/journal/CS8507/CS85_CAVE_FOURNIER_SHUTOVA.pdf. Cave also summarises the nature of the European debate at that time.

in the context of a migration to a fibre network. He finds that, using current cost estimates, UCLL costs would decline from around €10 to €4 by 2020 with a fibre migration. He proposes that, rather than allowing UCLL prices to fall in line with costs (potentially undermining the migration to fibre), prices should be maintained at current levels. The excess revenues should be transparently identified and costed, and applied to reduce the cost of shared copper and fibre infrastructure or increased fibre deployment rather than left as a windfall gain to copper network operators.

55. The Cave approach assumes that there is no economic loss through, for example, foregone broadband uptake. However, we believe that it indicates there are legitimate policy choices for Government. In this case, the Government can seek to ensure fibre deployment occurs, as long as it is be mindful of the costs of setting prices outside an assessment of cost (and indeed, has a clear understanding of just how far outside cost prices are).