

**VODAFONE NEW ZEALAND LIMITED
CROSS-SUBMISSION TO THE NEW ZEALAND COMMERCE
COMMISSION**



vodafone

**Draft determination to amend the price payable
for the regulated service Chorus' unbundled
bitstream access**

PUBLIC VERSION

1 March 2013

Summary

1. Thank you for the opportunity to comment on submissions made by other parties on the draft determination to amend the price payable for the regulated service Chorus' unbundled bitstream access ('the Draft Determination') published by the Commerce Commission ('the Commission') on 3 December 2012.
2. We have not attempted to address all points made in parties' submissions. Instead, we comment only on the following aspects:
 - arguments regarding the application of section 18 TA01;
 - arguments regarding expansion of the benchmark set;
 - the approach to benchmarking suggested in Chorus' submission,¹ including:
 - ratio benchmarking; and
 - econometric adjustment;
 - Chorus' arguments regarding:
 - cost drivers;
 - connection costs;
 - asymmetric error.
3. We deal with these points separately below and in the report prepared by Network Strategies for Vodafone that is annexed to this submission.² Some of our comments overlap with those made previously in submissions on the Draft Determination and the UCLL Determination.³ For sake of brevity, we reference these prior comments but do not repeat them in full. In this submission we use the same abbreviations and terms used in our primary submission dated 1 February 2013.
4. Like Chorus, Vodafone recognises the potential offered by a fibre access network. We support evolution to fibre based products and services in the next nine plus years, the period envisaged at the outset of the Government's UFB project.⁴ But we don't agree that the Draft Determination is in any way inconsistent with this project's objectives. The framework and principles governing this project were clear at its outset and the Commission's decision simply applies these. We cannot support calls for change to the Commission's approach just

¹ *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* (1 February 2013), and supporting documents prepared for Chorus by Sapere Research Group and Competition Economists Group ("Chorus submission").

² Network Strategies Report Number 32024 *A review of key benchmarking issues in UBA submissions* (28 February 2013) ("Network Strategies' report").

³ Final determination on the benchmarking review for the unbundled copper local loop service (Decision NZCC37), 3 December 2012.

⁴ See Chorus Annual Report (21 September 2012), page 4: "*Rolling out the Government's UFB plan is a nine year marathon project.*"

because the expectations of Chorus and certain investors have not been met. And we don't think that a stable investment framework is one that is altered simply to ensure that a single goal (i.e. speedier transition to fibre) is advanced in favour of all other interests.

5. In relation to UBA pricing, Chorus invites revision to the Commission's decision making framework that is not allowed for, and which would transfer costs to RSPs' end user customers and benefits to Chorus and its shareholders. Such a revision is fundamentally inconsistent with the purpose of the TA01 and cannot provide a proper basis for a final determination.
6. Moreover, the shift in approach urged by Chorus is entirely unnecessary. The UFB project is a complex, multi-year project. Fibre is in the very early stages of deployment and adoption. Clearly migration cannot occur until fibre is built and it was never expected that rapid migration to fibre by the majority of retail customers would occur in early years.⁵ We note that Chorus' own goal is to achieve a 20% uptake of fibre by 2019.⁶ Migration milestones set at the start of the UFB project have been met, as Chorus acknowledges,⁷ and there is no compelling evidence to support the argument that the Draft Determination, if confirmed, would compromise this project.
7. On 8 February 2013, the Minister of Communications and Information Technology announced the commencement of two policy reviews and her intention to extend the date for implementing cost based UBA pricing and completing the UBA review to no later than 30 November 2015. In our view, this announcement does nothing to alter the Commission's existing obligations in relation to the UBA STD review or how it should proceed – the legislative framework within which the Commission must operate and tests it must apply remain unchanged.
8. In our primary submission we said that a conference would not be necessary unless other parties' submissions on the Draft Determination raised significant new issues. Having now seen these submissions, we confirm our view that a conference is not required and would be unlikely to assist the Commission's decision making process. However, if the Commission proceeds with a conference notwithstanding this view then we reserve our right of attendance.

⁵ Indeed, the rollout of the UFB network has been prioritised to provide connectivity for businesses, schools and hospitals by 2015 in accordance with the UFB policy and agreement (see Chorus Annual Report (21 September 2012), page F.4).

⁶ See Colmar Brunton report, "Chorus consumer segmentation research - Paving the Path to Delivering Ultra Fast Broadband" (2012). This report is available from Chorus - or from Vodafone on request.

⁷ See Chorus Annual Report (21 September 2012), page 2: "*The real success comes not only in building the network – but critically in ensuring an efficient migration so that people use it and New Zealanders realise the benefits a fibre network and faster broadband can bring. Our experience in these early stages is in line with gradual uptake trends for new technology adoption*" (emphasis added); Chorus Half Year results, FY13 (25 February 2013), page 12: "*UFB uptake gains momentum with 1400 connected*".

The application of section 18 TA01

9. The application of section 18 TA01 has been well traversed and we confine ourselves here to addressing a few aspects of submissions. Our comments are conditioned by the following views set out in our prior submissions:⁸
- the core purpose of the UBA STD review is setting prices that approximate the cost of providing the UBA service;
 - in this review, the Commission is restricted to making those changes that are necessary in order to implement cost based pricing;
 - all aspects of the Commission's decision are subject to and must be consistent with its primary duty under section 18(1);
 - relevant factors inform how the Commission exercises its primary duty in section 18(1) but cannot alter or adjust this duty;
 - the range of relevant considerations extends beyond those that the Commission is directed to consider;
 - the factors that the Commission is directed to consider are not decisive - all relevant factors must be considered and, in principle, all have equal weight; and
 - the weight given to any relevant factor is a matter for the Commission's discretion but must be both consistent with primary duty in s18(1) and reasonable in the context of a decision about necessary changes to implement cost based UBA pricing.
10. Chorus' submission focusses on the Commission's interpretation of section 18(2A) TA01. We address its more relevant arguments on this point below.⁹
11. First, Chorus argues that section 18(2A) TA01 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.*"¹⁰ It adds "*[t]his is not controversial – it is orthodox regulatory economics to prioritise dynamic efficiency considerations over short term static gains where there is any tension*".¹¹
12. We recognise the importance of dynamic efficiency in telecommunications markets characterised by ongoing and expensive investments. However, section 18(2A) TA01 requires the Commission to consider all "*[t]elecommunications services that involve significant capital investment and that offer capabilities not available from established services*". Dynamic

⁸ See in particular Vodafone's submission (1 February 2013), paragraphs 8-12; TelstraClear's oral submission (19 September 2012), transcript page 11 line 25-page 13 line 2; TelstraClear's submission (15 June 2012), paragraphs 9-58.

⁹ Regrettably, we do not understand the relevance to interpretation of section 18 of large passages of argument included in Chorus' submission including, for example, its views on the variously expressed policy bases for the introduction of section 18(2A) (see Chorus submission, paragraphs 169-178).

¹⁰ Chorus' submission, paragraphs 3 and 158.

¹¹ Chorus' submission, paragraph 158.

efficiency considerations are therefore not simply limited to those that may arise from the deployment of fibre. Investment can take many forms, including investment in the existing copper network and enhanced copper products, such as VDSL2, which as Chorus acknowledges “...provide a stepping stone to next generation fibre offerings, giving end users a premium offering that gets the best performance from the existing network”.¹² All such investments involve risk and offer dynamic efficiency gains, which must be considered.

13. We do not agree that dynamic efficiency must in all circumstances be favoured over static efficiency as Chorus suggests. Whether it is appropriate to prioritise dynamic efficiency depends on the facts of each case and the nature of the decision being made. Section 18 TA01 makes no direction to rank dynamic efficiency over other benefits. Absent clear legislative direction to do so, favouring one variety of efficiency over others as a matter of policy would be to abrogate the proper exercise of discretion by the Commission. The availability of discretion means that, in each case, the Commission must assess the likelihood and magnitude of efficiency gains before deciding how they should be prioritised. In doing so, we suggest that it would not be sensible to favour, for example, a remote and uncertain dynamic efficiency benefit over an immediate and certain static efficiency benefit. None of the Commission’s previous decisions referenced by Chorus disagree with this as a principle of analysis.
14. The logic of Chorus’ argument regarding efficiencies implies that the clear and substantial benefit of lower prices to end-users of telecommunications services should be set aside if a) benefits of migration to the UFB network are greater than those arising from lower prices; and b) claimed “migration benefits” cannot exist simultaneously with lower prices. Taking these issues in turn:
 - Quantification of benefits is necessary to decide which are greater in terms of impact on end users of telecommunications services. Unless this is done, any prioritisation of particular benefits is arbitrary.
 - Chorus hypothesises that lower UBA prices will lead to failure of UFB (and a consequent loss of dynamic efficiency).¹³ But no compelling evidence is offered to demonstrate this. We do not consider that documents or statements setting out the UFB programme’s goals and ambitions amount to evidence of its actual, foreseeable benefits – the claim that “...the long-term benefits to end-users from investment in fibre are so overwhelming, that it is difficult to understand why future investment in copper should be given equal weight by the Commission in s18 considerations”¹⁴ is simply one example of this. As

¹² Chorus Annual Report (21 September 2012), page 6. We note that LFCs also accept that enhanced copper services meet the criteria of being a new service offering capabilities not available from established services, irrespective of the value or scale of these investments (see Joint submission on Unbundled Bitstream Access Service Price Review Draft Determination dated 3 December 2012 by Enable Networks Limited, Whangarei Local Fibre Company Limited and Ultrafast Fibre Limited (1 February 2013) (“LFCs’ submission”), paragraph 45).

¹³ Chorus’ submission, paragraph 195

¹⁴ LFCs’ submission, paragraph 38.

noted, the UFB project is on track and all milestones set at the outset of this project have been met. It is clear that the Draft Determination, if confirmed, will result in lower input costs for RSPs.¹⁵ Chorus must demonstrate that clear and substantial consumer benefits arising from these lower costs are incompatible with migration benefits of equal or greater value. It has not done so.

15. Beyond considering these static and dynamic efficiency effects as described above, we also urge the Commission to consider the potential operation of a waterbed effect. This type of effect occurs in two sided markets when prices are, for example, increased on one side of the market with a consequential re-balancing of prices on the other side. Chorus has an incentive to ensure that UBA prices are set as high as possible in order to maximise wholesale revenue. RSPs may be able to avoid these prices (e.g. by unbundling) but there is an investment cost associated with doing so and the case for such investment is more complex in the current fluid regulatory environment. If the costs to RSPs of higher UBA prices cannot be avoided, then they must be absorbed. Intense retail competition means RSPs are less likely to be able to pass on increased costs to consumers, so a waterbed effect is likely to operate in the form of reduced investments in new and enhanced services (e.g. high speed copper access services, limited datacaps). Indeed, some RSPs may be required to entirely reevaluate their investment portfolio and participation in the market (with consequences for levels of competition).¹⁶ In this sense, pushing up UBA prices as Chorus urges to encourage RSPs' fibre investment amounts to 'robbing Peter to pay Paul' in terms of dynamic efficiency gains.
16. Last, we note Chorus' view that the Commission's conclusions "...*conflict with the expectation set by section 157AA(a)(iii) TA01 [sic].*"¹⁷ Section 157AA(2)(a)(iii) relates to matters that the Minister must consider when reviewing the policy framework for regulating telecommunications services in New Zealand. The obligation to consider these matters clearly lies with the Minister and not with the Commission. They undoubtedly will be considered in the review announced on 8 February 2013 but are irrelevant for the purposes of interpreting unrelated provisions in existing legislation.

Benchmarking

17. A key aspect of Chorus' criticism of the Draft Determination is that the UBA service price proposed by the Commission (\$8.93 for the BUBA service) is too low. Instead, it suggests this price should be set around the current level of \$21.46. It states that this price is "...*within the range of potential benchmarking outcomes [stated to be between \$5.09 and \$23.13] when*

¹⁵ Inarguably, RSPs face strong competition in retail markets such that any benefit to RSPs of lower prices would be competed away (ultimately to consumers' benefit).

¹⁶ See Kordia New Zealand and CallPlus *Submission on the Commerce Commission Draft Determination on Unbundled Bitstream Access Service Price Review* (January 2012); *Submission on behalf of Flip Ltd Unbundled Bitstream Access Service Price Review Consultation* (January 2012).

¹⁷ Chorus' submission, paragraph 5.

the Commission corrects a number of errors, applies benchmarking consistently with past determinations and accounts for the unique New Zealand circumstances’¹⁸

18. The approach required to expand the benchmark range as Chorus suggests has no place within the application of the UBA service IPP. It requires substantial adjustments that are transparently intended to deliver particular outcomes for Chorus, and which only complicate what should be a simple exercise. Essentially, what is proposed is a radical departure from traditional benchmarking analysis. As stated in our primary submission, we doubt that the various adjustments proposed by Chorus are genuinely ‘necessary’ to achieve the objective set out in s77 TA11 (i.e. transition to cost based pricing).
19. Even if the suggested adjustments could be accommodated within the current benchmarking exercise, it cannot be right to focus only on selected components of bitstream cost and to ignore the interrelationship between these components and other elements as has been done. This highly selective approach is prone to error and is inconsistent with any principled approach to analysis.
20. We comment on each of the adjustments proposed by Chorus at paragraphs 21 *et seq.* below.

Additional comparators

21. Various submissions have proposed expanding the benchmark set used by the Commission:
 - Chorus suggests including Belgium, Greece and Switzerland;
 - Enable, Northpower and Ultra Fast Fibre argue that Bahrain, France, Spain and the UK should be included; and
 - Telecom suggests that Belgium and possibly Hungary should be included.
22. The merit of including these additional countries is discussed in Network Strategies report.¹⁹ In our primary submission, we argued that Belgium could be included subject to necessary adjustments being made. It is impractical to make these adjustments however as the relevant cost model is not available. We believe that Greece and Switzerland should remain excluded: their cost models have not been subjected to regulatory scrutiny and are not publicly available. There are good reasons for also excluding the additional countries referred to by other parties. It follows that we do not support the inclusion in the Commission’s benchmark set of any additional countries suggested in other parties’ submissions.

¹⁸ Chorus’ submission, paragraph 22. We note that the price of \$8.93 that the Commission has proposed falls within this range.

¹⁹ Network Strategies’ report, section 2.

Alleged problem with Danish price

23. Chorus argues that information provided by the Danish regulator in response to a Commission questionnaire has been misinterpreted.²⁰ Network Strategies' interpretation of this response is different again from Chorus'.²¹ In these circumstances, the proper course of action is to obtain clarification from the Danish regulator (if not done already) and share this with parties, not to make an adjustment to the results as Chorus suggests.

Spatial cost drivers

24. Chorus argues that the Draft Determination does not account for important cost drivers of the UBA service, such as line density, and suggests two alternatives that would account for these: i) ratio benchmarking; and ii) econometric analysis.²² We deal with these alternatives in turn.

Ratio benchmarking

25. Competition Economists Group ("CEG"), on behalf of Chorus, contends that "*...the observed relationship between spatial density characteristics and bitstream prices provides a sufficient basis to pursue benchmarking of the incremental costs of the [UBA] service as a function of [UCLL] prices.*"²³
26. We disagree with this view. As Network Strategies explains,²⁴ this argument assumes that there is a relationship between UBA and UCLL prices. There is no sound basis for this assumption however. The UBA and UCLL services do not share any common cost elements. They are completely distinct services and this makes it extremely unlikely that the underlying costs of the UBA service are dependent on those of the UCLL service, which is precisely what is implied by the assumption on which CEG's argument depends. In contrast, the Commission's orthodox approach of benchmarking the UBA uplift over the UCLL price does not rely on any assumed relationship between UBA and UCLL services, and should be preferred.

Econometric analysis

27. Chorus' second proposed alternative is an adjustment based on the relationship between costs and spatial density characteristics identified from the cost models used by the Swedish and Danish regulators. CEG uses econometric analysis to make various adjustments, claiming

²⁰ Chorus' submission, paragraph 121 *et seq.* We understand that Chorus obtained Commission questionnaires and responses from all national regulators on 21 December 2012. Unfortunately, these documents were not made available to other parties until 13 February 2013 on request (and after our primary submission had been filed).

²¹ Network Strategies' report, section 3.3.

²² Chorus' submission, paragraph 90.

²³ CEG report "Wholesale Broadband Cost Drivers" (January 2013), paragraph 3.

²⁴ Network Strategies' report, section 3.5.

that without these the cost of providing the UBA service in New Zealand will be underestimated. The flaws in this approach are set out in detail in Network Strategies report.²⁵

Speed

28. Chorus argues that line speeds in Denmark and Sweden are on average lower than the speeds provided by Chorus in New Zealand.²⁶ Furthermore, it suggests that Danish and Swedish approaches to pricing based on speed reflect allocation decisions rather than underlying costs. On this basis, Chorus argues that adjustment is required to allow for the greater proportion of high speed services in New Zealand compared to benchmark countries.
29. We disagree for reasons set out fully in Network Strategies' report.²⁷ The drivers of both cost allocation and line speeds in Denmark and Sweden are more complex than Chorus suggests. An adjustment based on theoretical maximum speed of the UBA service in New Zealand is unsound for the reasons explained by Network Strategies and in paragraph 38 below. No adjustment should be made to the benchmark estimate on this basis.

Transition smoothing/"unique circumstances" adjustment

30. Chorus states that UBA service costs will "*...rise steeply as utilisation of the copper network declines, since the costs of copper based services will be spread over fewer end users in the future.*"²⁸In essence, it claims that transition to fibre will see lower copper prices in areas served by fibre, due to the competitive constraint of fibre prices, with higher prices in areas not served by fibre where the remaining 'rump' of copper users will bear the total cost of the copper network. For this reason, Chorus argues an adjustment is needed to smooth UBA prices over the transition period.
31. The logic of this argument is unsound for reasons explained fully in Network Strategies report.²⁹ The existence of higher copper prices in fibre non-served areas assumes substantial transition to fibre in those fibre served areas. This assumption is hard to square with Chorus' modest goal of 20% fibre uptake by 2019. In any event, the scale and speed of transition from copper to fibre will depend not only on relative copper price, which remains to be set, but also on the resolution of a number of demand side issues including those referred to in the Commission's demand side study.³⁰ In the interim, the rate and pattern of fibre uptake remains

²⁵ Network Strategies' report, section 3.6.

²⁶ Chorus' submission, paragraph 71.

²⁷ Network Strategies' report, section 3.2.

²⁸ Chorus' submission, paragraph 109.

²⁹ Network Strategies' report, section 5.

³⁰ See Commerce Commission *High speed broadband services demand side study- Final report* (29 June 2012). Chorus' own commissioned analysis also notes the challenge to uptake posed by the fact that "*[t]he applications and content that fibre enables are either non-existent or in their infancy in New Zealand*" (see Colmar Brunton report, "Chorus consumer segmentation research - Paving the Path to Delivering Ultra Fast Broadband" (2012)).

highly uncertain. Chorus' assumptions regarding scale and speed of transition are therefore highly doubtful and the Commission cannot make any reasonable adjustment based on them.

32. Finally, even if Chorus's arguments regarding transition could be accepted, we believe it would be more than adequately compensated via the UCLL service once a single geographically averaged price is applied from 1 December 2014.

TDL pass through

33. Chorus argues that unless it can pass through TDL contributions, an adjustment should be made accounting for their value.³¹ We find these arguments unconvincing. Allowing Chorus to pass through the TDL levy as a separate line item in all STDs creates risk of a very significant over recovery of its contribution to the levy. Indeed, the costs of implementing a line item as Chorus suggests would likely be more than the revenue it would be entitled to recover (if approximated to Chorus's share of the levy).
34. Chorus also submits it is in a unique situation because all of its services are set by price regulation.³² However, as Kordia and Callplus note, Chorus can and does provide a number of services or variations that are not subject to any price regulation.³³ Furthermore, Chorus' argument seems conditioned by a false assumption that downstream providers are operating in imperfectly competitive markets, entitling them to pass on and recover any increase in their costs. Rather, the competitiveness of retail broadband markets will militate against even small price increases to recover increased costs for services.

Cost drivers

35. The UBA service is active from the end user's premises to the first data switch. It uses both the copper customer access network and, where necessary, backhaul (which may be fibre or copper or combinations) to the first data switch. This suggests that, unlike other services, the unit costs for the additional UBA service elements will not vary substantially across jurisdictions (although there may be some variation for backhaul).
36. Chorus argues that the Draft Determination does not account for important drivers of cost for the UBA service.³⁴ It has not refuted the elements involved in delivering the UBA service. These elements are fairly uniform internationally and include DSLAM equipment, air-conditioning and power, co-location, and backhaul.

³¹ Chorus' submission, paragraph 119.

³² Chorus' Submission in response to the Commerce Commission's Telecommunications Development Levy Qualified Revenue Framework Discussion Paper (2 November 2012), paragraph 21 *et seq.*

³³ Kordia and Callplus submission (January 2013).

³⁴ Chorus' submission, paragraph 24 *et seq.*

37. Unlike other access services, where considerations such as population, distance, density and terrain influence network costs, country specific conditions are far less significant when comparing the additional costs of providing UBA on top of UCLL. There may be variation between the UBA service and comparable services depending on whether an access provider has rolled out fibre-to-the-node ('FTTN'). However, because Denmark and Sweden have both rolled out FTTN any cost variation should be adequately accounted for in the Commission's benchmark set.

Service speed

38. Chorus notes that: "*[t]he Commission has identified speed and, by implication, throughput as a cost driver of bit-stream services. We presume this belief arises from the observation that prices in overseas jurisdictions are differentiated by line speed.*"³⁵ We have reservations about Chorus' approach to considering speed given that UBA is an unthrottled service.
39. Chorus acknowledges the difficulty of accurately reflecting line speed differentiation in overseas jurisdictions in the New Zealand context.³⁶ Overseas jurisdictions' wholesale bitstream services may be tiered based on speed. Where this occurs, we suggest it does not reflect differences in underlying cost but is rather a means of price discrimination based on different speed caps available for each tier of service. An effective way of accounting for this type of access pricing is to apply the average price across all speeds offered.
40. In addition, throughput of RSPs' broadband services is an important consideration for management of their end user's broadband experience. This is because RSPs must ensure that handover backhaul links, always supplied by Chorus, offer sufficient capacity and throughput performance to deliver the experience that end users expect. Regulated throughput for the UBA service is 32kbps. Chorus charges significantly more to RSPs who purchase an 'add on' service to ensure that their service is less constrained by Chorus' throughput limitations. To ensure better throughput capacity and meet end users' performance expectations, RSPs must pay a premium over and above the UBA service price. Chorus offers add on throughput services ranging from 45kbps to 150kbps on its handover links. In practice, RSPs will need to purchase add on services at the top-end of this range in order to deliver an acceptable service to end users. This fact is nowhere mentioned by Chorus but it is material to both RSPs' costs and the revenue that Chorus derives from supplying the UBA service.

³⁵ Chorus' submission, paragraph 68.

³⁶ Chorus' submission, paragraph 70.

41. We do not accept Chorus' speed distribution comparisons against Denmark and Sweden. Its approach has the following shortcomings:
- Making a speed distribution comparison with jurisdictions that take additional steps to tier (cap) their wholesale broadband service by speed will lead to skewed results that favour Chorus.
 - Comparing Chorus' theoretical capability to jurisdictions where speed caps are imposed on wholesale services is not an 'apples with apples' comparison. This is because the theoretical performance of services being compared with the UBA service is affected by the cap/ceiling imposed by the access provider, such that the Chorus service compares more favourably. In addition, the Chorus network would not be dimensioned on theoretical capacity. In New Zealand, many plans throttle speed once data caps are reached, but we understand that this does not occur in Denmark or Sweden.
42. In summary, we believe that Chorus' suggested approach does not support robust conclusions on speed performance between jurisdictions (or assumptions about the underlying cost of services). Instead of making extrapolations based on theoretical line speeds, Chorus should provide more actual data demonstrating differences between its network and those in Denmark and Sweden. Absent such data, the Commission was correct to conclude that: "*[t]he price for the Basic UBA service represents the cost of providing the service with a 32kbps minimum throughput which puts it at the low end when compared to other services overseas.*"³⁷

Handover points

43. Vodafone suggests that the location of the handover point is a reasonable consideration when comparing tariffs from overseas jurisdictions. In our view, the handover point should broadly be indicative of the operation of the first data switch in New Zealand. The network architecture from the back of the DSLAM entitles the access provider to transport the accumulated customer traffic from the DSLAM to a handover point. Costs for this portion of the service are less significant than the costs associated with each end user copper local loop.

Spatial Density

44. Chorus has indicated line density varies significantly when compared with international comparisons and requires an upward adjustment to the Commission's benchmark.³⁸ We do not agree that spatial density factors are a significant consideration for the access price for the UBA service. Furthermore, we do not believe that Chorus has demonstrated that benchmark countries exhibit sufficient differences in spatial density to warrant an adjustment.

³⁷ Draft Determination, paragraph 89.

³⁸ Chorus' submission, paragraph 90 *et seq.*

45. The previous basis for setting UBA prices did not provide for geographic differences in service costs. Rather, only a subset of UBA services (i.e. the naked UBA service) was price differentiated. In the case of the naked UBA service, the access price was only differentiated by the underlying de-averaged urban and non-urban UCLL prices. It is difficult to consider the significance of line density as a cost driver as it did not warrant any changes to retail broadband prices under the previous retail minus methodology. Indeed, the integrated Telecom was not adverse to differentiated retail pricing for services on the basis of geography, which it applied to its 'HomeLine' telephone services.
46. Line density is a more obvious driver of costs for the UCLL service than of additional costs for the UBA service. The uplift to urban UCLL pricing should more than cover any additional cost resulting from differences in line density between comparator services and Chorus' UBA service.
47. Chorus also indicates that spatial density is relevant to account for New Zealand's apparent low population density when compared to the Commission's benchmark counterparts. We have some reservations about CEG's reference to 'bespoke' geographic locations in Chorus's network and whether its assumptions hold across its entire UBA population:
- First, given the falling real cost of UBA related equipment and elements it is hard to conceive of any significant premium that may apply to the relative cost differences that Chorus suggests are important to the unit costs of supplying the UBA in rural areas.³⁹
 - Second, when considering benchmark comparators, adjustment considerations might arise had the Commission been benchmarking against jurisdictions vastly different to New Zealand. However, as noted in our primary submission, Denmark and Sweden are more comparable to New Zealand, across a variety of relevant statistical measures, than many other jurisdictions.
 - Last, when considering demand side considerations for DSL broadband parameters such as population percentage of DSL subscribers, New Zealand outstrips both Denmark and Sweden.⁴⁰ These readily accessible indicators of comparability are incongruent with Chorus's hypothesis that New Zealand cannot be comparable with more 'densely' populated European jurisdictions. Rather, the similarity in accessible data for Denmark and Sweden suggests they do not exhibit a bias.

Connection and transfer charges

48. Chorus argues that connection and transfer charges should be set at the rate of third party fees plus administration costs plus a margin.⁴¹ We strongly oppose charges being set on this basis, which essentially invites the Commission to assume without analysis that each of these

³⁹ Chorus' submission, paragraph 64 *et seq.*

⁴⁰ New Zealand has 25 DSL subscribers per 100 persons versus 21.7 for Denmark and 16.2 for Sweden respectively.

⁴¹ Chorus' submission, paragraph 33.

components of charges is efficiently incurred by Chorus. The use of actual costs rather than benchmarked costs could lead to excessive charges being passed through to access seekers, and should therefore be rejected.⁴²

49. This point gives rise to a more general observation – it is implicit in Chorus’ and LFCs’ submissions that changes should be made to the Commission’s approach to UBA price setting that would transfer costs to RSPs and ultimately leave consumers worse off. In particular, Chorus appears to expect that the assumptions built into its own operating model as at separation day are immutable and should not be subject to change, even where commercial and market reality shows these assumptions are unrealistic. The argument that RSPs should bear whatever costs Chorus chooses to incur is symptomatic of this view. It cannot be appropriate for RSPs to be required to pay charges that are wholly dependent on Chorus’ procurement practices, for example, and without any assurance as to how they are generated.

Asymmetric cost error

50. We address adjustment for asymmetric cost error in our primary submission and reiterate these views. In summary, we previously said that:

- adjustment would be unjustified absent clear evidence of asymmetric cost both i) distorting RSPs decisions; and ii) causing consumer detriment;
- no such evidence exists to support either proposition; and
- if evidence of potential for asymmetric cost error did exist, the direction and magnitude of its effect must be established to determine an appropriate adjustment (and given there is no evidence of error, we have no corresponding evidence of either direction or magnitude).

51. Sapere Research Group, on behalf of Chorus, invites the Commission to make an adjustment on the basis that benchmarking “...is prone to error.”⁴³ No additional analysis is offered to support the later claim of “probable error”.⁴⁴ As Network Strategies notes, there is no evidence of bias operating in either direction.⁴⁵ Absent any evidence of the presence of bias, discussion of how Commission should account for asymmetric risk in selecting price point is irrelevant.

⁴² Network Strategies’ report, section 3.7.

⁴³ Sapere Research Group “Report for Chorus Ltd – Comment on how best to give effect to the purpose of section 18 in relation to UBA pricing”, paragraph 13.

⁴⁴ Sapere report, paragraph 14.

⁴⁵ Network Strategies’ report, section 4.