



Telecom New Zealand Limited

Submission in respect of the

**Commerce Commission's Draft Reconsideration
Report for its Schedule 3 Investigation into
Regulation of Mobile Termination**

Public Version

7 February 2006

CONTENTS

A. Executive Summary	3
B. Legal Framework	7
The Commission's approach to section 18	7
Retail prices are not regulated under the Act	8
C. The impact of regulation and cost benefit analysis	10
The Commission's treatment of dynamic efficiency considerations	10
The Commission's cost benefit analysis	14
• Introduction of a glidepath in the factual termination rate	15
• Inaccurate modelling of pass-through	19
• The factual fixed-to-mobile rate is incorrect	20
• Continued incorrect application of professor Hausman's CBA method	23
• Waterbed effect	24
D. Service Description	
Description of service	26
Final Pricing Principle	27
Pass-through commitment	28

A EXECUTIVE SUMMARY

- 1 The Commission has issued a Draft Reconsideration Report in response to a request from the Minister and commercial offers made by both Vodafone and Telecom.
- 2 Telecom submits that the Draft Reconsideration Report does not properly recognise the commercial proposals from Telecom and Vodafone as a good outcome for New Zealand consumers, and the regulatory regime. While Telecom acknowledges it is the function of a draft report to test the case for regulation, the case made for regulation in the Draft Reconsideration Report relies on fundamental changes made to the Commission's analysis of the factual for which there is little or no justification, and legal error.
- 3 Telecom submits the commercial proposals from Telecom and Vodafone will produce a robust, credible outcome that benefits New Zealand consumers. Competition in the mobile and fixed line toll calling markets continues to be fierce, to the benefit of consumers. The Commission's assessment that these markets are not competitive is out of touch with the standard of workable competition in New Zealand markets, and seems driven by a concern that to concede that they are competitive would count against regulation.
- 4 In contrast, the case for regulation presented in the Draft Reconsideration Report is not a credible analysis. On its own terms the Draft Reconsideration Report shows only the slimmest of net public benefits to regulation (\$1m to \$10m over 5 years). Given the number of assumptions and the risk of questionable accuracy, in Telecom's view, this is insufficient to support a recommendation of regulation. When some of the more egregious errors, assumptions and inconsistencies are corrected, the Commission's model shows no benefit to regulation at all.
- 5 The imposition of regulatory intervention is a serious matter and one which requires an evidenced and well reasoned decision that is in accordance with section 18 of the Act. Telecom reiterates previous submissions on the onus and standard of proof.
- 6 If regulatory intervention is taken lightly, over-regulation will occur and the long term interests of end users will be harmed, rather than promoted. Both the Irish Communications Appeal Panel and the United Kingdom Competition Appeal Tribunal have recently acknowledged these points. In particular, both appeal bodies caution that a prospective analysis must be carried out with *great* care and must be proportionately *more* rigorous to account for the *risks* of error with forward looking predictions.

- 7 Telecom is concerned that the Draft Reconsideration Report makes a number of changes to assumptions made in the Commission's June 2005 Final Report, with little or no reasoning. These changes essentially assist the Commission to a finding that a regulated outcome is still preferred, despite the commercial proposals.
- 8 The Commission's focus should be on section 18 of the Act based on the evidence now available for this reconsideration process. It is relevant that both the Irish Communications Appeal Panel and the United Kingdom Competition Appeal Tribunal cautioned that it would be an inappropriate focus for a regulator to proceed with an exercise "with an eye to the remedy it wishes to impose". Evidence and assumptions must be robust, and should be used to determine *if* regulation is necessary or not. *Dynamic efficiency*
- 9 A key change in the Draft Reconsideration Report is the assessment of dynamic efficiency impacts. Telecom submits the position reached in the Draft Reconsideration Report is unsustainable.
- 10 In relation to 3G technology, the Draft Reconsideration Report proposes that there can be little downside to regulating this new and risky investment because the market participants have recently committed to the investment. This is short sighted. If the Commission was to proceed on this basis, market participants would have no confidence that the Commission will resist further opportunities to regulate once a commitment to invest is made.
- 11 Dynamic efficiency impacts must be assessed from the perspective of the investor. Bringing a new technology and innovative services to market is a risky and expensive decision. If the Commission signals that it sees nothing wrong with regulating (at cost) only months after an investment is made, investors will react to the uncertainty by investing later than they otherwise would have. New Zealand consumers will lose out.
- 12 In relation to 4G and future technologies, the proposal in the Draft Reconsideration Report is just as surprising. Regulating future technology in the way proposed simply disregards dynamic efficiency considerations altogether, which greatly undermines the credibility of the analysis. Again, regulation will delay new investment. This should be a significant aspect of the analysis, not assumed away. The Commission's argument that voice calling will not be a big part of the 4G business case is pure speculation and is inconsistent with market evidence and market participants' expectations.

Cost benefit analysis

- 13 The cost benefit analysis in the Draft Reconsideration Report illustrates the sort of assumptions that have to been changed in order to conclude that regulation is a better outcome than the commercial proposals from Telecom and Vodafone. Telecom submits the analysis is not credible.
- 14 A key change in the Draft Reconsideration Report is the new assumption that the regulated mobile termination rate will drop from 15cpm to 12cpm over 5 years. As discussed in this submission:
- the assumptions that significant declines in unit costs of capital, and economies of scope, will result in declining termination costs are speculative;
 - the Commission's analysis relies on projections of growth in volume of minutes, and these projections rely on the unsupported assumption that when a customer buys a second mobile phone her usage doubles;
 - the "glidepath" is predicated on a scenario where the Commission receives a series of applications over the 5 year period, and there is not a repeat of the delay in getting a determination that market participants have experienced over the last 5 years.
- 15 This new proposition that the regulated termination rate will decline over the 5 year period is needed if the analysis is to show regulation is better than the commercial proposals from Telecom and Vodafone. Telecom submits the change is speculative, and does not meet the standard of evidence based analysis that is needed to support a recommendation of regulation.
- 16 Another key aspect of the analysis is the assumptions made regarding pass through. In relation to fixed to mobile markets, the Commission proposes that Telecom's competitors will pass through commercial reductions in termination rates at a slower rate than Telecom, but will pass regulated reductions through at the same rate. This analysis is divorced from the reality of the New Zealand market.
- 17 In relation to mobile markets, the Commission continues to propose that the "water bed effect" on retail prices will only reflect 50% of the reduction in termination rates. As Professor Hausman has submitted, this is the most extreme assumption the Commission could make, as it only holds true in situations of pure monopoly. In the Draft Reconsideration Report the Commission defends this extreme position by reference to Telecom's vertical integration, but this does not account for

Vodafone and cannot support the assumption of monopoly. Professor Hausman proposes a modest 65%, which is consistent with the Commission's approach in the fixed to mobile market.

- 18 These are assumptions that have a significant impact on the cost benefit analysis. Telecom submits that the Commission must address the substantial issues with these assumptions before making a final decision.

Legal Errors

- 19 Two features of the Draft Reconsideration Report are legally incorrect.
- 20 The first is the Commission's decision to count wealth transfers, and its explicit reliance on the consumer welfare test. As discussed in this submission, that option is not available to the Commission, and with good reason.
- 21 The second is the proposal that the service description provides the ability for the Commission to take into account any pass through commitment given by an access seeker. The Commission has included this new proposal without any rationale. On its face, the new consideration appears to attempt to regulate retail prices. Any attempt to control retail prices is outside the scope of the Telecommunications Act. Section 18 makes it clear the purpose of the Telecommunications Act is the regulation of certain services "between services providers" when to do so would promote competition to the long-term benefit of end users. Any attempt to regulate beyond the wholesale level will be ultra vires.

Service Description

- 22 As noted above, Telecom disagrees with the Commission's proposed regulation of all current and future mobile technologies which is implicit from the technology neutral proposed service description.
- 23 Telecom remains firmly of the view that there would be significant dynamic efficiency detriment if the Commission regulates new 3G technology, which has required significant investment, and all future technologies.
- 24 The Commission has included a new matter for consideration in its service description: that it will take account of any pass through commitment given by an access seeker in considering an application for mobile termination.

- 25 It is not clear how such a commitment would be relevant to the Commission's consideration, and how the Commission would consider such a commitment. In order for parties to be able to meaningfully respond to the proposal, Telecom urgently seeks clarification from the Commission as to how a pass through undertaking would be considered and applied by the Commission. Not only is it critical for parties to be given the opportunity to comment meaningfully on the Commission's proposal by understanding the Commission's reasoning, it is also critical that parties understand the Commission's approach to reduce regulatory uncertainty going forward.
- 26 Telecom has made extensive submissions on the Commission's Draft Determination as well as submissions to the Minister in response to the Commission's Final Report. The majority of concerns raised in those submissions remain valid. Telecom does not intend to repeat those submissions here, but refers the Commission to them.
- 27 Telecom limits these submissions to addressing new matters raised in the Reconsideration Report, as well as developments since the Final Report was released.

B LEGAL FRAMEWORK

The Commission's approach to section 18

28 In its Draft Reconsideration Report the Commission presents a further rationale for its decision to count wealth transfers as a benefit of regulation.

29 It is striking that the Commission does not mention at all the most recent court decision on this issue. The question of whether the section 1A purpose statement in the Commerce Act (accepted by the Commission to be equivalent to the section 18 purpose statement in the Telecommunications Act) requires the Commission to change the treatment of wealth transfers was directly addressed in the Air NZ/Qantas appeal decision (Auckland High Court, Rodney Hansen and Kerrin Vautier, 17 September 2004).

30 The High Court decided (at paragraph 241):

*We are satisfied that the introduction of s 1A should not disturb the Commission's established practice of treating as neutral any wealth transfers between New Zealand customers and producers. Determinations of authorisation applications under the Act are properly concerned with balancing any efficiency detriments associated with breaches of the statutory competition standard, against any efficiency gains that may result from the business acquisition or contractual arrangement in question. **It is the balancing of these real resource impacts on the economy that best serves the long-term interests of consumers.** The inclusion of ad hoc wealth transfers, which are not losses to society, would distort the efficiency assessment by assuming additional economic harm to the public of New Zealand. In any event, consumers might well be the ultimate beneficiaries. [Emphasis added]*

31 This means the Commission is legally incorrect when it says (at paragraph 65):

Section 1A of the Commerce Act has similar wording to section 18 of the Telecommunications Act. The purpose in both cases is to promote competition in relevant markets for the long-term benefit of end-users or consumers within New Zealand. Under both Acts the nature of the issue before the Commission will determine the appropriate analytical approach.

32 The Commission has a legal framework it must work to. It cannot pick and choose.

33 The High Court decision directly counters the "regulatory exception" the Commission continues to advance. The decision of the High Court that

wealth transfers are not to be counted is **not** predicated (as the Commission has suggested was the case with previous decisions) on an assumption that competition will transfer any producer surplus to consumers over time. This is consistent with past decisions. When authorising a merger the analysis assumes that, post-merger, the market will be characterised by a dominant firm or a substantial lessening of competition. No assumption is made about the likelihood of transfer of producer surplus, yet wealth transfers are not counted as a detriment. This situation is indistinguishable from the regulatory context.

- 34 The Commission has erred in not treating this as a legal issue. The Commission has made a philosophical choice to consider distributional issues in the regulatory context. But this is not the law. The High Court has affirmed that, having regard to the objective of the long-term benefit of consumers or end users, the Commission should treat wealth transfers as neutral, and the court did so in terms equally applicable to the regulatory context.
- 35 It is also relevant to note that the court considered the policy arguments raised by the Commission, and did so in the context of the new purpose statement. The court decided it is “real resource impacts on the economy that best serves the long-term interests of consumers”.
- 36 The policy arguments against an economic regulator considering distributional issues are presented in full in Telecom’s previous submissions, including a report from Professor Katz. The Commission has not responded to these submissions, including how it will deal with transfers from Telecom and Vodafone to major corporates, and how it will deal with transfers between the mobile and fixed line account of the same customer – a particularly difficult issue given the Commission’s assumption of greater than 100% mobile penetration. In short, the Commission has not answered the criticism that it is impossible to accurately identify what groups benefit from any transfer, and by how much.

Retail prices are not regulated under the Act

- 37 The Commission has added to the proposed service description in the Draft Reconsideration Report as an additional matter to be considered regarding the application of section 18 that:

The Commission must consider any commitment proposed by the access seeker as to how it will use the benefits from reduced mobile termination rates.¹

- 38 However, the Commission provides no rationale for the inclusion, nor does it explain how consideration of a pass-through commitment will be applied by the Commission. As discussed in more detail in Section D below, Telecom urgently seeks clarification from the Commission in relation to how the Commission anticipates a pass-through commitment will be considered by the Commission, and how it might impact on an application for mobile termination rates, and its rationale for including the consideration in the service description.
- 39 While the Commission's rationale is unclear, and the new consideration is vaguely drafted, the intention to compel a commitment on pass through is clear from the Draft Reconsideration Paper. No matter how this is expressed, this falls outside the Commission's jurisdiction. The Commission has no power to regulate retail prices under the Telecommunications Act 2001 ("Act"). Section 18 is plain in this regard: the Commission can only regulate services and prices between service providers i.e. at the wholesale level.
- 40 There must be limits on the types of terms and conditions that the Commission can legally impose in determinations regulating relations between carriers. Those limits must be set by reference to the purpose of the Act. This purpose does not extend to (nor does the Act expressly allow for) regulating the terms on which a service provider or access seeker supplies services to its retail customers.

¹ Service Description, page 67, Draft Reconsideration Report, 22 December 2005

C THE IMPACT OF REGULATION AND COST BENEFIT ANALYSIS

41 The analysis in the Draft Reconsideration Report illustrates the assumptions that must be made and the positions the Commission must take if it wants to demonstrate regulation is preferable to the commercial solutions offered by Telecom and Vodafone. The analysis is particularly weak in the following areas:

- The treatment of dynamic efficiency considerations;
- The introduction of a glidepath in the factual termination rate;
- The counterfactual pass through rate;
- The factual fixed-to-mobile pass through rate;
- The ongoing incorrect application of the waterbed effect.

Impact of regulation – Commission’s treatment of dynamic efficiency considerations

42 The Draft Reconsideration Report proposes that:

“the estimated consumer welfare benefit of regulating mobile termination rates given by the CBA is sufficient to outweigh any residual dynamic efficiency detriment from regulating 3G voice call termination”²

43 However, the Draft Reconsideration Report significantly downplays the dynamic efficiency detriments associated with the proposed regulation of mobile termination rates.

44 There are two particular concerns with the Commission’s assessment of the dynamic efficiency detriment:

- The impact on future technology investment decisions; and
- The unsubstantiated implication that 3G technology is not longer a “risky investment” and Telecom has recovered on its significant investment.

² Paragraph 198, Draft Reconsideration Report, 22 December 2005

Impact on future technology investment decisions

- 45 In the Draft Reconsideration Report, the service specification is drafted as technology neutral i.e. it does not distinguish between voice calls terminated on different generations of networks. The effect of this is to (implicitly) regulate all current and future technologies in New Zealand.
- 46 It is unclear why the Commission considers that regulation of voice calls on future generations of networks will not harm decisions by mobile companies in New Zealand to roll out those networks. The onus is on the Commission to justify regulation, and in this respect, the Commission has failed to meet its obligations.
- 47 While the Commission believes that 3G is no longer a “new risky” investment, this qualification cannot possibly apply to future generations. Any future investments in new generation technologies will involve large amounts of capital expenditure and associated risk in obtaining a return on that expenditure.
- 48 It is speculation to assert that dynamic efficiency detriments will be mitigated to any significant extent by limiting regulation to the termination of voice calls³. The pattern of demand for new 3G (and future) mobile services and the revenue mobile operators can expect to earn off them, is still very unclear.
- 49 As the Commission has correctly noted⁴, Telecom and Vodafone’s 3G investments are the result of a race by Telecom and Vodafone for a competitive advantage with functionality and technological differentiation. However, evidence shows that customers still value voice services most highly (by a significant margin). Data services, including 3G services, are valuable differentiators but are comparatively poor revenue earners and accordingly, are primarily viewed by mobile operators as retention tools - not high revenue earners - in what is a very competitive market.
- 50 Telecom’s expectation is that this trend will continue well into the foreseeable future. The Commission’s conclusion that regulation of voice services will not effect future investment decisions because those investment decisions are likely to be driven by the future growth opportunities in data services, is incorrect. Investment decisions in the

³ Paragraph 193, Draft Reconsideration Report, 22 December 2005

⁴ Ibid

future, as they are today, will continue to be made on the basis of revenue projections.

- 51 If the Commission regulates all current and future voice mobile termination, Telecom and other mobile operators will face the difficult decision of assessing high risk business cases for investment in future networks, where most common costs may still need to be recovered through voice revenues, which are the subject of regulation and increased risk of further regulatory attention. The Commission's decision to regulate mobile termination now - and perpetually into the future - only compounds the risk associated with these business cases, as expected returns must automatically be downgraded as a result of the imposition of mobile termination price cap.
- 52 At a minimum, the Commission must limit any regulation to current technology. If not, there is a significant risk that investment in future technologies will be delayed or not occur at all.

Regulation of 3G technology

- 53 The proposal to regulate 3G voice termination services misunderstands the impact of regulation on investment decision-making.
- 54 The Draft Reconsideration Report takes the simplistic view that regulation cannot be a risk to future investment because the investment has already been made. This is a short term view, which is inconsistent with the long term view required by the Act.
- 55 By regulating 3G technologies, the Commission is sending a very strong signal that it does not consider investment in new technologies as important, despite the Commission's apparent focus on the importance of "preserving investment incentives".
- 56 Telecom (and presumably Vodafone) has made large capital investments to upgrade its network to 3G. Consumers are benefiting significantly, with numerous new services being made available, such as mobile broadband, video clips, push-to-talk and picture messaging.
- 57 Despite this, the Commission has 'dropped the axe' on this investment by proposing regulation of 3G voice calls. This sends very poor signals for firms considering future investments in New Zealand markets.
- 58 The negative message this type of policy-making sends to investors is exacerbated by the reasoning given by the Commission for its about face on the regulation of terminations on 3G networks. In the Commission's June 2005 Final report, it considered regulation of 3G voice was not

warranted as 3G was a new, immature technology. However, only six months later, the Draft Reconsideration Report proposes that, because 3G has been rolled out rapidly across New Zealand since June 2005, regulation of 3G is now warranted⁵.

- 59 This is unsound, and sends a signal to New Zealand infrastructure investors that, no matter how innovative and risky the infrastructure investment, the Commission may regulate once the investment is committed. Investors will not have any confidence that the Commission will resist the urging of non-infrastructure investors to regulate once an investment is committed. As noted in the Draft Reconsideration Report, dynamic efficiency requires credible consistent decision-making across all industries.
- 60 Compounding this error, the Commission refuses to accept the mobile market is characterised by effective competition – despite accepting that Telecom and Vodafone are racing to roll out 3G networks precisely because of a strong competitive dynamics in the mobile market.⁶
- 61 To conclude, Telecom strongly believes that regulatory intervention of this nature will risk curtailing investment in the mobile sector, and other infrastructure industries. This is a result that would be of particular detriment to end-users, given the very high level of capital investment currently being made in this sector. For this reason, the Commission would need to be very certain of regulation realising significant benefits to society – and a CBA showing net benefits of only \$1-\$10 million certainly does not give this certainty.
- 62 This uncertainty is exacerbated when the very high levels of capital investment in this sector are taken into account. Thus, even under the “consumer welfare” approach in the CBA, there is no certainty that benefits of \$55 m - \$72 m over five years are enough to outweigh the (unquantified) detriments to investment incentives.
- 63 Regulatory intervention of this nature will risk curtailing investment in the mobile technology sector. Telecom submits that the Commission has not taken adequate account of this risk. Investment in new mobile networks requires significant up-front capital expenditure, and sufficient confidence about the level of ongoing cashflows that will be realised from that network to justify the upfront expenditure. The very real risk

⁵ Paragraph 190-194, Draft Reconsideration Report, 22 December 2005

⁶ Ibid, paragraph 193.

introduced by the Commission's proposed forward-looking regulation is that it will cause one or both of the mobile operators in the future to delay committing to make the upfront capital expenditure required for a new network, or to decline to do so altogether.

- 64 This would be to the detriment of end-users, particularly given the high level of capital investment currently being made in this sector. The detriment to the country of such a decision would far outweigh the very small benefits identified by the Commission in its cost benefit analysis.

Cost Benefit Analysis

Introduction

- 65 The CBA results clearly demonstrate the weakness of the claim that regulation is preferable to the commercial proposals from Telecom and Vodafone. Under the current set of assumptions, the CBA supports the case for regulation of mobile termination rates with the slimmest of margins (with a very small NPV of \$1 - \$10 million over five years).
- 66 Telecom's review of the model has shown that the CBA results are very sensitive to adjustments in the quantum of many of the assumptions at issue. When Telecom changed the assumptions at issue in the model individually, the CBA produced negative net benefits for most core parameter changes, using the total surplus approach.
- 67 Even under the Commission's 'consumer welfare approach', which incorrectly counts wealth transfers as a benefit, the model shows negative net benefits when changes are made to two key assumptions (the predicted rate of FTM passthrough in the factual and the modelled decline in the mobile termination rate to 12 cpm by 2010/11).
- 68 The negative net benefits (i.e. large costs) of regulation will, of course, significantly increase when multivariate sensitivity analysis is performed to adjust combinations of parameters at issue simultaneously.
- 69 The high sensitivity of the model means that small changes to many of the key assumptions swings the case for regulation into the negative. This means that if any of the Commission's key assumptions are in error, regulation will drive net costs into the economy, rather than realise benefits.
- 70 The sections below address in detail errors made in the Draft Reconsideration Report when modelling the following key assumptions:
- the introduction of a "glidepath" - speculating that the regulated mobile termination rate will drop to 12 cpm by 2010/11;

- the inconsistent treatment of pass through in the counterfactual and factual, particularly the continued use of the assumption that regulation will drive the pass-through rate in the in the retail FTM market to approximate perfect competition by 2010/11; and
- the continued misapplication of Professor Hausman's CBA methodology when estimating the size of the "waterbed effect" mobile price increase.

Introduction of a glidepath in the factual termination rate

- 71 The Draft Reconsideration Report introduces an assumption that the regulated mobile termination rate will decline from 15 cpm to 12 cpm by 2010/11.
- 72 The new assumption is important, as without it the Commission's cost benefit analysis will not show regulation to be superior to the commercial proposals from Telecom and Vodafone. The CBA shows negative net benefits to society arising from regulation if the Commission is incorrect and mobile termination costs do not drop below 15 cpm over the next five years.
- 73 This is significant, as Telecom considers that it would be prudent for the Commission to model a regulated rate of 15 cpm throughout the study period of the CBA, rather than the glide-path to 12 cpm by 2010/11. The assumption of a constant 15 cpm is prudent because of the substantial uncertainty as to whether the cost of mobile termination will be as low as 12 cpm by 2010/11.
- 74 The factors contributing to this significant uncertainty are set out below.
- 75 First, the 12 cpm in 2010 is derived from a starting point that is just an estimate – the Commission has estimated that mobile termination currently costs 15 cpm. However, the Commission is yet to conduct a proper costing exercise to establish the accuracy of the estimated 15 cpm. A TSLRIC-based costing exercise may well yield a different figure from the 15 cpm estimated by the Commission.
- 76 Second, the Commission has derived an eventual rate of 12 cpm by noting that it is "plausible that mobile termination costs may be declining"⁷ and quoting some highly questionable "supporting" calculations intend to demonstrate that the unit costs of capital

⁷ Paragraph 107, Draft Reconsideration Report, 22 December 2005

investment in mobile networks in NZ is estimated to decline by between 4.4% - 5.0% per year in the next five years⁸.

- 77 The Commission's conclusion that the mobile termination rate should be 12cpm by 2010/11 is based on data in Table 5 of the Draft Reconsideration Report. Table 5 provides three profiles for the proposed downward trend in mobile termination prices between 2006/07 and 2010/11 under the factual scenarios.
- 78 The first profile starts at 15cpm and trends down to 11.78cpm in 2010/11. This is the only profile that trends down to a price point that is less than 12cpm.
- 79 Given the apparent importance of this profile in the Commission assuming a 12cpm termination rate, it is extraordinary that it is based on unsound assumption that mobile termination rates will continue to decline in proportion to the annual reduction in Telecom's commercial offer. While Telecom did indicate that rates would continue to decline, the predicted reductions were not based on a 15cpm starting point.
- 80 The second profile is based on modelling of the cost of mobile termination carried out by the UK regulator, Ofcom. The Commission has not included a price point for 2010/11 in relation to this profile. However, an extrapolation of the rate of decline for the preceding year indicates that the rate for 2010/11 would be approximately 13.7cpm, significantly higher than the Commission's assumed 12cpm.
- 81 The third profile is based on a model of mobile unit costs that is set out in Table 4 of the Draft Reconsideration Report. The Commission cannot rely on the merely "plausible", or speculation. The calculations set out in Table 4 contain a number of errors that, when corrected, significantly reduce the forecast decline in unit capital costs.
- 82 First, a large "forecast increase in mobile customer numbers and consequential increases to mobile traffic volumes" has been used by the Commission to derive a forecast of rapidly declining unit costs of capital investment in mobile networks in New Zealand in Table 4. However the growth in minutes per mobile user set out in Table 4 is wrong.

⁸ Table 4, Draft Reconsideration Report, 22 December 2005

- 83 Although the future trend in the growth in mobile minute usage is unclear, it is almost certainly unlikely to increase by the amount the Commission has forecast in Table 4.
- 84 Once penetration of mobile phones exceeds 100 percent of the population, some customers will own two mobile phones, but the number of mobile minutes for those customers is clearly unlikely to double. Yet Table 4 makes exactly this assumption.
- 85 For example, in 2007/08, mobile penetration is listed as 103% - i.e. three percent of the NZ population, statistically speaking, will own two mobile phones. The Table then sets out a unit cost of investment of \$0.0725 cpm that can only be derived by assuming that the three percent of customers who own two mobile phones will make an average of 854 minutes of outgoing calls and receive an average of 273 incoming FTM minutes on *each* phone in that year. This is not a plausible assumption.
- 86 More problematically, this miscalculation in Table 4 drives large forecast decreases in mobile termination unit costs of between 4.5% - 5% per annum to 2010/11. In total over five years, the Table sets out a forecast 23% decline in the per unit cost of mobile network capital investment.
- 87 The Commission has modelled a decline of 20% in the regulated mobile termination rate (from 15 cpm to 12 cpm) over the same period. It is clear that the assumption of a decline in the regulated rate is made in reliance upon the Commission's (erroneously large) forecast of declining mobile network capital investment unit costs in Table 4.
- 88 This is significant, as correcting the miscalculation in Table 4 significantly reduces the Commission's forecast decline in unit investment costs. For example, if the extra subscribers who own two mobile phones are assumed to increase their minute usage by 20 percent upon acquiring an extra phone (rather than by 100% as the Commission assumes) in 2007/08, the decline in capex unit costs changes from a reduction of -4.5% to a reduction of only -2% (approx) year-on-year.
- 89 Changing the rate of decline in unit capital costs to -2% would reduce the total decline in unit capex costs over five years from -23% to -10%. If this is flowed through to the regulated mobile termination rate, correcting this mistake alone would halve the regulated rate decline set out in the Commission's CBA.
- 90 A further serious problem with Table 4 is that it assumes that Telecom and Vodafone will spend a constant \$345 million per annum on mobile capital investment in the next five years. However, the assumption of

constant capital expenditure for the next few years is highly unlikely to be correct. Telecom's capital expenditure is lumpy due to the nature of investing in mobile network upgrades.

- 91 It is likely that Telecom will be contemplating making some significant – and very large – mobile capital expenditure decisions in the next five years. Accordingly, the Commission's forecasts are simply wrong.
- 92 Telecom notes that it has been unable to check the FTM minutes column or Mobile outgoing minutes column of Table 4 in the Report, as no sources are listed for the figures in those columns. Telecom does note, however, that the FTM minutes/customer/year in 2005/06 do not match the FTM minutes per mobile customer listed in the Commission's CBA. It is also unclear how the trends in minute usage in the next five years set out in these columns have been derived.
- 93 Thirdly, in further support of the proposition that the costs of mobile termination will decline to 12 cpm by 2010/11, the Draft Reconsideration Report hypothesises that mobile equipment costs will decline over time and economies of scope will be realised by mobile firms as customers demand a wider range of services.⁹ However it is not at all clear that either of these two factors will be significant enough to contribute to a drop in the cost of mobile termination to 12 cpm by 2010/11.¹⁰
- 94 A careful analysis is required before the Commission can make credible predictions about the pattern of future mobile equipment costs. For example, a major component of mobile equipment costs is the cost of handsets, [

] TCNZRI.

- 95 It is also unclear what analysis the Commission has undertaken to conclude that "economies of scope" will contribute to a decline in mobile termination costs. Certainly it appears straightforward to state that the average cost per service will decrease as more services are added to the mobile network. However, for this principle to hold true, the additional revenue generated by new services must exceed the additional costs of network investment. In the case of new mobile services, it is not clear

⁹ Paragraph 107, Draft Reconsideration Report, 22 December 2005

¹⁰ The Commission quotes a Telecom employee, Mr Bruce Parkes, in support of its argument that mobile termination costs will decline. Whilst this is correct, the starting point and the magnitude of the cost decline was not discussed at the Conference. Therefore, it is not correct to use Mr Parkes' statement as support for the Commission's argument that mobile termination costs will be as low as 12 cpm by 2010/11.

that the demand for new mobile products (and consequent) revenue will exceed the additional costs of network investment in the next five years.

- 96 Also the allocation of common costs must be considered when analysing whether the average cost of mobile termination will fall as more services are added to the network. There is a valid argument that a large proportion of the common costs of the mobile network should be allocated to mobile voice termination. This is because the demand for voice termination services is likely to be relatively inelastic. Allocating a large proportion of the common costs of the mobile network to the voice termination service would significantly reduce the economies of scope realised as further services are added to the network.
- 97 Therefore, Telecom reiterates that the Commission must conduct a much more careful analysis before it can conclude that economies of scope will drive significant reductions in mobile production costs within the next five years.
- 98 In light of the major concerns set out above, Telecom submits that it is not appropriate for the Commission to model a decline in mobile costs to 12 cpm by 2010/11.

Inaccurate modelling of pass-through in the counter-factual and factual

- 99 The Draft Reconsideration Report proposes that in the “counter-factual” (i.e. when modelling a scenario that regulation will not be introduced) fixed-to-mobile competitors would not match Telecom’s commitment to pass-through 100% of the decline in commercially-agreed mobile termination rates to fixed-to-mobile customers.
- 100 However, Telecom considers that there are strong reasons for assuming that competitors will match its pass-through rate in the market. The Commission notes that FTM competitors may be under less pressure to match drops in FTM rates by Telecom in the market because, on average, competitors change less than Telecom.¹¹ However, this view is not an accurate reflection of the competitive dynamics of the fixed-to-mobile market. Competitors’ lower rates are a good indication of the strong competitive pressure those firms face to obtain customers from Telecom.
- 101 If a fixed-to-mobile competitor were not to match Telecom’s 100% pass through action in the market, the fixed-to-mobile price it charges will

¹¹ Paragraph 96, Draft Reconsideration Report, 22 December 2005

become less competitive when compared to Telecom's offers. A reduced competitive price margin would carry the associated risk of the firm losing market share, as its highly price-sensitive customers switch back to Telecom. This risk is likely to be unacceptable to fixed-to-mobile competitors, who have worked hard to build a reputation with their customers as the most price-competitive firm in the market.

102 The Commission also notes a number of times in the Draft Reconsideration Report that fixed-to-mobile competitors have traditionally passed through a greater proportion of mobile termination rate declines to their customers. It is unclear why the Commission expects this trend to suddenly reverse, and for competitors to pass through savings at a lower rate in the future. Based on historical trends of price competition in the market, 100 per cent pass through by competitors must be assumed.

103 Correcting the counterfactual pass through rate in the Commission's CBA model to 100 per cent for all FTM competitors leads to negative net benefits for regulation using the Total Surplus approach.

The Factual fixed-to-mobile pass-through rate is incorrect

104 The Commission proposes that:

..... Moving mobile termination rates towards cost will reduce the competitive distortion driven by Telecom's lower cost base.

On this basis, regulation of mobile termination rates is expected to promote competition in the downstream market, and consequently a higher fixed-to-mobile pass-through rate was used in the Final Report, increasing from 65% to 100% over the period.¹²

105 The Commission reaffirms this position in the Draft Reconsideration Report by retaining the final period pass-through rate of 100% and updating the starting rate from 65% to 68% to take account of additional data.¹³

106 From an economics perspective, the Commission's proposition is wrong for two reasons:

¹² Paragraphs 91 and 92, Draft Reconsideration Report, 22 December 2005

¹³ Paragraph 120, Draft Reconsideration Report, 22 December 2005

- It is incorrect to state that Telecom has a lower cost base than a standalone fixed network service provider just because calls on Telecom's fixed network terminate on Telecom's mobile network; and
- There is no basis for asserting that competition will improve in the fixed-to-mobile market due to regulation ensuring all fixed-to-mobile firms face the same mobile termination price.

107 Addressing the first concern, at paragraph 91 of the Draft Reconsideration Report, the Commission states that the actual cost of Telecom terminating a call on its mobile network is no more than 15 cpm. Further, it claims that Telecom notionally charges itself 15 cpm if the call originates on the Telecom fixed network, whereas it charges other service providers 26 cpm (at the date on the June 2005 Final Report).

108 The Commission's argument ignores the fact that the price for mobile termination is related to the price for mobile services (the "waterbed effect", which the Commission has accepted). That is, the price for mobile services derived from a mobile termination price of 26 cpm will be different from a price for mobile services derived from a mobile termination price of 15 cpm. Therefore, given that the mobile services prices are based on a mobile termination price of 26 cpm, it would be irrational for Telecom to then behave as if the "actual" cost of mobile termination is 15 cpm. This means that the actual cost to Telecom of terminating a call on the mobile network that originates on its fixed network is the price it charges for mobile termination, rather than a TSLRIC- based cost (which could include an arbitrary allocation of common costs).

109 To summarise the above in economic terms, Telecom considers that the Commission's economic analysis would be improved significantly if it considered the opportunity costs of mobile termination. Currently the Commission is inaccurately focussing on an unduly narrow measure of the accounting costs incurred by Telecom when providing mobile termination services to itself and its competitors.

110 Telecom refers the Commission to the supporting arguments made by Professor Neil Quigley on this point in Telecom's *Submission to the Minister of Communications, 1 July 2005, Appendix 3, Section 3.2*.

111 Addressing the second point above, Telecom submits that the Commission is incorrect to conclude that (any) competitive distortions will be reduced by removing Telecom's (supposed) mobile termination cost advantage vis-à-vis its competitors.

- 112 As noted by Professor Quigley in Telecom's *Submission to the Minister of Communications*, the economics literature indicates that the Commission's conclusion is far from clear-cut. In fact, Professor Quigley observed that a careful analysis of the market conditions in this case indicate the Commission should reach the opposite conclusion – that is, regulating mobile termination rates will not change the competition conditions in the fixed-to-mobile market.
- 113 In particular, Professor Quigley noted that:
- "there is no necessary connection between vertical integration and impairment of competition, and no general results concerning the welfare effects of vertical integration have emerged in the literature".*
- 114 Professor Quigley also observes that the Commission's conclusion is inconsistent with the market evidence as:
- There is no evidence of harm to rivals – in fact, firms (who have made very little infrastructure investment) are competing effectively in the market and Telecom's share of the fixed-to-mobile and tolls market has declined continuously for some time; and
 - Vodafone sets a similar price for mobile termination as Telecom, yet Vodafone is not vertically integrated and thus competing in the fixed-to-mobile market.
- 115 Telecom refers the Commission to Professor Neil Quigley's Critique for further explanation as to why regulation will not improve competition in the retail fixed-to-mobile market.
- 116 The Commission's CBA highlights how important it is to test the accuracy of the assumption that regulation will improve competition in the retail fixed-to-mobile market. Telecom has tested the sensitivity of the CBA to the Commission's "improving competition" assumption. Telecom has found that the model is highly sensitive to changes to this assumption. For example, if the FTM factual pass-through is assumed to be constant (rather than increasing at 7% per year until reaching 100% by 2011), the model shows large negative net benefits of regulation under both the consumer welfare approach and total surplus approach.
- 117 This sensitivity, and the significant problems outlined in this section with the underlying theory driving the "increasing pass-through" assumption, again illustrates the weakness of the case for regulation over the commercial proposals from Telecom and Vodafone.

Continued Incorrect Application of Professor Hausman's CBA method

- 118 The Draft Reconsideration Report continues to make a key error when adjusting Professor Hausman's CBA, by continuing to assume that mobile operators will recover lost mobile termination revenues at a rate of only 50 percent when raising retail mobile prices.¹⁴
- 119 This is a key assumption, as the case for regulation is highly sensitive to the magnitude of this estimate. The CBA (under the Total Surplus approach) shows negative net benefits to society if the Commission is incorrect in its estimate that mobile companies will only seek to recover 50% pass through of their lost mobile termination revenue.
- 120 This high sensitivity of the case for regulation to this assumption means that, again, the Commission must be very confident of its 50 percent pass through estimate. Telecom submits that it is not possible for the Commission to have confidence in this estimate.
- 121 As Professor Hausman stated, the economic literature demonstrates that 50% pass through is the lowest rate at which a firm will pass through an industry-wide increase in costs. Further, this low rate of pass through is only seen in markets supplied by a single-firm monopolist.¹⁵ The Commission has used the most extreme assumption available.
- 122 It is clearly not the case that the mobile market in New Zealand is supplied by a single firm monopolist. The Commission itself has recognised that there are two firms supplying the mobile market, and that there is competition between these two firms.¹⁶
- 123 The Draft Reconsideration Report responds to Professor Hausman's criticism by referring to Telecom's vertical integration (through being a fixed/mobile operator)¹⁷. This response is unhelpful and does not assist the Commission.
- 124 It is important to note that Vodafone is not a vertically integrated operator, and the pass through rate is being estimated for the industry, which includes Vodafone. Vodafone will pass through cost increases at a greater rate than 50%. This would make the average pass through rate

¹⁴ Paragraph 268, Draft Reconsideration Report, 22 December 2005

¹⁵ Paragraph 15, Hausman Critique, *Telecom Submission to the Minister, July 2005*

¹⁶ Paragraph 240, Final Report, June 2005

¹⁷ Paragraph 270 and 271, Draft Reconsideration Report, 22 December 2005

for both firms greater than 50%, even if the Commission continued to (erroneously) assume Telecom would only pass through 50% because of its vertical integration.

- 125 Second, market dynamics indicate that both firms will pass through at the same rate. Vodafone will bear the full brunt of the cost increase driven by regulation and it does not have the luxury of being a single-firm monopolist. Therefore, it will be forced to pass through more than 50 percent of its cost increase to its mobile customers.
- 126 Basic competitive analysis would indicate that Telecom would match these price rises as it is a profit maximising firm operating in a competitive market. This dynamic would occur irrespective of whether Telecom's regulated cost increase is 'softened' as a result of its vertically integrated structure.
- 127 Given these facts, a better estimate of the rate of pass through indicates that pass through must be higher than 50%. Telecom submits that it would be most appropriate of the Commission to use the 65% mobile pass through rate estimated by Professor Hausman. This is for several reasons.
- First, 50% is clearly not a credible rate, as it is the lowest possible rate that could occur in a single firm monopolist industry.
 - Second, 65% is the only credible estimate received by the Commission in these Proceedings.
 - Finally, there are good reasons for applying 65% as a credible estimate. As Professor Hausman has stated in earlier Submissions, 65% is no higher than the rate of pass through used by the Commission for landline competitors. Further, pass-through by mobile companies in Australia is higher, indicating that 65% is either a conservative (or an accurate) estimate in New Zealand (depending on one's view of the level of competition in New Zealand vis-à-vis Australia).

Waterbed effect

- 128 Telecom has not repeated its submissions on the waterbed effect made in its submissions in respect of the Commission's Draft Report, and submissions to the Minister on the Final Report. However, Telecom reiterates those submissions and refers the Commission to them.

D SERVICE DESCRIPTION

Description of Service

- 129 The Commission's proposed description of the mobile termination service removes the exclusion for terminations on 3G networks. The effect is to regulate terminations of voice calls on all networks, whether 2G, 3G or 4G, and whether presently existing or not.
- 130 As set out above, Telecom considers the proposed extension of regulation to future networks to be inconsistent with section 18 of the Act. Regulation of terminations on 3G networks (let alone on future generations of networks) will cause significant dynamic efficiency detriments. Given the immaturity of these networks, Telecom submits that the Commission cannot accurately predict the flow-on effects of such regulation.
- 131 If the Commission is minded to regulate of mobile termination rates, regulation should, at the least, be limited to regulation of 2G networks (i.e. excluding Telecom and Vodafone's existing 3G networks). This would give a clear, positive message that investment in modern infrastructure is supported and encouraged in New Zealand.
- 132 Should the Commission be inclined to regulate current and future technologies, Telecom submits that the Commission should limit regulation to termination of circuit-switched voice calls (and exclude networks which use packet-switching technology for voice calls). The Commission examined this options in its Draft Reconsideration Report, but concluded that:

[a packet-switched/circuit-switched distinction] would not have had the incentive properties the Commission was looking for. At present, the circuit/packet switching distinction has little correlation with either:

- The 2G/3G distinction (3G may use either packet and circuit switching for voice services); or*

- *Investment incentives that might minimise harmful dynamic efficiency effects (it may be important to preserve incentives for investment in packet switched voice networks).*¹⁸

- 133 It is unclear what the relevance is of the correlation drawn between a packet/circuit switch distinction and a 2G/3G distinction is. In fact, the two seem to be mutually exclusive alternatives to each other.
- 134 Telecom is particularly concerned at the implicit assumption underlying the Commission's second point - that excluding packet-switched voice calls from regulation would have little correlation with preserving incentives for investment in packet switched voice networks. This is clearly incorrect, with such an exclusion would have a material effect on such incentives.
- 135 The Commission's conclusion that, as incentives for mobile operators to introduce packet-switched voice are not well understood yet, voice terminations on such networks should be regulated. This conclusion contradicts accepted regulatory practice and learnings as to the relative risks of Type I and Type II regulatory errors. It is precisely because the investment incentives and business cases surrounding packet switched voice networks are uncertain that we would countenance strongly against including them in any regulation. Should the Commission determine not to limit any proposed regulation to 2G networks only, it must at the very least exclude packet-switched voice networks from the ambit of that regulation.

Final Pricing Principle

- 136 The Commission's proposed designation for regulating mobile termination states that the final pricing principle is to be the Total Service Long Run Incremental Cost (TSLRIC) of mobile termination. Furthermore, an additional matter included in the designation, which must be considered regarding the application of section 18, is that the Commission must also consider any commitment proposed by the access seeker as to how it will use the benefits from reduced mobile termination rates.
- 137 As the outcome of the regulation of mobile termination is ostensibly to ensure that mobile termination rates are cost based, as determined by the TSLRIC methodology, any commitment proposed by the access

¹⁸ Paragraph 172, Draft Reconsideration Report, 22 December 2005

seeker as to how it will use any benefits from reduced mobile termination rates does not seem relevant to achieving this outcome.

- 138 In principle the TSLRIC is a well-prescribed methodology for estimating the forward-looking cost of providing a service. The inputs to a TSLRIC model include many factors regarding the scale of the service, the network assets and the network dimensions. However it is unclear how the proposed commitment proposed by the access seeker will affect any of these inputs.
- 139 Furthermore, regulatory practice in other jurisdictions has standardised the application of forward-looking cost-based methodologies such as TSLIRC, in determining the price for interconnection with a fixed PSTN, and in particular its application in determining the price for the termination of calls on a fixed PSTN.
- 140 With respect to mobile termination, information gained from the application by other jurisdictions of forward-looking cost-based pricing methods forms the basis of initial pricing principle of the proposed designation. That is, the benchmarking against the forward-looking cost-based price of termination of voice calls on a cellular telephone network in comparable countries. Again, any commitment proposed by the access seeker as to how it will use any benefits from reduced mobile termination rates does not seem relevant to achieving this benchmarking exercise. Is the Commission suggesting, for instance, that only jurisdictions that require a similar commitment should be considered a comparable country? Telecom is currently on aware of any country that would pass such a test.

Pass-through commitment

- 141 The Commission has included a new matter for consideration in its service description: that it will take account of any pass through commitment given by an access seeker in considering an application for mobile termination.
- 142 It is not clear how such a commitment would be relevant to the Commission's consideration, and how the Commission would consider such a commitment. In order for parties to be able to meaningfully respond to the proposal, Telecom urgently seeks clarification from the Commission as to how a pass through undertaking would be considered and applied by the Commission. Not only is it critical for parties to be given the opportunity to comment meaningfully on the Commission's proposal by understanding the Commission's reasoning, it is also critical that parties understand the Commission's approach to reduce regulatory uncertainty going forward.

143 Telecom's initial view (as noted above) without understanding the Commission's rationale, is that any commitment to pass through would be irrelevant to a TSLRIC price and would be *ultra vires* the Act.