

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



**Schedule 3 Investigation into Regulation of Mobile  
Termination**

**Revised draft report**

**7 February 2006**

**PUBLIC VERSION**

# I Summary

## The big picture

1. This document presents Vodafone's views on the Commission's revised Draft Report on the Regulation of Mobile Termination.
2. **Negative impact for mobile:** Throughout this process we have consistently argued that the Commission has overstated the benefits of regulation, that mobile consumers will suffer as a result of this regulation, and that MTR regulation will disadvantage the only mobile operator willing to compete with Telecom while reinforcing Telecom's dominant position in fixed markets.
3. **Regulated rate for 3G too low:** There is no justification for regulation of Vodafone's new 3G network. It has been in operation for less than 6 months, so the 3G customer base is just starting to grow. The Commission has no information on our rollout plans, no information on 3G usage, and no idea of 3G costs. It is both dangerous and unreasonable to propose regulation at the 2G cost rate in these circumstances. If there is to be regulation of Vodafone's 3G network, there must be an increment added for the additional costs of 3G.
4. **Passthrough must be rigorously enforced:** Unless fixed operators are forced to passthrough reductions in mobile termination charges to consumers through cheaper fixed to mobile call prices, the proposed regulation of termination charges risks simply taking money from Vodafone customers and shareholders and giving it to Telecom. Since Vodafone is Telecom's most serious telecommunications competitor, this is a very short-sighted approach.
  - This is not in keeping with the intent of the Telecommunications Act to promote competition for the long term benefit of end users.
  - This also works against the government's stated policy of promoting investment in New Zealand's telecommunications infrastructure as part of the Digital Strategy.
5. **Regulation will slow innovation:** The Commission is also underplaying the downside of MTR regulation. Our plans to use our 3G network for local services, for wireless broadband, and for aggressive reductions in mobile retail prices will be undermined by the proposed MTR regulation.
6. **An unregulated solution is better:** We have offered to voluntarily cut MTRs sharply to resolve concerns with price levels. The Commission should recommend that the Minister accept our offer with rigorous enforcement of Telecom's passthrough commitment so that fixed to mobile consumers get the benefits intended by the proposed regulation.
7. **Timely delivery of benefits:** Consumers will benefit more quickly and the negative impacts will be lower under our reference offer. Regulation of MTRs is unlikely to affect retail FTM prices until a pricing determination has been made. So it could take until well into next year for fixed to mobile consumers to benefit at all from MTR regulation. By way of contrast we have offered to cut mobile termination charges from April 2006.

## The Commission's numbers overstate the benefits of regulation

8. We have many concerns about the Commission's estimates of the costs and benefits of regulation. The three most important issues are as follows:
- The Commission is too optimistic about passthrough of lower termination charges to fixed to mobile call prices under regulation. Fixed line phone companies, such as Telecom, will not pass on the benefits of lower termination charges to fixed-line customers unless competition or the Commission requires them to. The Commission itself admits that competition in the fixed to mobile market segment is inadequate. There must be rigorously enforced passthrough if consumers are to get any real benefits from lower termination charges. The Commission's current proposal needs strengthening.
  - The Commission's estimate of the negative effects of regulating mobile termination charges on mobile call prices – the "waterbed effect" – is far too low. While the Commission does acknowledge that mobile consumers will suffer under MTR regulation, it has understated the impacts on mobile prices. After correcting the Commission's model, Covec estimates that around 32,000 people will no longer use their mobile phones and prices end up 4% higher than where they would have been.
  - The Commission must make an allowance for the risk of being wrong on its estimated rates. It is now proposing to regulate termination charges on Vodafone's new 3G network, and there is strong evidence that 3G termination is more expensive than 2G termination at least until 3G customer numbers grow. The Commission must build in a margin for error.
9. When corrections are made, Covec estimates that MTR regulation will mean losses to both the economy and to consumers as a whole, while the overall reductions in fixed to mobile retail prices are small.

**Table 1: Summary of expected impacts of regulation**

	Commission estimate	Covec estimate
Mobile customers	Mobile prices 2% higher Around 18,000 fewer mobile subscribers	Mobile prices up to 4% higher Around 32,000 fewer mobile subscribers
Fixed to mobile customers	FTM prices fall 6 cpm (max)	FTM prices fall 4 cpm (max)
<b>Overall impact</b>		
On economy (NPV, 5 years)	\$1m to \$10m	-\$76m to -\$150m
On consumers (NPV, 5 years)	\$50m to \$72m	-\$82m to -\$132m

## Regulating 3G is very short-sighted

10. The case for MTR regulation rests on regulating 3G networks. The Commission assumes that Vodafone's 3G network is mostly rolled out, it is very cheap to provide services, and most of the services we provide over it will not be regulated anyway. So we will not do anything different if our termination rates are cut by 33%.

11. In fact, our network has been in commercial operation for less than 6 months, we are still building customer numbers, and termination revenues are an important part of our revenues. Given the low number of customers using the new network at present, the unit costs of calls on the 3G network are almost certainly very much higher than the 2G network costs – yet no allowance for this is made in the Commission’s assumptions.
12. The serious cut in revenues arising from the regulation of voice termination on our 3G network must affect our retail prices, our rollout plans, and our ability to compete against Telecom in mobile and the wider telecommunications sector.
13. There is also a more general impact on investment incentives. It does not give any serious investor terribly much comfort to know that the moment it starts an irreversible investment, the Commission will take away a chunk of its revenues, especially when we expect regulation to give a large proportion of that money to our major competitor. This sends a terrible signal to would-be investors in New Zealand’s infrastructure.

### **The Commission’s estimates of termination costs are understated**

14. We disagree with the Commission’s estimate of 15cpm (and falling) as the cost of 2G/3G voice termination in New Zealand.
  - 2G termination costs will rise as customers move off the 2G network and onto the 3G network. The UK regulator expects rising 2G termination costs in the UK, for example.
  - There is a strong argument for a higher termination rate for 3G at least for a while. Usage is low on our 3G network at present, so our 3G termination costs will be much more expensive than 2G at least until 3G customer numbers grow.
  - There are good reasons to think that New Zealand is just a more expensive place to run a mobile network. Compared with the UK, for example, we have around 40% of the geographic coverage requirement, but only one tenth of the demand. Since the 2G termination cost in the UK has been estimated by the UK regulator at just under 16 cpm, it seems unlikely that 15cpm is the correct figure for New Zealand.
15. The assumed MTR is very important. Although the price for the regulated MTR service will not be set until later in this process, if the Commission is too low by just 1 cent in its cost estimate, then the Commission’s own cost-benefit figures say that MTR regulation may actually damage the New Zealand economy.

### **There are serious legal problems still**

16. MTR regulation is driven by a narrow focus on theoretical markets for termination. We continue to argue that firms compete for termination revenues by competing for customers. The Commission’s overly theoretical approach is driven by the misguided view that it should look at call termination as a separate service from outgoing mobile calling. There is no market failure if the Commission looks appropriately at market definition.

17. The Commission is now relying entirely on its estimates of benefits to consumers, and ignoring the losses that regulation causes to mobile phone companies in its analysis. It justifies this by saying that operators should not be charging so much for voice termination. But it is only the prospect of making money that will bring other firms into the market. Considering the total economic impact of MTR regulation is the only sensible approach in this case.
18. Regulating Vodafone's MTRs will not promote competition in telecommunications. The only competition rationale the Commission puts forward for MTR regulation is that it will deter a Telecom price squeeze in the fixed to mobile market. This can not be an argument for forcing Vodafone to reduce its MTRs: we are not a fixed operator and we have no ability to implement the price squeeze the Commission is concerned about.
19. The Commission's approach to regulation of 3G is unreasonable. This is a material change from the Commission's earlier Report. The Commission has no information on our rollout plans, no information on our revenue projections and their sensitivity to changes in the MTR, and no information on the costs of our network.
20. If the Commission is to propose regulation of 3G termination on our network, it must propose a higher regulated rate to take into account of higher costs in the transition from 2G.

## Conclusions

21. We do not think that MTR regulation can be justified.
  - MTR regulation will harm mobile consumers – even the Commission agrees with us that mobile prices must rise as a result of this regulation. This means that mobile consumers are going to pay up to 4% more for mobile calls as a result of this regulation. This hurts them to the tune of \$200 million over five years.
  - MTR regulation will harm investment incentives – The Commission's claims that 3G investment is not risky and that Vodafone should not mind having its termination revenues cut because it has built its network already are discouraging to investors. Vodafone is the biggest challenger in the telecommunications space, and yet it is being told that it must be regulated while Telecom benefits from MTR regulation through lower costs for its fixed line business.
  - MTR regulation hurts Vodafone and helps Telecom – The current regulatory proposals will not force Telecom to passthrough gains to consumers. There must be rigorous enforcement of passthrough. Disadvantaging Telecom's biggest competitor and thereby increasing Telecom's revenues is bad public policy.
  - MTR regulation will harm competition – We are now rolling out our 3G network. We are planning to use it to offer wireless broadband, to compete in local services, and to deliver the capacity for huge increases in usage driven by lower retail prices. Cutting the returns from this network and taking away revenues that we need to fund this network will

make us a less effective competitor in a market that is rather short of competitors in general.

22. We have offered to cut our MTR rates from 1 April this year. The Commission should recommend that the Minister accept our offer as a speedy way to move prices in the desired directions.
23. If the Commission prefers to regulate, it must at least:
  - Increase the estimated cost of 2G termination in New Zealand, reflecting the evidence that this is a more expensive country in which to provide mobile services.
  - Add an increment to its cost numbers to reflect the additional costs of 3G termination at present while our 3G customer base is in its early stages of growth.
  - Rigorously enforce passthrough. Without enforcement, passthrough is far from assured and this could mean that the main impact of this regulation would be to increase mobile retail prices.

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### III Introduction

24. This document is part of Vodafone's submission to the Commission on its investigation into the regulation of MTRs.
25. Our submission is made up of 5 documents.
  - This main submission on the issues raised by the Commission (this document).
  - A report from Covec that reviews the Commission's cost benefit analysis model.
  - A report from NERA that looks at the reliability of the Commission's benchmarking approach, and considers which countries are reasonable comparators to New Zealand when estimating MTR costs.
  - Two revised versions of the Commission's CBA model from Covec. These demonstrate the changes to the Commission's model that Covec recommends from its review.
26. We have also attached:
  - a paper from David Newbury on regulating termination on 3G networks at 2G costs, and
  - a submission that Vodafone made to OfCom recently that covers, among other things, issues arising from the regulation of 3G termination.
27. As usual, all restricted information in this submission is enclosed in square brackets ( [ ] ) and designated as VNZCOI (Vodafone-designated Commission Only Information), or VNZRI (Vodafone-designated restricted information) pursuant to the Commission's confidentiality order dated 1 November 2005.
28. This document is structured as follows:
  - In section IV we discuss the context for regulation. We show how our MTRs compare with other countries, and how our retail mobile prices compare. We look at our predictions of how prices will change over time.
  - In section V we examine the Commission's CBA model and suggest some improvements. We explain why we think the costs of regulation are greater than the benefits.
  - Section VI covers the enforcement of passthrough. We encourage the Commission to strengthen its proposed passthrough mechanism.
  - In section VII we look at the Commission's estimates of costs. We present the results of some work from NERA looking at how reliable simple comparisons of costs between countries are.

- In section VIII we look at dynamic efficiency issues, and explain our 3G network plans.
- Section IX briefly outlines our views on four legal errors that we consider the Commission continues to make.
- In section X we present our conclusions. In our view the fastest, easiest, and most certain way to reduce the price of fixed to mobile calls is for the Commission to recommend the Minister accept our commercial offers with rigorous enforcement of Telecom's offer to pass 100% of reductions into its retail prices.

## IV Context for regulation

29. This section explains how our MTRs compare with the rest of the world, how our retail mobile prices compare with the rest of the world, and how we expect our MTRs and retail prices to change in the future.
30. New Zealand MTRs are not high and they will fall quickly without regulation in line with the reference offers made by Telecom and Vodafone.
31. Vodafone published plan rates are also falling quickly (according to the Teligen comparisons) and our retail revenues per minute are at about the average of the Vodafone Group. MTR regulation will have a significant impact on our ability to reduce retail prices.

### **New Zealand's MTRs are at about the world average**

32. New Zealand's current MTRs are just slightly above the average prices of countries in which Vodafone operates, and the Commission's proposed prices would, in one step, make New Zealand's rates amongst the lowest in the world.
  - Figure 2 shows the MTR rates per minute that Vodafone OpCos currently pay in 24 countries. These are weighted by market share of the operators in each country.
  - Figure 3 shows internal Vodafone data on incoming revenue per minute across operating companies.

**Figure 2: MTRs per minute in 24 countries (NZ cpm, Jan 06 data)**

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Source: Vodafone calculations from Vodafone internal data  
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**Figure 3: Incoming revenue per voice minute across 24 Vodafone OpCos (NZ cpm, March 05 data)**

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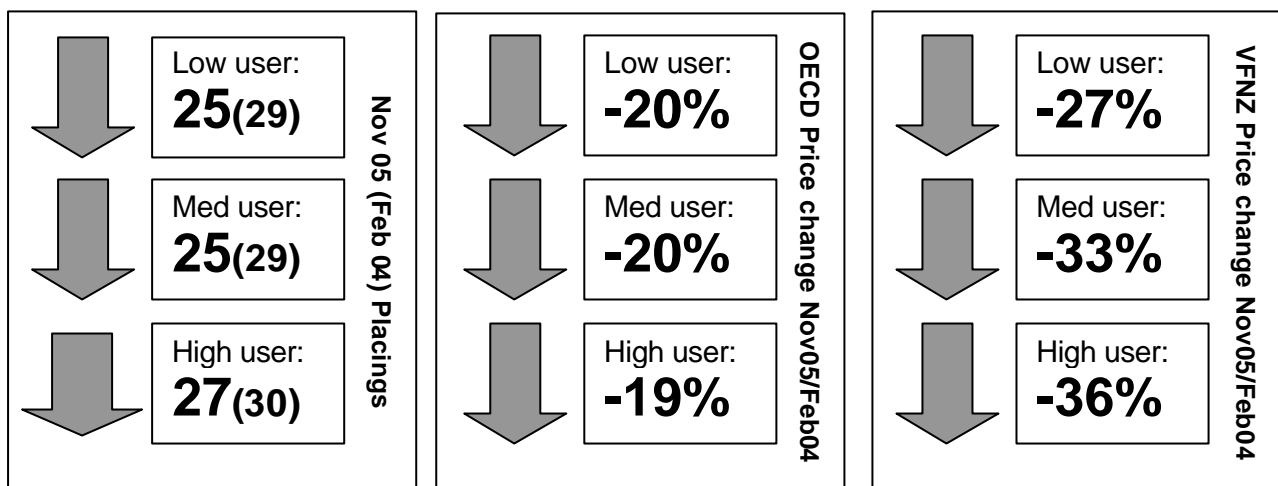
**Our retail mobile prices are average and text prices are very low**

33. The general perception is that New Zealand's retail prices are some of the highest in the world. This started to become a major public issue around two years ago with the widespread reporting of the Teligen results from February 2004.
34. The latest Teligen figures on published plan rates from November 2005 show continuing improvement in New Zealand's relative standing, with large price cuts evident from new pricing plans for all users, and prices falling much faster than the OECD average.<sup>1</sup>

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<sup>1</sup> Teligen recently advised subscribers to their service that there may be a mistake in the way their model calculates the costs of plans that means that the Teligen results may overstate prices for Vodafone New Zealand and some other operators by 0-12%. Teligen advised that this error will be fixed by the next quarterly update in February 2006.

Figure 4: Comparison between February 2004 and November 2005 Teligen figures



35. These published plan figures leave out some important things.

- The Teligen figures leave out all promotions – Vodafone’s free text weekends and Telecom’s \$10 text promotions are both excluded. The exclusion of promotions also means that the capped calling offers for up to two hours of talking for three minutes are ignored, and the handset subsidies and extra minutes that we are offering to encourage customers to take up 3G are also left out.
- The Teligen figures ignore all multi-connection plans – More than [ ] VNZRI of our SME customers are on talkzone plans. Many pay nothing beyond a monthly fee for calls within the business, which means that their calling prices can be extremely low. All of these customers are excluded from the Teligen data. The data also excludes all corporate pricing, which is based on tailored plans.
- The Teligen figures are designed for users who are very different from New Zealand users – Our Prepay customers, for example, send more texts ([ ] VNZRI times more than the OECD low user profile), talk more on-peak ([ ] VNZRI more), talk for longer onnet, and make fewer calls overall (about [ ] VNZRI fewer call minutes).<sup>2</sup>

<sup>2</sup> These numbers are based on the entire Prepay customer base, which includes many “inactive” customers who are not using their phones. The biases the usage profile downwards, i.e., we think that the average active customer usage will be still higher than these numbers suggest.

**Figure 5: VFNZ prepay usage compared to OECD low user profile**

[

] VNZRI

36. This means that the Teligen figures are not the full story.

- Once free text weekends are taken into account, we offer amongst the cheapest text pricing in the Vodafone Group (at around [ ] VNZRI cents per text).
- Once promotions, actual usage, and all plans are taken into account, our outgoing voice rates per minute are just above the average of the Vodafone Group.

**Figure 6: Revenue per outgoing voice minute across Vodafone Opcos (March 2005)**

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37. Costs are also likely to be higher in New Zealand than in other places. So, all other things being equal, we should expect prices to be higher in New Zealand.

- Higher costs are a result of a large coverage area (and therefore high fixed costs) spread over a relatively small and dispersed population with low mobile usage.
- We come back to this point later when we talk about the Commission's assumptions on the costs of termination.

### **MTRs and retail mobile prices are connected**

38. The Commission has recognised that if MTRs are cut, retail mobile rates will rise.
39. Regulation therefore presents a choice for the Commission about the future price paths of both incoming and outgoing rates. It can regulate lower termination rates, but that will mean retail mobile prices that are higher than they would be in the absence of regulation.
40. We are expecting big reductions in outgoing prices over the next few years. This results from continuing competition in mobile, aggressive attempts on our part to boost usage, and growing competition between fixed and mobile networks through our local service initiatives.
41. We have built our commercial offer into our plans for incoming rates. MTRs lower than our commercial offer will give us less room to move on retail rates.

### **Figure 7: Expected outgoing and incoming revenue per minute figures**

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42. If we take the Commission's conservative assumptions about mobile passthrough, then 50% of any reduction in our incoming revenues will be recovered through outgoing revenues.
  - Given our forecasts of incoming and outgoing minutes, we can easily calculate the impact on our retail prices of the Commission's recommendations on MTRs.

- If MTRs fall as the Commission currently proposes, our outgoing rates will be up to 6% higher than they otherwise would have been.
  - If we use Covec’s more reasonable assumptions about mobile passthrough, outgoing rates will be up to 8% higher.
  - If we assume a 100% waterbed effect, then outgoing revenue per minute must be higher still.
- These numbers are likely to understate the true effect of the different levels of waterbed effect. This is because outgoing usage will not grow as quickly if rates are higher, and our forecasts are bullish about usage growth anyway.

**Table 1: Effect on predicted retail prices of Commission's proposed MTR rates**

Year ended March	2007	2008	2009	2010	2011
Commission waterbed assumption (50%)	6%	4%	5%	4%	5%
Covec waterbed assumption (67% growing to 75%)	8%	6%	7%	6%	7%
100% waterbed assumption	12%	9%	10%	8%	9%

## V Quantitative analysis of the impact of regulation

43. This section summarises our views on the Commission's quantitative assessment of the benefits and costs of regulation. We think that the Commission's approach substantially overstates the case for regulation.
44. The attached paper from Covec looks in detail at the Commission's revised CBA model and makes a number of suggestions for improvement, which are implemented in the attached models. The Covec report also contains an extensive sensitivity analysis.
45. There are three points that we emphasise here:
  - The Commission's waterbed calculations understate the negative impact of MTR regulation on mobile users. As the report from Covec explains, the Commission has failed to calculate the waterbed correctly or it is using overly conservative assumptions for mobile passthrough.
  - The Commission is inconsistent in its fixed to mobile passthrough assumptions.
    - It is unduly pessimistic about passthrough under the counterfactual (i.e., if the reference offers are accepted). In effect it is saying that competing fixed operators will be happy to give market share to Telecom if there is no MTR regulation. This is inconsistent with eight years of the Commission's own evidence on fixed to mobile passthrough rates.
    - The Commission is unduly optimistic about passthrough rates under regulation. It predicts the emergence of theoretically perfect competition within five years of regulation.
  - The Commission is making no allowance for the risks of being wrong on the cost of mobile termination or any of its other assumptions. Previously the Commission argued that excluding 3G meant that it did not need an allowance for indirect costs. Now that 3G is within the scope of regulation (and the Commission has no information on 3G costs), it should build in this allowance.

### **Waterbed calculations understate the losses to mobile consumers**

46. There are at least two ways of calculating a waterbed effect.
  - Estimate the impact of MTR regulation on the level of termination revenues per subscriber earned by operators. Calculate the increase in mobile retail prices per subscriber required to recoup some portion of these lost revenues.
  - Figure out how much total revenue operators lose as a result of MTR regulation, and calculate the increase in prices required to regain some portion of this revenue from mobile customers.

47. It is not clear which approach the Commission intended to take.
- If it intended the latter (revenue recovery) approach, then it has not calculated the amounts correctly. It has not taken account of the fact that the number of subscribers falls as mobile prices rise, and so it fails to achieve the stated level of revenue recovery.
  - If it intended the former (subscriber-specific) approach, it has set the rate of mobile passthrough too low. At 50% it has chosen the passthrough rate that would apply for a monopoly facing a linear demand curve. It is also assuming that this monopoly will continue until 2010.
    - In fact the mobile market is already more competitive than the Commission assumes. And we expect that there will be new entry during the regulatory period.
    - In theory, 50% is the minimum possible in any market.
48. We recommend that the Commission either revise its methodology to meet the revenue recovery target, or increase its mobile passthrough assumptions. Keeping them so low distorts the Commission's numbers in favour of regulation.

### **Fixed to mobile passthrough assumptions are inconsistent**

49. The Commission is:
- Optimistic about FTM passthrough with regulation – It argues that the market will quickly grow to deliver 100% passthrough.
  - Pessimistic about FTM passthrough without regulation - It argues that other operators will never match Telecom's 100% passthrough commitment.
50. We suggest that the Commission should:
- Revise downwards its assumptions about FTM passthrough under regulation, and
  - Revise upwards its assumptions about passthrough by those competing with Telecom under the counterfactual,
51. The Commission assumes that the FTM and toll calling market will become perfectly competitive by 2010 under regulation, with a passthrough rate of 100%. This seems quite unlikely.
- The Commission states that the FTM and toll calling market is not competitive at present.
  - Telecom has a dominant market share, and it has retained that dominance over time despite charging higher prices than competing operators.

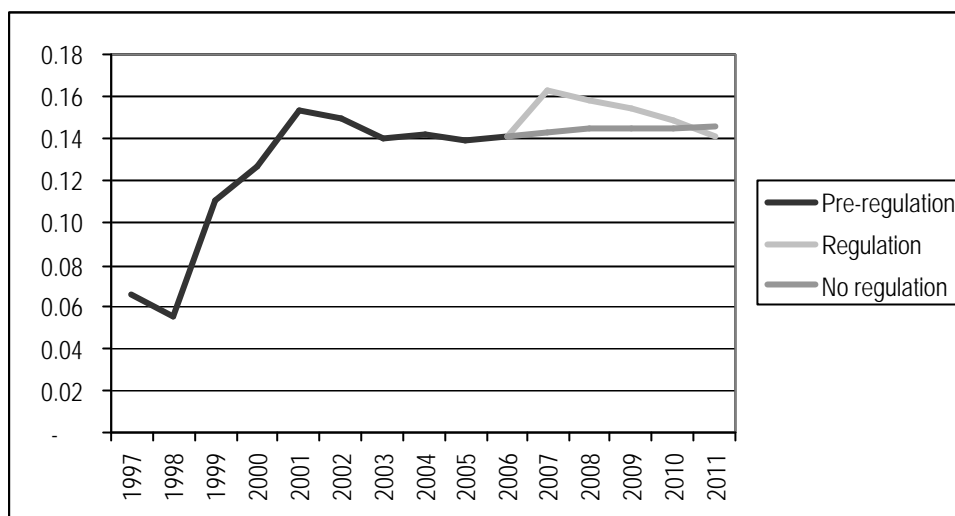
- Telecom has the lowest passthrough rate of any fixed to mobile firm. Telecom would have to lift its passthrough to 100% to generate the perfectly competitive outcome the Commission's predicts. This would be a dramatic change from the eight years of 55% passthrough the Commission estimates.
    - We have analysed the incentives on Telecom to reduce its fixed to mobile prices previously.<sup>3</sup> This work indicated that there are strong incentives on Telecom not to increase passthrough.
52. On the other hand, if there is no regulation of MTRs, the Commission is overly optimistic on passthrough by alternative fixed operators, with the rate only growing to 85% by 2010.
- As Covec point out in the attached report, this effectively assumes that those fixed operators will compete less aggressively with Telecom as MTRs fall.
  - This is entirely at odds with the evidence that shows other operators have had consistently higher passthrough rates than Telecom.<sup>4</sup>
  - It is also inconsistent with the Commission's assumptions that alternative fixed operators will compete more aggressively with Telecom when MTRs fall under regulation.
  - The only difference between the regulated and unregulated scenarios is that one has a lower probability of Telecom price squeeze. This can not be a sufficient reason to justify a 15% higher passthrough rate in 2010.
    - Margins on FTM calls seem to be healthy (especially for residential customers) and have grown over time. There are only minor differences in those margins with or without regulation.

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<sup>3</sup> Vodafone Submission on the Draft Report, para 237 to 239.

<sup>4</sup> Reconsideration Draft Report, para 217.

**Figure 2: Past and forecast gross margins for FTM operators (NZ cpm)**



Source: Draft Report CBA model, Reconsideration Draft CBA model

53. This treatment of passthrough (where passthrough only grows significantly under regulation) skews the playing field in favour of regulation.

### **An allowance must be made for indirect costs**

54. In the first Draft Report the Commission had an allowance of 25% of the benefits of regulation (or between \$66 and \$81 million on the consumer welfare test) for indirect costs.<sup>5</sup> This allowance was said to “reflect an assumption that control would not precisely strike the competitive price”.<sup>6</sup>
55. This was a confused approach:
- It was a reduction of the benefits of regulation on the assumption that the regulated price would be too high, but it could not take into account risks from the regulated price being set too low.
  - The approach used meant that the indirect costs of regulation could never exceed the benefits of regulation. It also meant that indirect costs varied according to how the benefits were measured. Operators criticised both of these aspects of the approach in their submissions on the Draft Report.
56. In its Final Report, the Commission removed the allowance for indirect costs. It argued that:<sup>7</sup>
- The waterbed was now being modelled specifically.
  - It had taken account of other costs (like the impact on dynamic efficiency) separately.

<sup>5</sup> Draft Report, tables 17 and 19.

<sup>6</sup> Draft Report, para 496.

<sup>7</sup> Final Report, paras 465 to 470.

- 3G was not being regulated.
  - It was being conservative in its assumptions about costs by choosing the 75<sup>th</sup> percentile in the range of cost estimates from other countries and not the average.
57. The Commission is now proposing to regulate 3G. And it is not being conservative on in its assumptions about costs.
- 15cpm (and falling) is too low a rate for 2G in New Zealand. We explain below that New Zealand is likely to be higher cost than other countries.  
[  
**.] VNZRI**
  - The Commission has no evidence at all on the costs of 3G in New Zealand, and no overseas benchmarks to rely on. Instead it bases its approach only on quotes from 3G equipment vendors and purchasers.<sup>8</sup>
  - As we explain below, there are strong arguments that 3G is higher cost than 2G at present (although, if our projections of demand pan out, we expect it to be lower cost than 2G in the future). There are also additional costs of transition from 2G to 3G and additional costs associated with running two networks in the transition period.
58. In these circumstances, the Commission must build in an allowance for the risk of setting the regulated rate too low. Covec's proposal to reduce the gross benefits by 10% (rather than the Commission's previous 25%) would be a simple and conservative way to do this.

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<sup>8</sup> Reconsideration Draft Report, para 196.

## VI Passthrough mechanism

59. In this section we look at the Commission's proposed passthrough mechanism.

- We question the Commission's faith in the fixed to mobile market to deliver complete passthrough under regulation without enforcement.
- We welcome the introduction of a passthrough mechanism, but we think that it needs to be significantly strengthened to be effective.

### **Passthrough is uncertain without enforcement**

60. We are extremely concerned that MTR regulation will advantage Telecom at Vodafone's expense. This is a poor public policy choice. Vodafone is Telecom's most aggressive competitor and, with local service, wireless broadband, and ongoing mobile service price cuts, we will expand the scope of competition to cover more of the telecommunications market.

61. Passthrough can help to redress the distortionary competitive impact of MTR regulation. If it is properly enforced, a passthrough mechanism will ensure that Vodafone's loss does not become Telecom's gain.

62. We do not agree with the Commission's optimistic predictions for FTM passthrough under regulation. We think that enforcement is required in order for passthrough to be assured. The Commission points out that Telecom has the highest market share in the FTM market, and Telecom has the worst passthrough record of any fixed to mobile firm.<sup>9</sup> In these circumstances, it is unwise not to enforce passthrough, since it can guarantee the benefits for consumers that the Commission predicts.

63. But if the Commission is right, and FTM passthrough does quickly grow to the perfectly competitive level, then the enforcement mechanism will not be used. An enforcement mechanism is a no-lose bet for the Commission. The Commission should not assume high levels of passthrough if it does not provide effective enforcement of passthrough.

### **The mechanism proposed needs further strengthening**

64. We welcome the introduction of a passthrough mechanism. But we do not think that it is strong enough.

65. The Commission has proposed that it must consider, when an access determination is made, "any commitment proposed by the access seeker as to how it will use the benefits from reduced mobile termination rates".<sup>10</sup>

66. We have three concerns with this proposal:

- The commitment is not specific enough – The access seeker is not being committed to pass through. For example, it could include a commitment

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<sup>9</sup> Final Report, para 255. Reconsideration Draft Report, para 217.

<sup>10</sup> Reconsideration Draft Report, para 300.

to build more infrastructure, or to increase advertising. It could even include commitments that might increase competition in unrelated markets.

- The relevance of the commitment is not clear – For example, would the presence or absence of such a commitment impact on the regulated price? Or would the Commission be able to include non-price terms in any determination to require passthrough on the basis of this commitment?
- There is no enforcement mechanism – The commitment is made at the time of seeking a determination. But the determination can last several years, and there is no mechanism for ensuring that the access seeker complies with its commitment.

### **Enforcement can easily be assured**

67. Our objective is to create a simple, workable method that will guarantee full passthrough of regulated reductions in MTRs into FTM retail prices by access seekers.
68. We have suggested that the Commission set a passthrough requirement as a condition under s30 of the Act.<sup>11</sup>
69. An alternative would be to include in the “Conditions” part of the service description wording similar to the following:
  - “Provision by the access seeker of an undertaking satisfactory to the Commission and enforceable by the Commission and the access provider that the access seeker will pass-on to end-users all savings to the access seeker from any reduction in mobile termination rates”.
70. Including this wording in the “Conditions” section (rather than the “Additional matters” section as proposed by the Commission), is likely to have more effect. An undertaking as to passthrough becomes a prerequisite for gaining a determination, rather than an additional consideration for the Commission.
71. The “satisfactory to the Commission” standard places considerable discretion in the hands of the Commission in terms of what an undertaking could include. And it will also allow the Commission to enforce passthrough should this be necessary. Including the ability for the access provider to enforce passthrough will strengthen compliance.

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<sup>11</sup> Vodafone Submission on the MTR Draft Report, paras 306 to 313.

## VII The cost of termination in New Zealand

72. In this section we present evidence on the costs of providing mobile termination in New Zealand.
- We present a stylised view of how mobile network costs change over time, and derive from that the two options the Commission can take in estimating regulated rates.
  - We explain why we think 2G termination costs are likely to be higher in New Zealand than in some other countries, particularly the UK, from which there is good 2G cost information.
  - We present evidence that Vodafone submitted to OfCom on the extent to which 3G costs could vary based on changes in demand forecasts, equipment prices and the cost of capital, all factors on which there is great uncertainty at present.
73. We recognise that price setting will happen later in the regulatory process. But there are good reasons to think that the cost of termination is higher than 15cpm at present, and that this means that the Commission is significantly overestimating the benefits of MTR regulation.

### Average cost per minute in a mobile network

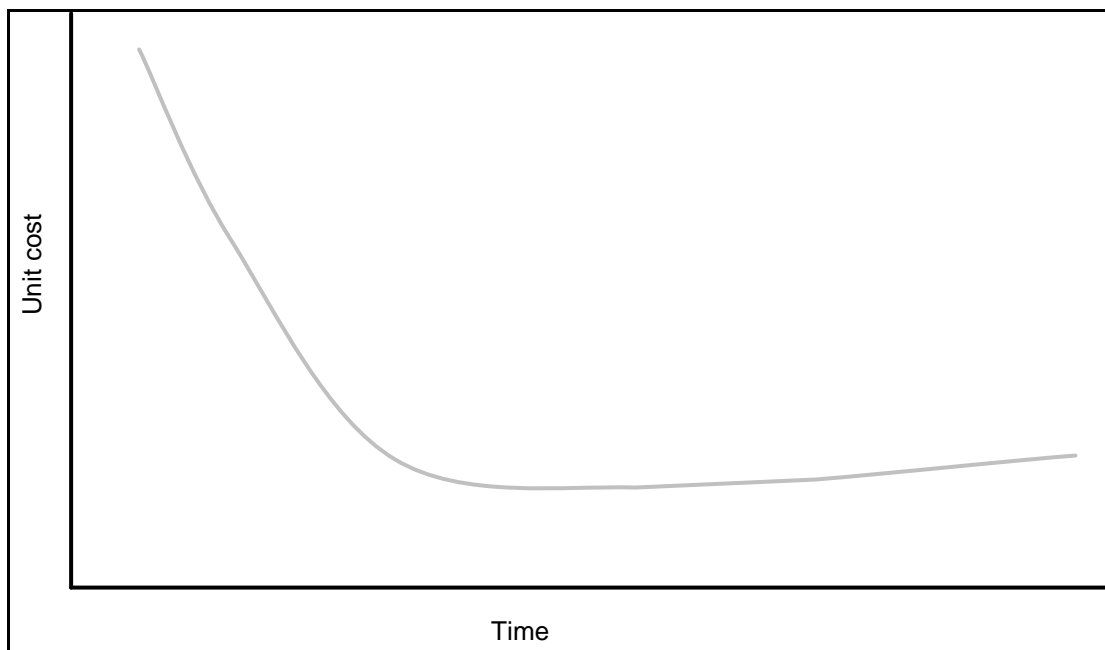
74. Building a mobile network involves spending large sums up front. Revenues are earned from services delivered over the network through its useful life and these are used to recover the upfront investment. Typically we would expect to lose money in a cashflow sense up front, but to make up for these losses later on in the network's life.
75. As the Commission has recognised, investors need to have a reasonable expectation of cost recovery over time if they are ever to invest in building or expanding networks.<sup>12</sup>
76. The high upfront costs mean that, on an average cost basis, the first minute of use of a network is astonishingly expensive. As customer numbers and usage grow over time, average costs fall. This is depicted in a stylised form in the figure below.<sup>13</sup>

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<sup>12</sup> Reconsideration Draft Report, para 183.

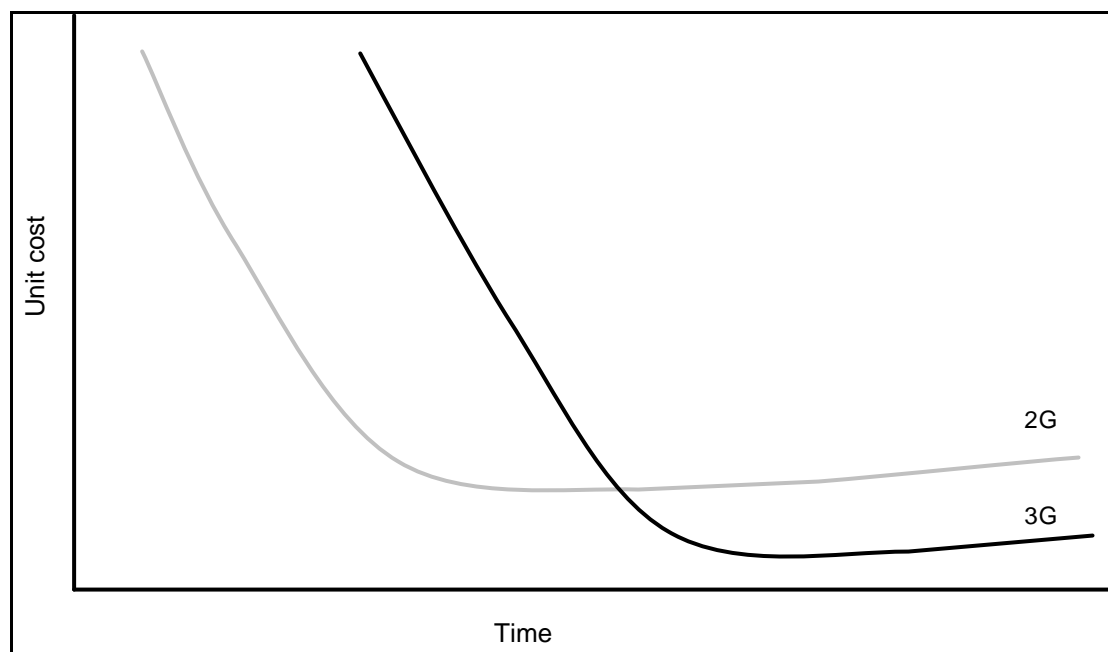
<sup>13</sup> The slope of the average cost curve is strongly influenced by the choice of depreciation profile, but this is a complexity that can be dealt with later in the regulatory process and we assume straight line depreciation for now.

**Figure 8: Hypothetical 2G cost curve over time**



77. The same basic shape applies for both our 2G network and our 3G network.
- Initially average costs per minute are very high
  - Unit costs fall as traffic grows over time
  - As the network approaches the end of its useful life, customer numbers on the network fall, and average unit costs rise gradually until finally the network is switched off.
78. If we treat the first curve as our 2G network, we can add our 3G network to the picture.
- It is lower cost than 2G eventually because we expect 3G to have lower unit costs at some point.
  - But it is not lower cost to start. Customer numbers are still low at this point and a large proportion of the network capacity built is underutilised.

**Figure 9: Hypothetical 2G and 3G cost curves over time**



79. The implication is that 3G unit costs for termination are likely to be significantly higher than 2G call termination costs at present. This situation will continue until 3G demand grows past some crossover point:
- 3G unit costs are likely to be falling as customer numbers and usage on the 3G network grow.
  - 2G unit costs are likely to be rising as customer numbers and usage on the 2G network fall.
80. We expect that the unit costs of 3G termination will eventually be below the unit costs of 2G termination. But given the difficulties of predicting demand, the uncertain costs of 3G rollout in the future, and the additional costs of transition from 2G to 3G, we do not know at this point when the cross-over point is or how much cheaper termination will eventually be on 3G as opposed to 2G networks. The Commission recognised the existence of this transition period in its Final Report.<sup>14</sup>
81. Also note that even if the 3G cost curve is always below the 2G cost curve, the average (blended) unit cost can still be higher for a 2G/3G network than for a standalone 2G network.
- This is because usage is much higher on the 2G network initially and so unit costs are actually lower on 2G than on 3G.
82. These are obviously issues that will need to be dealt with in detail in the price setting phase of any MTR regulation. For now, we suggest that the Commission has two options:

<sup>14</sup> "The Commission acknowledges that in the transition period following the launch of 3G services, the full benefits of lower operating costs may not immediately be realised", Final Report, para 746.

- Regulate at 2G rates for the duration of the regulatory period – This should mean that rates are below 3G costs at first but higher than 3G costs later.
  - Attempt to develop a blended 2G/3G regulated rate – This involves estimating both a 2G and 3G cost curve, and then combining these two figures together in some way to generate a single number.
83. Whichever path it chooses, we do not think that the Commission's current cost estimates are likely to be appropriate.
- The 2G cost estimate is too low and it should be slowly rising over time as traffic migrates to 3G.
  - 3G costs are unlikely to be below 2G costs for some considerable time for Vodafone's network.
84. In the rest of this section, we look at each of these arguments in turn.

### **2G costs in New Zealand are likely to be higher than the UK**

85. The Commission has estimated the costs of 2G/3G mobile termination in New Zealand by taking the 75<sup>th</sup> percentile of the rates of 2G cost estimates from other countries.
86. We argued in our submission on the Draft Report that this was not a reliable method. There are many factors that influence the level of costs across countries, and the Commission has not yet accounted for those differences.
87. We asked NERA to look more closely at this issue. In the attached paper NERA explains that differences between countries make it extremely hazardous to assume that costs in other countries tell us anything in particular about costs in New Zealand.
88. There does not seem to be any country that is both similar enough to New Zealand and has a 2G LRIC cost model result that the Commission could draw on.
- Network Strategies submitted that Norway could be the comparator country in a paper submitted in cross-submissions on the Commission's Draft Report.<sup>15</sup> As NERA explains, there are substantial differences between Norway and New Zealand and, in any case, there has been no LRIC cost model built for Norway as far as we are aware.
89. There is empirical support for the argument that costs are likely to be higher in New Zealand. Two key influences on average unit costs are:
- The area of coverage required – This is influenced by the size of the country, and where people live within it. It is one important indicator of the likely comparative capital costs of building a network in different

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<sup>15</sup> 'New Zealand mobile costs and prices – a critique of issues raised in the Vodafone submission on MTRs', Network Strategies Report for TelstraClear, 23 December 2004, page 10.

countries. Other important factors are the prices of spectrum, land and labour.

- The number of voice minutes on the network over some period – This is influenced by the number of subscribers and their total voice usage. It is simple proxy for the total volume of services provided on the network.
90. Combined together, these two numbers give total voice minutes per square kilometre of network coverage. We think that this is a useful barometer of likely network costs in each country.
91. The distribution of population is also important. New Zealand has a high level of urbanisation, and a low population density, which together imply that our rural areas may be less populated than those in other countries.
92. Of course, there are many other relevant factors, including land costs, spectrum costs, wages, incomes, and the costs of radio equipment. But this basic measure gives some support to the argument that costs may be higher in New Zealand.
- Subscriber numbers are typically lower in New Zealand than other countries, and usage per subscriber is also much lower.
  - Vodafone’s geographic coverage requirement is quite large by comparison with other countries.
  - A large coverage requirement combined with few minutes of use means a relatively high cost network on average.
  - The implication is that economies of scale are likely to be more significant in New Zealand than in other countries that have higher usage and more dense populations, and this will tend to push up unit costs.

**Table 3: Minutes per km2 of coverage across countries**

	Network coverage (km2)	Total annual minutes (m)	Minutes per km2 (m)
New York	20,000	12,257	0.61
South Korea	98,190	45,492	0.46
Israel	20,127	7,552	0.38
California	70,000	22,882	0.33
Florida	60,000	11,091	0.18
UK	207,767	25,232	0.12
Malaysia	82,281	9,941	0.12
Austria	79,971	5,283	0.07
NZ	99,168	2,453	0.02
Sweden	246,560	5,334	0.02

Source: Calculated from figures in Table 2.1 in NERA report attached to this submission

93. A simple comparison between Vodafone New Zealand and Vodafone UK is insightful.

- Vodafone New Zealand has about 40% of Vodafone UK's coverage requirement.
- But we only have about a tenth of Vodafone UK's demand. Vodafone UK has eight times our subscriber base, and on average each of our customers make and receive about 30% fewer minutes of voice calls each year.
- Combining these figures together shows that New Zealand has around 5 times fewer voice minutes per km<sup>2</sup> of coverage.

**Table 4: UK demand compared to NZ demand**

	UK	New Zealand	Ratio
Land mass (km <sup>2</sup> )	241,590	268,021	111%
Land mass coverage	97%	37%	38%
Coverage area (km <sup>2</sup> )	234,342	99,168	42%
Subscribers (000)	16,325	2,024	12%
Minutes per subscriber	1,756	1,216	69%
Minutes per year (m)	28,667	2,461	9%
Minutes per km <sup>2</sup> (m)	0.122	0.025	20%

Sources:

Landmass figures are from the CIA Factbook (2005)

Landmass coverage figures are from Vodafone

Usage and subscriber numbers are for December 2005 available at [http://www.vodafone.com/assets/files/en/KPI\\_january\\_2006\\_prl.pdf](http://www.vodafone.com/assets/files/en/KPI_january_2006_prl.pdf)

*Estimating rates needs to take into account differences between countries*

94. The evidence above suggests that New Zealand costs should be higher than costs in the UK. But it does not take into account other factors that might make affect New Zealand's costs relative to other countries. These factors include spectrum, land, and labour costs as well as incomes and other factors.
95. The evidence above also does not generate a specific number, and we recognise that the Commission must have a number for its CBA model.
96. We asked NERA to consider alternative methods for adjusting cost estimates from other countries to examine how reliable the Commission's cost comparison method is likely to be, and to indicate how New Zealand costs might compare with other countries.
97. In the attached note, NERA considers this issue more closely and develops some illustrative results by calibrating UK costs to New Zealand conditions.
98. NERA's model adjusts OfCom's 2G LRIC cost model results to New Zealand conditions by allowing for variations in coverage, usage, subscribers, and the costs of land, labour, and spectrum.
99. When these differences are considered together, the overall conclusion is that New Zealand costs could fall between 82% and 171% of costs in the UK, depending on the level of economies of scale.

- The Commission cites UK costs at 16.05 cpm.<sup>16</sup>
  - NERA's results suggest that New Zealand costs could lie in the range from 13.2 cpm to 27.4 cpm, with a midpoint of 20.3 cpm.
100. We expect economies of scale to be relatively more significant in New Zealand than in many other countries given the high coverage requirement and low usage.
- NERA's assumption of 10% in these figures is much lower than figures calculated by PWC for three Vodafone networks in the UK.<sup>17</sup>
101. We conclude that for reasonable assumptions, 2G voice termination costs are likely to be higher in New Zealand than the UK. This is an initial effort designed to show how difference between countries can affect costs. But in our view these numbers support the arguments that:
- The Commission should not just take the 75<sup>th</sup> percentile of overseas costs figures as an estimate for New Zealand.
  - New Zealand is likely to be a higher cost country in which to provide mobile services than the UK.
102. It is obviously a matter of judgement how far above the UK cost figure the Commission chooses.
- Based on NERA's figures, a cost of 20 cpm would be a reasonable estimate for this stage of the process.
  - We suggest that the Commission go no lower than 16.75 cpm as the estimate of 2G costs. This is the 25<sup>th</sup> percentile of NERA's range above. It may be too low, but it is a far less risky estimate than the 15 cpm the Commission prefers at present.
103. The Commission also needs to recognise that 2G costs are rising over time as the volume of minutes terminated on our 2G network falls. Again, this is a matter for some conjecture given that there is no New Zealand-specific cost model. We can offer only very limited evidence.
- OfCom estimates that the costs of 2G termination will rise between around 0.5ppm and 1.5ppm by 2010 if 2G traffic reduces by 80% of its current level.<sup>18</sup> The midpoint of these two numbers would be around 1 pence or about 3 cents.
  - On these very rough approximations, we propose a 2G cost curve that rises linearly a total of 3 cpm by 2010.

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<sup>16</sup> Reconsideration Draft Report, Table 2.

<sup>17</sup> 'The size of fixed common costs in mobile networks: empirical evidence from Europe', Alistair Macpherson in 'Regulating Mobile Call Termination', Vodafone Policy Paper Series, Issue 1.

<sup>18</sup> 'Wholesale mobile voice call termination markets – a proposal to modify the charge control conditions', OfCom, 7 June 2005. Paras E.36 to E.4.

### **3G costs could vary dramatically based on different demand profiles**

104. OfCom's numbers for the UK and all of the cost estimates in the Commission's sample are 2G costs only.<sup>19</sup>
105. The Commission needs to estimate what the costs of 3G are at present, and what they will be for the next five years. Given the absence of cost models internationally, the Commission can not take its normal approach and compare with costs estimates from other countries.
106. It also can not assume that the costs of 3G termination are the same as the costs of 2G termination, given the evidence that our 3G costs are likely to exceed 2G costs for some years yet.
107. Vodafone has presented to OfCom the results of some initial cost modelling of a 2G operator, a 2G/3G operator, and a stand-alone 3G operator.<sup>20</sup> These results show that the costs of termination can vary dramatically depending on assumptions about future equipment prices, customer numbers, voice and data usage of the network, and the cost of capital.
- Under conservative 3G assumptions, Vodafone estimates that a combined 2G/3G operator will have a cost of termination of 11 pence per minute.
  - Under much more aggressive 3G assumptions, the estimate is around 5.7 pence per minute.
  - This compares to OfCom's 2G cost estimates of under 5 ppm (although these estimates do not yet take account of the higher 2G costs caused by the migration of customers to 3G).
108. The lack of evidence underscores the unreasonableness of the Commission's proposal to recommend regulation of 3G termination rates at this point and the serious risks inherent in doing so.
109. The lack of evidence on costs and on demand for 3G services also makes plain the difficulties inherent in trying to regulate new investments and dynamic industries. The risks of a regulatory error that harms consumers are very high when the effects of regulatory control are very difficult to predict.
110. There are also differences between Telecom and Vodafone technologies and their progress on their 3G rollout. Telecom reports that most of its traffic is in fact on its 3G network, with remaining 2G (025) customers accounting for little revenue.<sup>21</sup>
111. If the Commission is to propose regulation of 3G termination despite these risks and difficulties, it must add an increment on for higher 3G termination costs, at least until the crossover point where 3G costs are lower than 2G costs.

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<sup>19</sup> The ACCC figure is used to regulate 3G voice termination rates in Australia. But this figure is simply the upper end of the range of estimates of the other figures the Commission cites except for Sweden, Israel and Austria. The ACCC figure is not a result of cost modelling.

<sup>20</sup> See paras 3 to 6 in 'Wholesale mobile voice call termination', Vodafone response to OfCom, attached.

<sup>21</sup> [http://www.telecom.co.nz/binaries/q2\\_06\\_media\\_release\\_general.pdf](http://www.telecom.co.nz/binaries/q2_06_media_release_general.pdf)

## VIII Dynamic efficiency

112. In this section we look at qualitative impacts of the Commission's proposed regulation.

- We outline how our 3G rollout is going, and what we have planned for the future. We argue that the Commission is not taking sufficient account of the risk that our forecasts of demand for 3G services will not pan out.
- We look at the negative impact on investment decisions if the Commission decides to regulate at 2G rates now while they are lower than 3G rates, and then reduces to 3G rates later if, as expected, they become cheaper than 2G rates.
- We also look at more general implications for competition of MTR regulation.

### Regulation will affect our 3G business case

113. The Commission has formed the view that our 3G network is substantially rolled out, that our 3G investment is not as dependent on voice termination revenues, and that therefore regulation will not affect our investment decisions.<sup>22</sup>

“On 10 August [Vodafone] announced that 3G coverage was available in Auckland, Whangarei, Hamilton, Christchurch, Wellington, Queenstown, Dunedin, Hastings, Napier, Nelson, New Plymouth, Palmerston North, Rotorua, Taupo, Tauranga, Mt Maunganui, Wanganui, Pauanui, and Whangamata. While this still leaves areas of the country, possibly including areas within the listed towns and cities, without coverage, Vodafone has deployed 3G coverage to the vast majority of the population.”

“The greater capacity offered by 3G networks is being used to broaden the range and improve the quality of data services that can be offered to end users, and 3G investment is likely being driven by the future growth opportunities in data services in particular”.

114. We are not sure how the Commission came to these views in the absence of any information on our actual 3G rollout plans.

115. We can divide up the process of transition from 2G to 3G into three broad tasks:

- We need to build the network – We have covered less than [ ] VNZRI of the population at this point. We are expanding coverage quickly, but it will take many years to fully roll out our network. Overlay 3G technologies will soon be available that will allow us to offer even higher speed wireless data services.

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<sup>22</sup> Reconsideration Draft Report, paras 191 and 193.

- We need to transition customers from 2G to 3G – We have only a small proportion of our total customers using 3G at this point. Although the numbers are growing strongly, 2G customers will outweigh 3G customers for some years yet.
- We need to encourage customers to use 3G services – [

## ] VNZRI

116. In short, there is still enormous scope for the Commission's recommendations on 3G termination regulation to affect our network rollout decisions and our investment incentives.

- We will respond to MTR regulation by increasing outbound mobile prices. The Commission argues that the waterbed effect will not be 100% effective. There will therefore be an additional negative impact on our investment plans and ability to compete.

### **Our 3G rollout is not complete**

117. As stated above, we have less than [ ] VNZRI population coverage for our 3G network at present. Building 3G coverage is a key focus for us, and we have long-term plans to build the network out to approach our 2G coverage. But this will take many years and it is dependent on other factors also, like the availability of 3G equipment in the 900 MHz band.
118. We also have plans to expand our 3G services. We are planning additional investment in High Speed Downlink Packet Access (HSDPA) infrastructure. HSDPA is a data enhancement to the 3G network, essentially a software upgrade that will provide us with faster data speeds and enable us to provide even faster wireless broadband products.
119. We make decisions on where to rollout coverage under direction from Vodafone Group. Group provides us with a Global Network Technology Plan which we localise to fit our environment. In this Plan, Group sets certain coverage targets for its Operating Companies (OpCos) based on some high level principles. It is then up to each OpCo to determine how these principles fit with their local operating environment and, based on local knowledge, plan how it intends to meet the targets set by Group.
120. Approval from Group for capital expenditure, such as for network rollout, is based on revenue projections. Vodafone sets aside a certain amount of budgeted revenue for capex spending. Budgets are reviewed quarterly and any variances between forecasts and actuals must be explained. Should revenue decline, the flow on effect is that spending on capex cannot be maintained at budgeted levels.
121. Therefore, if incoming rates are lower than our reference offer, and the waterbed effect does not fully compensate for these lost revenues, this will have implications for capex spend. The first area that is likely to be reassessed should we need to pull back on capex is coverage.

## **Revenues are uncertain and dependent on customers and usage**

122. We launched commercial service on our 3G network on 10 August 2005.
123. Vodafone has made the investment in a 3G network because in the long-run 3G is a more efficient technology. There is increased capacity that comes with a 3G network and we can deliver new services to customers, including video calling and faster data speeds.
124. From a network perspective 3G is a much more cost-effective technology when compared with 2G. But lower unit costs can only be realised if we can convince customers to switch from 2G to 3G and to use 3G services. We need to get traffic on our 3G network to secure the greater efficiencies that are in theory available.
125. Services available via the 3G network include voice, text and data. The focus is naturally on the newer data services that the additional capacity provided by 3G allows us to provide. Services such as the Vodafone Mobile Connect Card, Video Calling, and new content-rich services such as Mobisodes and Full Track Music Downloads are all areas within which Vodafone expects to generate revenues to help cover the costs of our network investment.
126. We expect that our customers will want these new services. And as we get more customers connected to 3G there will be a corresponding lift in uptake. However, this demand is far from proven. From our experience with 3G so far, MTRs still make up around [ ] VNZRI of total 3G service revenues, as compared with about [ ] VNZRI of non-3G service revenues.
- A 33% cut in termination rates will have a large negative impact on both our 3G and non-3G revenues.

### *Transitioning customers to 3G takes time*

127. In order for our customers to use the 3G network we need to replace their handset. A 3G customer is able to access the 2G network but this does not work the other way around. It will take Vodafone time to convince customers to switch as it will require an investment by the customer in a new handset.
128. Customer numbers are growing quickly and we will continue to encourage customers to make the switch. But even with significant handset subsidies, new calling plans and special offers, it takes time to transition two million customers. As we note above, we expect that it will take some years before 3G customer numbers exceed 2G customer numbers.

## **3G regulation at 2G rates will damage investment incentives**

129. In the previous section we suggested that the Commission has two choices for how to regulate 3G rates consistent with encouraging efficient investment.
- Regulate at 2G rates for the duration of the regulatory period, or
  - Develop a blended 2G/3G regulated rate.

130. If it chooses to regulate 3G rates, the important question is how the Commission should go about estimating the cost of termination in New Zealand on both 2G and 3G networks when it has no data on 3G costs in any country, and when 3G costs are above 2G costs at this point.
131. What the Commission should definitely not do is regulate at 2G rates until the point that 3G rates are lower, and then move to the lower 3G rates. This will effectively be a no-lose bet for the regulator and a lose-lose situation for operators:
- If the forecasts for incoming traffic on our 3G network do not materialise but we are forced to offer services for 2G termination rates, then we will be required to bear the costs of the shortfall.
  - If 3G is successful, incoming traffic is as forecast, and costs fall below the 2G rates, then the Commission will regulate down to 3G costs, and again we will never have the opportunity to recoup the additional costs of our 3G investment.
132. The consequences for future investment incentives of such an approach could be dire. In the short term, access seekers would get cheaper termination rates to 2G and 3G, but we would not be able to afford to expand our 3G network and services would suffer in the medium term. In the longer term, we would be deterred from future investment in the New Zealand market under such a “heads I win, tails you lose” regulatory structure.
133. We have attached a paper from David Newbury that explains this issue of regulatory consistency in more detail.

### **Regulation will reduce competition**

134. The Commission has recognised the asymmetric impact of MTR regulation on Vodafone and Telecom.<sup>23</sup> MTR regulation is undoubtedly a bad thing for Vodafone, while Telecom can insulate itself from the impact through its fixed line calling business.
135. In order to deliver the Commission’s projected net consumer benefits of between \$55 million and \$72 million, the (pre-waterbed) effect of regulation is to reduce Vodafone’s revenues by around \$250 million on an NPV basis over 5 years.
136. This impact will reduce our ability to compete and invest. We must respond to it. MTR regulation could influence many of our current business plans.
- We plan to compete in local access, calling and data to the home and business. This competition could mean facilities-based, nationwide competition with Telecom’s fixed network.
  - We plan further significant retail price reductions. We are cutting prices and enlarging bundles to drive minutes on to our mobile network and therefore competing more and more directly with fixed-line calling. The

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<sup>23</sup> Final Report, para 606.

Commission accepts that we will raise retail mobile prices in response to MTR regulation.

- We plan to continue building out our 3G network, and we are planning to update that network to deliver even higher speed wireless services.

137. In our view what the Commission should do is encourage Vodafone to compete with Telecom on as many fronts as possible. It needs the same level of competition that it has in mobile in all market segments.

138. MTR regulation does the opposite. It inhibits Vodafone and strengthens Telecom. Vodafone is Telecom's most significant competitor. The Commission needs to take account of the impact of MTR regulation on Vodafone's ability to compete with Telecom in its consideration of the benefits and costs of MTR regulation.

## IX Legal framework

139. In this section we outline our concerns about the legal errors that we think the Commission is making in its Reconsideration Draft. We cover four issues:

- Market definition
- Total welfare versus consumer welfare test,
- Whether regulation of Vodafone MTRs will promote competition, and
- The unreasonableness and irrationality of the Commission's approach on the regulation of termination on our new 3G network.

### Market definition continues to be a problem

140. The Commission continues to define a market for termination on each mobile operator's networks. We continue to argue that this is an error of law.

141. The Commission is now recognising that this relationship exists through its modelling of the waterbed effect. It also speaks itself about the different "sides" of the market.<sup>24</sup>

142. But it has not reconsidered the implications of its approach for market definition. Indeed, the whole of the Commission's approach to MTR regulation rests on its mistaken conception of a market for termination services on each of Vodafone and Telecom's networks.

143. The Commission has recognised the existence of two-sided markets and analysed their effects in recent proceedings seeking clearance of a purchase of three community newspapers.<sup>25</sup> The Commission's views on this issue are very similar to our arguments in the case of mobile termination.

- Community newspapers are an example of a two-sided market, where operators supply services to two interdependent customer groups of readers and advertisers. The two sides of the market are inextricably linked, and this linkage forms part of the market definition (paras 106, 3).
- When thinking about two-sided markets, neither side can be analysed in isolation from the other. "That is, regard must be had to competitive conditions, barriers to entry, pricing, output and quality decisions, etc. on both sides of a two-sided market" (para 54).
- The community newspapers earn much if not all of their revenues from advertisers, and the printed media itself is commonly supplied to readers close to, or below, the marginal cost of printing and distribution (para 107).

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<sup>24</sup> Reconsideration Draft Report, paras 287, B3 and B4 and footnote 62 on page 73.

<sup>25</sup> Commerce Commission, 'Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving Fairfax New Zealand Limited and Times Media Group Limited', Decision number 561, 14 October 2005.

144. The Commission should now recognise that mobile termination and mobile outbound calls are services provided by platforms that operate in two-sided markets. In these markets, competition will act to keep the overall level of prices in line with costs.
145. The individual prices of services supplied to the two sides can differ from the costs, no matter how strong competition between platforms is. This means that the Commission's comparisons of MTR prices with MTR costs are not meaningful in the context of a two-sided market.
- This is exactly analogous to the case of the community newspapers. There is no reason at all to think that the community newspapers are overcharging advertisers and giving readers a free ride. A set of charges that made readers pay more for their newspapers would mean fewer readers, less interest from advertisers and less value for both sides of the market overall.
  - Indeed, two-sided market theory concludes that consumer welfare will often be maximised by prices that differ between the two sides of the market.
146. Operators compete for termination revenues by competing for customers in the retail market. A price rise for termination will induce more competition for customers at retail that will offset the increase in price for termination. An operator therefore can not profitably increase termination rates unless it also monopolises retail mobile services. By the terms of the Commission's SSNIP test, this should mean that both retail mobile services and mobile termination services are in the same market.
147. If the Commission were to define its markets appropriately, it should conclude that there is no market failure that could justify termination rate regulation. It certainly should not be using a so-called price/cost margin on the termination service to infer anything about the state of competition in a two-sided market.

### **The Commission should not use solely the consumer welfare test**

148. The Commission's stance against using the public welfare test has hardened as the net benefits of MTR regulation measured by that test have approached zero. In its latest draft the Commission now says it places no weight at all on the public welfare results.<sup>26</sup>
149. The public benefits of this regulation are now very small. In our view, even on the Commission's optimistic numbers, the public benefits test simply does not support regulation given the uncertainties inherent in regulation. Even very minor adjustments to one of many uncertain parameters reduces the benefits of this regulation as assessed by the Commission model to below zero.
- As an example, the Commission expects fixed to mobile passthrough rates to grow to 100% by 2010. If this rate grows only to 95% (which is still extremely high by historical standards) then the Commission's CBA gives negative results under the public welfare test.

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<sup>26</sup> Reconsideration Draft Report, para 67.

- Again, the Commission assumes that the cost of termination in New Zealand is 15 cpm at present, falling to 12cpm by 2010. If this assumption is mistaken at all, e.g., if costs are actually 16 cpm at present, or even if costs are not falling over time but staying constant at 15 cpm, then the Commission's CBA gives negative results under the public welfare test.
150. The legal ground on the two tests has been well trodden in the course of the MTR regulatory debate. We do not review it here. But we do want to briefly summarise our position.
151. We agree with the Commission that a consumer welfare test (or a net acquirers' benefits test) may be appropriate in an economic sense in the case of price control, i.e., where there are functionless monopoly rents that can be transferred from producers to consumers with an overall increase in welfare.
152. We also agree with the Commission that section 18 of the Telecommunications Act is like section 1A of the Commerce Act.
153. However, we do not agree that the Telecommunications Act can be used to justify price control. Section 53(2) of the Commerce Act describes the conditions that can warrant price control. It therefore identifies the circumstances in which section 1A of the Commerce Act is set to one side, i.e., those situations where the promotion of competition is not relevant or achievable. There is no equivalent provision in the Telecommunications Act. The sole purpose of that Act is the promotion of competition.
154. In any case, mobile termination pricing does not involve functionless monopoly rents.
- Termination rates help to encourage mobile market entry and subscriber acquisition and, as the Commission has recognised, high MTRs boost competition in the retail mobile market.
  - At worst, higher termination prices and lower retail mobile prices mean higher prices for those customers who make fixed to mobile calls, and lower prices for mobile customers (relative to a world where termination rates are lower and retail mobile prices are higher). High termination rates do not mean high profits for providers.
155. We encourage the Commission to correct this mistake, and to reinstate the public benefits test as a key criterion for regulation.

### **Regulation of Vodafone MTRs will not promote competition**

156. Section 18 makes it clear that the purpose of regulation under the Telecommunications Act is to promote competition in telecommunications markets for the long-term benefit of end-users.

157. Regulation of mobile termination might in principle promote competition by encouraging new entry into the fixed to mobile and toll calling market, or by encouraging existing operators to behave more aggressively.<sup>27</sup>
158. The Commission argues that regulating mobile termination rates will mean lower barriers to entry. This is because it will reduce Telecom's ability to sustain a price squeeze.<sup>28</sup>
159. This can not be an argument for regulating Vodafone's MTRs. We have no ability to price squeeze.<sup>29</sup> We do not compete in the fixed to mobile and tolls calling downstream market.
160. In our view, regulating Vodafone's MTRs is not consistent with the section 18 requirement to use regulation only to promote competition for the long-term benefit of end-users.
- The main effect of regulating Vodafone's MTRs is to harm mobile consumers, for whom prices will go up.
  - Without effective enforcement of passthrough, regulating Vodafone's MTRs will simply reinforce Telecom's dominant market position in the fixed to mobile and toll calls market.
  - Since Vodafone is not in a position to impose a price squeeze, regulation of Vodafone's MTRs is equivalent to price control. And this can not be justified under the Telecommunications Act.

### **Irrationality of approach on 3G**

161. The Commission's approach to the regulation of 3G in the Final Report could not have been clearer.<sup>30</sup>

"In terms of dynamic efficiency, regulation of 3G networks is likely to increase the risk of delay or restrict investment in 3G networks and cause a significant dynamic efficiency detriment."

"In addition, and possibly more importantly, the Commission considers that regulating a new technology before its viability in New Zealand has been proven, let alone before the service has even begun to operate (to provide voice service), may have adverse implications for investment in new technology generally. This detriment could arise from a more limited deployment or a deferral in deployment of other new technologies that would bring benefits to the end-users of telecommunications services.

The difficulty of predicting the future path of 3G exacerbates the dynamic efficiency risk of regulating a service to be supported by 3G networks. For these reasons, the Commission concludes that regulation of 3G voice termination would represent a significant dynamic efficiency detriment."

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<sup>27</sup> We referred to this issue at length in our submissions on the Issues Paper (sections 2.1, 2.2 and 3.2), and the Draft Report (paras 219 to 255).

<sup>28</sup> Final Report, paras 286 to 290.

<sup>29</sup> The Commission recognises this in para 289 of the Final Report.

<sup>30</sup> Final Report, paras 14, 754 and 757.

"[The Commission] cannot be satisfied that the regulation of mobile termination on both existing networks and prospective 3G networks is likely to promote competition in telecommunications markets for the long-term benefit of endusers."

162. Its conclusions in the Revised Draft are rather different:<sup>31</sup>

"The Commission now considers that there is no material risk that the regulation of 3G mobile termination would have a significant impact on the deployment of 3G networks. Existing and announced deployment is such that the vast majority of the population can or will shortly be able to access 3G mobile services."

"Given that the 3G networks of Vodafone and Telecom will, by the end of 2005, be able to reach the vast majority of the population, and that the new 3G data services supported by those networks will not be regulated, the Commission considers that the likely dynamic efficiency detriment to investment in 3G services caused by regulating termination rates is small."

163. This material change, without any reliable information on our 3G rollout or our network plans, is inexplicable.

164. In making its decision to propose regulation of 3G, the Commission has simply assumed from such scant public information as is available that our 3G network rollout is substantially complete.

- In fact, as we explained previously, our network is not substantially rolled out at all. It covers less than [ ] VNZRI of the population at present.
- We have not even begun the rollout of the HSDPA overlay to our network to enable us to offer even faster wireless broadband services.

165. The Commission also had no information on how we expected to recover our investment in 3G. It has assumed that cost recovery on the 3G network is assured because the advanced data services that 3G enables will not be regulated.

- We must have coverage in a wide geographical area before we can offer services. So capacity must be available to carry calls on the network before we have those calls to carry. This means there is a substantial risk that demand will be less than we expect, and that we will not recover the costs of our 3G investment.
- In fact, we expect that voice and text services will make up a high proportion of revenues from 3G services. As we explained, voice termination has made up around [ ] VNZRI of our 3G revenues, compared with about [ ] VNZRI of our 2G revenues.

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<sup>31</sup> Reconsideration Draft Report, paras 194 and 197.

166. The Commission also seems to have had no information at all on the costs of voice call termination on Vodafone's 3G network, apart from public statements of 3G equipment vendors and operators that it is cheaper.
- It has made no allowance at all for the risk that it may be understating 3G costs by simply assuming that they are currently the same as 2G costs.
  - It has made no allowance for the fact that unit costs on 3G initially will be very high, even if as volumes grow unit costs do eventually fall to below 2G levels.
  - It has made no allowance at all for the fact that 2G costs will rise as traffic on our 2G network falls. Indeed, the Commission quotes some figures from an OfCom document that show that 2G costs in the UK are falling as demand rises, but does not quote from the very next section of the report where OfCom concludes that migration of traffic to 3G networks will mean that 2G costs will rise over time.
167. The Commission has the ability to gather the required data. In our view its failure to do so is inexplicable given the crucial importance of the decision on whether to regulate 3G to its case for regulation.
168. In our view, the Commission's entire approach to regulation of 3G is unjustifiable and unreasonable.
169. If the Commission is to regulate 3G termination, it must make an allowance now for a higher regulated rate to reflect the initially higher costs of 3G.

## X Conclusions

170. This section presents our conclusions.

171. We question the value of MTR regulation when:

- New Zealand MTRs are not high compared with current rates in the rest of the world.
- Regulation will mean higher mobile retail prices.
- If we cannot recover losses in MTR revenue from retail revenues, regulation will affect our investment plans and ability to compete.
- Regulation without a rigorous passthrough mechanism will advantage Telecom at Vodafone's expense.

172. The Commission's estimates of the benefits and costs of regulation are unreliable.

- There are several important flaws with the model and its assumptions.
- The Commission's costs estimates are likely to be too low, especially for 3G termination since we have only just begun to offer 3G services.
- The estimates of the net benefits are now so low that even very minor changes in uncertain inputs can reverse the case for regulation.

173. The Commission's case is legally uncertain.

- The entire argument is based on a flawed market definition that looks at only one side of the two-sided mobile services market.
- The Commission is using the wrong legal test in assessing the benefits. Price control can not be justified under the Telecommunications Act.
- Regulation of Vodafone's MTRs will not promote competition overall. There is no market failure that regulation can overcome. We are not putting on a price squeeze in the FTM calling market.
- The Commission's approach to regulation of termination on our 3G network is unreasonable when the Commission lacks any reliable evidence on our rollout, on our expectations for demand, or on costs.

174. We have offered to reduce our MTRs without regulation. The Commission should recommend that the Minister enforce the reference offers and Telecom's passthrough commitment.

- Designation of termination rate regulation that is deferred while compliance continues with the offers would be one means to do this.

175. A review of the history of the Commission's MTR investigation shows that the Commission has consistently made decisions and adopted approaches which produce results that support regulation. This creates an appearance of decisions having been made deliberately to produce a recommendation of regulation.
176. If the Commission prefers to recommend regulation of termination rates now, it must at least:
- Make an allowance for a higher regulated rate to reflect the initially higher costs of 3G.
  - Raise the estimated 2G regulated rate to reflect the likely higher costs of providing mobile services in New Zealand, and
  - Strengthen its passthrough requirement to ensure that fixed operators do pass on the benefits of lower MTRs to consumers.