

# MTR Reconsideration Draft Net Benefits if 3G Termination is Excluded

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## PUBLIC VERSION

### 1. Introduction

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Vodafone New Zealand has asked us to consider an additional matter regarding the Commerce Commission’s assessment of the net benefits of regulation of mobile termination rates (MTRs) as given in its Reconsideration Draft report of 22 December 2005. This is to estimate the net benefits if regulation were confined only to termination on 2G networks. We have estimated the effect on the Commission’s net benefit results of this issue, while maintaining all of the Commission’s other assumptions and methodology.

We find that this change to the Commission’s assumptions significantly reduces the net benefits of regulation, as shown in Table 1, where the percentage changes are given relative to the Commission’s results in the Reconsideration Draft.

**Table 1** Effects on net benefit results of excluding 3G termination.

Demand	NPV (2006 \$m)		Percentage Change	
	CW	TS	CW	TS
Linear	8.57	-5.11	-88%	-149%
CED	3.57	-7.97	-93%	-677%

In the following section we discuss how we have modified the Commission’s model to obtain these results.

### 2. Net Benefits if only 2G Termination is Regulated

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The Commission’s analysis assumes that regulation applies to all FTM calls regardless of whether they terminate on a 2G or 3G network. In this section we estimate the net benefits if regulation is confined only to 2G termination. We do this using the Commission’s cost-benefit model but by scaling back the gross benefits to consumers and producers, as well as the waterbed detriments, by an estimate of the fraction of mobile customers that have a 2G connection.

To do this, we require an estimate of the fractions of mobile subscribers that will subscribe to a 2G or 3G network in each year from 2007 to 2011. As has previously been

argued, Telecom's CDMA (027) network is a 3G network, thus we assume regulation will not apply to all 027 customers. In its latest set of quarterly financial results, Telecom stated that approximately 80% of its customers are on 027, and these customers generate 96% of its revenues from wireless operations.<sup>1</sup> This would suggest that, at a minimum, 80% of FTM calls to Telecom mobile customers terminate on the 027 network. In practice, the fraction will probably be higher, as indicated by Telecom's revenue results. However, to be conservative, we have assumed that 80% of the FTM minutes terminated on Telecom's mobile network were terminated on 027 at the end of 2005.

Telecom has also previously stated that it expects to close down its TDMA (025) network by the end of 2007.<sup>2</sup> We have therefore assumed that the fraction of Telecom's customers that are on its 3G network increases linearly from 80% as at December 2005 to 100% by December 2007. The Commission's model uses June years, so we have calculated an annual average number of 3G subscribers for each June year based on these assumptions.

In contrast, Vodafone has only recently introduced its 3G network, and the majority of its customers are still using its 2G GSM network. Vodafone has provided to us its estimates from its internal long-range plan of the fraction of its customers that will be on its 3G network in each financial year from 2006 to 2015. We have converted these to June years and used these as estimates of the fraction of Vodafone 3G customers.

We have then weighted the estimates of the fraction of 3G customers for the operators by projections of their market shares of total mobile customers going forwards. Vodafone's share of customers was approximately 53% at the end of 2005, and had been declining slightly for approximately a year. We have used Vodafone's market share projections from its long-range plan as estimates of future market share.

Since it is not possible to know exactly which FTM minutes terminate on a 2G or 3G network, and since FTM callers are unlikely to care what type of mobile network their call terminates on, we have estimated the effects of confining regulation to 2G termination by scaling back the gross benefits and waterbed detriments by the proportion of mobile customers that we have estimated to be on a 2G network. Our calculations, based on the cost-benefit model used by the Commission for its Reconsideration Draft, are shown in Table 2.

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<sup>1</sup> [http://www.telecom.co.nz/binaries/q2\\_06\\_presentation.pdf](http://www.telecom.co.nz/binaries/q2_06_presentation.pdf).

<sup>2</sup> [http://www.telecom.co.nz/binaries/tcnz\\_q2%2005\\_presentation.pdf](http://www.telecom.co.nz/binaries/tcnz_q2%2005_presentation.pdf).

**Table 2** Calculation of net benefits if 3G termination is excluded (\$m).

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Table 3 summarises the effects on the net benefits if 3G termination is excluded, and shows the percentage changes relative to the results calculated by the Commission. From this we conclude that regulation is not justified if 3G termination is not included.

**Table 3** Effects on net benefit results of excluding 3G termination.

Demand	NPV (2006 \$m)		Percentage Change	
	CW	TS	CW	TS
Linear	8.57	-5.11	-88%	-149%
CED	3.57	-7.97	-93%	-677%