Office of Utility Regulation

Mobile Termination Rates

Consultation Paper

Document No: OUR 06/14 **August 2006**

Office of Utility Regulation
Suites B1 & B2, Hirzel Court, St Peter Port, Guernsey, GY1 2NH
Tel: (0)1481 711120, Fax: (0)1481 711140, Web: www.regutil.gg

Contents

1. Introduction

Mobile termination rates ("MTRs") are the fees charged to other telecommunications companies by mobile network operators to terminate calls on mobile networks. Mobile termination is a significant input into the provision of retail fixed-to-mobile and mobile-to-mobile services.

For a network operator to connect a caller on their network with the intended recipient of the call on a different network, an arrangement is needed by which the call can go through and the paying party (usually the party making the call) can be charged by both their own network and that of the receiving party, for their respective parts of the call's transmission across the two networks. If such a call termination arrangement were not established, a network operator could only terminate calls to other customers on its own network. Payment to the operator on whose network the call is terminated is actually made on an aggregated basis by the customer's network operator and normally makes up only a component of the retail charge the customer pays.

To-date, mainly because of network operators having monopolies of termination services on their own networks, regulators in other jurisdictions have considered in detail the level of charges for this service, and a number of regulators have adopted specific price controls for the service. The Director General ("DG") believes that, given the rates that currently exist in the Guernsey market, consideration should be given to assessing the degree to which the rates are appropriate.

The purpose of this paper is to consult interested parties on whether such oversight is required and, if so, which method should be used to establish a set of reasonably efficient mobile voice call termination charges for the two 2G networks currently operating in the Bailiwick. It is important that these charges should not be excessive, so that the benefits of having a competitive retail market in mobile telecoms services are not reduced or cancelled out through uncompetitive rates in the wholesale termination market.

This paper therefore considers in the first instance whether there is any need for the DG to intervene in setting MTRs within the Bailiwick. Should it be decided that regulatory intervention is necessary, the paper goes on to set out the options open to the DG in deciding how MTRs should be regulated, and invites opinions on these options and the DG's proposed method for proceeding.

This document does not constitute legal, technical or commercial advice; the Director General is not bound by this document and may amend it from time to time. This document is without prejudice to the legal position or the rights and duties of the Director General to regulate the market generally.

2. Structure of the Consultation Paper

2.1. Structure of Consultation Paper

The rest of this paper is structured as follows:

Section 3: sets out the legal and regulatory background to the DG's proposals for regulating MTRs;

Section 4: this section looks at whether or not MTRs should be regulated in Guernsey;

Section 5: sets out the developments in other markets in regulating MTRs;

Section 6: considers the options available to the DG in setting MTRs and considers their pros and cons in the context of the Bailiwick with particular reference to the appropriate level of regulation; and

Section 7: sets out the next steps to be taken following this consultation.

2.2. Timetable for Responses to Consultation Paper

Responses to this document should be submitted in writing and should be received by the OUR before 5.00pm on Friday 22nd September, 2006. Written comments should be submitted to:

Office of Utility Regulation,
Suites B1 & B2,
Hirzel Court,
St Peter Port,
Guernsey, GY1 2NH.

Or by email to **info@regutil.gg**

In accordance with the OUR's policy on consultation set out in Document OUR 05/28 – "Regulation in Guernsey; the OUR Approach and Consultation Procedures", non-confidential responses to the consultation are available on the OUR's website (www.regutil.gg) and for inspection at the OUR's Office during normal working hours. Any material that is confidential should be put in a separate annex and clearly marked so that it can be kept confidential. However, the DG regrets that he is not in a position to respond individually to the responses to this consultation.

3. Legal Background & Regulatory Framework

3.1. Legal Background

Section 5(1) of the Telecommunications (Bailiwick of Guernsey) Law, 2001 (the "Telecoms Law"), provides that the DG may include in licences such conditions as he considers necessary to carry out his functions. The Telecoms Law specifically provides that such conditions can include (but are not limited to):

- conditions intended to prevent and control anti-competitive behaviour; and
- conditions regulating the prices, premiums and discounts that may be charged or (as the case may be) allowed by a licensee which has a dominant position in a relevant market.

Under section 10(2)(c) of the Telecommunications (Bailiwick of Guernsey) Law, 2001, a licensee found to be dominant in a relevant market is obliged to provide interconnection and access on "terms, conditions and charges that are transparent and cost-oriented".

In addition, Section 10(4) of the Telecoms Law provides for the DG to require a licensee to justify the costs of and charges for providing interconnection or access and to show that those charges are derived from actual costs.

These provisions allow the DG to regulate MTRs, should there be a need for regulatory intervention.

3.2. Regulatory framework

In OUR 05/12, the DG set out proposed findings on market dominance in Guernsey following a review of the market. He proposed to find both C&WG and Wave dominant in the wholesale mobile telecommunications market on their respective networks.

Following this consultation and the acceptance of this proposed finding by both parties, the DG therefore adopted this conclusion in the final decision, OUR 05/19:

> *"The Director General finds C&W Guernsey Limited dominant in the retail mobile telecommunications market and both C&W Guernsey and Wave Telecom dominant in the wholesale mobile telecommunications market on their respective networks."*

In accordance with these provisions, C&W Guernsey's and Wave Telecom's Mobile Telecommunications Licences include the following condition:

> *"The Director General may determine the maximum level of charges the Licensee may apply for Licensed Telecommunications Services within a Relevant Market in which the Licensee has been found to be dominant. A determination may;*
>
> *a) provide for the overall limit to apply to such Licensed Telecommunications Services or categories of Licensed Telecommunications Services or any combination of Licensed Telecommunications Service;*
>
> *b) restrict increases in any such charges or to require reductions in them whether by reference to any formula or otherwise; or*
>
> *c) provide for different limits to apply in relation to different periods of time falling within the periods to which the determination applies."*

This condition therefore allows the DG to regulate the prices that a licensee charges for its telecommunications services in a way and for a time that he deems appropriate, provided the licensee has a dominant position in the relevant market.

4. The Case for Regulating MTRs in the Bailiwick

4.1. Is there a need for Intervention?

It is sometimes argued that ex-ante regulation should not be imposed upon new markets because of the risks of slowing the development and innovation that are usually funded through the high profits available in fast-growing markets. During its early period as a communications medium, mobile telephony was viewed as a luxury service to be taken up by high-yield businesses and wealthy individuals, and any form of price control was seen as unnecessary for such a service. This meant that, during an initial period, charges for termination on individual networks were agreed on by mobile (and fixed) operators amongst themselves at relatively high levels, and yet it was not regarded as necessary to impose protective measures for consumers of these services. With mobiles regarded as a 'luxury', network operators could set these unregulated charges high and both they and fixed-line operators could pass these costs on to callers, who accepted them as reasonable for the new services.

Since then, however, mobile telephony has become a very standard element of daily life, with near total penetration rates in developed countries. In addition, while most countries have several network operators competing for customer subscriptions, this competition does not necessarily extend to termination rates. There are several reasons for this:

- firstly, termination charges are generally passed on to the calling party in the cost of their call (under the arrangement known as 'calling party pays' or "CPP") and so do not affect a subscriber being called and therefore do not have a direct effect on their decision on which network to subscribe to;

- secondly, callers have no control over which network the person they are calling belongs to; and

- finally, while reciprocated high termination charges *will* affect the called party indirectly, if all networks have similarly high termination rates then the net uncompetitive effect of these will be neutralised.[1]

Thus, it can be the case that, even in a mature market with significant levels of competition, there remains scope for the tacit maintenance of high mobile termination rates, sustained by the potential losses caused by unilateral deviation from these. While there is often the argument made that the excess returns generated from high termination charges are competed away through low (or even subsidised) prices on handsets and monthly line rental, and that any lowering in termination charges will have a

[1] Other effects, such as handset subsidisation for subscribers through high termination rates for off-network callers, will also be attractive to network operators, although again these will cancel each other out when applied by all network operators, resulting in high termination rates all round.

corresponding upwards pressure on another part of the price structure (known as the 'water-bed effect'), such situations are at best opaque and it is generally not satisfactorily demonstrated that this is the most efficient way of structuring charges.

4.2. MTRs in the Bailiwick

The current MTRs for the two 2G operators in the Bailiwick are shown in Table 1 below.

Table 1: 2G Mobile Termination Rates (ppm)

Time of Day	**Wave GSM**	**C&WG GSM**
Daytime	12.60	12.60
Evening	9.84	9.84
Weekend	6.82	6.82

Source: Operators.

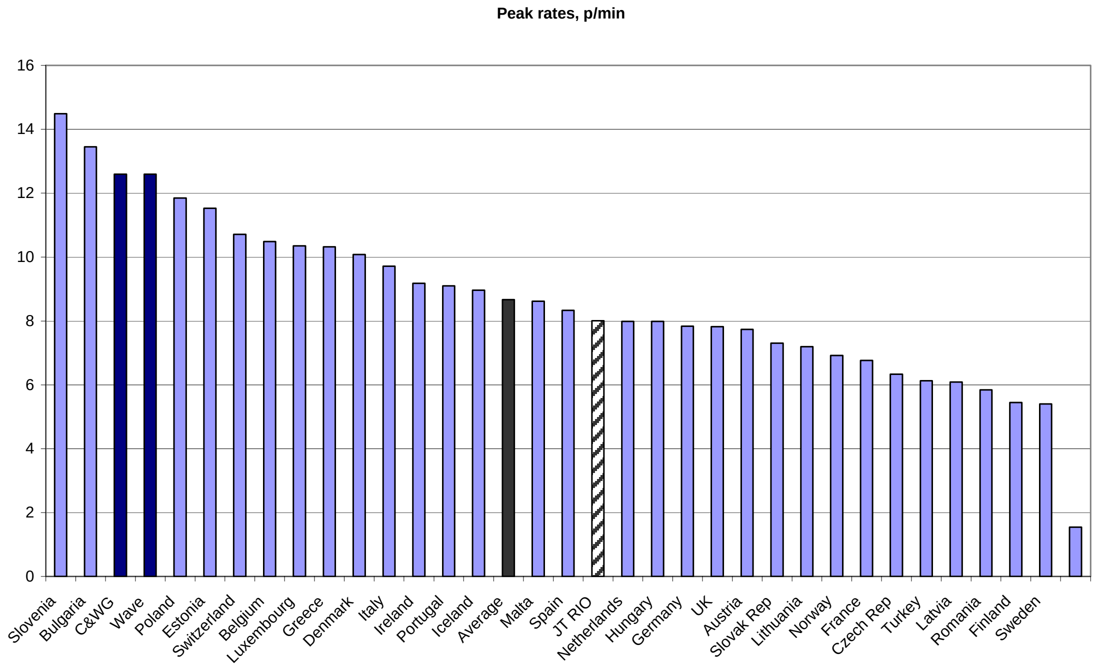
The table shows that the two operators' mobile termination rates are identical. Based on information received to date from the Bailiwick's mobile operators, the DG has concerns that these rates are not necessarily cost based. Operators are therefore invited to provide updated information to show the extent to which the rates charged are indeed based on costs incurred. In addition, operators are also invited to demonstrate that the any costs put forward in justification have been efficiently incurred by the operators.

As noted in section 3.2 both C&WG and Wave were found to be dominant in the provision of mobile termination on their respective networks in a recent OUR decision (OUR 05/19) and the CPP arrangements in place would indicate that the potential for pricing above cost exists for both mobile operators. Furthermore, the mobile termination rates in the Bailiwick reveal a similarity in the amounts charged that does not necessarily suggest a high level of competitive forces operating in these markets.

Figures 1 and 2 below show the Peak and Off-Peak[2] MTRs for a number of jurisdictions including those within the IRG study described in section 5.2. For the Peak charges, C&WG and Wave have the third highest MTR of the 31 jurisdictions.

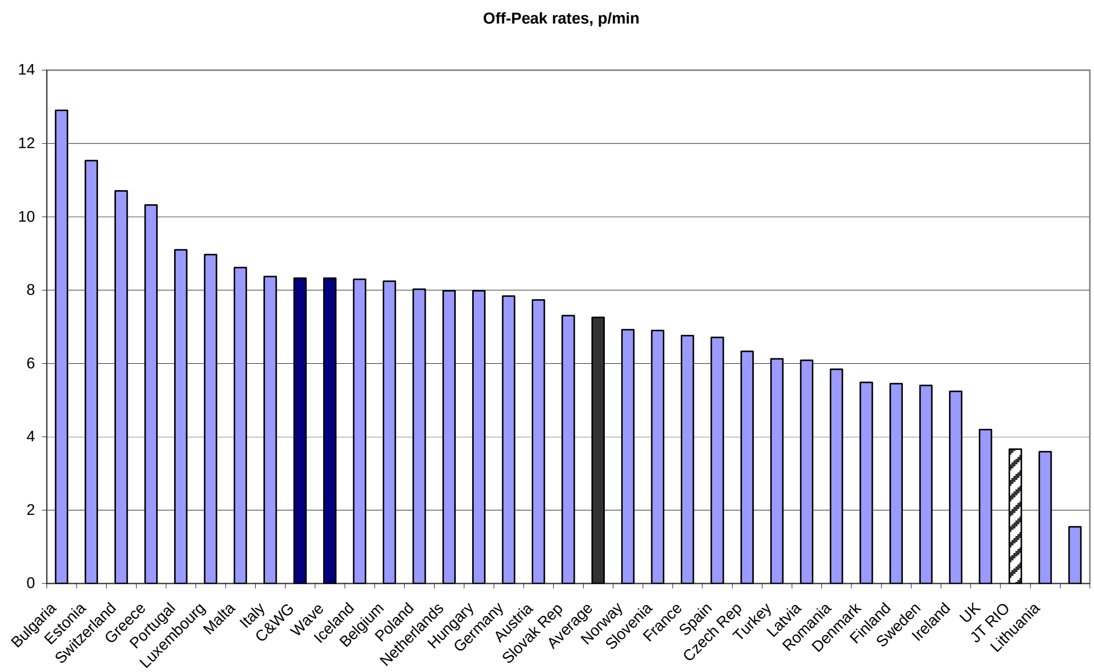
[2] For the two Bailiwick operators, Off-peak rates were calculated as a straight average of Evening and Weekend rates, with the Total figures calculated as an average of Peak and Off-peak rates.

Figure 1 Comparison of Peak MTRs



For the Off-Peak charges, C&WG and Wave have the ninth highest MTR of the 31 jurisdictions.

Figure 2 Comparison of Off-Peak MTRs



Experience in other markets has demonstrated the need for regulators to intervene directly in the setting of MTRs. In particular, the DG notes the views of the ERG in this regard as summarised in section 5.2 below.

In addition, looking at Appendix 3 below (Status of MTRs in Regulatory Regimes in Selected EU Member States), it is clear that it has been seen as necessary to regulate MTRs in most European jurisdictions. It would seem reasonable to conclude that the possibility of excessive mobile termination rates is a widespread issue for regulatory authorities. Given this, and in light of the levels of rates prevalent in the Bailiwick in comparison with those in other European countries, the DG therefore proposes to intervene in a proportionate manner in the setting of MTRs by the two 2G mobile operators within the Bailwick.

Q1. Do respondents agree with the DG's proposal to intervene in a proportionate manner in the setting of MTRs for the two 2G mobile operators within the Bailiwick? If not, please state your reasons for disagreeing in as full and comprehensive manner as possible.

Q.2 Do respondents agree that the regulation of the 3G mobile termination rates should be considered at the same time as any decision to regulate 2G mobile termination rates?

Q.3 What additional factors with respect to the 3G market should be considered by the DG in considering any regulation of mobile termination rates in the 3G market given market developments elsewhere?

5. Mobile Termination in Other Jurisdictions

Should the regulation of MTRs be considered appropriate, the DG will be required to consider carefully the approach to be followed in assessing and determining appropriate rates.

This section sets out the way in which MTRs have been determined in other jurisdictions. While the DG is aware that significant work has been undertaken by regulators in a wide range of countries, the focus of this document is on regulatory measures in countries with regulatory regimes more closely aligned with Guernsey. Therefore, this report focuses on:

- the current regulatory approach adopted by Ofcom in the UK;
- the approach of the European Commission and NRAs in European countries; and
- the approach taken to the regulation of MTRs in Jersey.

5.1. The UK Approach

Ofcom's Wholesale Mobile Voice Call Termination Statement of 1st June 2004[3] set out the prices to which 2G mobile network operators were to bring their own network termination charges into line with for the years until March 31st 2006.

Ofcom decided to place a charge control on the average of the charges (i.e. daytime, evening and weekend charges), weighted by the relative call volumes in the previous year, levied by each of the four Mobile Network Operators ("MNOs") for terminating voice calls on their 2G networks. This charge control was intended to bring the weighted average charge down to the efficient charge level by 2005/06. Ofcom's charge controls required that, during each period of the control, the average charge (the Average Interconnection Charge or "AIC") set by the regulated MNO should not exceed the charge with which the operator was required to comply (the Target Average Charge or "TAC"). As operators set different termination charges for different times of the day or week, a weighting mechanism was used to determine the AIC.

The prices set were 5.63 pence per minute (ppm) for 900/1800MHz operators (Vodafone and O2), and 6.31ppm for 1800MHz operators (Orange and T-Mobile), expressed in 2005/06 terms)[4]. These prices were calculated according to the long-run incremental cost ("LRIC") of the provision of mobile termination on each MNO's network, with allowances for common costs (allocated on the basis of equal proportionate mark-up –

[3] Ofcom "Statement on Wholesale Mobile Voice Call Termination", published 1si June 2004: http://www.ofcom.org.uk/consult/condocs/mobile_call_termination/wmvct/

[4] The Statement also held that a cost of capital of 12% was appropriate for calculating mobile termination rates.

"EPMU"), a network externality surcharge, and using a CAPM-derived cost of capital of 12%.

The Ofcom statement was due for review in early 2006. However, in mid-2005, Ofcom published two consultations: one on extending the price control period for 2G mobile termination charges for another year, until March 2007[5]; and another more broadly covering the future of mobile termination regulation, including considerations of 3G mobile termination charges[6]. The proposals in the first of these consultations were adopted and the second, on future mobile termination regulation, is to be reissued this year.

The purpose of the second consultation, the preliminary consultation on future MTRs, was to canvas opinion of the issues that should be addressed during the next review of wholesale mobile termination. This review was intended to be completed before the extended charge controls expired. Also consulted upon was a proposal to extend the existing charge controls on wholesale mobile voice call termination for a further 12 months to 31 March 2007. After consideration of the responses received to the preliminary consultation on future MTRs, Ofcom published its position on market definition and the existing signs of SMP, with the intention of developing the debate on future options for regulation after the end of the extended charge controls at the end of March 2007. It is Ofcom's stated intention to publish its final consultation document in the summer of 2006.

Ofcom's current position on market definitions and SMP can be summarised as follows:

- There are separate markets for mobile voice call termination on the networks of each of the UK MNOs (i.e. Vodafone, O2, T-Mobile, Orange and Hutchison 3G UK); and

- The evidence suggests that each of these mobile operators has significant market power on their own network.

Ofcom's current estimates of competitive mobile termination rates for 900MHz and 1800MHz mobile network operators are 5.63 ppm and 6.31ppm respectively.

The DG notes Ofcom's regulatory intervention in the UK mobile 2G market and will continue to monitor developments in the UK market over the coming months.

[5] Ofcom "Wholesale mobile voice call termination markets – a proposal to modify the charge control conditions" http://www.ofcom.org.uk/consult/condocs/wholesale/
[6] Wholesale mobile voice call termination – Preliminary consultation on future regulation, http://www.ofcom.org.uk/consult/condocs/termination/.

5.2. European MTRs

The European Regulators' Group[7], in their document "*ERG Common Position on the approach to appropriate remedies in the new regulatory framework*" state:

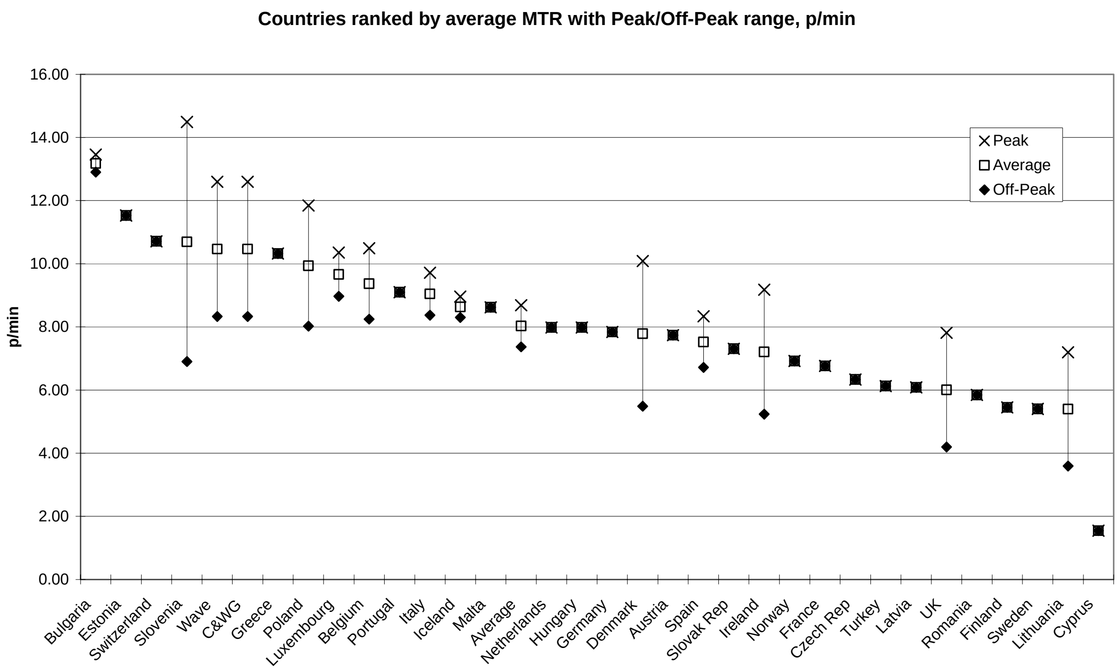
> *Market power on individual termination markets is likely to result in excessive pricing of the termination service which will lead in turn to allocative inefficiencies and a distorted pricing structure. This holds even true if the profits made are competed away on the retail market.*

Thus, the view that individual network operators' dominance in providing termination services on their respective networks can lead to excessive pricing is widely held amongst European NRAs.

In January 2006, IRG[8] published a comparison of actual 2G MTRs in 31 European countries as of January 2006[9]. These were aggregated to national levels according to market share per operator (and a few basic assumptions where time of day data was unavailable). The rates and their relative rankings are shown in the chart in Figure 3 below[10]. Appendix 1 contains details of the data and exchange rate used. The table in Appendix 3 also gives an overview of the position on regulation of MTRs in selected EU Member States.

[7] The European Regulators Group for electronic communications networks and services was set up by the European Commission (by Commission Decision 2002/627/EC, adopted on 29 July 2002) .
[8] The Independent Regulators Group (IRG) was established in 1997 as a group of European National Telecommunications Regulatory Authorities (NRAs) to share experiences and points of views among its members on issues of common interest.
[9] For details, see http://irgis.anacom.pt/admin/attachs/456.pdf.
[10] The raw data are provided in Appendix 1.

Figure 3 IRG MTR Comparisons with Bailiwick Operators



See Appendix 1 for details of the data and exchange rate used. The table in Appendix 3 gives an overview of the position on regulation of MTRs in selected EU Member States.

5.3. Jersey's Approach

In a consultants' report for the Jersey Competition Regulatory Authority ("JCRA") in February 2004[11], Coleago used data from the incumbent mobile operator's management accounts to develop cost figures for the company's mobile termination services on its 2G network. The paper made the following conclusions:

> *"On a FAHC basis the cost of termination for JT* [Jersey Telecom] *and for the UK operators as a group are to be broadly in line, once definitional differences have been taken into account. Given the potential underestimation of true economic costs and exclusion of customer acquisition costs from the estimates based upon JT's management accounts, we believe the UK benchmarks provide the most appropriate basis for price control.*
>
> *The most practical way to implement a control based on the UK benchmark would be simply to apply the UK price control to JT. There*

[11] http://www.jcra.je/pdf/040318%20Coleago%20JT%20Price%20Control%20Final%20Report%20cc%20v1.2%20MDU.pdf

> *are effectively two price controls in the UK, for GSM 900/1800 operators and for GSM 1800 operators. We would suggest applying a simple average of the two controls."*

The paper concluded, following an examination of the fully-allocated historic costs of the Jersey incumbent mobile operator, Jersey Telecom ("JT"), that the company's mobile termination costs bear sufficient resemblance to those of the UK mobile operators, and proposed the use of these latter figures as the basis for their termination rates determination. The actual rate proposed was a simple average of the two UK figures for GSM 900/1800MHz and 1800MHz operators, mentioned in the section on Ofcom's regulation above.

6. Options for Setting MTRs in Guernsey

The preceding sections outlined the regulatory initiatives that have occurred or are planned in other jurisdictions. The DG has outlined the information currently publicly available with respect to MTRs and the various approaches that have been followed by regulators in other countries. In the event that the DG determines that MTRs should be subject to regulation, a question arises as to the most appropriate means of determining rates for Guernsey mobile operators that are cost reflective.

In the DG's view there would appear to be three main options open to the DG in determining what should be the appropriate levels for mobile termination in Guernsey namely:

- determination by cost modelling, where network operators will be asked to supply detailed information to justify the levels they charge for termination on their networks;

- benchmarking, where levels set by regulators in other jurisdictions (often through cost-modelling exercises) are examined and an appropriately-judged level for the jurisdiction in question is developed from these; and

- Operators could take voluntary measures and propose binding commitments on mobile termination rates. These would be acceptable to the DG if they can be demonstrated to follow accepted principles of cost-based pricing and efficiently-incurred costs.

Q4. Do respondents agree with the DG that there are three main ways for setting the MTRs for the two existing 2G operators within the Bailiwick? If not, please state your reasons for your position in as full and comprehensive manner as possible.

6.1. Appropriateness for the Guernsey Market

The alternatives requiring regulatory intervention (i.e. cost modelling and benchmarking) have features and aspects that make them more or less suitable for use in the case of establishing reasonable MTRs for Guernsey.

Firstly, there is the degree to which each method is likely to produce a reliable figure for mobile termination costs. Cost-modelling should, in principle, produce an accurate figure for the cost of terminating a call on a particular mobile network. However, there is some degree of scrutiny required on the part of the regulator, to make sure that only appropriate costs are included. This involves a certain degree of information asymmetry, as the regulator can never be as fully informed about the mobile operators' costing systems as the operators themselves whilst at the same time there is scope for the manipulation of data, particularly with respect to the allocation of costs to certain parts of the business. Thus a level of opaqueness can creep into the process when a regulator requires operators to produce cost figures.

This argument is also the case when using cost figures from other jurisdictions, considerable care must be taken when using benchmarks. Any benchmarking exercise, therefore, should involve an assessment of the quality of the data being used for benchmarking purposes.

A second major feature of the two methods of arriving at figures for mobile termination is the amount of regulatory burden that the process places on the mobile network operators, along with the extent to which this burden represents a reasonable expense and use of resources for the outputs produced and corresponding benefits to the market. It could be argued in relation to this point that an extensive costing exercise for both mobile operators in Guernsey might be seen as excessive, given the size of the operators and the expense incurred through a full cost-modelling measure. This should also be seen in the context of the recent States debate on the overall effects and benefits of commercialisation in the Bailiwick and the specific requirement now on the DG to regulate in a manner that is proportionate to the Bailiwick.

With this in mind, it could be said that a full cost-modelling exercise might impose an unjustifiable burden on mobile network operators that could be reduced significantly without unreasonable changes in the accuracy of costing figures by using a benchmarking method for the DG's decision on mobile termination rates.

In the light of this, it would seem appropriate for the OUR to consider setting MTRs through a benchmarking exercise of levels applied in appropriately-chosen jurisdictions. This would import a degree of competitive efficiency into the Guernsey mobile telecoms market from regimes where there is more competition and where the regulator takes an active role in ensuring that charges such as these are cost-orientated. Secondly, the use of appropriate benchmarking would keep to a minimum the regulatory burden on the mobile network operators in the Bailiwick, something in the forefront of the DG's mind when addressing matters such as this where larger-scale intervention is a possibility.

An alternative approach is to request operators to propose realistic, cost-based MTR themselves which the operators would commit publicly to achieving. The regulatory role required would then become a monitoring role and this would avoid the need for a more detailed examination. However, for such an approach to be acceptable the DG would need to be assured of the degree to which operators were proposing voluntary rates that are cost-reflective and including only efficiently-incurred costs.

In light of the possible approaches available to the DG, he is currently minded, in the event that regulatory intervention is required, to adopt a benchmarking method for setting MTRs in Guernsey.

Q5. Do respondents agree that in principle benchmarking is the appropriate and proportionate approach to setting MTRs for mobile operators in the Bailiwick? If not, please state your preferred approach and the reasons for this view.

6.2. Benchmarking – Using the Appropriate Data Set

From the sections above and in particular sections 4 and 4.2, the OUR has identified three main data sets for using as benchmarks in setting MTRs for the Bailiwick's two 2G operators. These are:

- European IRG study rates;
- UK Ofcom-set rates;
- Jersey rates.

The European IRG Study Rates

This data set contains the largest population of MTRs and includes figures for operators from 31 jurisdictions. This would suggest that it represents a robust population upon which to derive Bailiwick specific MTRs. Comparing the two Guernsey operators with this dataset shows that the MTRs applied by local mobile operators are in the upper ranges of the benchmark data when compared with the rates applicable in these countries.

However, a number of comments might be made about use of a wide set of European MTRs as benchmarks. These include:

- there may be little transparency in the rates set by European mobile network operators, with differing degrees of regulation involved in their setting.
- not all rates are cost-based.
- in those jurisdictions where regulation has determined MTRs, different methodologies may have been used, from simple benchmarking to LRIC and FAC models.
- the scale and geographic features of the Bailiwick itself may have an effect on the costs of network construction and a resulting significance for termination rates.

However, the rates of local operators have to date not been demonstrated to be cost-justified. They have not been assessed with any degree of rigour as to their appropriateness or how they relate to the underlying cost of the service being provided. Therefore the concerns with the various underlying determinants for the data used by the ERG would appear to be in some way nullified. Also in its favour as an approach is the fact that it is a very wide data set, representing a range of countries at various stages of market development and with varying period since the development of competition in their mobile markets. The number of operators also varies as does the size and economic development of the individual markets. Therefore the DG believes that the ERG data set does form an appropriate basis to use benchmarking without any filtering of the dataset to account for the concerns described above.

Using the average figures from the IRG study, the MTR ppm rates for the 2G mobile operators on Guernsey would be:

Table 2: 2G Mobile Termination Rates with IRG average (ppm)

	Rates using IRG Benchmark Data [12]	**Current C&WG**	**Current Wave**
Daytime	8.4360	12.60	12.60
Evening	7.3078	9.84	9.84
Weekend	7.3078	6.82	6.82

Q6. Do respondents believe that using the European IRG Study rates as the basis for setting MTRs in the Bailiwick is appropriate? If not, please state your reasons for your position.

Ofcom-set rates

The OUR believes that UK regulatory regime through Oftel and subsequently Ofcom has led the way in assessing the underlying costs associated with MTRs. The current set of target MTRs for 2G in the UK, established in 2004 by Ofcom and adjusted each year for RPI variation, have been calculated using widely-accepted and rigorous techniques (being based on extensive long-run incremental cost-modelling), and provide a robust indication of the termination rates that should be charged by efficient network operators.

Furthermore, using figures produced by a world-respected regulator, using widely-accepted methods, could be said to be a sensible and light-touch alternative to insisting on a full LRIC-based investigation into the costs and prices of the Bailiwick's mobile telephony network operators.

Finally, it could be argued that these rates offer a better insight into the actual costs of terminating mobile calls than the mixture of cost-based, regulated and unregulated rates given by the IRG study.

The Ofcom charge control is on the average of all of an operator's MTR charges for terminating voice calls on their 2G networks (i.e. daytime, evening and weekend charges), weighted by the relative call volumes (in minutes) on their network in the previous year. The charge controls required that, during each period of the control, the

[12] Since the IRG study only involved peak and off-peak rates, the evening and weekend rates for Bailiwick operators would require further disaggregation under this option, according to a methodology approved by the DG.

Average Interconnection Charge ("AIC") set by the each operator should not exceed the Target Average Charge ("TAC") set by the regulator. Operators can set different termination charges for different times of the day or week, providing the weighted average (AIC) of these falls below TAC.

The TACs set by Ofcom were 5.63ppm for 900/1800MHz operators and 6.31ppm for 1800MHz operators (in 2005/06 terms), according to the long-run incremental cost of the provision of mobile termination on each of the UK's mobile networks. Since both 2G operators use both 900 and 1800MHz spectrum, it would be proposed that the TAC for Guernsey mobile operators should be the higher of the two rates, **6.31ppm**.

Using the Ofcom rates, ppm MTRs on the Bailiwick would be set at the following:

Table 3: 2G Mobile Termination Rates with the Ofcom rate (ppm)

	New Rates; Target Average Charge	**Current C&WG**	**Current Wave**
Daytime	**TAC: 6.31**	12.60	12.60
Evening		9.84	9.84
Weekend		6.82	6.82

Thus, under this scheme, both 2G mobile operators should ensure that the average MTR charge on their network (weighted according to the prior year's call traffic) is equal to or lower than 6.31ppm.

Q7. Do respondents believe that using the MTR rates set (and indexed for future years) by Ofcom would provide a good benchmark for use in setting limits for MTR rates in Guernsey?

Jersey

As mentioned above, the JCRA commissioned an investigation into the mobile termination prices of its incumbent mobile operator, JT. This investigation used JT's management accounts to derive an estimate of the cost of mobile termination in the same way in which fixed-line termination rates are calculated. However, the investigation noted that this method might not produce the most reliable estimate of the true economic cost of mobile termination. This was because the rapid growth of demand over the lifetime of the assets involved would mean that straight-line depreciation would weight depreciation charges relatively towards the front-end of the asset lifetime, producing an inaccurate estimation of depreciation. Further, a strict separation of cost causality might not capture some benefits, such as network externalities. For these two reasons, the investigation concluded that the UK's estimation of mobile termination rates (having, as they did, more accurate costing, as well as explicit inclusion of benefits such as network externalities) would be better figures to use than either figures from JT's own management accounts or those of the European IRG study.

Q8. Do respondents believe that using the mobile termination rates set (and indexed for future years) by Ofcom would provide a better benchmark for use in setting limits for MTR rates in Guernsey than those that would be produced by an examination of the management accounts of the mobile operators in the Bailiwick?

6.3. Proposed MTRs for Bailiwick Operators

Given the options set out above, and the arguments for and against each one, the DG sees it as appropriate, in the event that regulation of this market is required, to adopt the mobile termination rates recommended by Ofcom. This is for a number of reasons:

- Firstly, the rates proposed by Ofcom have been calculated using widely-accepted techniques. Model-based estimation of the long-run incremental cost of providing mobile termination is a rigorous and reliable way of establishing a figure as close to the actual cost as is possible.

- Secondly, the Ofcom rates were calculated for operators in a country with a similar mobile network technology to that of the Bailiwick. In addition, living standards are very similar in the two jurisdictions and so mobile penetration and service consumption will also be comparable.

- Thirdly, imposing the same limit on termination rates will import to Guernsey the levels of efficiency currently maintained in the UK mobile markets through, amongst other things, wholesale price regulation.

- Fourthly, adopting rates already carefully established by the UK regulator offers a far lighter-touch method of regulating the mobile termination markets in Guernsey than going into large amounts of detail with each mobile network operator to establish rates.

For these reasons, in the event that the DG sees a need to regulate MTRs, he proposes that the mobile voice termination rates for the Bailiwick (in ppm) should be:

Table 4: Proposed 2G Mobile Termination Rates (ppm)

	New Rates; Target Average Charge	Current C&WG	Current Wave
Daytime	**TAC: 6.31**	12.60	12.60
Evening		9.84	9.84
Weekend		6.82	6.82

Furthermore, it is proposed that this price cap be imposed for a period of three years from the start date, with adjustments after the first and second years for inflation. The DG proposes to review 2G wholesale mobile termination rates at the end of this period, and will also consider the need for any regulation of wholesale termination rates for 3G mobile during this time.

Q9. Do you agree with the approach and rates proposed by the DG in this section? If not, respondents are invited to set out fully the arguments against such an approach and what alternative approach you believe is appropriate.

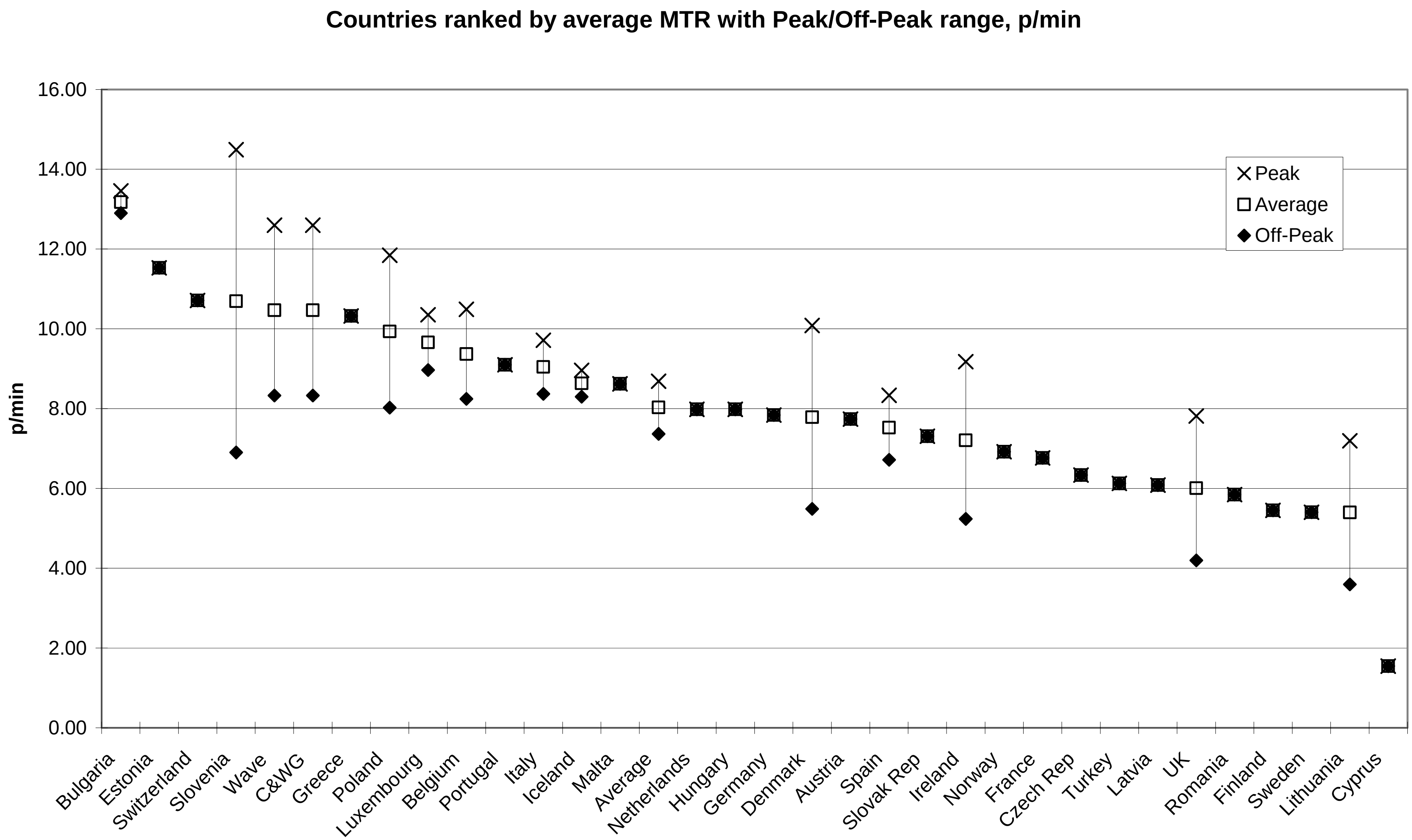
7. Next Steps

The DG is consulting on this matter so that he can further inform his thinking on the need for regulation of MTRs charged in Guernsey. As already note, regulators in most jurisdictions have or are in the process of considering the appropriateness of the rates charged by mobile operators for this service. Significant reductions in rates have or are planned in a number of countries and the DG considers it appropriate, in light of the need to ensure mobile users in the Bailiwick are protected, to consider carefully whether regulatory intervention is required.

Interested parties are requested to provide responses to this consultation paper by 22nd September 2006. Following consideration of those responses the DG will publish details of his consideration of these issues and whether any regulatory action is required.

ENDS

Appendix 1: IRG's Comparison of European Mobile Termination Rates, January 2006



Appendix 2: IRG Mobile Termination Rates Snapshot, January 2006.

IRG 2006 MTR figures, ranked by the average rate

	€ cents per minute			Pence per minute		
Country	**Peak**	**Average**	**Off-Peak**	**Peak**	**Average**	**Off-Peak**
Bulgaria	19.50	19.10	18.70	13.46	13.18	12.90
Estonia	16.71	16.71	16.71	11.53	11.53	11.53
Switzerland	15.52	15.52	15.52	10.71	10.71	10.71
Slovenia	21.00	15.50	10.00	14.49	10.70	6.90
Wave	18.26	15.17	12.07	12.60	10.47	8.33
C&WG	18.26	15.17	12.07	12.60	10.47	8.33
Greece	14.96	14.96	14.96	10.32	10.32	10.32
Poland	17.17	14.40	11.63	11.85	9.94	8.02
Luxembourg	15.00	14.00	13.00	10.35	9.66	8.97
Belgium	15.20	13.58	11.95	10.49	9.37	8.25
Portugal	13.19	13.19	13.19	9.10	9.10	9.10
Italy	14.08	13.11	12.13	9.72	9.04	8.37
Iceland	12.99	12.51	12.03	8.96	8.63	8.30
Malta	12.49	12.49	12.49	8.62	8.62	8.62
Average	12.59	11.64	10.68	8.69	8.03	7.37
Netherlands	11.57	11.57	11.57	7.98	7.98	7.98
Hungary	11.57	11.57	11.57	7.98	7.98	7.98
Germany	11.36	11.36	11.36	7.84	7.84	7.84
Denmark	14.61	11.28	7.95	10.08	7.78	5.49
Austria	11.21	11.21	11.21	7.73	7.73	7.73
Spain	12.08	10.91	9.73	8.34	7.52	6.71
Slovak Rep	10.59	10.59	10.59	7.31	7.31	7.31
Ireland	13.30	10.45	7.59	9.18	7.21	5.24
Norway	10.03	10.03	10.03	6.92	6.92	6.92
France	9.80	9.80	9.80	6.76	6.76	6.76
Czech Rep	9.18	9.18	9.18	6.33	6.33	6.33
Turkey	8.88	8.88	8.88	6.13	6.13	6.13
Latvia	8.82	8.82	8.82	6.09	6.09	6.09
UK	11.33	8.71	6.08	7.82	6.01	4.20
Romania	8.47	8.47	8.47	5.84	5.84	5.84
Finland	7.90	7.90	7.90	5.45	5.45	5.45
Sweden	7.83	7.83	7.83	5.40	5.40	5.40
Lithuania	10.43	7.82	5.21	7.20	5.40	3.59
Cyprus	2.24	2.24	2.24	1.55	1.55	1.55

Source: IRG MTR Snapshot (2006). http://irgis.anacom.pt/admin/attachs/416.pdf
Exchange rate used: € 1 = £0.69.

Appendix 3: Status of MTR in Regulatory Regimes in Selected EU Member States

Country	SMP Operator	Regulatory Approach
Austria	Mobilkom T-Mobile (tapering) One H3G	Cost orientation based on LRAIC & non-discrimination. NRA requiring a reduction of 1 eurocent/min every six months until target of 6.79 eurocents reached in December 2008. H3G's MTR on a steeper glide path.
Belgium	Belgacom Mobile	Glide path from July 2006 to July 2008 – price cap of -12.7%, target of 6.56 eurocents/min by July 2008.
	Mobistar	Glide path from July 2006 to July 2008 – price cap of -11.2%, target of 8.21 eurocents/min by July 2008.
	Base	Glide path from July 2006 to July 2008 – price cap of -10.7%, target of 10.41 eurocents/min by July 2008.
Denmark	Price control based on based practice, benchmarking against MTR levels in Sweden, Norway, Finland (BP3). Only applies to 2G call termination.	
	TDC Sonoco TeliaSonera	NRA set a glide path moving from 11.28 eurocents/min to 8.32 eurocents/min by May 2008.
	Hi3G	NRA has not set MTR (3G)
	Tele2 (MVNO)	NRA has not set MTR (MVNO).
France	The rates are valid for "intraday" connection (i.e. when the originating operator delivers the traffic to the mobile operator in the area when the call has originated. The NRA has established 17 interconnection zones (ZAs) in France. "Extra ZA" MTRs are not set by NRA. MTRs of 2007 will be set in 2006.	
	Orange	Orange currently 9.5 eurocents/min.
	SFR	Currently 9.5 eurocents/min.
	Bouygues Telecom	Currently 11.24 eurocents/min.
Germany	NRA threatening to impose ex-ante price control if operators would not voluntarily agree on a glide path. Notification of decision imminent. Currently only Vodafone's rate based on decision by NRA, others set by commercial negotiation.	
	T-Mobile Vodafone O2	Agreed glide path.
	E Plus	Prefers ex-ante regulation
Greece	NRA imposed phased reduction in MTRs. For all operators these cover both 2G & 3G termination, fixed-to-mobile calls and mobile-to mobile off-net calls, but not mobile-to-mobile on-net calls.	
	Co Smote Vodafone TIM	3-phase reduction to a cost oriented level
	Q-Telecom	A 3 phase glide path of MTR reductions to a reasonable level.
Ireland	The NRA is intending to price control MTRs based on cost orientation. The NRA aware that it needs to collect cost data, in particular from the consulation on accounting separation and cost accounting mechanisms before deciding on the appropriate cost-oriented termination rates. Until then the NRA has required the current MTRs to apply as a ceiling for each operator. Pending the derivation of cost-oriented prices, the NRA may impose a glide path or a price cap on the operators MTRs. The NRA has indicated that it could use benchmarking for this task.	

	Vodafone O2 Meteor	Announced reductions in MTR 16 January 2006 and commitments for further reductions early in 2007.
Italy	Price control and cost accounting based on forward-looking LRIC covering weighted average termination rate for fixed-to-mobile and mobile-to-mobile 2G/3G calls. The three operators will be required to produce regulatory accounts.	
	TIM Vodafone Wind	RPI-13% & glide path to 8.9 eurocents/min by July 2008.
Luxembourg	NRA has set a glide path for MTR reductions over 2006 to 2008. After 2008 the NRA will consider the option of developing a cost-accounting system for MTRs.	
	EPT Tango	Current average of 12.8 eurocents/min falling to 8.2 eurocents/min by July 2008.
	Voxmobile	Current average of 14.0 eurocents/min falling to 10.5 eurocents/min by July 2008.
Netherlands	Remedy is to adopt a price control and cost accounting (cost orientation based on FL-LRIC with a bottom-up approach, glide path reductions in MTRs from 2005 to 2008). Currently a proposal for a glide path from July 2006 to July 2008, which has been notified to the Commission and under public consultation until Aug. 3, 2006.	
	KPN Vodafone	9.17 €cents/min to 5.5 €cents/min by July 2008.
	Orange T-Mobile	10.63 €cents/min to 7.09 €cents/min by July 2008.
Portugal	NRA intends to adopt a cost accounting approach, although the methodology will be set out at a later stage following a public consultation whilst using price controls and glide path for 2005 to 2006.	
	TMN Vodafone	Fixed-to-mobile 11.50 €cents/min; Mobile-to-mobile and international-to-mobile 11.50 €cents/min.
	Optimus	Fixed-to-mobile 13.0 €cents/min; Mobile-to-mobile and international-to-mobile 11.50 €cents/min.
Spain	The NRA changed its original proposal, where it sought to apply cost-orientation and price control on fixed-to-mobile calls only, to now impose price controls on both fixed-to-mobile and mobile-to-mobile. The NRA was expected to set new MTRs before June 2006, for both fixed-to-mobile and mobile-to-mobile calls, which will enter into force on September 1, 2006. Until adoption of the new prices, operators are subject to current MTRs as well as to maximum weighted average peak/off-peak rates defined by the regulator. Pending the implementation of a new cost accounting system, cost oriented charges would be calculated on the basis of the present cost standard mandated by the regulator (fully distributed costs).	
	Telefonica Moviles	9.63 €cents/min peak & 5.0 €cents call set up. 8.70 €cents/min off-peak & 5.0 €cents call set up.
	Vodafone	11.21 €cents/min peak & 4.0 €cents call set up. 8.56 €cents/min off-peak & 4.0 €cents call set up.
	Amena	13.08 €cents/min peak & 8.26 €cents/min off-peak.
Sweden	The NRA has taken into consideration the difference in the relative market position, and applied less stringent regulatory obligations to Hi3G and Telenor as opposed to TeliaSonera, Tele2 and Vodafone.	
	Teliasonera Tele2 Vodafone	Target MTRs are the same for the three operators and have been calculated by applying a hybrid top-down/bottom-up LRIC model, which is based on the operator with the highest cost level. The transition from the currently used historical-based FDC system to LRIC has to be completed over a 3 year period. The resulting uniform target charges are calculated using a weighted average.
	Hi3G Telenor	These operators are subject to the obligation of 'fair and reasonable' interconnection prices set at the level of LRIC-based target charges of

		TeliaSonera, Tele2 and Vodafone, i.e. reciprocal call termination. For Telenor, the obligation applies immediately. Hi3G has been allowed to complete the transition from its MTRs in July 2004 over a period of 3 year
UK	NRA intervening with respect to the provision of network access for purposes of 2G call termination; non-discrimination. Operators required to supply NRA with copies of any new or amended access contracts; prior notification of price changes.	
	Combined 900/1800 MHz operators (O2 and Vodafone)	Reduce weighted average termination charges (day/evening/weekend) in line with the following charge controls (two separate identical sets of controls both on fixed-to-mobile and off-net mobile-to-mobile call termination): 5.63 pence/min
	1800 MHz operators (Orange and T-Mobile)	6.31 pence/min
	3	Prior notification of price changes for 2G voice call termination and requirement to submit information to Ofcom on 2G call volumes and on total call volumes.

