Commission for
Communications Regulation

Consultation Paper

Market Analysis – Wholesale voice call termination on individual mobile networks

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All responses to this consultation should be clearly marked:- "Reference: Submission re ComReg 03/127a as indicated above, and sent by post, facsimile, e-mail or on-line at www.comreg.ie (current consultations), to arrive on or before 5.30pm, 3rd December, to:

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Please note ComReg will publish all submissions with the Response to Consultation, subject to the standard confidentiality procedure.

Contents

1 Executive Summary

1.1 The new communications regulatory framework requires that ComReg define relevant markets appropriate to national circumstances, in particular relevant geographic markets within its territory, in accordance with the market definition procedure outlined in the *Framework Regulations*.[1] In addition, ComReg is required to conduct an analysis of the relevant markets to decide whether or not they are effectively competitive.

1.2 The *Framework Regulations* further require that the market analysis procedure under Regulation 27 be carried out as soon as possible after ComReg defines a relevant market, which takes places as soon as possible after the adoption, or subsequent revision, of the Recommendation on relevant product and service markets ("the *Relevant Markets Recommendation*") by the Commission.[2] In carrying out market definition and market analysis, ComReg must take the utmost account of the *Relevant Market Recommendation* and the Commission's *Guidelines on Market Analysis and Significant Market Power ("The SMP Guidelines"*[3]*).*

1.3 The EU Commission recommends, in its *Relevant Markets Recommendation*, that NRAs should analyse the relevant market for "voice call termination on individual mobile networks".[4] The Commission has based its conclusion on several factors,[5] including:

- the role of the "calling-party-pays" ("CPP") principle;[6]
- a lack of demand-side substitution at the retail and wholesale levels, including an analysis of the feasibility of re-routing possibilities, the role of buyer power, the possible internalisation of call externalities and / or the price sensitivity of mobile users;
- a lack of supply-side substitution at the wholesale level; and
- the inability of mobile operators to price discriminate between individual mobile terminals.

[1] S.I. No. 307 of 2003

[2] Regulations 26 and 27.

[3] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic networks and services, OJ 2002 C 165/3, ("the SMP Guidelines").

[4] This market corresponds to that referred to in Annex I (2) of the Framework Directive.

[5] Explanatory Memorandum to the Relevant Markets Recommendation.

[6] Under CPP, the party making the call to a mobile phone pays the full cost for calling a mobile handset. The mobile user receiving the call incurs no charge for receiving it. An alternative to CPP is RPP (Receiving Party Pays) which applies in the USA. Under RPP the calling party pays the standard price for a comparable call to a fixed phone and the mobile user receiving the call pays the cost of terminating the call over the mobile part of the network - often the same price as if the mobile user was making an outgoing call.

1.4 As the foregoing analysis demonstrates, the services under examination in this review are those for the termination of voice calls on a mobile network. Mobile call termination in Ireland is effected and charged at the wholesale level by the called party's Mobile Network Operator ("MNO") to the originating network or via the transit operator to the originating network. This termination charge is paid by the originating operator and is generally included in the retail price that the caller pays for the call.

1.5 In principle, and consistent with the principle of technology neutrality, voice call termination on a 3G network would be no different to voice call termination on a 2G network in terms of the character of the service provided. In both cases, the MNO would be negotiating with other operators to terminate voice calls from their subscribers to its subscribers – the extent to which those subscribers may be situated on different physical networks should not be material to the process of market definition. For that reason, ComReg considers that the termination of voice calls on a 3G network should be included in the scope of this market. However, ComReg also recognises that 3G is in the early stages of development and will take this into account when deciding on the appropriateness and proportionality of regulatory intervention regarding this market.

1.6 It is ComReg's view that the relevant product market is voice call termination on the networks of each MNO, while the geographical market is the territory of the Republic of Ireland. There are currently no viable competitive substitutes at the wholesale level for the termination of mobile voice calls by individual MNOs, whether measured from the supply-side or the demand-side. The current method of charging for termination by MNOs (the CPP principle) perpetuates the fact that consumers are in general price-inelastic about mobile voice termination charges, further insulating individual MNOs from price competition.

1.7 There are separate wholesale markets for the termination of mobile voice calls on the networks of each MNO in Ireland, namely: Vodafone, 0_2, Meteor and 3.[7] With respect to each relevant product market, there is only one seller of the services (i.e. voice call termination to the customer base of an individual MNO) in question, although there are multiple purchasers.

1.8 Having first identified a relevant market relating to voice call termination on individual mobile telephone networks in Ireland, ComReg is required to conduct an analysis of whether the market is effectively competitive by reference to whether any given undertaking or undertakings is/are deemed to hold SMP in that market. Accordingly, an undertaking may be deemed to have SMP either individually or jointly with other undertakings in a relevant market. ComReg is obliged under the *Framework Regulations* to assess SMP in accordance with European Community law and the *SMP Guidelines*.[8] In particular, while acknowledging that individual network definitions imply that, currently, each MNO is a single supplier of call termination services to its customer base in each market, the Commission emphasises that ComReg should consider whether there is any countervailing

[7] 3 is licensed as Hutchison 3G Ireland Limited

[8] Regulation 25(2).

bargaining power that would render any non-transitory price increase above the competitive level unprofitable for each MNO.

1.9 Having conducted a market analysis on the relevant market it is ComReg's view that each MNO in Ireland, namely Vodafone, 0_2, Meteor and 3 should be designated as having SMP in the relevant market for the termination of voice calls on their respective mobile networks in Ireland.

1.10 In the short to medium term, considering foreseeable technological developments and anticipated customer behaviour, there is nothing to suggest to ComReg that the SMP enjoyed by these MNOs with respect to the termination of calls on their own networks will be diluted in any meaningful way in the absence of appropriate and proportionate *ex ante* regulatory measures. This conclusion is without prejudice to the particular obligations which might be imposed by ComReg on each SMP designated MNO in its relevant product market.

1.11 There is nothing to indicate that there exists sufficient countervailing buyer power to exert pressure on MNOs to lower their termination rates to competitive levels.

1.12 Therefore, Vodafone should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland; 0_2 should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland; Meteor should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland; and 3 should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland.

1.13 ComReg is minded that the remedies most appropriate to address the market failure identified in the relevant markets are cost-orientation and non discrimination coupled with appropriate obligations relating to cost accounting systems, accounting separation and transparency. These remedies would be aimed at removing any distortions that are occurring in the relevant market, such as the ability to sustain mobile termination charges above the competitive level. The level of regulation that should be applied to a particular firm depends on whether the firm possesses market power and has exercised it. Evidence suggests that voice call termination rates are above the competitive level in the Irish mobile market, and as, such should be subject to regulatory requirements for non-discrimination and cost-orientated prices. However, ComReg is of the view that the effect of any reduction in termination charges must be considered in conjunction with the development of the overall mobile market. If remedies are unduly costly to implement, the effect on smaller, less mature networks or new entrants could be profound. In light of the foregoing, therefore, ComReg will ensure that any imposition of the non-discrimination and cost orientation obligations will be proportionate taking account of the development of the overall Irish mobile market.

1.14 Furthermore, ComReg considers that there are a number of options for implementing the remedies. In that regard, ComReg will consider in more depth in any future consultations such factors as, in addition to their proportionality for each operator. Specific applications of the non-discrimination obligation in the context of the mobile voice call termination market, the requirements for cost accounting and accounting separation, the most appropriate costing methodologies, and the implementation of the outcome of any cost modelling exercise including the form of any *ex ante* price control so as to enhance operator incentives.

1.15 In the interim, i.e. after SMP designation, but before the full implementation of any or all of the above remedies outlined in section 7, ComReg expects both Vodafone and 0_2 to adhere to their undertakings made earlier this year to further reduce their mobile termination rates. In 2004, Vodafone plans a 5% reduction in its average termination rates, while 0_2 plans an average termination rate reduction of CPI minus 8%.

1.16 ComReg would welcome comments from all interested parties on the questions posed in this market review and will accept written comments on or before 5.30 pm on 3rd December 2003.

2 Introduction

Objectives under the Communications Regulations Act 2002

2.1 Section 12 of the Communications Regulation Act 2002 outlines the objectives of ComReg in exercising its functions. These are, in relation to the provision of electronic communications networks, electronic communications services and associated facilities:

(i) to promote competition
(ii) to contribute to the development of the internal market, and
(iii) to promote the interests of users within the European Union.

These objectives are identical to those set out in Article 8 of the Framework Directive.

2.2 This review is in line with the objectives set out in the Communications Regulation Act 2002, which also form part of the EU directives and Irish regulations.

Regulatory Framework

2.3 Four sets of Regulations,[9] which transpose into Irish law four European Community directives on electronic communications and services,[10] entered into force in Ireland on 25 July 2003. The final element of the EU electronic communications regulatory package, the *Privacy and Electronic Communications Directive*, must be transposed into Irish law by 31 October 2003. The Minister for Communications, Marine and Natural Resources has consulted on the draft regulations.[11]

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[9] Namely, the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 (S.I. No. 307 of 2003), ("the *Framework Regulations*"); the European Communities (Electronic Communications) (Authorisation) Regulations, 2003 (S.I. No. 306 of 2003), ("the *Authorisation Regulations*"); the European Communities (Electronic Communications) (Access) Regulations 2003 (S.I. No. 305 of 2003), ("the *Access Regulations*"); the European Communities (European Communications) (Universal Service and Users' Rights) Regulations 2003 (S.I. No. 308 of 2003), ("the *Universal Service Regulations*").

[10] The new regulatory framework for electronic communications networks and services, comprising of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, ("the *Framework Directive*"), OJ 2002 L 108/33, and four other Directives (collectively referred to as "the *Specific Directives*"), namely: Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services, ("the *Authorisation Directive*"), OJ 2002 L 108/21; Directive 2002/19/EC of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and services, ("the *Access Directive*"), OJ 2002 L 108/7; Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services, ("the *Universal Service Directive*"), OJ 2002 L 108/51; and the Directive 2002/58/EC of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector, ("*the Privacy and Electronic Communications Directive*"), OJ 2002 L 201/37.

[11] ComReg Document No. 03/99 outlines ComReg's response to the draft regulations.

2.4 The new communications regulatory framework requires that ComReg define relevant markets appropriate to national circumstances, in particular relevant geographic markets within its territory, in accordance with the market definition procedure outlined in the *Framework Regulations*.[12] In addition, ComReg is required to conduct an analysis of the relevant markets to decide whether or not they are effectively competitive.[13] Where it concludes that the relevant market is not effectively competitive (*i.e.,* where there are one or more undertakings with significant market power ("SMP")), the *Framework Regulations* provide that it must identify the undertakings with SMP on that market and impose on such undertakings such specific regulatory obligations as it considers appropriate.[14] Alternatively, where it concludes that the relevant market is effectively competitive, the *Framework Regulations* oblige ComReg not to impose any new regulatory obligations on any undertaking in that relevant market, and withdraw any such obligations it may have imposed at an earlier stage.[15]

2.5 In carrying out market definition and market analysis, ComReg has taken the utmost account of the *Relevant Market Recommendation* and the Commission's *Guidelines on Market Analysis and Significant Market Power ("The SMP Guidelines").*

2.6 The Framework Directive requires a NRA, taking utmost account of the Recommendation, to define relevant markets appropriate to national circumstances. Where appropriate, there might be a need for a NRA to define markets that differ from those listed in the Recommendation.[16] NRAs are therefore permitted to examine all relevant markets for the purpose of market analysis, whether or not they are listed in the Recommendation.

Consultation

2.7 All comments to this consultation are welcome. However, it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.

2.8 The consultation period will run from Wednesday 22nd October to Wednesday 3rd December during which time ComReg welcomes written comments on any of the issues raised in this paper.

2.9 As required by Regulation 20 of the Framework Regulations, the draft SMP notification will be made accessible to the European Commission and the national regulatory authorities in other member states of the European Community prior to taking a final decision.

[12] Regulation 26.

[13] Regulation 27.

[14] Regulation 27(4).

[15] Regulation 27(3).

[16] As Recognised by recital 19 of the Recommendation

ComReg procedure

2.10 It is important that market definition and analysis is rooted in the market realities of each Member State. ComReg has collected market data from a variety of internal and external sources, including users and providers of electronic communications networks and services ("ECNS"), and from consumer surveys commissioned by ComReg, in order to carry out as thoroughly as possible its respective market definition and market analysis procedures based on established economic and legal principles, and taking the utmost account of the *Relevant Markets Recommendation* and the SMP *Guidelines*.

2.11 ComReg published an information notice on the market analysis process on December 19th, 2002. The first of the industry workshops held by ComReg took place on January 23rd, 2003 and questionnaires were sent to all mobile operators on February 18th. Following representations made by operators at ComReg's first workshop, industry was given until the 15th April to respond to the questionnaire. ComReg held its second workshop on the 25th February to discuss the questionnaire.

2.12 The results of ComReg's consumer surveys are referred to throughout this report. In particular, ComReg commissioned Amárach to carry out research in July / August 2003 regarding usage of fixed and mobile services. This survey is published on the ComReg website [ComReg Document No 03/127b].

Liaison with Competition Authority

2.13 There is a requirement on National Regulatory Authorities (NRAs) to co-operate with National Competition Authorities (NCAs) throughout the process of market definition and analysis. In December 2002, ComReg signed a co-operation agreement with the Competition Authority for a period of three years.[17] To facilitate market review decision-making, a Steering Group including a representative from the Competition Authority was established by ComReg. Through this forum, the Competition Authority has been informed and involved throughout the market review decision-making process.

2.14 The remainder of this consultation document is structured as follows:

- Section 3 presents ComReg's conclusions on the definition of the mobile voice call termination market. This section consists of a review of the market definition procedure and its scope, as well as demand- and supply-side assessments at the wholesale and retail level;

- Section 4 presents ComReg's market analysis of the mobile voice call termination market and presents ComReg's view on whether this market is effectively competitive;

- Section 5 presents ComReg's view on those undertakings with significant market power in the mobile voice call termination market;

[17] ComReg Document No. 03/06

- Section 6 outlines the nature of the regulatory impact assessment that needs to be conducted in relation to any proposed regulatory intervention regarding high termination charges;

- Section 7 provides a discussion of the general principles associated with remedies and outlines a range of possible, as well as our likely proposed remedies, under the new regulatory framework;

- Section 8 provides details with regard to the submission of comments on this consultation document; and

- finally, we provide a summary of the consultation questions in the attached Appendix A

3 Relevant Market Definition

Background

3.1 The *Framework Regulations* require ComReg to define relevant markets appropriate to national circumstances, in particular the relevant geographic markets within Ireland, in accordance with the market definition procedure outlined in the *Framework Regulations*. This obligation applies to both the relevant markets identified in the *Relevant Markets Recommendation* and to additional relevant markets that ComReg may consider to merit investigation. In accordance with the *Framework Regulations*, the market definition exercise must be carried out in accordance with the principles of competition rules and must take "utmost account" of the *Relevant Markets Recommendation*, as well as the *SMP Guidelines*.[18]

3.2 The definition of the relevant market concentrates on identifying constraints on the price-setting behaviour of operators. These constraints comprise demand substitution and supply substitution. For the purpose of defining the relevant market ComReg will take into account a range of measures in assessing demand and supply substitution, including the SSNIP test where practicable.[19] The market definition exercise is concerned with the likely competitive response of a body of customers, which is not necessarily the majority of customers.[20]

3.3 A relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.

3.4 The Commission recommends, in its *Relevant Markets Recommendation*, that NRAs should analyse the relevant market for "voice call termination on individual mobile networks".[21] The Commission has based its conclusion on several factors,[22] including:

- the role of the "calling-party-pays" ("CPP") principle;

[18] Regulation 27

[19] See the Commission Notice on Market Definition, the SMP Guidelines and ComReg's Market Data Information Notice for additional guidance. Applying the SSNIP test, one tries to ascertain whether customers purchasing a particular product or service would switch to readily available substitutes or to suppliers located elsewhere if a hypothetical monopoly supplier were to impose a small (in the range of 5% to 10%) but significant, non-transitory price increase above the competitive level, thereby rendering such a rise in prices as being unprofitable.

[20] See, for example, Case 85/76, Hoffman-La Roche & Co. A. G. v. Commission, [1979] ECR 461, as well as Case 66/ 86, Ahmed Saeed Flugreisen v. Zentrale zur Bekämpfung unlauteren Weltbewerbs, [1989] ECR 803.

[21] This market corresponds to that referred to in Annex I (2) of the *Framework Directive*.

[22] Explanatory Memorandum to the *Relevant Markets Recommendation*.

- a lack of demand-side substitution at the retail and wholesale levels, including an analysis of the feasibility of re-routing possibilities, the role of buyer power, the possible internalisation of call externalities and / or the price sensitivity of mobile users;

- a lack of supply-side substitution at the wholesale level; and

- the inability of mobile operators to price discriminate between individual mobile terminals.

In reaching its conclusion of the relevant market the Commission also examined various other market definitions such as a national market for mobile call termination (over all national mobile networks in the aggregate)[23] or a linked market for mobile communications services.

Scope of Review

3.5 The services under examination in this review are those for the termination of voice calls on a mobile network. Mobile call termination in Ireland is effected and charged at the wholesale level by the called party's MNO to the originating network or via the transit operator to the originating network. This termination charge is paid by the originating operator and is generally passed on to the caller in the retail price that the caller pays for the call.

3.6 In principle, and consistent with the principle of technology neutrality, voice call termination on a 3G network would be no different to voice call termination on a 2G network in terms of the character of the service provided. For that reason, ComReg considers that the termination of voice calls on a 3G network should be included in the scope of this market. However, ComReg recognises that 3G is in the early stages of development and will take this into account when deciding on the appropriateness and proportionality of regulatory intervention regarding this market.

Q. 1. Do you agree with the scope of ComReg's review of wholesale mobile termination services? Please elaborate your response.

The market structure

3.7 There are four mobile network operators in the mobile market in Ireland, namely, Vodafone, the largest mobile network operator (previously Eircell); 0_2, which launched in 1997 (previously Esat Digifone); Meteor, which launched in 2001; and, most recently, 3, which commercially launched 3G services in Ireland on September 30th, 2003. The market shares of Vodafone, 0_2 and Meteor are 56%, 40% and 4% respectively for retail mobile services, measured in terms of total subscribers.[24] It

[23] As occurred under the previous "ONP" regime, in which relevant "markets" were defined on the basis of end-to-end services and not necessarily according to competition law principles.

[24] ComReg Document No. 03/108b – Irish Communications Market Quarterly Key Data Report, September 2003

should also be noted that Vodafone commercially launched 3G services in Ireland in May 2003, while 0_2 is required to launch its 3G services before the end of 2003.

3.8 Since the introduction of Irish mobile services, the penetration rate has maintained a strong upward trend – stabilising over the last two years – and now stands at 81%. Mobile penetration exceeds fixed line penetration, with 3.17 million mobile lines compared to 1.6 million PSTN lines, as at September 2003.[25]

The relevant product market

3.9 The purpose of the market definition procedure is to identify in a systematic way the competitive constraints that providers of ECNS encounter, thereby facilitating the subsequent market analysis procedure. According to the European Court of Justice,[26] a relevant product market comprises all products or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, their prices or their intended use, but also in terms of the conditions of competition, common pricing constraints and/or the structure of supply and demand for the product in question.

Demand-side substitutability

3.10 Demand-side substitutability means the extent to which customers can substitute other services or products for those in question.

General

3.11 The CPP principle applicable to mobile communications services in Ireland and elsewhere in Europe plays an important role in the market definition procedure described below. The CPP principle means that the party making the call, *i.e.*, the calling party, rather than the party receiving the call, *i.e.*, the called party, pays the entire cost of the call at the retail level. This results in the mobile call termination charge being included in the originating operator's cost base and in its retail prices. This leads to a disconnect between the calling party paying for the voice call, and indirectly, for the mobile voice termination charge, and the called party who selects the terminating operator and who thereby can influence the level of the termination charge (*i.e.*, the caller pays, but the mobile subscription is decided by someone else).

Demand-side substitutability at the wholesale level

3.12 An operator wishing to terminate a call to a mobile number can only terminate it on the network to which that number is assigned. To attempt to terminate this call on another network would currently result in the call being unsuccessful. While operators may choose to terminate voice traffic on a mobile network either directly

[25] ComReg Document No. 03/108b – Irish Communications Market Quarterly Key Data Report

[26] See, for example, Case 322/81, Michelin v. Commission [1983] ECR 3461, as well as the Commission Notice on the definition of relevant markets for the purposes of Community competition law ("the Commission Notice on Market Definition"), OJ 1997 C 372/3, and the SMP Guidelines.

or via national and/or international transit, they are nevertheless faced with identical termination charges. This occurs regardless of whether the originating operator is a fixed or a mobile operator. In essence, the current need to direct traffic to a specific mobile number ensures that there is no demand-side substitute service available to an operator seeking to terminate its traffic on a mobile number situated on a particular network.[27] However, ComReg is of the view that a narrow definition of a relevant product market on the basis of each individual mobile number is not appropriate given the fact that mobile operators are unable to price discriminate between termination charges to different users on their networks. Thus it appears that the relevant market definition is voice call termination on individual mobile networks.

3.13 See also sections 3.40 and 3.41 on the use of multiple SIMs.

Q. 2. Do you agree that there are currently no technically or economically feasible demand-side substitutes at the wholesale level? Please elaborate your response and provide economic evidence in support.

Demand-side substitutability at the retail level: calling party behaviour

3.14 As part of its investigation of the boundaries of competition for mobile termination services, ComReg has considered various aspects of customer behaviour at the retail level because the level of customer awareness at the retail level, including price sensitivity, appears to have a material impact on the level of competitiveness at the wholesale level. In particular, operators generally pass on mobile termination charges charged by mobile operators at the network level to their customers as part of their retail tariffs. Consequently, it is important to assess how such retail customers would respond to a price increase in calls to mobiles resulting from a rise in mobile call termination charges.

3.15 As the analysis which follows indicates, ComReg has investigated this matter and has reached the conclusion that price sensitivity on the part of the calling party, as well as alternative means of communicating between a caller and a mobile subscriber, are insufficient at this point in time to constrain mobile termination charges at the wholesale level.

(a) Awareness of calling a mobile number, the identity of the MNO and the price of the call

3.16 In order for callers to be price-sensitive, it must be possible for them to be aware that they are calling mobile numbers and to identify the networks of the called parties via these numbers. An independent consumer survey conducted on behalf of ComReg

[27] ComReg is aware of the theoretical possibility of bypassing circuit-switched termination rates in the future as a result of the introduction of packet-switching in the mobile sector. However, this technical possibility is too speculative to be considered as a viable competitive alternative, at least over the period of this review.

during the third quarter of 2003 by Amárach[28] illustrates that over four-fifths (83%) of respondents are "always aware" or "usually aware" of whether they are calling a fixed or mobile network from a fixed network. When calling a mobile network from a fixed network, seven in ten respondents (71%) said that they are "always aware" or "usually aware" of what mobile network they are calling. When making a call from a mobile phone to another mobile phone, seven in ten respondents (69%) said that they are "always aware" or "usually aware" of whether they are calling a mobile on the same network.

3.17 Overall, therefore, there appears to be a reasonably high awareness of the type of calls users are making. However, full mobile number portability may have an impact on consumers' ability to identify the called network, particularly if a large number begin switching.

3.18 In any event, awareness of the identity of the network called does not necessarily equate to price sensitivity. Furthermore, for callers to be price sensitive, callers must also be aware of the price of a call. Results from the Amárach survey, show that when fixed line consumers were asked directly how much they thought it cost to call a mobile phone from a landline during peak periods on a week day, the average amount cited was 40c, significantly higher than the actual cost of such a call, while 37% of those respondents did not reply with a figure, but simply answered "don't know".

3.19 While there is currently a significant awareness of the identity of the called network, awareness of prices appears to be low. According to the *Amárach Survey*, over half of respondents (53%) are unaware of the cost of making a peak time call from a landline to a mobile phone, while 42% have some idea of the cost, with 4% claiming to know exactly how much it costs.[29] ComReg's consumer survey of February 2003 conducted by TNS MRBI revealed that 53% were unaware of any cost difference in calling another mobile network compared to calling somebody on the same mobile network.[30]

[28] Amárach Fixed and Mobile survey, Carried out July / August 2003.

[29] The average amount cited by those who claimed to know exactly how much it cost was 49c, significantly higher than the actual cost.

[30] ComReg Document No 03/29c.

Q. 3. Do you agree that callers to a mobile have a high awareness that they are calling a mobile number and/or a particular mobile network? Please elaborate your response and provide economic evidence in support.

Q. 4. Do you agree that there is evidence of low consumer awareness of the costs of calling mobile networks? Please elaborate your response and provide economic evidence in support.

(b) The use of alternative services

3.20 For the existence of a price sensitive caller base to be able to act as a competitive constraint on mobile termination rates, it is necessary that such subscribers can bypass mobile termination rates by selecting alternative means of communication. A number of possible demand-side substitutes are available at the retail level, which might arguably constrain the ability of an MNO to raise its termination charges. These possible substitutes include:

- making calls to a fixed number;
- making mobile-to-mobile off-net calls as substitutes for fixed-to-mobile calls;
- making mobile on-net calls as substitutes for mobile off-net calls or fixed-to-mobile calls;
- sending text messages via short messaging service ("SMS");
- making a short call to request the called party to call back;
- shortening calls altogether; and
- manually substituting the SIM card of the called party;

Each of these items is considered in turn below.

3.21 Fixed-to-fixed and mobile-to-fixed calls, in theory, have the potential to constrain mobile call termination charges, as these call types eliminate the payment of a call termination charge to a mobile operator. However, this option would ignore the fundamentally different nature of fixed and mobile telephony (*e.g.*, mobile numbers are associated with individuals on the move and not necessarily fixed locations).

3.22 It is currently true that the substitution between fixed-to-mobile calls and mobile off-net calls is unlikely to constrain mobile call termination charges at the wholesale level, as a terminating MNO does not discriminate on price between fixed and mobile originating operators. Similar termination charges therefore apply to both operators. All mobile operators currently offer non-discriminatory voice call termination charges to other operators at the wholesale level. However, these termination charges are generally not reciprocal between operators. Additionally, the nature of calls originating from mobile networks is different to those from fixed networks, as consumers may use their mobile phone to make calls on the move and not necessarily at fixed locations.

3.23 In addition, the retail price of a mobile off-net call is generally considerably higher than a fixed-to-mobile call: For example, if we consider Vodafone Light and Active, two post-paid tariffs offered by Vodafone, the price for an off-net mobile call during peak time is equal to 50c and 45c respectively (Vat inclusive) per minute. On the other hand, a review of the standard tariffs offered by Eircom for fixed to mobile calls during peak times reveals a retail price between 23c and 29c (Vat inclusive) per minute.[31]

3.24 While acknowledging that the nature of mobile originated calls is different to those from fixed networks, it is also instructive to explore whether a mobile on-net call might be substitutable for a fixed-to-mobile call or a mobile off-net call. Mobile on-net calls are generally cheaper than mobile off-net calls and comparable to, if not cheaper than, fixed-to-mobile retail charges. The subscription package, the time and the day, *e.g.*, weekday or weekend, will influence the call charges in this regard. For example, if one considers Vodafone's Light, Active and Extra tariff packages, the following tariff structure can be observed:

Table 1: Vodafone Light, Active and Extra Tariff Plans

Per Minute call charges applicable once inclusive bundle has been used (Cents Vat Inclusive) –									
	To fixed phone			To on net mobile phones			To off net mobile phones		
	Peak	Off – Peak	Weekend	Peak	Off – Peak	Weekend	Peak	Off – Peak	Weekend
Light	50	15	15	30	15	15	50	30	30
Active	45	15	15	15	15	15	45	30	30
Extra	38	15	15	15	15	15	38	38	38

Source: www.vodafone.ie (22nd October 2003)

3.25 The provision of lower tariffs for mobile on-net calls not only does not constrain mobile call termination charges at the wholesale level, but arguably preserves the level of those charges (by influencing a customer's choice of mobile operator while at the same time taking advantage of price insensitivity for termination on other networks). The effect of lower mobile on-net calls to preserve customer loyalty could be increased further where mobile communities of interest are involved, particularly as members of such communities may be less inclined to switch network operators so as not to lose the benefits of lower on-net retail charges. ComReg is therefore of the view that the extent of substitution between mobile on-net calls and fixed-to-mobile calls or mobile off-net calls is insufficient at this time to constrain mobile termination charges, particularly as the availability of mobile on-net calls as a substitute is limited, due to the fact that mobile users are distributed amongst several mobile networks.

3.26 The substitution of mobile on-net calls for mobile-to-mobile off-net calls also requires the calling and called parties to be on the same network or for the calling

[31] Prices quoted for *eircom* options bronze and silver tariff plans. Call to Vodafone, O_2 and Meteor mobiles cost 23.1c, 25.1c and 29.2c respectively per minute.

party to use multiple SIM cards. However, ComReg views this alternative solution as cumbersome and time-consuming, while many MNOs continue to network-lock their handsets in any event. In addition, while ‘automatic’ substitution is theoretically possible, no mechanism to instruct the called party’s phone to switch networks automatically has as yet been developed, nor is it likely to be developed during the timescale of this review.

3.27 In certain circumstances such as short conversations, sending a text messages may be a substitute for a voice call. While text messages via SMS can be seen to be a partial substitute for a voice call to a mobile number, the potential for delay, the limited number of characters conveyed (*i.e.*, currently 160 alphanumeric characters per text) and the market evidence suggesting complementarity rather than substitutability, lead ComReg to conclude that text messages are not complete substitutes for a voice call to a mobile number at this time. According to the *Amárach Survey,* only 18% of respondents use on mobile text messaging “on a daily basis” in lieu of fixed calls, while 35% do so “several times a week” and 30% of respondents “never” do so. In addition, only a relatively small share of respondents would contact a friend or family member who owns a mobile phone by mobile text messaging. Only 18% and 12% of respondents would usually send a text message if they needed to communicate for two and five minutes respectively with a friend or family member during the day on a weekday. In any event, as MNOs provide both SMS and voice call termination services, ComReg considers that they are in a position to ensure that these services do not competitively constrain each other.

3.28 Calls based on call-back solutions or shortened time periods are not genuine alternatives, as their use is extremely limited and there is no evidence to suggest that they have had an impact on mobile termination charges. According to the *Amárach Survey,* no respondent would ask a friend or family member to call them back on the basis of a two minute call, while only 2% of respondents would do so on the basis of a five minute call. ComReg considers that there are emerging services that have the potential at least to be considered as alternatives to voice calls. Such technologies include unified messaging services, voice over IP and multimedia messaging services (“MMS”). However, these services have yet to be, or have just been, commercially launched in Ireland. Consequently, the take-up of these services is limited at this time and there is a lack of market evidence to assess their impact on mobile call termination charges.

3.29 The likelihood of shortening calls altogether is not seen as a genuine alternative for consumers. According to the Amárach survey, 65% of consumers stated that it makes no difference to their call behaviour in terms of the time they spend on a call to someone on the same network as them.

3.30 Manually substituting the SIM of the called party is not considered by ComReg to be a real alternative, as this is not a feasible option for the consumer. For this to happen, the called party would have to be aware that the calling party is trying to/ about to make a call to them so that they would insert an alternative SIM card into their handset. As stated previously, some handsets in Ireland are network-locked to the mobile network operator from which the mobile subscriber has purchased its handset. In order to insert a SIM card of another mobile network operator into this handset, the mobile subscriber would first have to remove this network-lock.

3.31 Having regard to the factors outlined above, ComReg has reached the conclusion that price sensitivity on the part of the calling party, as well as alternative means of communicating between a caller and a mobile number, are insufficient at this point in time to be able to constrain mobile termination charges at the wholesale level.

Q. 5. Do you consider current or future alternative means of calling a mobile number as having the ability to impose a competitive constraint on mobile voice call termination charges at the wholesale level? If so, please provide a reasoned response.

Demand-side substitutability at the retail level: called party behaviour

3.32 The CPP principle (*i.e.*, the fact that a person who makes the call pays for it) contributes to end-users being relatively insensitive to the pricing of termination on mobile networks. The CPP principle has contributed to the growth of the mobile market; however, in terms of mobile termination rates there is no incentive for consumers to choose a network on the basis of the cost of incoming calls. A competitive constraint could be imposed on mobile termination charges if mobile users initially chose, or ultimately switched (*i.e.*, “churned”), their mobile network on the basis of the prices of incoming calls. ComReg has investigated this matter and has reached the conclusion that the behaviour of the called party is insufficient to act as a competitive constraint on mobile termination prices. This conclusion is based upon an examination of the factors below.

(a) Mobile users are less price-sensitive to inbound mobile voice calls.

3.33 When consumers were asked to rate the importance of different factors in influencing their decision when choosing a mobile phone package, the cost that others pay to contact them was considered very important by 31%, while 28% considered this as not important. This is compared to over 60% of respondents who rated the cost of line rental, ability to control expenditure and geographic network coverage as very important. If consumers are not concerned about the cost others pay to contact them then there is little incentive for mobile operators to reduce termination charges.

3.34 The *Amárach Survey* shows that changing a mobile network so as to be on the same mobile network with someone to whom one often speaks is not a concern to Irish mobile users. Only 5% of respondents said they have chosen a mobile network or changed to a new network for this reason.

"Mobile communities of interest"

3.35 ComReg has further examined whether the emergence of so-called "mobile communities of interest" or "closed user groups" ("CUGs") generates, or is likely to generate, an effective competitive constraint on wholesale mobile voice call termination charges, particularly as a result of them being bypassed in favour of cheaper mobile on-net tariffs.

3.36 The creation of such groups leads to the internalisation of mobile calling charges, as users become increasingly attracted to the mobile networks of their family, friends and those with whom they share an economic interest. Indeed, mobile users are likely to be attracted to mobile networks on the basis of on-net/off-net mobile price differentials.

3.37 ComReg, however, considers that there are several reasons why the effect of CUGs on mobile termination charges in Ireland is limited:

(i) there is little evidence to suggest that mobile users select their networks on the basis of CUGs, thereby amounting to an insufficient body of price sensitive users able to constrain wholesale voice termination charges;

(ii) mobile operators have the ability to address CUGs through lower on-net pricing, while increasing termination charges to less price-sensitive users; and

(iii) current termination charges remain unaffected by CUGs. Indeed, it is likely that CUGs do not affect termination charges for mobile on-net calls, as MNOs designated as having SMP for public mobile telephone networks and services have a non-discrimination obligation. Similar views concerning the competitive constraints of mobile communities of interest were echoed by the Competition Commission in its latest review of mobile termination charges in the UK.[32]

(b) Mobile operators are likely to introduce services addressing the price sensitivities of certain customer segments

3.38 ComReg has observed that, to the extent that a minority of mobile subscribers are price-sensitive to the cost of incoming calls (including larger corporate customers), MNOs have largely sought to neutralise the pressure that price-sensitive mobile subscribers could in theory exert on termination rates by offering such users more favourable terms than the majority of their customers, usually in the form of differential retail tariffs (especially through retail on-net tariff packages).

3.39 The emergence of "GSM gateways" into the Irish marketplace allows some price-sensitive customers to save money on private fixed line calls to mobile phones, by

[32] Reports on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O_2, Orange and T-Mobile for terminating calls from fixed and mobile networks, which was presented to the Director General of Telecommunications in December 2002.

converting fixed-to-mobile calls into mobile-to-mobile 'on-net' calls[33]. This is achieved by programming a PABX[34] to automatically route calls dialled to mobile numbers to the GSM gateway which then sets-up an 'on-net' mobile to mobile call to complete the call. The purpose of the GSM gateway is to avoid the higher charges of fixed-to-mobile calls (since it bypasses the PSTN) and to exploit the lower tariffs of mobile-to-mobile calls within the same network, *i.e.* 'on-net' calls. However, the use of such gateways is likely to be confined to a small number of business users and they are unlikely to act as a competitive constraint on mobile pricing.

3.40 If mobile users could receive their incoming calls on mobile networks other than the one to which they subscribe for making outbound calls, this could put some pressure on mobile voice termination charges. For that form of substitution to take place, however, the called party must be able to switch its handset between different networks. This would be possible through the use of multiple SIM cards.

3.41 A subscriber can have a mobile phone with an internal dual SIM cardholder that allows him to switch from one network to another. However, to exert some pricing pressure on the MNO the subscriber should be, by default, on the network with cheap voice call termination charges and would only switch to the other network to make cheap outbound calls. It is doubtful that such an incentive currently exists given the prevailing CPP arrangement and historical customer behaviour patterns under that arrangement.

3.42 Having regard to the factors outlined above in terms of the price sensitivity of mobile users to inbound mobile voice calls and the fact that mobile operators are likely to introduce call termination services addressing certain customer segments, ComReg is of the view that demand-side substitutability at the retail level from the called parties perspective is limited.

Q. 6. Do you agree that the behaviour of mobile users is insufficient to act as a competitive constraint to mobile voice termination charges? Please provide a reasoned response and support your view with empirical evidence.

Supply-side substitutability

3.43 ComReg is of the view that there are no operators in Ireland currently providing voice call termination services that could provide effective supply-side substitution at the wholesale level. In addition, it appears that any such provider would be dependent on the network of the MNO to which the called party is connected for termination. ComReg's reasoning is set out below.

[33] See ComReg information document of February 2003 at http://www.comreg.ie/fileupload/publications/comreg0315.pdf.

[34] Private Automatic Branch exchange – an automatic telephone switching system for providing access to the public telephone system. A PABX usually serves a single commercial entity and is located on its premises.

3.44 Supply-side substitution is said to occur when, in response to a rise in the price of a particular product or service, suppliers of other products or services switch, without the need for significant new investments, to supplying the product whose price has risen within a reasonable timeframe (thereby rendering the price increase unprofitable). ComReg considers this timeframe to be equivalent to a year, as is generally considered to be the appropriate timeframe under competition law. Consideration therefore, has been given to whether there are means by which supply-side substitution can occur (*i.e.,* means by which a voice call could be terminated on a network other than that of the MNO to which the called party subscribes for access and origination services). ComReg has considered whether a competing supplier would in fact be forthcoming (mere hypothetical supply-side substitution will not be sufficient) but has concluded that this is an unlikely scenario in the absence of other forms of regulatory intervention.

3.45 Wholesale supply-side substitution could come most easily from other MNOs. However, this would require handsets to be transferable between networks for termination purposes. While GSM handsets roam across networks, it is currently not possible for the network originating a call to select the network on which the call will terminate.

3.46 Some of the technical difficulties with this potential form of substitution could in theory be overcome through the routing of calls to a virtual entity (*e.g.*, an "MVNO") that provides termination to its customers, thereby selecting the mobile network on which to terminate such calls. Such a technical solution requires the virtual mobile entity to be able to control the network to which its customers are connected at any time and to be able to communicate with its customers' SIM cards (to change networks). ComReg understands that such signalling is also currently not possible, while evidence to date suggests that MNOs have had no incentive to conclude the necessary termination agreements to enable these virtual entities to control their termination charges. These MVNOs have, in any event, yet to emerge in Ireland however under the terms of its 3G licence, 3 is obliged to provide MVNO access to its network.

3.47 ComReg has also examined the potential for operators of wireless local area networks ("WLAN's") to provide voice calls in competition with the mobile operators, thereby potentially constraining to a degree mobile voice call termination charges. WLAN services in Ireland are still in the early stages of development and currently the coverage of WLAN operators tends to be limited geographically to the cities of Dublin and Cork. Furthermore, WLAN coverage tends to be in isolated "hotspot" locations, such as hotels and airports, resulting in WLAN subscribers losing coverage when travelling between these hotspot locations. WLAN's do offer portability but not mobility and are not seen as a constraint on mobile termination charges.

3.48 Supply-side substitution is unlikely to stem from operators in the Irish fixed sector in the short to medium term, as they do not currently have licensed mobile spectrum capacity and would, in any event, require individual mobile licences. While it is clear that important technological developments (including VoIP and unified messaging) might take place, some of which may not involve the levying of a termination charge (in its current form), their widespread deployment in Ireland is far too speculative and their commercial impact is relatively uncertain during the period of this review. In addition, it is far from clear that lower termination charges would result.[35]

3.49 Having considered the factors above, ComReg is of the view that there are currently no supply-side substitutes for mobile termination services.

Q. 7. Do you agree that there is no supply-side substitution at the wholesale level? Please elaborate your response.

The relevant geographic market

3.50 A relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.[36] On the basis of this definition, ComReg takes the view that the relevant geographic market for the provision of mobile voice call termination services by individual mobile operators is Ireland. This view is based primarily on the fact that, as each individual mobile operator is considered to be a separate relevant product market for the provision of voice termination services, the geographic scope reflects the extent of physical coverage that characterises each mobile operator. Furthermore, each operator is licensed on a national basis, has have roll-out requirements in its licence and offers geographically uniform termination rates.

Q. 8. Do you agree that the relevant geographic market for the wholesale provision of mobile voice call termination services is on individual mobile networks in Ireland? Please expand in your response.

[35] VoIP, or Voice over Internet Protocol, has the potential to modify existing call termination charging practices because, by converting voice calls into data streams, it has the potential to transform those signals in a way so that they could be: (i) identified as originating traffic, rather than terminating traffic and (ii) subject to a different charging regime based on the use of capacity rather than the time period of a call. However, the timing and extent of likely take-up of VoIP is open to speculation, nor is it clear precisely how billing practices will/can evolve over the period of this review. Moreover, a VoIP call can be terminated only if both the sender and the receiver are on-line simultaneously, which may not be the case as the receiver is normally charged for the time he/she is on-line. Finally, if the receiver has the option to receive a call using either VoIP or with the more common technology, it is probable that he / she would opt for the latter since he / she would then not be charged for it. IM is a more sophisticated form of existing SMS, although to be used predominantly on a GPRS system. Its effect will arguably be to provide some form of competitive pressure on voice calls, although it is unclear at this stage of its development what its exact effect will be.

[36] See the Commission Notice on Market Definition, SMP Guidelines, ComReg Document No 02/117 - Information Notice on Market Analysis and Data Collection and United Brands v. Commission, [1978] ECR 207, for additional guidance.

Preliminary conclusions

3.51 There are currently no viable competitive substitutes at the wholesale level for the termination of mobile voice calls by individual MNOs, whether measured from the supply-side or the demand-side. Other existing bypass opportunities, such as the use of GSM gateways, might partially dilute the full impact of high termination charges, but do not meet the relevant legal and economic criteria for them to qualify as complete product substitutes for voice termination on mobile networks under the market definition exercise.

3.52 Although the current method of charging for termination on MNOs (the CPP principle) has arguably contributed to the growth of the mobile market in Europe it perpetuates the fact that consumers are in general price-inelastic about mobile voice termination charges, further insulating individual MNOs from price competition. Although changing consumer behaviour may in the future generate greater price sensitivity for consumers in relation to termination services, available data suggests that, as yet, such changes in consumer behaviour have not had a material competitive impact on mobile voice call termination charges.

3.53 There are separate wholesale markets for the termination of mobile voice calls on the networks of each MNO in Ireland, namely: Vodafone; 0_2; Meteor and 3. With respect to each relevant product market, there is only one seller of the services in question, although there are multiple purchasers.

3.54 The relevant product market is voice call termination on the networks of each MNO, while the geographical market is the territory of the Republic of Ireland.

Q. 9. Do you agree with the above preliminary conclusions regarding the market definition exercise? Please provide a reasoned response.

4 Relevant Market Analysis

Background

4.1 Having first identified a relevant market relating to voice call termination on individual mobile telephone networks in Ireland, ComReg is required to conduct an analysis of whether the market is effectively competitive by reference to whether any given undertaking or undertakings is/are deemed to hold SMP in that market. Recital 27 of the *Framework Directive* states that a relevant market will not be effectively competitive "*where there are one or more undertakings with significant market power*". Regulation 25(1) of the *Framework Regulations* states that:

"A reference in these Regulations ... to an undertaking with significant market power is to an … undertaking (whether individually or jointly with others) enjoys a position which is equivalent to dominance of that market, that is to say a position of economic strength affording it the power to behave to an appreciable extent, independently of competitors, customers, and, ultimately, consumers".

4.2 Accordingly, an undertaking may be deemed to have SMP either individually or jointly with other undertakings in a relevant market. In addition, where an undertaking has SMP on a relevant market, it may also be deemed to have SMP on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking.[37]

4.3 ComReg is obliged under the *Framework Regulations* to assess SMP in accordance with European Community law and to take the "utmost account" of the *SMP Guidelines*[38]. In particular, while acknowledging that individual network definitions imply that, currently, each MNO is a single supplier of call termination services to its customer base in each market, the Commission emphasises that ComReg should consider whether there is any countervailing bargaining power that would render any non-transitory price increase above the competitive level unprofitable for each mobile operator.

4.4 The SMP guidelines state that the existence of a dominant position cannot be established on the sole basis of large market shares and that NRA's should undertake a thorough and overall analysis of the economic characteristics of the relevant market before coming to a conclusion as to the existence of significant market power.[39] However the SMP guidelines state that according to established case-law, very large market shares – in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position.[40] In this case given that each MNO has 100% market share in the relevant product market, it is not necessary for ComReg to examine the exhaustive list of additional criteria. Those

[37] Framework Regulations, Regulation 25(3).

[38] Regulation 25(2).

[39] SMP Guidelines, Paragraph 78

[40] SMP Guidelines, Paragraph 75

criteria considered to be most relevant in this case on the issue of SMP are discussed below.

Absence of Potential Competition

4.5 The threat of market entry, either on a long-term or "hit and run" basis, is one of the main competitive constraints on incumbent firms in a relevant market, where such entry can be shown to be highly probable, timely and appreciable. The threat of market entry will be diminished by the presence of barriers to entry. The relevant wholesale market for voice call termination on individual mobile networks in Ireland is characterised by high and non-transitory entry barriers. In particular, there are no operators providing voice call termination services that could enter the market in the medium term, given the requirement to obtain a license and build out a network. In any case, any such operator would only terminate calls on their own network and thus could not potentially compete with current operators. This is equally applicable to MNOs currently providing voice call termination services on their networks, due to the lack of access to other networks mobile users' profiles. This effect is reinforced by the prevalence of the calling party pays principle and the relative price insensitivity of mobile users, as well as those callers contacting them. These issues are discussed in greater detail in Section 3 above.

4.6 In addition, based on the responses of market actors in Ireland and on ComReg's knowledge of existing or pending technological developments, there do not appear to be any viable alternatives to allow for any operator other than the terminating MNO to terminate voice calls to subscribers on its network. To the extent that such technological alternatives were to materialise in the future, their effectiveness would in turn be conditioned by the extent to which mobile subscribers remain relatively insensitive to high mobile voice termination charges. These issues are discussed in greater detail in Section 3 above.

4.7 A "3G" licence was awarded to 3 on July 25th, 2002. On September 30th 2003, 3 launched commercial services in Ireland and introduced wholesale mobile voice termination rates[41] that are equivalent to those currently provided by Meteor. It is arguable that further market entry is unlikely in the short to medium term. While *eircom* has indicated an interest in coming into the mobile market when its anti-compete clause expires next year,[42] this is likely to take some time and there is no reason to consider that it would seek to disrupt the current mobile termination rate patterns. Furthermore such entry could potentially be by acquisition rather than *de novo* i.e. it would not necessarily increase the number of players in the market; and even if it did, this would not affect the fact that each operator has 100% of the market for terminating calls on its network.

[41] 3 termination rates (Euro cents): Peak 17.776333, Off-Peak 11.427643, Weekend 8.888167. Source *eircom* Switched Transit Routing and Price List – version 22.

[42] *eircom's* Bond Offering Memorandum 2003

Q. 10. Do you agree that potential competition will not provide an effective competitive constraint on the relevant wholesale market for voice call termination on individual mobile networks in Ireland, at least in the short to medium term? Please provide a reasoned response.

Absence of or low countervailing buying power

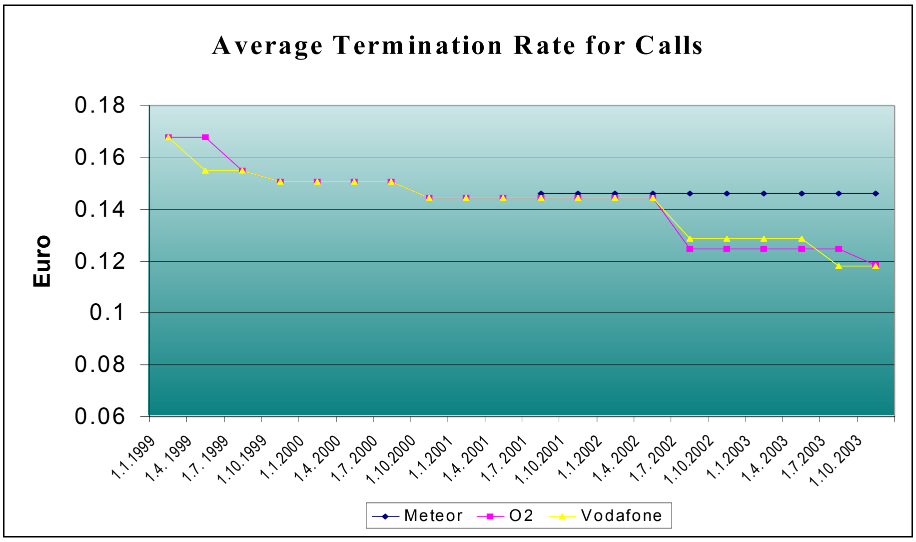
4.8 If an MNO engages in practices that are potentially exploitative, customers and consumers might be able to exert countervailing power against such practises. This section aims to evaluate the likelihood and or existence of countervailing buying power in termination markets, and also identifies under what circumstances wholesale or retail customers can influence the behaviour of the supplier.

4.9 Countervailing buyer power exists where large customers have the ability within a reasonable timeframe to resort to credible alternatives (*e.g.*, not to purchase or to retaliate) if the supplier decides to increase prices or to deteriorate the conditions of delivery. ComReg is of the view that the economic evidence suggests that there does not exist at this time sufficient countervailing buyer power to act as a competitive constraint, either at the wholesale or retail level, regarding the relevant wholesale market for voice call termination services on individual mobile networks in Ireland. Arguments supporting this view are discussed below.

4.10 As regards countervailing bargaining power at the wholesale level, buyer power could potentially be exerted on the MNOs selling wholesale termination services by fixed network operators and by other MNOs. These operators have to purchase terminating services in order to enable their customers to make calls to end users connected to the network of the mobile operator supplying the terminating services. *eircom* is a major customer of the mobile network operators in Ireland. While eircom may in the past have exercised a degree of countervailing buyer power, it appears that any such countervailing buyer power may have decreased over time as evidenced from the following:

4.11 As shown in Figure 1 both 0_2 and Vodafone reduced their termination rates a number of times from 1999 onwards. In 1999, there were significantly more fixed telephony lines in Ireland than mobile phones and for that reason the majority of calls which were terminated on the mobile networks came from *eircom's* fixed network. However, since 1999 the mobile penetration level in Ireland has risen from 40% to the present level of 81%, and as mentioned in Section 3.8 there are currently far more mobile phones in Ireland than PSTN lines. Consequently *eircom's* percentage share of traffic which is passed over to the mobile network operators for termination has decreased over time, as a larger share of this traffic is now generated from other mobile network operators.

Figure 1: Average Termination rates for calls[43]



Source: ComReg and *eircom* Switched Transit Routing and Price List – version 22

4.12 Countervailing buyer power exists where large customers have the ability within a reasonable timeframe to resort to credible alternatives, e.g. not to purchase or to retaliate. e*ircom* does not have the alternative not to purchase, as it is obliged to provide interconnection to all operators, nor does it have much scope to retaliate – its ability to raise prices to consumers, thereby reducing fixed-to-mobile calls and reducing the mobile operator's revenue is limited by the fact that its retail services are price capped; at the wholesale level its termination rates are subject to the principle of cost-orientation. Furthermore since June 2002 *eircom* has passed on all of 0_2's and Vodafone's mobile termination rate reductions suggesting that its countervailing buyer power may be decreasing.

4.13 Finally, Meteor, the MNO with the smallest retail market share (4%), has not adjusted its rates in line with the two largest mobile operators. If a large fixed operator could exert countervailing power over the largest mobile operators, it should in principle be able to exercise such buying power over Meteor and new mobile entrants, thereby forcing similar reductions in their termination rates. *eircom* has failed to do so, despite being a large purchaser of termination services from the mobile operators, and was unable to bring any competitive pressure on the level of mobile termination charges.

4.14 Overall the above points suggest that *eircom's* countervailing buyer power was not the dominant factor in Vodafone and 0_2's most recent mobile termination rate reductions.

4.15 A number of factors other than countervailing bargain power could play a role in 0_2 and Vodafone's mobile termination rate reductions. These other factors include

[43] Development over time for Vodafone and 0_2 (Distribution: Peak: 54%; Off-Peak: 30%: Weekend: 16% (Distribution is a estimation of the distribution of the total termination minutes)

regulatory pressure and self-interest. Vodafone, in its qualitative submission to the market analysis questionnaire acknowledge a degree of self-interest is involved in its negotiations on mobile termination rates, as Vodafone considers what retail rate fixed line customers expect to pay when calling a mobile phone. A reduction in a MNOs termination rate could reduce its termination revenue per minute; however it may also increase the volume of traffic that is passed over to it for termination, and also the overall termination revenue, particularly if other operators pass on the wholesale mobile termination reduction to their retail customers.

4.16 With regard to the regulatory pressure which was exerted on 0_2 and Vodafone termination rates, Table 2 shows the dates on which Vodafone and 0_2 were designated as holding SMP in the public mobile telephony market and the national market for interconnection.

Table 2 SMP Designations

	Mobile public telephone network and /or services market	*National market for interconnection*
October 1998[44]	Vodafone	
December 1999[45]	0_2	Vodafone
July 2001[46]		0_2

Source: ComReg

4.17 As shown in Table 2, the regulatory obligations on Vodafone and 0_2 have increased over time, particularly since July 2001, when both 0_2 and Vodafone were designated with SMP in the national market for Interconnection. Evidence since July 2001 suggests that regulatory pressure is now a more significant factor than countervailing buying power or self-interest in the setting of termination rates. This is supported by the fact that Meteor has not reduced its mobile termination rates in line with those reductions of Vodafone and 0_2. While Meteor's mobile termination rate is subject to the pressures of self-interest and countervailing buying power, Meteor is not subject to the same degree of regulatory pressure as 0_2 and Vodafone, as it is not an SMP operator, and in effect is still a small operator at this time.

4.18 Overall the above suggests that regulatory pressure, and not countervailing bargaining power or self-interest, is the dominant factor in the mobile termination reductions of the Irish mobile operators, particularly since June 2001. Without regulatory pressure MNOs have less of an incentive to lower their termination rates.

4.19 The ability of retail customers to be able to exert countervailing buyer power on monopoly providers, particularly in light of the prevailing CPP charging principle, is limited. As regards the ability of large corporate users to act as a competitive constraint, ComReg is of the view that this pressure is currently limited, and is not

[44] ComReg Document No. D4/98

[45] ComReg Document No. D15/99

[46] ComReg Document No. D10/01

sufficient, of its own accord, to reduce mobile termination rates to the competitive level.

Q. 11. Do you agree that there is nothing to indicate that there exists any countervailing market power such as to exert any competitive pressure on MNOs to lower their termination rates to a competitive level? Please provide a reasoned response.

Pricing and Profitability

4.20 European Community case-law supports the view[47] that dominance, or SMP, can best be identified through an entity's ability to engage successfully in behaviour that cannot be constrained by the independent actions of competitors, customers or consumers. The structure of the market for mobile termination is conducive to the charging of voice call termination rates above the competitive level.[48]

(a) Actual charges

4.21 Table 3 outlines the current termination rates of the mobile operators in Ireland.[49] It can be seen from the table that Vodafone and 0_2 have lower mobile termination rates than Meteor and 3. As discussed previously, the dominant factor in Vodafone and 0_2's recent reductions appears to have been regulatory pressure. Both Vodafone and 0_2 have said that they are willing to make further reduction in mobile termination rates in 2004.[50] Vodafone plans a 5% reduction to its average termination rates, while 0_2 plans an average termination rate reduction of CPI minus 8%.

[47] Case 85/76, Hoffmann-La Roche and Co. AG v. Commission [1979] ECR 461, [1979] 3 CMLR 211; paragraph 39 and Case 27/76, United Brands Company and United Brands Continental BV v. Commission [1978] ECR 207, [1978] 1 CMLR 429; paragraphs 2, 65 and 66.

[48] An excessive price has been defined by the European Court of Justice (ECJ) as being "*excessive in relation to the economic value of the service provided*" - Relevant Case Law - Case 26/75 *General Motors Continental v. Commission*, [1975] ECR 1367, Case 27/76 *United Brands Company and United Brands Continental B.B. v. Commission*, [1978] ECR 207, Case 66/86 *Ahmed Saeed*, [1989] ECR 838, Case 30/87 *Corinne Bodson v. Pompes funebres des regions liberees*, [1988] ECR 2479.

[49] Without the appropriate costing information ComReg are unable to determine the actual cost of termination rates of Irish mobile network operators. The competition commissions report published on 22nd January 2003 on the charges made by mobile operators for terminating calls found that in the UK termination charges were 30% to 40% above a fair charge.

[50] ComReg Press Release – Reference PR 280703 ComReg welcomes reductions in mobile termination rates ensuring that Irish rates stay amongst the lowest in Europe.

Table 3 Termination Rates

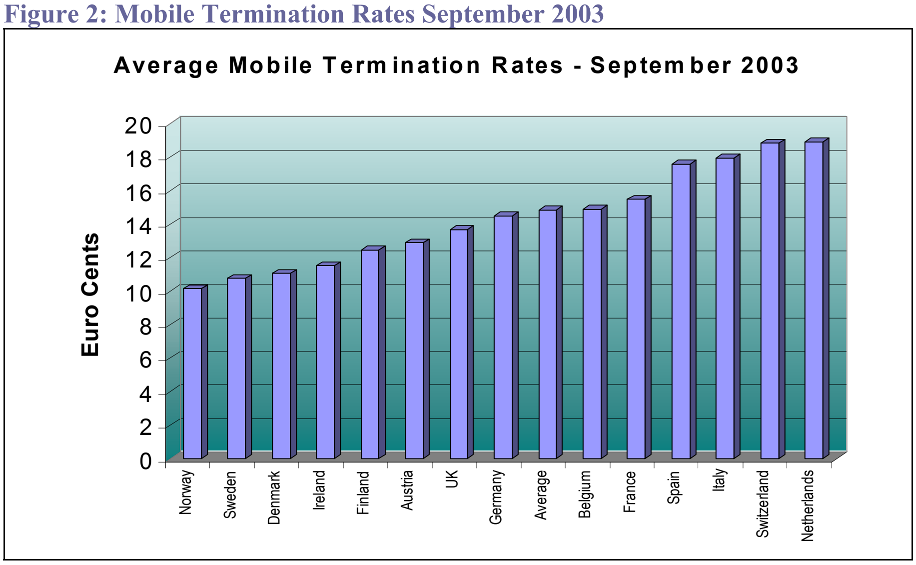
	Termination rates, October 2003		
	Peak	*Off-Peak*	*Weekend*
Meteor	17.776333	11.427643	8.888167
0_2	13.400000	10.800000	8.700000
Vodafone	12.900000	11.420000	8.880000
Hutchison (3)	17.776333	11.427643	8.888167

Source: *eircom* Switched Transit Routing and Price List – version 22

(b) International benchmark

4.22 In the absence of a model providing cost-oriented charges, a comparison of the level of mobile termination charges in the Irish market with those of other relevant countries can be useful. Such a comparison, (see figure 2), suggests that Ireland fares relatively well compared to most other European jurisdictions. However the mobile termination charges in other relevant countries as shown in figure 2 do not necessarily reflect the cost-oriented mobile termination rate in those countries. For example, in the UK, OFTEL have conducted cost modelling exercises and concluded that their existing mobile termination charges are significantly above cost.[51] If similar findings are concluded elsewhere, this suggests that existing mobile termination charges in other countries are likely to be significantly above costs.

Figure 2: Mobile Termination Rates September 2003



Source: Ovum

(c) Excessive and consistent profitability

4.23 Under a perfectly competitive economic model, the consistent generation of supernormal profits by an operator in a particular market is generally regarded as reflecting the fact that this operator is not subject to any effective competitive restraint. Practically, if an operator can maintain a high level of profits overtime against a level of cost that would emerge in a competitive market, this would indicate that an operator has market power in the said market. However, any assessment of market power to an individual operator involves the consideration of

[51] See e.g. OFTEL, Review of mobile wholesale voice call termination markets EU Market Review, 15 May 2003, paragraph 4.17.

profits and efficiency together. SMP on a particular market could also be found even in the absence of super normal profits at an operator level. For example, an SMP operator may set prices higher than the competitive level but earn low profits because it operates inefficiently.

4.24 In an effectively competitive market, prices should reflect efficiently incurred costs including the cost of capital. Given the difficulties associated with estimating the competitive level of costs, however, other surrogate measures for profitability levels have been relied on. One such measure is Rate of Return on Capital Employed (ROCE).

4.25 This ratio can be calculated in a number of different ways. In this case, most of the goodwill has been excluded because normally only the fixed assets and working capital of the company are used by regulators when assessing the level of return. The ratio is also based on the addition of long term debt and equity, since the relationship between the two is the financing decision of an individual parent company. The figures are also calculated using consolidated Irish statutory accounts based on the Historical Cost Convention and not on Current Cost Accounting or Long Run Increment Cost numbers.

4.26 The factors listed above should be taken into account in interpreting the data in table 4. It should be noted that this is an indication of overall profitability of the respective Irish groups rather than profitability for the provision of wholesale termination services.

Table 4: Rate of Return on Capital Employed

	Rate of Return on Capital Employed			
	1999	2000	2001	2002
Vodafone	26%	35%	32%	31%
0_2	-16%	-18%	8%	24%

Source: ComReg

4.27 ROCE that persistently and significantly exceeds the cost of capital could indicate that prices charged by particular mobile network operators are higher than would be found in an effectively competitive market. Table 4 shows the ROCE for Vodafone and 0_2 on an Irish group basis from 1999 up to 2002.[52] Whilst ComReg acknowledges that the ROCE of Vodafone and 0_2 apply to the total company, it believes that these are relatively high. This is based on research from Cullen International that indicates that the highest determined cost of capital, albeit solely in the "network" area, is 19.5% (Belgium) while the lowest is 12% (UK).[53]

[52] The table above excludes Meteor as it did not have any operations in 1999 and 2000. It's ROCE for 2001 and 2002 is negative.

[53] http://www.cullen-international.com/documents/cullen/prindex.cfm

4.28 Vodafone's current ROCE level at 31% appears high - sustained at high levels or rising over a period of time in question – in the absence of some explanation of how such high ROCE figures might reflect productive or distributive efficiencies. Furthermore, 0_2 current ROCE at 24% also appears high. These current ROCE figures may reflect high profits for the provision of mobile services as a whole and may be indicative of the fact that competition for the overall business at the retail level and wholesale level is not yet fully effective. Were the market at the retail level fully competitive, excess profits for wholesale voice call termination could in theory be competed away at the retail level.

4.29 Meteor's ROCE is consistent with the early stages of development of a network showing no operating profit. A network based business faces considerable initial and outgoing investment and it may be several years before there are operating profits.

Q. 12. Do you agree that there is evidence of market behaviour supporting the preliminary conclusion that MNOs are not subject to constraints from competitors, customers or consumers to lower their termination rates to a competitive level? Please provide a reasoned response.

Preliminary conclusions

4.30 Each MNO in Ireland, namely Vodafone, 0_2, Meteor and 3, should be designated as having SMP in the relevant market for the termination of voice calls on their respective mobile networks.

4.31 The identification of the relevant market as the market for voice call termination services on an individual mobile networks and its subsequent market analysis shows evidence of a market failure in that market forces are unable to constrain the pricing of mobile call termination services.

4.32 In the short to medium term, considering foreseeable technological developments and anticipated customer behaviour, there is nothing to suggest to ComReg that the SMP enjoyed by these MNOs with respect to the termination of calls on their own networks will be diluted in any meaningful way in the absence of appropriate and proportionate *ex ante* regulatory measures. This conclusion is without prejudice to the particular obligations which might be imposed by ComReg on each SMP designated MNO in its relevant product market.

4.33 There is nothing to indicate that there exists countervailing market power such as to exert any competitive pressure on MNOs to lower their termination rates in response to competitive pressures.

4.34 From the factors outlined above, ComReg is of the view that MNOs in Ireland are not subject to constraints from competitors, customers or consumers to lower their termination rates.

Q. 13. Do you agree with the above preliminary conclusions regarding market analysis? Please provide a reasoned response.

5 Designation Of Undertakings With Significant Market Power

5.1 Having regard to the sections above, ComReg is of the view that, in accordance with the *Framework Regulations*:

5.2 Vodafone should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland;

5.3 0_2 should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland; and

5.4 Meteor should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland.

5.5 3 should be designated as having SMP on the wholesale market for the termination of voice calls on its network in Ireland.

5.6 A reference in this section to any given undertaking shall be taken to include any undertaking carrying out business activities in the Republic of Ireland where the undertaking is engaged either directly or indirectly in the commercial activities falling within the scope of the relevant market defined in section 3.

6 Regulatory Impact Assessment

6.1 The Ministerial Direction (issued by the Minister for Communications, Marine & Natural Resources in accordance with S.13 of the Communications Regulation Act, 2002) published in February 2003, directs:

"The Commission before deciding to impose regulatory obligations on undertakings in the market for electronic Communications or for the purposes of the management and use of the radio frequency spectrum or for the purposes of the regulation of the postal sector, shall conduct a Regulatory Impact Assessment in accordance with European and International best practice and otherwise in accordance with measures that may be adopted under the Government's Better Regulation programme."

6.2 ComReg is obliged by the Framework Regulations to impose an obligation on undertakings with significant market power.[54] ComReg is obliged further to impose obligations listed in Regulation 10 to 14 of the Access Regulations[55] which are as follows:

- Obligation of Transparency
- Obligation of Non-discrimination
- Obligation of accounting separation
- Obligation of access to, and use of, specific network facilities
- Price control and cost accounting obligations

6.3 ComReg is obliged under Regulation 9(6) of the Access Regulations to impose obligations ' based on the nature of problem identified, proportionate and justified in the light of the objectives laid down in section 12 of the Act of 2002 and only be imposed following consultation in accordance with Regulations 19 and 20 of the Framework Regulations'

6.4 ComReg will conduct a Regulatory Impact Assessment which will form part of the decision making process and would invite comments on the proportionality of the remedies list in section 7 of this consultation and the justification of the remedies listed.

[54] Regulation 27(4) states 'Where the regulator determines that a relevant market is not effectively competitive, it shall designate undertakings with significant market power in accordance with Regulation 25 and it shall impose on such undertakings such specific obligations as it considers appropriate'

[55] Regulation 9(1) of the Access Regulations

Q. 14. Respondents are asked to provide views on whether the remedies in section 7 are proportionate and justified and offer views on what factors ComReg should consider in completing its Regulatory Impact Assessment in terms of the impacts of these remedies on end-users, competition, the internal single market and technological neutrality, having regard to the different stages of development of market players.

7 Proposed Market Remedies

7.1 In light of ComReg's identification of the relevant market as the market for voice call termination services on individual mobile networks and its subsequent market analysis which shows evidence of a market failure in that market forces are unable to constrain the pricing of mobile call termination services, ComReg takes the view that the remedies most appropriate to apply to all undertakings listed in Section 5 of this Consultation are in accordance with the principles set forth in the Framework and Access Directives and the Framework and Access Regulations. In this context, ComReg is minded that the remedies most appropriate to apply are cost orientation,[56] and non discrimination,[57] with appropriate obligations relating to cost accounting systems,[58] transparency[59] and accounting separation.[60] These remedies would be aimed at removing any distortions that are occurring in the relevant market, such as the ability to sustain mobile termination charges above the competitive level[61].

7.2 The level of regulation that should be applied to a particular firm depends on whether the firm possesses market power and has exercised it. Evidence suggests that voice call termination rates are above the competitive level in the Irish mobile market and as such should be subject to the regulatory requirements of non-discrimination and cost-orientated prices. However, ComReg is of the view that the effect of any reduction in termination charges must be considered in conjunction with the development of the overall mobile market.

7.3 In light of the foregoing, ComReg will ensure that any imposition of the non-discrimination, accounting separation and cost-orientation obligations will be proportionate, taking into account the development of the overall Irish mobile market. ComReg will recognise the relevant stages of development of smaller market players in considering appropriate remedies. There are a number of options available regarding the implementation of these measures, and ComReg will take this into account in imposing any remedy on Meteor or 3.

7.4 Furthermore, ComReg considers that there are a number of options the need to be considered for the implementation of the remedies of non-discrimination and cost-orientation. In that regard, ComReg will consider in more depth in future consultations such factors as, in addition to their proportionality for each operator, types of non discrimination obligations in the context of the mobile voice call termination market, the requirement for cost accounting systems and accounting separation, the appropriate costing methodologies, the implementation of the outcome

[56] Access Regulations Article 14 Price control and cost accounting obligations

[57] Access Regulations Article 11 Obligation of non-discrimination

[58] Access Regulations Article 14 Price control and cost accounting obligations

[59] Access Regulations Article 10 Obligation of transparency

[60] Access Regulations Article 12 Obligation of accounting separation

[61] Regulation 9(5) of Access Directive allows, where in exceptional circumstances ComReg intends to impose on operators with SMP obligations for access or interconnection other than those set out in Regulations 10 to 14, ComReg shall submit to the European Commission a request for permission, to impose such other obligations.

of any cost modelling including the form of any *ex ante* price control so as to enhance operator incentives.

7.5 Article 8.4 of the Access Directive requires that obligations imposed in accordance with Article 8 shall be based on the nature of the problem identified, proportionate and justified in the light of the objectives laid down in Article 8 of the Framework Directive. Among these objectives are "encouraging efficient investment in infrastructure and promoting innovations" (Article 8.2(c)). In light of this objective, ComReg considers that 3G networks, which are at a different stage of evolution to 2G networks and represent a form of innovation in the mobile sector, should be treated differently to 2G networks. It is envisaged, therefore, that while for example, obligations of cost-orientation, non-discrimination and accounting separation, supported by transparency, should apply to voice call termination on 2G networks, the obligation of transparency only should be applied to voice call termination on 3G networks.

7.6 Both Vodafone and 0_2 have existing obligations as SMP operators of cost orientation and non discrimination that will be maintained. ComReg expects that both Vodafone and 0_2 will adhere to their undertakings earlier this year to further reduce their mobile termination rates.[62] Vodafone plans a 5% reduction to its average termination rates, while 0_2 plans an average termination rate reduction of CPI minus 8% in 2004.

7.7 ComReg intends to consult fully on detail of these remedies and the way in which it would propose to implement them in subsequent Consultations.

Q. 15. Do you agree with the proposed remedies outlined above?

Please elaborate your response

[62] ComReg Press Release – Reference PR 280703 ComReg welcomes reductions in mobile termination rates ensuring that Irish rates stay amongst the lowest in Europe.

8 Submitting Comments

8.1 All comments are welcome; however it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.

8.2 The consultation period will run from 22nd October to 3rd December 2003 during which the ComReg welcomes written comments on any of the issues raised in this paper.

8.3 ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful. Respondents are requested to clearly identify confidential material and if possible to include it in a separate annex to the response. Such information will be treated as strictly confidential.

8.4 Having analysed and considered the comments received, ComReg will review the mobile voice call termination market review and publish a report on the consultation which will inter alia summarise the responses to the consultation.

8.5 In order to promote further openness and transparency ComReg will publish the names of all respondents and make available for inspection responses to the consultation at its Offices.

Appendix A – Consultation Questions