



Commission for  
**Communications Regulation**

## Response to Consultation and Consultation on Draft Decision

### Market Analysis: Leased Lines Markets Response to Consultation and Consultation on Draft Decision

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All responses to the draft decision should be clearly marked:-  
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## 1 Executive Summary

### Introduction

- 1.1 The term “leased lines” refers to fixed, permanent telecommunications connections providing symmetric<sup>1</sup> capacity between two points. A leased line is permanent, in that capacity is available between the two fixed points. However, capacity could be reserved or shared through the associated network depending on the nature of the leased line.
- 1.2 A retail leased line is typically used by business users to connect office sites or to access the Internet. It is a matter for the end user to determine the nature and mix of services carried over a leased line. A wholesale leased line may be used as an input to the provision of a retail leased line, or may be used as an input to provide other retail services, such as fixed and mobile voice services, or Virtual Private Networks (“VPN”). A wholesale leased line may also be used by an operator seeking to extend parts of its network without there being a direct corresponding retail service.
- 1.3 In line with its statutory obligations, the Commission for Communications Regulation (“ComReg”) must carry out a review of the markets for leased lines, and determine whether or not they are competitive. If it transpires that any such market is not working effectively or in a competitive manner, then, on foot of a finding of Significant Market Power, ComReg is obliged to impose at least one remedy on the dominant player.
- 1.4 ComReg published its first round *Market Analysis: Wholesale Terminating and Trunk Segments of Leased Lines and Retail Leased Lines (National)* review of the market for leased lines on 4 June 2004 (04/59). The response to consultation and draft direction was published on 17 January 2005 (05/03). This was notified to, and accepted by, the European Commission (16 Feb 2005). A Decision Notice (D7/05) was published on 30 March 2005.
- 1.5 ComReg published its second round Market Analysis: Leased Line Markets (07/77) on 1 October 2007. Responses were received from:
  - ALTO
  - BT Ireland
  - Eircom
  - E-Net
  - ESB Telecoms
- 1.6 In the first round review, ComReg defined three markets as follows:
  - market for the minimum set of retail leased lines up to and including 2 Mb/s;
  - market for wholesale terminating segments of leased lines; and
  - market for wholesale trunk segments of leased lines.

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<sup>1</sup> It is ComReg's view that a leased line would be characterised by broad rather than absolute symmetry, in the sense that upstream and downstream capacities would not necessarily be equal, but should be broadly equivalent.

- 1.7 ComReg found Eircom to have Significant Market Power (SMP) in all three markets and proposed a set of remedies designed to address the lack of competition in the leased line markets.
- 1.8 Since the time of the 2005 review, the European Commission (the Commission) has reviewed the product and service markets which may be susceptible to *ex ante* regulation<sup>2</sup>. The Commission has proposed that the minimum set of retail leased lines should be removed from the list of relevant markets, since wholesale regulation should ensure that there is competitive supply at the retail level. In addition, the Commission reasons that, in the presence of wholesale regulation, this market does not meet the three criteria test<sup>3</sup> since there are no significant barriers to entry<sup>4</sup>.
- 1.9 ComReg has assessed the extent to which the market in Ireland for the minimum set of retail leased lines up to and including 2 Mb/s continues to be susceptible to *ex ante* regulation. By applying the three criteria test, ComReg proposes that, in the presence of wholesale regulation, entry barriers to the retail market are no longer high and non-transitory, and therefore the first criterion is not met. ComReg's conclusion is that, although Eircom has a high share of the retail market, remedies in the wholesale market, which were imposed following the previous market review, allow existing and potential competitors to enter and compete. In the presence of wholesale regulation, the retail market must therefore be considered not to be susceptible to *ex ante* regulation. ComReg is therefore proposing to remove this market from regulation and to withdraw its previous finding<sup>5</sup> that Eircom had SMP on this market.
- 1.10 The Commission's revised Recommendation is that there is one leased line market potentially susceptible to *ex ante* regulation, namely the market for wholesale terminating segments of leased lines<sup>6</sup>. The initial consultation of the second round review Document No. 07/77 was published prior to the publication of the Commission's revised Recommendation. However, ComReg's view of the leased lines market as set out in its initial consultation Document No. 07/77 is in line with the Commission's revised Recommendation.

#### Relevant Market Definition

- 1.11 ComReg has considered in detail all responses to consultation, and proposes to define the relevant market(s) as follows:
- There are separate markets for the trunk segments and the terminating segments of leased lines;

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<sup>2</sup> This review cumulated in a Revised Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services dated 17 December 2007 OJ L 344/65.

<sup>3</sup> Ibid, Recital 5. The three criteria are, briefly, (i) are there high and non-transitory barriers to entry, (ii) does the market structure tend towards effective competition over time and (iii) would the application of competition law alone adequately address the market failure(s).

<sup>4</sup> Ibid, Recital 15.

<sup>5</sup> March 2005 D7/05

<sup>6</sup> Ibid, Annex, Market 6, "Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity".

- The boundary between trunk and terminating is not determined by any operator's specific network topology. Trunk segments connect high densities of traffic via high capacity connections, between and within major centres of population. OAO investment on these routes reflects the difference in the underlying economic conditions of supply and demand. Terminating segments generally supply lower densities of traffic on a less aggregated basis. Everything, outside of the trunk segment market, and including the main points of handover, is considered to be part of the terminating segment market;
- Self-supply should be considered part of the market where an operator has capacity which it would be likely to offer on a wholesale market without significant costs, and within a reasonable timeframe;
- The market for wholesale trunk segments should not be further differentiated by bandwidth;
- All high bandwidth products form part of the same trunk segment market;
- The market for wholesale trunk segments is national in scope;
- The market for wholesale terminating segments should not be further differentiated by bandwidth;
- All products offering fixed permanent, point-to-point, broadly symmetric termination are in the same wholesale terminating segment market, regardless of the underlying technology;
- The relevant product market for the purposes of Regulation 26 of the Framework Regulations is the market for wholesale terminating segments of leased lines;
- The relevant geographic market for the purposes of Regulation 26 of the Framework Regulations for the wholesale terminating segments is national in scope.
- ComReg has assessed the extent to which the market in Ireland for the wholesale trunk segments of leased lines continues to be susceptible to *ex ante* regulation. By applying the three criteria test, ComReg proposes that, in the presence of wholesale regulation on the wholesale terminating segments of leased lines, entry barriers to the wholesale trunk segments of leased lines market are no longer high and non-transitory, and therefore the first criterion is not met. ComReg's conclusion is that, although Eircom has a high share of the wholesale trunk segments of leased lines market, remedies in the market for wholesale terminating segments of leased lines, which are proposed following this market review, allow existing and potential competitors to enter and compete. In the presence of wholesale regulation on the wholesale terminating segment of leased lines, the wholesale trunk segments of leased lines market must therefore be considered not to be susceptible to *ex ante* regulation. ComReg is therefore proposing to remove this market and to withdraw its previous finding<sup>7</sup> that Eircom had SMP in this market.

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<sup>7</sup> March 2005 D7/05

## Relevant Market Analysis

### Market for trunk segments

1.12 ComReg notes that the wholesale market for trunk segments of leased lines is no longer included in the European Commission's Recommended Markets<sup>2</sup>. Nonetheless, given the relationship between the wholesale markets for trunk and terminating segments of leased lines, ComReg has deemed it appropriate to conclude in this paper the analysis of the wholesale market for trunk segments of leased lines that commenced in the consultation paper<sup>8</sup>. In this context, ComReg's conclusions are that:

- Eircom's market share remains high, at just under 50% by revenue. However, market share has fallen over the last two years, since the time of the first round review.
- Competition in the market has grown, especially since ESBT has become more active. ComReg understands that there is spare capacity in the trunk segment market.
- High sunk costs and economies of scale are characteristics of the trunk segment market. However, it is ComReg's view that they do not pose insuperable barriers to entry, and indeed there has been market entry.
- The nature of the market is such that there are relatively few contracts, and contracts tend to be long-term. This means that the cost of switching can be substantial, and that change in the market is not rapid.
- However, ComReg believes that there is evidence of increasing countervailing buyer power due to the size of the undertakings involved, and to the increasing possibility of self-supply.

1.13 ComReg's conclusion is that, on balance, the market for trunk segments of wholesale leased lines is tending towards competition.

### Market for terminating segments

1.14 ComReg's conclusions are that:

- Eircom has a very high and enduring market share, of just less than 80% by revenue.
- Competition in the market is very limited and consists mainly of the resale of Eircom's product. ComReg notes that resale would not constrain Eircom's ability to act independently.
- Sunk costs and economies of scale are high, and constitute high barriers to entry.
- Countervailing buyer power is very limited.

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<sup>8</sup> "Market Analysis: Leased Line Markets" ComReg Document No. 07/77

- 1.15 ComReg's conclusion is that the market for the terminating segments of wholesale leased lines is not tending towards competition and is not likely to do so within the lifetime of this review.

#### Proposed SMP Designation

- 1.16 Taking the conclusions of the market analysis into account, ComReg proposes that:
- The market for the trunk segments of wholesale leased lines is tending towards competition. No operator has SMP.
  - Eircom should be designated as having SMP in the market for the terminating segments of wholesale leased lines.

#### Proposed Remedies

- 1.17 Given the existence of SMP in the market for the terminating segments of wholesale leased lines, ComReg believes there is significant scope for the SMP operator to:
- exploit customers by virtue of its SMP position;
  - leverage its market power into adjacent vertically or horizontally related markets; and
  - foreclose or exclude competitors such as to protect its existing dominance on the market.
- 1.18 In view of the significant potential and clear incentives for such anti-competitive practices to arise, it is considered that *ex ante* regulation is warranted and will serve as an appropriate complement to *ex post* competition law over the period of this review. To that end, ComReg proposes to apply a number of wholesale/retail remedies including :
- 1.19 **Access** to wholesale terminating segments of leased lines by obliging access to and use of specific network facilities, including:
- Continued access to mandated products currently provided i.e. Wholesale Leased Lines (WLLs) and Partial Private Circuits (PPCs).
  - Access to facilities already granted.
  - Eircom is obliged to comply with a set of Key Performance Indicators.
  - Eircom is obliged to meet reasonable access requests.
  - Wholesale products must be delivered on terms and conditions that are fair, reasonable and timely, and supported by an appropriate Service Level Agreement.
  - Negotiation should be carried out in good faith.
  - Eircom should continue to grant open access to technical interfaces, protocols, or other key technologies and should be required to provide such Operational Support Systems ('OSS') or similar.

## 1.20 **Transparency**

- Obligation to publish a Reference Offer for wholesale leased line services.
- Obligation to comply with a set of Product Performance Metrics for wholesale leased line services.
- Obligation to publish changes to prices in advance of their coming into effect, and to notify ComReg in advance of publication.
- Provide access to information which supports existing and future products and services in this market.

## 1.21 **Non-discrimination**

- General obligation not to discriminate.
- Wholesale products must be delivered by Eircom to competitors at an equivalent standard and timescale as to its own retail arm.

## 1.22 **Price Control**

- Cost-based price control on PPCs.
- ComReg proposes to further consult as appropriate on the most suitable price control for other wholesale leased line products (including WLLs) offered by Eircom. In the interim, the prices charged by Eircom to any other undertaking for Wholesale Leased Lines  $\leq 2\text{Mb/s}$  shall be no more than the prices in place at the effective date. The prices charged by Eircom to any other undertaking for Wholesale Leased Lines  $> 2\text{Mb/s}$  shall be offered to other operators on terms and conditions equivalent to those offered to Eircom's retail arm.
- Eircom will be obliged to ensure that the relationship between its wholesale and retail pricing does not constitute a margin squeeze.
- Continuation of cost accounting and accounting separation obligations, pending the outcome of further consultation on accounting systems and methodologies.

1.23 The remedies proposed in this market review are based on the nature of the competition problems identified and are proportionate and justified in light of the objectives contained in the Communications Regulation Act, 2002 and under the Access Regulations<sup>9</sup>. The various relevant Ministerial Policy Directions were complied with<sup>10</sup>. The proposed remedies aim to address potential market failures, to protect consumers against the exercise of market power and to promote competition.

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<sup>9</sup> S.I. No. 305 of 2003 the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003 ("Access Regulations") which transposes Directive 2002/19/EC of the European Parliament and the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities.

<sup>10</sup> Policy Directions made by Dermot Ahern T.D. (the then) Minister for Communications, Marine and Natural Resources on 21 February, 2003 and 26 March, 2004, especially, but not limited to, Directions 5, 6 and 7.



## 2 Introduction

### Background

- 2.1 ComReg published its first round *Market Analysis: Wholesale Terminating and Trunk Segments of Leased Lines and Retail Leased Lines (National)* review of the market for leased lines on 4 June 2004 (04/59). The response to consultation and draft direction was published on 17 January 2005 (05/03). This was notified to, and accepted by, the European Commission (16 Feb 2005). A Decision Notice (D7/05) was published on 30 March 2005.
- 2.2 ComReg published its second round *Market Analysis: Leased Lines Markets* review on 1 October 2007 (07/77). Responses were received from:
  - ALTO
  - BT Ireland
  - Eircom
  - E-Net
  - ESB Telecoms
- 2.3 ComReg thanks all respondents for their input, and has taken full account of their views in considering this Response to Consultation and Draft Direction.
- 2.4 The term “leased lines” refers to fixed, permanent telecommunications connections providing symmetric<sup>11</sup> capacity between two points. A leased line is permanent, in that capacity is available between the two fixed points. However, the capacity could be reserved or shared through the associated network depending on the nature of the particular leased line.
- 2.5 A retail leased line is typically used by business users to connect offices sites or to access the Internet. It is a matter for the end user to determine the nature and mix of services carried over a leased line.
- 2.6 A wholesale leased line may be used as an input to the provision of a retail leased line, or may be used as an input to provide other retail services, such as fixed and mobile voice services, or Virtual Private Networks (“VPN”). A wholesale leased line may also be used by an operator seeking to extend parts of its network without there being a direct corresponding retail service.
- 2.7 The difference between wholesale and retail leased lines is to do with the nature of the market, and the way in which the service is bought, sold and used, rather than with the technical content of the product. Leased lines which are sold in the wholesale market are always sold between operators, for the purpose of eventually providing a retail service. For the purposes of this review, it is immaterial whether the retail service corresponds directly to the wholesale service. It should be noted that there may be no technical difference between a retail leased line and a wholesale leased line.

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<sup>11</sup> It is ComReg’s view that a leased line would be characterised by broad rather than absolute symmetry, in the sense that upstream and downstream capacities would not necessarily be equal, but should be broadly equivalent.

- 2.8 So, for example, for the supply of VPNs, the wholesale purchase could be one or more point-to-point wholesale leased lines, which may be used to provide a retail point-to-multipoint service. Similarly, an operator may buy a wholesale leased line and use it to provide retail voice services and broadband connections. In both cases, the relationship between buyer and seller is a wholesale relationship, and the product is being used to support a downstream retail service.
- 2.9 In the 2005 review, ComReg defined three markets as follows:
- market for the minimum set of retail leased lines up to and including 2 Mb/s;
  - market for wholesale terminating segments of leased lines; and
  - market for wholesale trunk segments of leased lines.
- 2.10 The market for retail leased lines above 2Mb/s was found to be effectively competitive, and was not considered subject to *ex ante* regulation. ComReg found Eircom to have SMP in all three markets and proposed a set of remedies designed to address the lack of competition in the leased line markets.
- 2.11 Since the time of the first round review, the European Commission has revised the product and service markets which may be susceptible to *ex ante* regulation<sup>12</sup>. The Commission has proposed that the minimum set of retail leased lines, and the market for wholesale trunk segments, should be removed from the list of relevant markets.
- 2.12 In the case of the retail market, the Commission believes that wholesale regulation should ensure that there is competitive supply at the retail level. In addition, the Commission believes that this market should not qualify for regulation because wholesale regulation should remove any significant barriers to entry. This means that this market does not meet the three criteria test since there are no significant barriers to entry. In the case of the market for wholesale trunk segments, the Commission notes that in all EU member states, parallel infrastructure is being constructed, at least on major routes, and this suggests barriers to entry are low. The Commission suggests that there is a clear trend towards effective competition based on parallel infrastructure<sup>13</sup>.
- 2.13 ComReg notes that the European Commission's Recommendation was published after the publication of ComReg's consultation document on the leased line markets. However, the Commission's proposals were available in draft form, and ComReg considers that issues raised by the European Commission in its revised Recommendation were addressed in the ComReg consultation document.
- 2.14 The Commission's latest proposal is that the leased line market potentially susceptible to *ex ante* regulation is:

*Market for wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity*

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<sup>12</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007, OJ L 344/65

<sup>13</sup> Explanatory note accompanying the Commission Recommendation on Relevant Product and Service Markets C(2007) 5406, section 4.2.3

- 2.15 In carrying out this consultation, ComReg has obtained qualitative and quantitative information from relevant operators. This has included data requests and a series of meetings with operators which sought to establish likely developments in the market. ComReg has also reviewed the experience of regulating other leased line markets in other jurisdictions. ComReg welcomes all information provided in response to consultation, and has carried out further data requests and analysis in coming to its conclusions.

#### Consultation with the Competition Authority

- 2.16 ComReg consulted with the Competition Authority (Authority) in relation to its findings on the Leased Lines Market further to Regulation 27(1) of the Framework Regulations<sup>14</sup> and provided the Authority with a summary of its preliminary findings.

#### Structure of Consultation Document

- 2.17 The remainder of this document is structured as follows:

- Section 3 presents ComReg's conclusions on the definition of the wholesale markets for trunk and terminating segments of leased lines. This section consists of a review of the market definition procedure and its scope, including demand and supply-side assessments;
- Section 4 presents ComReg's a summary of ComReg's preliminary views and the preliminary views of respondents' market analysis of the wholesale markets for trunk and terminating segments of leased lines and presents ComReg's view on whether the markets are effectively competitive; This section also sets out ComReg's view on those undertakings with SMP in the market for wholesale terminating segments of leased lines;
- Section 5 provides a discussion of potential competition problems, the general principles associated with remedies are outlined, a range of possible remedies are identified, and remedies are set out on the relevant market ie the market for wholesale terminating segments of leased lines;
- Section 6 presents the Regulatory Impact Assessment conducted for the market for wholesale terminating segments of leased lines;
- Annex A sets out the Draft Decision Instruments;
- Annex B contains notification of the draft measures;
- Annex C sets out a glossary of terms used in this document;
- Annex D presents the questions asked in the initial consultation paper (ComReg document 07/77)
- Annex E sets out the methodology used for calculating market shares.

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<sup>14</sup> S.I. No. 307 of 2003 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services

### 3 Relevant Market Definition

- 3.1 In identifying markets consistent with competition law principles, ComReg takes the utmost account of the European Commission's Recommendation and its Explanatory Memorandum on relevant product and service markets within the electronic communications sector<sup>15</sup> ("the Recommendation" and "the Explanatory Memorandum"), the Commission's Notice on Market Definition<sup>16</sup>, the Commission's Guidelines on Market Analysis and Significant Market Power<sup>17</sup> ("the SMP Guidelines"), and the principles of competition law further to Regulation 26 of the Framework Regulations. The *ex ante* definition of markets is carried out in order to identify those product and service markets, the characteristics of which may be such as to justify the imposition of regulatory obligations. The definition of the relevant market is forward looking<sup>18</sup>. Thus, the market definition and analysis considers both current market conditions and any potential developments that may take place over the next two to three years.
- 3.2 The definition of the relevant market is established by the combination of the relevant product and geographic dimensions. The process of defining these dimensions is outlined below.

#### Scope of Relevant Market Definition

- 3.3 The starting point for the market definition is the list of product and service markets which the Commission identified as susceptible to *ex ante* regulation in its Recommendation<sup>19</sup>. It is also possible for NRAs to define markets other than those listed in the Recommendation where this is justified by national circumstances and where the Commission does not raise any objections in accordance with Articles 7(4) and 15(3) of the Framework Directive<sup>20</sup>.

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<sup>15</sup> European Commission, Commission Recommendation of 11/02/2003 On Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, C(2003)497 as revised by Commission Recommendation of 17 December 2007 on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, OJ L 344/65.

<sup>16</sup> European Commission, Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law, OJ [1997] C372/5.

<sup>17</sup> European Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, (2002/C 165/03).

<sup>18</sup> In accordance with the SMP Guidelines ComReg must "conduct a forward looking, structural evaluation of the relevant market, based on existing market conditions", para. 20.

<sup>19</sup> Regulation 26 of the Framework Regulations specifically states: "As soon as possible after the adoption by the European Commission of a recommendation referred to in Article 15(1) of the Framework Directive, the Regulator shall... define relevant markets for the purposes of these Regulations and the Specific Regulations, including the geographical area within the State of such markets".

<sup>20</sup> Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, OJ L 108, 24.4.2002, p. 33.

- 3.4 In line with the Recommendation and SMP Guidelines, ComReg takes the recommended set of products/services to form the starting point of its relevant market analysis. It then considers whether, from a demand and supply perspective, the market should be expanded or narrowed.
- 3.5 The analysis of demand-side considerations involves an assessment of all those products or services that are viewed as sufficiently “close” substitutes by consumers to be included within the same relevant market. For two products to be effective demand-side substitutes it is necessary that a sufficient number of customers are not only capable of switching between them, but they would actually do so in response to a relative price change. The **Small but Significant Non-transitory Increase in Price** (“SSNIP”) test provides a useful conceptual framework within which to identify the existence of close demand substitutes<sup>21</sup>. It allows the identification of the main price constraints on the product in question.
- 3.6 In carrying out the SSNIP test, the point at which a market should be expanded to include additional products/services is where a hypothetical monopolist of the goods/services in question would not be able to sustain a small but significant (5-10%) price increase above the competitive level because enough customers would switch to alternative products/services so as to render that price increase unprofitable. If it is not possible for the hypothetical monopolist to profitably apply a 5-10% price increase, this implies that suppliers of other products/services impose important competitive constraints and should be included as part of the relevant market.
- 3.7 Supply-side substitutability may also be taken into account where “*its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy*” and where “*suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices*”<sup>22</sup>. The SSNIP test is also considered from the supply side perspective as a means to establish whether suppliers are able to switch production to the relevant products or services and market them in the short term in response to small price changes. For the products of a firm to be regarded as effective supply-side substitutes, it is not only necessary for the production, marketing and distribution of the relevant products to be possible without the need for significant new investments; it must also be possible within a relatively short period of time. ComReg accordingly considers any possible costs, risks or time delays associated with suppliers switching between supplying the products under consideration and whether they are likely to do so in practice.
- 3.8 In the Consultation, ComReg first considered the scope of the market for the retail minimum set of leased lines, then the scope of the markets for wholesale trunk and wholesale terminating segments of leased lines.

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<sup>21</sup> Paragraph 17 of the Commission’s Notice on Market Definition states - “The question to be asked is whether the parties’ customers would switch to readily available substitutes or to suppliers located elsewhere in response to a hypothetical small (in the range of 5% to 10%) but permanent relative price increase in the products and areas being considered. If substitution were enough to make the price increase unprofitable because of the resulting loss of sales, additional substitutes and areas are included in the relevant market”.

<sup>22</sup> The Commission’s Notice on Market Definition, para. 20.

Should the Retail Minimum Set of Leased Lines continue to be a market susceptible to *ex ante* regulation?

- 3.9 Under Regulation 15 of the Universal Service Regulations<sup>23</sup>, National Regulatory Authorities (NRAs) are required to consider the extent of competition in the provision of the minimum set of retail leased lines. That set has been defined in the Official Journal of the European Commission as analogue leased lines, and digital leased lines from 64 kbit/s up to and including 2Mbit/s. If it is found that the provision of such leased lines is not competitive, then NRAs are required to impose certain obligations on SMP provider(s).
- 3.10 In the Consultation, ComReg noted that the draft European Commission Recommendation recommended that there is no longer a need to view the retail minimum set of leased lines as a market susceptible to *ex ante* regulation, as appropriate wholesale regulation should be sufficient to ensure competitive supply at the retail level. The European Commission therefore proposed to make the minimum set of retail leased lines a null set, which withdraws it from the list of markets recommended for the consideration of *ex ante* regulation.
- 3.11 The European Commission published the final version of its Recommendation<sup>24</sup> in December 2007, confirming that the minimum set of leased lines was no longer considered to be susceptible to *ex ante* regulation.
- 3.12 ComReg notes that, following the first round review of the Leased Line markets<sup>25</sup>, the market for retail leased lines of speeds greater than 2Mb/s has not been subject to *ex ante* regulation
- 3.13 In the Consultation, ComReg considered whether the Irish market for the retail minimum set of leased lines continued to be susceptible to *ex ante* regulation, or whether the market should be considered to be effectively competitive. If the market were judged to be not susceptible to *ex ante* regulation, then existing regulation would be withdrawn.
- 3.14 In order for a market which is not on the European Commission's list of recommended markets to be judged susceptible to *ex ante* regulation, it must meet three cumulative criteria<sup>26</sup>:
- The market should be subject to high and non-transitory entry barriers, which may be legal, structural or regulatory;
  - The barriers to entry indicate that the market will not tend towards competition over time;

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<sup>23</sup> European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations, 2003 (S.I. No. 308 of 2003).

<sup>24</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007 OJ L 344/65.

<sup>25</sup> ComReg doc 07/77

<sup>26</sup> Paragraph 2 of Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007 OJ L 344/65

- Competition law alone is not sufficient to redress market failures (absent *ex ante* regulation).
- 3.15 ComReg assessed the extent to which the retail market in Ireland for the minimum set of leased lines would meet these three criteria.

Are entry barriers high and non-transitory?

- 3.16 In the first round market review, ComReg concluded that Eircom's high and persistent market share, taken together with barriers to entry associated with Eircom's ownership of a ubiquitous network and vertical integration, indicated that Eircom's market power was likely to continue. ComReg did not consider that regulation of the wholesale market alone was sufficient to address competition problems in the retail market.
- 3.17 At the time of the first round review<sup>27</sup>, Eircom's market share for retail leased lines was around 70% by revenue, and around 80% by number of circuits. It can be noted that, in line with the EC Recommendation, the market for the minimum set of leased lines was defined as leased lines up to and including 2Mb/s. Within the minimum set, Eircom's market share of 64 kb/s lines was close to 100%, indicating that market entry focussed on higher capacity lines which generally yield higher returns on investment. Pricing of retail leased lines was regulated, and an analysis of pricing trends showed little pressure from competitors.
- 3.18 ComReg's assessment of recent data indicates that Eircom's share of the market remained around 80% through 2005 and 2006, when measured by number of circuits. When measured by revenue, Eircom's market share declined to just under 60% at end Q1, 2007,<sup>28</sup> and by the end of 2007, had fallen further to around 50%. Several operators have a small presence in the market, but the remainder of the retail market is largely made up of BTI and Verizon. The trend towards higher bandwidth lines has continued, and Eircom recently noted a trend for migration from analogue and lower capacity digital lines towards higher capacity lines and other managed data services<sup>29</sup>.
- 3.19 The barriers to entry identified in the previous review were largely associated with Eircom's control of a ubiquitous network. For example, it was proposed that Eircom was able to achieve significant economies of scale and scope, and that a market entrant would not be able to replicate those advantages. Similarly, Eircom's advantages as a vertically-integrated operator were seen to constitute a barrier to entry unlikely to be reduced over the time of the review.
- 3.20 It is ComReg's view that the barriers to entry identified in the retail market persist, as the conditions associated with control of a ubiquitous network are largely unchanged. Eircom continues to have a high market share, and to achieve benefits associated with its historic large installed base of traditional leased lines. Eircom's revenue share of the market has declined over the last six months, but still remains around 50%.

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<sup>27</sup> Market data was from H1, 2003. ComReg 05/03.

<sup>28</sup> Data provided to ComReg for Quarterly Review.

<sup>29</sup> Eircom SEC Form 20-F, March 31<sup>st</sup> 2006.

- 3.21 However, the assessment of the retail market must be considered absent *ex ante* regulation in the retail market, but in the presence of regulation in the wholesale market. It is ComReg's view that current remedies in the wholesale market which were introduced following the last market review allow existing and potential competitors to enter and compete in the retail market for leased lines. These remedies include mandated products (currently Wholesale Leased Lines and Partial Private Circuits), and supporting obligations to ensure the implementation, operation and development of these products. The operation of the wholesale market is considered later in this review, but for the purposes of the retail market, the presence of effective wholesale regulation is deemed sufficient to reduce high and non-transitory entry barriers. ComReg emphasises that, in order to be effective, it is essential that wholesale regulation is put in place and fully complied with.
- 3.22 ComReg therefore suggests that, in the presence of, and compliance with, wholesale regulation, the market for retail leased lines does not meet the first criterion which defines a market susceptible to *ex ante* regulation. While this is sufficient to deem the market inappropriate for *ex ante* regulation, ComReg has gone on to consider the other criteria.

Is the market tending toward effective competition?

- 3.23 The last review of the leased line markets mandated the provision of two wholesale products, traditional Wholesale Leased Lines (WLLs) and Partial Private Circuits (PPCs). The wholesale market has been characterised by a shift from traditional leased lines towards PPCs, as operators seek to make maximum use of their own networks.
- 3.24 The market share analysis discussed above indicates that there has been market entry and expansion in the retail market, and that two suppliers in addition to Eircom have an established presence. Hence, Eircom's market share of the retail market has fallen.
- 3.25 ComReg proposes that, since the last market review, the market has seen the establishment of remedies at the wholesale level which, when implemented, significantly reduce barriers to entry in the retail market.

Would competition law alone be sufficient?

- 3.26 It is ComReg's view that, so long as wholesale regulation is in place, and is complied with, entry barriers into the retail market are no longer high. ComReg therefore concludes that, in the presence of regulation in the wholesale market, competition law would be sufficient to ensure the effective functioning of the retail market for leased lines. Therefore, it is proposed that all current regulatory obligations arising from a previous finding of SMP in the retail market for the minimum set of leased lines should be withdrawn.
- 3.27 The European Commission Recommendation proposes to continue to define elements of the wholesale market for leased lines as susceptible to *ex ante* regulation, and ComReg considers that this is an appropriate starting point for the analysis.



**Q. 1. Do you agree that, in the presence of regulation of the wholesale market for leased lines, the market for the minimum set of retail leased lines should no longer be considered susceptible to ex ante regulation? Please provide reasons for your answer.**

#### Views of respondents

3.28 Four respondents commented, with three agreeing that the market for the minimum set of leased lines should no longer be considered susceptible to *ex ante* regulation. One respondent disagreed because Eircom's market share remained above 50% at the time of the Consultation. This respondent proposed that if *ex ante* regulation of the retail market were to be withdrawn, wholesale regulation should be more stringent.

#### ComReg's position

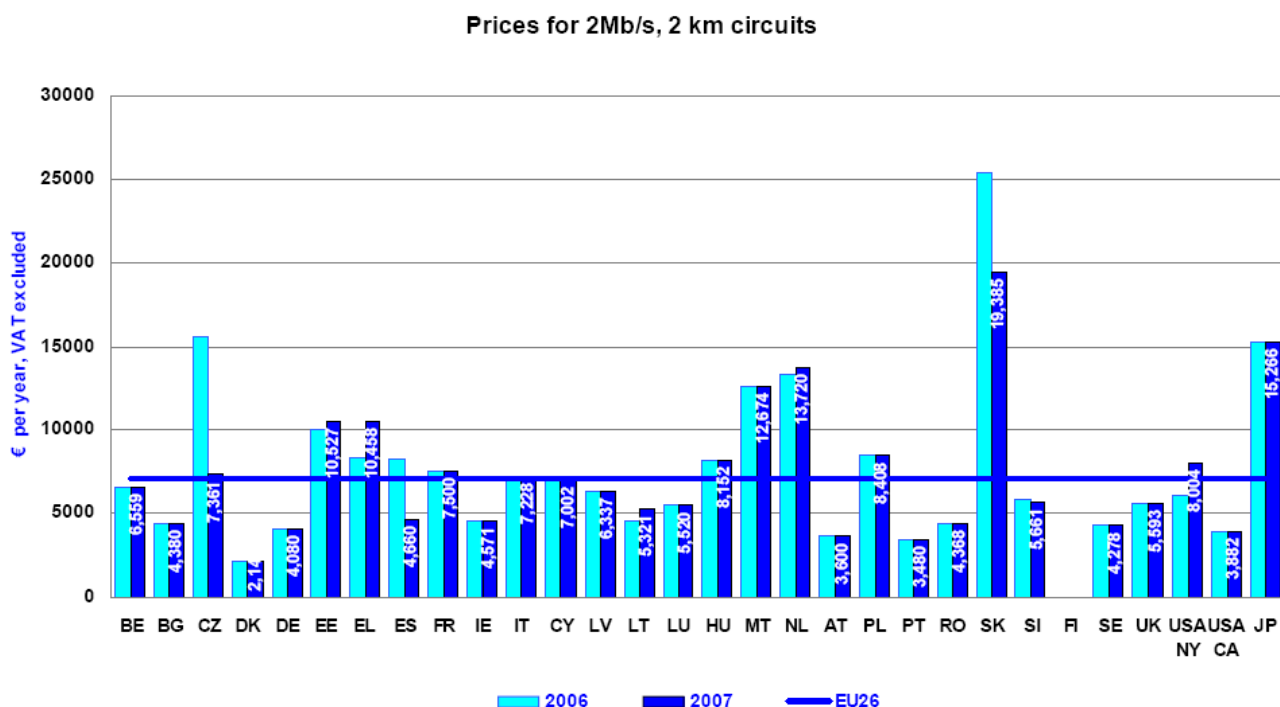
- 3.29 ComReg notes that between publishing the consultation on the Irish leased line market and considering the responses to consultation, the European Commission has published its revised Recommendation on Relevant Product and Service Markets<sup>30</sup>, and that the European Commission considers that the retail market for leased lines is no longer susceptible to *ex ante* regulation.
- 3.30 ComReg notes also that the market for retail leased lines outside the minimum set was not subject to *ex ante* regulation following the first round review, and is not considered to be subject to *ex ante* regulation in the review.
- 3.31 ComReg has considered the approach proposed in the UK, where Ofcom has recently reinstated retail regulation<sup>31</sup>. Ofcom's analysis of the UK retail market for leased lines maintains that high and non-transitory barriers to entry persist, primarily due to deficiencies in the implementation of remedies imposed in the wholesale market. Supporting evidence includes the increasing market share of BT, whose share of the retail market grew from 78% to 80% over the period covered since Ofcom's previous market review.
- 3.32 ComReg notes that the situation in the Irish market is not comparable with that of the UK. Eircom's market share of the retail market has been in decline over the last three years, which suggests that wholesale regulation is facilitating competition at the retail level.
- 3.33 ComReg has undertaken additional analysis of pricing trends in the retail market for leased lines. An indicator of SMP would be where prices are out of line with costs, and where there is no evidence of a trend towards costs. ComReg has not been able to compare Eircom's prices with those of its competitors, because only Eircom is required to publish prices. Its competitors tend to offer bespoke prices, and these are not published, so that it is difficult to establish a meaningful representative set of OAO retail prices for leased lines.

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<sup>30</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007 OJ L 344/65

<sup>31</sup> Business Connectivity Market Review, Ofcom 17.01.08

3.34 ComReg has compared Eircom’s prices with prices charged in other countries. Figure 1 below shows comparative data for EU and other selected countries, and indicates that price in Ireland do not appear to be excessive. However, it should be noted that other factors affect the retail cost base, including the way in which the wholesale inputs cost is made up, and the level of competition in the upstream market.



Blue line represents EU average= € 7 037  
 Finland – no data

Figure 1

Source: Figure 122, Progress Report on the Single European Electronic Communications Market 2007 (13<sup>th</sup> Report) (Volume 2)

3.35 ComReg accepts the point made by one respondent that Eircom’s retail market share is still at a level which may be considered presumptive of dominance. However, ComReg’s assessment of the three criteria indicates that existing and potential competitors are able to enter – and have entered – the market for retail leased lines. Competitors have been able to build and maintain market share. ComReg therefore believes that regulation of the wholesale market is sufficient to reduce barriers to entry in the retail market, and as such the first criterion is not met.

3.36 ComReg recognises concerns expressed by respondents that, in withdrawing regulation of the retail minimum set of leased lines, it is essential that wholesale regulation provides sufficient safeguards for competitors seeking to offer services in the retail market. It is essential that OAOs are able to purchase the necessary wholesale inputs on appropriate terms and conditions, and that the processes required to operate in the market are in place.

3.37 It is also essential to ensure that an operator with SMP in the wholesale market does not leverage market power into the retail market, for example by engaging in a margin squeeze.

- 3.38 The European Commission first raised the issue of potential anti-competitive problems in relation to margin squeezes in telecommunications markets in its Access Notice in 1998:
- 3.39 *“A price squeeze could be demonstrated by showing that the dominant company’s own downstream operations could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the dominant company.... In appropriate circumstances, a price squeeze could also be demonstrated by showing that the margin between the price charged to competitors on the downstream market (including the dominant company’s own downstream operations, if any) for access and the price which the network operator charges in the downstream market is insufficient to allow a reasonably efficient service provider in the downstream market to obtain a normal profit (unless the dominant company can show that its downstream operation is exceptionally efficient).”*<sup>32</sup>
- 3.40 It is ComReg’s view that an operator which is as efficient as the SMP operator’s retail operation should be able to achieve a normal profit based on an appropriate margin between the retail price and the wholesale charge. In designing remedies for the wholesale market, ComReg has taken into account the need to ensure that market power from the wholesale market is not leveraged into a retail market which is not subject to SMP regulation. ComReg is aware that Eircom’s share of the retail market for leased lines remains high, and notes that respondents to this consultation have expressed concern that wholesale regulation may not provide a sufficient safeguard. ComReg will continue to monitor the retail market to ensure that wholesale regulation is operating effectively, and is fully complied with.

Conclusion: ComReg proposes that the retail market for the minimum set of leased lines should no longer be subject to ex ante regulation

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<sup>32</sup> EC Access Notice, paras 117-118, Notice on the Application of the competition rules to access agreements in the telecommunications sector, OJ 1998, C 265/2

## Markets for wholesale trunk segments and wholesale terminating segments of leased lines

- 3.41 In its revised Recommendation, the European Commission set out the relevant product/service market as:
- Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity (Market 6)
- 3.42 Because the Consultation was published before the Commission's revised Recommendation was published, ComReg continued to consider additional markets defined under the previous Recommendation, namely the market for the wholesale trunk segments of leased lines. However, ComReg had already had regard to the draft revised Recommendation which did not differ substantively from the final published version at the time of its consultation. ComReg's analysis is accordingly in line with the European Commission's revised Recommendation.

Are there separate markets for the trunk segments and the terminating segments of leased lines?

### Introduction

- 3.43 In the European Commission's first Recommendation<sup>12</sup>, wholesale trunk segments and wholesale terminating segments were not considered part of the same relevant market. In the European Commission's revised Recommendation the market for wholesale trunk segments of leased lines is no longer on the list of markets which are recommended as being susceptible to ex ante regulation.
- 3.44 The European Commission's first Recommendation, that trunk and terminating segments of leased lines belong in different markets, is primarily based on differences in the conditions of supply. The reasoning was that the economics of supplying a dedicated connection to an end-user are sufficiently different from the economics of supplying high capacity aggregated trunk connection to warrant the definition of separate markets.
- 3.45 At a retail level, the distinction is fairly arbitrary, as a retail customer of leased lines will buy end-to-end connectivity. As long as the customer has dedicated capacity, it is generally not important to the retail customer whether traffic is aggregated onto a high capacity connection or not, and it is generally not important whether some parts of the connection are aggregated or not. However, when considering the wholesale relationship, the purchaser (who is always a network operator) will be buying capacity which is in addition to its own network. It is likely to be using the purchase of wholesale leased lines to supplement or extend its network. This could be for internal purposes (for example, to provide backup or network security), or could be to offer services to a third party (ie a retail service), or both.
- 3.46 In the Consultation, ComReg used the Commission's first Recommendation as a starting point, and considered firstly whether trunk and terminating segments should be considered part of the same relevant market, and secondly, if they are not in the same market, where the boundary between the two should be drawn. ComReg had regard to the European Commission's revised Recommendation which did not recommend that the trunk segments of wholesale leased lines as being susceptible to ex ante regulation.

### Demand considerations

- 3.47 Trunk and terminating segments are not functional substitutes and cannot be seen as effective demand substitutes. Each fulfils a specific need, and trunk and terminating segments are typically used as complementary products. A wholesale customer would be unlikely to switch from one product to the other in response to small but significant price changes, given that each relate to different parts of the network and demand is driven by the wholesale customer's own network requirements. ComReg therefore concludes that demand side considerations indicate that trunk and terminating segments should be considered as falling within different markets.

### Supply considerations

- 3.48 The economics of supplying core network capacity are clearly different from supplying dedicated capacity in the access network. Core network investment is to do with servicing areas of dense and concentrated traffic, whereas the access network involves connecting individual end-users. The access network thus typically entails the transfer of thinner volumes of traffic on a more disaggregated basis over a widespread network. Traffic in the core network is usually aggregated, and the network economics are different, i.e., density and scale economies can generally be achieved more rapidly or at lower levels of investment in the core network than in the access network due to the aggregation or concentration of traffic in the core.
- 3.49 While the principle of differentiating between trunk and terminating segments seems obvious, the definition of where that differentiation should be drawn is not so clear.
- 3.50 The Explanatory Memorandum to the Recommendation ('the Explanatory Memorandum') notes that "What constitutes a terminating segment will depend on the network topology specific to particular Member States and will be decided upon by the relevant NRA".
- 3.51 ComReg has reviewed the ways in which other NRAs have differentiated between trunk and terminating segments. In Denmark, for example, the terminating segment is defined as a connection from a specified end-user address to a main distribution frame. Italy defines a terminating segment as connecting an end-user to a node on the SDH network in the region where the end-user is located. In Sweden, a terminating segment provides transmission capacity between two network connection points, located within one transit area of the SMP operator's network. There are 13 such areas in Sweden. However, where the leased line connects network points which are located in different transit areas, it is considered to be a trunk segment. The location of the two connection points is the factor which determines what market the segment falls into. In the UK, Ofcom had previously identified the split between trunk and terminating segments as BT's Tier 1 nodes, or equivalent on other communications providers' networks. In its 2008 market review, Ofcom proposes to define the trunk market by specifying a list of aggregation nodes, broadly aligned with major urban centres<sup>33</sup>.

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<sup>33</sup> Business Connectivity Market Review, Ofcom, January 2008

- 3.52 ComReg recognises that the boundary between trunk and terminating segments will differ according to particular national circumstance. ComReg has considered where the boundary between trunk and terminating segments should be defined in Ireland. The cut-off point between trunk and terminating should be where there is a distinct break in the economics of demand for, or supply of, these respective segments such that appreciably different competitive conditions can be observed.
- 3.53 In the first round review, ComReg proposed that the boundary between trunk and terminating segments would lie at the customer's leased line serving exchange due to the high sunk costs entailed in network build below the serving switch. However, there are problems in specifying a particular network level which is always associated with the point where a terminating segment becomes a trunk segment. It could be argued that this approach ties the definition to the incumbent's network structure, and does not adequately capture the fact that the point where traffic is aggregated will vary between operators. This means that the actual break point in the economics of supply may be higher in the network for some operators. Some responses to the first round consultation argued that the aggregation point was often above the level of the serving switch, and so the break in supply costs would be higher.
- 3.54 ComReg also considered whether the local/regional aspect of the connection is significant in Ireland. Following the approach taken in Italy or the Netherlands, for example, it may be possible to consider differentiating between a leased line which is within one geographical area, and a leased line which connects geographical areas. This would capture the difference between capacity connecting major urban centres, and capacity connecting to an individual end-user. However, ComReg suggests that in the Irish context, while the local/regional aspect is significant, it is not in itself the determining factor; rather it is the connection of large volumes of traffic. While this is consistent with capacity between major urban centres, it is not restricted to interurban routes – for example, high capacity routes within certain high density areas such as Dublin would exhibit very similar characteristics to a high capacity route between Dublin and Cork, in terms of supply conditions. This would suggest that the prime factor which differentiates supply conditions is capacity, in the sense of connecting large volumes of traffic.
- 3.55 It is ComReg's view that the core network is typified by the connection of major network nodes, which can handle very high capacities. The connections coming in from the access networks are aggregated into these high capacity pipes. The physical media used at this point is fibre. In Ireland, the core network is typically within and between major urban centres. ComReg proposes that the trunk segments of leased lines are those which would be found on the core network. However, the market for trunk segments does not entirely map the core network. While all trunk segments will be found on the core network, trunk segments constitute a subset of the core network. This is because, within the core network, there is some variation in demand and supply conditions associated with the volumes of traffic, and this variation affects the economic characteristics of supplying different parts of the core network.

- 3.56 In the Consultation, ComReg proposed that, in the wholesale leased line market, everything outside of the trunk segment market, and below the main points of handover to the trunk segment market, should be characterised as forming part of the terminating segment market. This boundary is proposed due to the differing economic characteristics/conditions of supply arising below these points, notably the need to supply thinner or lower volumes of traffic on a more disaggregated basis to individual end users. The terminating segment always connects to an end-user.
- 3.57 ComReg considers that the actual pattern of investment in Ireland supports its proposed definition of the boundary split between trunk and terminating segments, and confirms the different economic conditions. Network build by OAOs has been restricted, with few exceptions, to the core network. Build is restricted to certain routes on the core network, and is concentrated in areas of highest traffic density. OAOs have concentrated on supplying high capacity channels which aggregate traffic, generally within and between cities/large towns and beyond main points of interconnect/handover from the relevant access network. This supports ComReg's view that the supply of terminating segments, which relies on a widespread network which can reach individual customers, requires different economic inputs to the supply of trunk segments.
- 3.58 When this proposed definition is translated into the network topology typically in use in Ireland, it would mean that, for example, a trunk segment of a leased line would be associated with connectivity between any tandem and double-tandem switch location. This does not include handover, which would form part of the terminating segment market. Handover is the connection between the trunk and terminating segments. At present it is effected by the transport link, which is a non-replicable element used to deliver terminating segments. The trunk segment market may also include connectivity between tandem exchanges where these exchanges connect areas of high traffic density via high capacity links. This means that, in the current network, trunk capacity will be high order transport capacity, which generally means capacity of the order of STM-1 and above. A terminating segment could be connected to any exchange (primary, tandem or double-tandem) allowing OAOs to access trunk capacity as and if required.
- 3.59 Because of differences in the economics of supply, ComReg considers that an existing supplier of trunk segments would not be able to switch to supplying terminating segments without incurring significant additional costs, risks and time delays and as such would be unlikely to constrain a hypothetical monopolist supplier of terminating segments from implementing a small but significant price increase above the competitive level. Subject to effective demand side substitution also being limited, this is sufficient to make trunk and terminating segments fall within different markets.

**Q. 2. Do you agree that trunk and terminating segments fall within different markets? Do you agree with ComReg's proposed boundary between trunk and terminating segments? Please state the reasons for your opinions.**

### Views of respondents

- 3.60 All five respondents agreed that trunk and terminating segments fall within different markets. However, a range of views were expressed about where the boundary lies between the markets for trunk and terminating segments.
- 3.61 An issue raised by several respondents was that, because OAOs are active in the provision of trunk services, then the definition of the terminating segment market should recognise that a terminating segment may connect with trunk services on networks other than that of Eircom. Some respondents gave examples of the type of boundary: for instance a Metropolitan Area Network (MAN) co-location facility or a Point of Presence (POP) on an OAO network could be considered as boundary points. The issue is that the boundary should be defined not only with reference to Eircom's primary, tandem and tertiary nodes (and in terms of eventual network evolution such as NGN nodes) but also in terms of equivalent nodes on competing trunk networks.
- 3.62 One respondent proposed that the boundary should be at the point above which effective competition takes place, and suggested that this should be deeper in the network than the PPC access node. This respondent suggested that a boundary at the trunk exchange would be generally appropriate, with some tandem exchanges included where competitive supply was established.
- 3.63 One respondent suggested that access and backhaul should be specifically included in the terminating segment market, because these are bottlenecks, and are non-replicable. As such, the respondent's view is that they should be subject to heavy regulation. This issue is dealt with below in the section on terminating segments.
- 3.64 One operator considered that the market should be further differentiated by bandwidth, specifically by whether services were offered over copper or fibre/radio. This issue is addressed below in the sections dealing with bandwidth.

### ComReg's position

- 3.65 ComReg notes that all respondents agreed that trunk and terminating segments are in different product markets. This distinction is therefore maintained.
- 3.66 ComReg notes that there was no consensus amongst respondents on where the boundary may best be drawn.
- 3.67 ComReg agrees with respondents that the definition of the boundary between trunk and terminating segments should not be bound by Eircom's network topology. There are two factors to consider here. Firstly, Eircom's network is evolving, and the roll-out of NGN/NGA means that the market definition must not be tied to the current network, but must be able to be applied as the network evolves.
- 3.68 Secondly, there has been investment by OAOs in core network infrastructure, and the market definition must recognise that terminating segments could be connecting to trunk segments provided by OAOs, and that their network structures may differ from that of Eircom. ComReg notes that several respondents provided examples of possible connecting points on different types of OAO network, and reiterates that a terminating segment could connect to a trunk segment provided by any operator.



- 3.69 The market definition exercise is the means to an end, namely the assessment of market power. It is therefore imperative that the market definition captures the central competitive differences between the trunk and the terminating markets. ComReg therefore considers that trunk segments are always found on the core network, and connect high densities of traffic via high capacity connections. Using Eircom's current network topology as an illustration, trunk segments would connect all double-tandem and tandem exchanges, and may include connectivity between tandem exchanges. Trunk segments would generally involve capacity of STM-1 and above. Trunk segments on OAO networks would exhibit equivalent features.
- 3.70 Everything outside of the trunk segment market, and the main points of handover, is considered to be part of the terminating segment market. Terminating segments generally rely on a widespread network to supply lower densities of traffic on a less aggregated basis to individual customers. In response to the respondent who raised the issue of backhaul, it is ComReg's view that the wholesale market for terminating segments includes, among others, backhaul for mobile and for LLU. In the case of mobile, a radio base station, for example, would be considered equivalent to an end-user's premises with traffic being carried to the point of interconnection between the leased line provider's and the mobile operator's networks. In the case of LLU, termination could be on an OAO's co-located equipment. The above analysis is not in any way affected as a result of the European Commission adopting its revised Recommendation on 17 December 2007.

Should self-supply be considered part of the market for trunk segments and/or part of the market for terminating segments?

- 3.71 In the Consultation, ComReg considered whether self-supply of dedicated capacity formed part of the market for trunk segments, and whether it formed part of the market for terminating segments.
- 3.72 ComReg's analysis drew on guidance from the European Commission's draft explanatory Memorandum accompanying the draft revised Recommendation which was published at the time in draft format and which did not differ substantively from the final published explanatory Memorandum accompanying the revised Recommendation<sup>34</sup>. It was proposed that self-supply should be considered part of the market where the following conditions apply:
- Where the operator already has spare capacity available which could be offered in the wholesale market. This means that the networks must be sufficiently rolled out and of sufficient capacity and coverage so as to comprise a viable alternative for wholesale customers.
  - Where offering new or additional wholesale capacity does not incur significant investment costs, either in infrastructure or in services such as billing or account management.
  - Where it is likely and probable that a vertically-integrated operator would act in this way.

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<sup>34</sup> EXPLANATORY Memorandum Accompanying document to the Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) {(C(2007) 5406)} para 3.1

- Where a customer could switch relatively easily to purchase a new supplier's product or service, without incurring significant costs (for example, in connecting to the alternative suppliers' networks).

**Q. 3. Do you agree with ComReg's reasoning on self-supply? Please provide reasons for your response.**

Views of respondents

- 3.73 One respondent suggested that even where an alternative wholesale supplier existed, opportunities to switch to that supplier are constrained in the presence of a vertically-integrated monopolist.
- 3.74 Another respondent suggested that self-supply should be taken into account in the market definition, particularly in the context of an operator's ability to switch from outsourcing to self-supply. The respondent gave the example of a mobile operator which may choose to replace trunk and terminating segments of leased lines with radio backhaul. In the respondent's view, this demonstrates that barriers to entry have reduced to the point where they are no longer insurmountable.

ComReg's position

- 3.75 Since the time of the Consultation, and in order to take account of responses to the Consultation, ComReg has reviewed its analysis of self-supply. This has taken account of both demand and supply side considerations.
- 3.76 On the supply side, in ComReg's view the guidance provided by the European Commission describes well the conditions under which a vertically-integrated operator could, in response to a SSNIP, consider switching from supplying its own retail arm to supplying external wholesale customers. For self-supply to be considered as part of the same relevant market as wholesale leased lines, a vertically-integrated operator would need to have excess capacity, with appropriate coverage, and be willing to switch supply away from its own retail arm in response to a SSNIP.
- 3.77 One respondent suggested that an operator which was currently purchasing wholesale leased lines could consider, in response to a SSNIP, replacing its wholesale purchase by building its own infrastructure. In the respondent's view, this should be considered as self-supply within the market definition process.
- 3.78 ComReg has considered the respondent's views. In defining a market for wholesale leased lines, ComReg begins with a narrow product definition, and examines the extent to which, in response to a SSNIP, a customer of wholesale leased lines would switch to build its own infrastructure, to the extent that a 5-10% non-transitory price increase by a hypothetical monopolist would be rendered unprofitable.
- 3.79 In ComReg's view, the underlying technology used to provide wholesale leased lines is not relevant. This means that a wholesale leased line which was based on radio, or fibre, would be part of the same wholesale leased line market. ComReg therefore agrees with the respondent that, where a mobile operator buys backhaul, it does not matter, from the point of view of market definition, whether this is provided by radio or by any other means. Thus, if an operator was to make wholesale leased lines

available over radio, then that would be considered part of the wholesale leased lines market.

- 3.80 Where ComReg does not agree with the respondent is in the consideration of the extent to which a customer of wholesale leased lines would switch to build its own infrastructure, and self-supply, in response to a SSNIP, to the extent that a price increase would be rendered unprofitable. The respondent has noted that one particular class of customer – mobile operators – have been replacing the purchase of wholesale leased lines with radio backhaul provided over their own infrastructure.
- 3.81 In the case of the (mobile) operator which switches to self-provision, in ComReg’s view, it is necessary to consider both the demand and the supply aspects. On the supply side, in ComReg’s view the mobile operator is not likely to offer its new capacity in the wholesale market for leased lines. This is because it is unlikely to have built in sufficient spare capacity to do this, its network roll-out may be limited, it is unlikely to have the billing and management systems in place to offer a wholesale service, and it is unlikely to have the motive (as a vertically-integrated operator) to supply a wholesale service at the expense of its own retail arm.
- 3.82 On the demand side, by switching from the purchase of wholesale leased lines to self-supply, the mobile operator removes itself from the wholesale market for leased lines. The respondent suggests that this indicates that the barriers to entry are therefore sufficiently low to indicate that they are no longer insurmountable. If the market under consideration was radio backhaul, then the respondent’s argument may have merit, as we would be considering the extent to which an operator may switch between different types of backhaul, and different ways of provisioning. However, the market under consideration is not radio backhaul, it is wholesale leased lines.
- 3.83 In ComReg’s view, the correct approach is to consider whether an operator would be likely to build its own infrastructure in response to a SSNIP in wholesale leased lines. While this has been a viable option in some cases, particularly for mobile operators, ComReg does not believe that it would occur on a large enough scale, and within a limited timeframe, to constrain the behaviour of a hypothetical monopolist. The logical conclusion of this line of argument would be that if it were a realistic option for a significant proportion of customers to replace wholesale leased lines with own infrastructure in response to a SSNIP, then there would no longer be a requirement for a wholesale product. While the respondent argues that this is the case for mobile operators and radio backhaul, ComReg would reiterate that the market under consideration is for wholesale leased lines, not radio backhaul, and that operators still need access to wholesale inputs in order to overcome bottlenecks in the access network, and that this applies also to mobile operators.
- 3.84 ComReg’s conclusion on self-supply is that the reasoning put forward in the Consultation is relevant in determining the extent to which an operator would be likely to behave in the market when supplying wholesale leased lines. ComReg has considered the views of the respondent, particularly in relation to the actual behaviour of mobile operators in the Irish market, and while ComReg does not accept the respondent’s view as to how this should be incorporated in the market definition, ComReg has considered the views in depth, and believes this should properly be dealt with in the competition analysis. This is considered further in Section 4.

Should the market for trunk segments be further differentiated by bandwidth?

- 3.85 The Explanatory Memorandum<sup>34</sup> notes in its discussion on dedicated connections and capacity that “*Additional market segmentation is possible between high and low capacity leased lines*”.
- 3.86 ComReg has considered firstly whether there are supply side constraints between supplying different bandwidths of trunk segments. If suppliers can readily switch to supply segments of different bandwidths, this may exert sufficient constraint on the monopolist’s ability to act independently in the market to make a consideration of demand less important.

#### Supply considerations

- 3.87 ComReg considers that a supplier who currently supplies high bandwidth trunk segments could switch to supply lower bandwidth trunk segments reasonably quickly in response to a small price increase, and vice versa. This is because when a supplier has a core transmission network in place, it is relatively easy to supply a range of bandwidths over that network. To find supply-side substitution, it is not necessary for a supplier to be able to substitute at every bandwidth level. Rather, the assessment is of the likelihood of being able to switch along the range of bandwidth options, and not necessarily from lowest to highest. The ability of suppliers to act in this way is supported by the tendency to aggregate capacity on the core network, so that in practice, the supplier is already carrying a range of bandwidths.
- 3.88 The hierarchical nature of a network based on PDH and SDH systems allows for streams of 2 Mbit/s and above to be multiplexed, so that larger frames are created. The larger frame (STM-1) may therefore consist of smaller streams multiplexed together. The inputs to an STM-1 can include any combination of lower level inputs. At the next level, an STM-4 may take 4 x STM-1 inputs or again any combination up to that level.
- 3.89 ComReg has considered the implications of a move to Next Generation Networks (NGNs), which are primarily based on Ethernet and/or Internet Protocol (IP) technologies. While these networks are not hierarchical in the way in which SDH is, the principle of being able to handle variable bandwidths is the same, and an operator which supplied high bandwidth trunk segments over an NGN could relatively easily switch to supply lower bandwidth trunks.
- 3.90 ComReg therefore proposes that a current supplier of high bandwidth segments could switch to supply lower bandwidths, and vice versa, and that this would act to constrain the ability of a monopolist of a certain range of bandwidths to act independently. It is proposed that there is no differentiation on bandwidth within the market for trunk segments.

**Q. 4. Do you agree that the market for trunk segments should not be further differentiated by bandwidth? Please provide a reasoned response.**

#### Views of respondents

- 3.91 Respondents generally agreed that trunk segments should not be further differentiated by bandwidth.

ComReg's position

3.92 ComReg maintains that the market for trunk segments will not be further differentiated by bandwidth.

Do all high bandwidth products form part of the same trunk segment market?

3.93 It is ComReg's view that all "carriers' carrier" high bandwidth products which offer dedicated, symmetric, point-to-point connection belong in the same market. This is the case irrespective of the technology used to deliver the product. The impact of a shift to NGNs, or the increasing use of IP in the core network, is the use of a new technology to deliver the same service. This means, for example, that current services based on technologies such as (but not limited to) PDH, SDH or Ethernet would be included in the market, whereas dark fibre would not. Dark fibre is not considered to be a telecommunications service and so does not fall into this market.

3.94 ComReg recognises that there will be new and more cost-effective ways of delivering services, but where this is to do with process rather than product, then the services should be defined in the same market. In other words, the concern is with the service being delivered, and the review remains neutral as to the technology used to deliver the service. This approach would apply to any such new products and services which may be introduced during the lifetime of this review.

**Q. 5. Do you agree that all high bandwidth products form part of the same market?**

**Please provide reasons for your response.**

Views of respondents

3.95 Four respondents agreed that all high bandwidth products form part of the same market. One respondent proposed that some high bandwidth products did not meet quality of service requirements because they were configured to support relative degrees of contended or asymmetric services.

ComReg's position

3.96 ComReg has considered the view put forward by one respondent that certain categories of high bandwidth product do not form part of the market for wholesale trunk segments. The respondent seems to base this on the underlying technology. However, in ComReg's view, where different technologies are used to deliver a similar service, then these services fall within the same product market, irrespective of technology. ComReg maintains therefore that all high bandwidth products form part of the same market.

What is the geographical scope of the market for trunk segments?

3.97 The *Guidelines on market analysis and the evaluation of significant market power* indicate that:

*“...the relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services in which area the conditions of competition are similar or sufficiently homogenous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different. The definition of the geographic market does not require the conditions of competition between traders or providers of services to be perfectly homogeneous. It is sufficient that they are similar or sufficiently homogeneous and accordingly only those areas in which the conditions of competition are ‘heterogeneous’ may not be considered to constitute a uniform market.”*

3.98 ComReg proposes that the definition of a narrower geographical market would involve considering whether an increase in price in one area would attract investment from firms operating in other areas, and whether this would constitute a sufficiently sharp break in conditions of competition, and the establishment of a clear and persistent boundary.

3.99 Its view is that defining the boundaries of the trunk market in terms of the characteristics of the service better reflects the ways in which trunk products are demanded and delivered. While this often coincides with particular geographical distributions, it is not the geography which is the defining characteristic. For this reason, ComReg proposes that the geographical market is Ireland.

**Q. 6. Do you agree that the market for trunk segments is national in scope? If not, please give reasoned arguments to support your views.**

Views of respondents

3.100 All respondents agreed that there is a national market for trunk segments. One respondent, while agreeing with ComReg’s preliminary analysis and conclusion, suggested that ComReg should further consider the extent to which the trunk segment market may be differentiated according to the respondent’s perception of disparities in competitive conditions on different trunk routes.

ComReg’s position

3.101 The market for the trunk segments of wholesale leased lines is national in scope.

3.102 ComReg notes agreement that the market for trunk segments is a national market. ComReg agrees with the respondent which raised the question of different competitive conditions within the trunk market, and suggests that there is variation in demand and supply conditions within the market, and that a determinant of these variations will be differing competitive conditions. However, in ComReg’s view, the variation is not sufficient to constitute a clear break in demand and supply conditions, and so would not justify the definition of distinct sub-national markets.

Should the market for terminating segments be further differentiated by bandwidth?

3.103 In the Consultation, ComReg proposed that the market for terminating segments should not be further differentiated according to the capacity of the segment.

#### Supply considerations

3.104 The analysis considered first of all the supply of terminating segments. Supply-side substitution between leased lines of varying bandwidth would mean that suppliers of high bandwidth terminating segments could switch to supplying low bandwidth terminating segments (and vice versa) with immediacy, at low cost, on a sufficient scale and where it is reasonably probable that such substitution would take place in practice in response to small price changes.

3.105 ComReg has considered whether a supplier of high bandwidth terminating segments would incur significant costs in switching to supply lower bandwidth terminating segments, and vice versa. It is ComReg's view that the cost of supplying terminating segments is not dependent on the bandwidth supplied. This suggests that a supplier which was able to supply a terminating segment of one capacity would be able to supply a terminating segment of another capacity, within a fairly short timeframe, for example by replacing copper with fibre using the same underlying duct or pole infrastructure.

3.106 One constraint on supply which should be noted is that imposed by the underlying infrastructure. Where the terminating segment is being provided over copper, there will be restrictions on the bandwidths which can be offered. Currently in Ireland, a terminating segment above 2Mbit/s is not typically provided over copper. However, it is possible that within the lifetime of this review higher speeds will be available, and this is already the case in other jurisdictions.

3.107 ComReg considered whether this suggests that a separate market should be defined. The preliminary view was that a narrower market is not appropriate. ComReg does not believe that the underlying infrastructure is the defining feature of the terminating segment market. There is not a clear distinction between terminating segments delivered over fibre and terminating segments delivered over copper in terms of the product delivered. This is particularly pertinent, given that within the time of the review, it is likely that technologies and infrastructure will be rolled out which will facilitate speeds of up to 25Mb/s. Future technological developments could facilitate even higher speeds.

3.108 ComReg's view in the Consultation was that a supplier which supplied high bandwidth or low bandwidth terminating segments would be able to supply terminating segments of other capacities in response to a small but significant price increase, and so there should be no further differentiation in the terminating segments market on the basis of bandwidth.

#### Demand considerations

3.109 ComReg also considered demand for terminating segments. It can be noted that terminating segments currently range from 64 kb/s to 155Mb/s and above. Clearly, at the extremes, a customer wishing to buy an STM-1 terminating segment would not consider multiples of 64kb/s to be a realistic substitute, either from a functional or from a cost perspective. In the Consultation, ComReg proposed that the range of

capacities on offer constitutes a chain of substitution, and that there is no clear and persistent break in the chain. This means that the wholesale purchaser of leased lines would be able to substitute multiples of higher or lower capacity leased lines up and down the range of capacities on offer, although not from top to bottom. There may be breaks in the chain according to the eventual retail application, but at the wholesale level, ComReg does not believe that there are clear and consistent breaks in the possibility of substituting different bandwidths. This supports the supply-side analysis that there should be no further differentiation on the basis of bandwidth.

**Q. 7. Do you agree that the market for terminating segments should not be further differentiated by bandwidth? Please provide a reasoned response.**

Views of respondents

3.110 Four respondents agreed with ComReg's preliminary view.

3.111 One respondent did not agree. This respondent proposed that there should be two separate terminating segment markets, namely a low bandwidth terminating segment market, associated with service provision over the copper network, and a high bandwidth terminating segment market, associated with services above 2Mb/s, and generally provided over fibre and to a lesser extent radio. The respondent's view is that its proposed high bandwidth market is likely to be geographically focused (for example, a business park) and to exhibit lower barriers to entry than the proposed low bandwidth market.

3.112 This respondent's view draws on ComReg's analysis of the retail leased line market, carried out in the first market review. The first review found that there was a competitive retail market for leased lines above 2Mb/s, generally provided over fibre. Following the first round market review, this market was not subject to *ex ante* regulation.

ComReg's position

3.113 ComReg has reviewed its analysis. ComReg has further considered two main issues raised by the respondent:

- The extent to which competition in the retail market is mirrored in the wholesale market, so that the identification of a break in the retail market in demand and supply conditions associated with bandwidth would correspond to an equivalent break in the wholesale market
- The extent to which the underlying infrastructure defines separate wholesale leased line markets

3.114 The respondent which did not agree with ComReg's preliminary view based its argument on the analysis of the retail market, and particularly on the analysis carried out by ComReg in the first round review of 2005. ComReg does not intend to revisit analysis carried out in a previous review, except to note that the view of the retail market is consistent between the market reviews. That is, there is differentiation at a retail level according to bandwidth. This finding underpins the decision not to regulate high bandwidth retail leased lines following the first round review.



- 3.115 In this current second round review, ComReg has proposed to move further in withdrawing *ex ante* regulation from all retail leased lines, including the minimum set. It has not been necessary to consider in detail the demand and supply characteristics of the retail market, because the retail market is no longer considered susceptible to *ex ante* regulation. However, ComReg's position is that the reasoning behind withdrawing regulation from the retail market is dependent on appropriate regulation and compliance at a wholesale level, because Eircom's share of the retail market remains very high. ComReg therefore does not agree with the respondent's assertion that existing regulation has "neutralised" Eircom's market power.
- 3.116 Where ComReg's view diverges from that of the respondent is in the relationship between the wholesale and the retail markets. In ComReg's view, wholesale demand is not the same as retail demand. For example, an operator which buys wholesale leased line products may use them to provide retail leased lines, or may use them within its own network to provide a range of other retail services. It would not therefore be accurate to derive wholesale demand solely from retail demand.
- 3.117 Depending on the platform or protocol and compression technology used with the wholesale capacity to deliver retail services, the actual volume of retail services that the OAO can deliver over the capacity does not necessarily increase linearly with bandwidth. Such protocols/platforms and compression techniques have the effect (where used) of blurring the capacity distinctions between bandwidths. As a result, there is effectively a chain of substitution between wholesale circuits of differing bandwidths. In response to a price increase of up to 10% by a hypothetical monopolist supplier of wholesale leased lines of a particular bandwidth, OAOs would be in a position to switch to circuits of a different bandwidth.
- 3.118 ComReg therefore does not agree that differentiation within the retail market is necessarily mirrored in the wholesale market, and in fact the dynamics of the retail and the wholesale markets are quite different.
- 3.119 The second issue raised by a respondent concerns the significance of underlying infrastructure. The respondent characterises a copper network market which is limited to low bandwidth terminating segments, and contrasts this with a high bandwidth market generally delivered over optical fibre.
- 3.120 ComReg noted in the Consultation that the underlying infrastructure does pose a constraint on the bandwidth which can be offered, but suggested that the limits imposed by copper were not static. The underlying infrastructure exhibits high common costs, which are largely invariant to bandwidth. So, for example, the costs of ducting and digging are common to all form of infrastructure which could be used to offer wholesale leased lines.
- 3.121 ComReg's view remains that an operator which could supply high or low bandwidth terminating segments would be able to switch to supply terminating segments of other bandwidths in response to a SSNIP, and that the market should not be further differentiated according to bandwidth.

Are all products offering fixed permanent point-to-point symmetric termination in the same market?

- 3.122 It is ComReg's view that products which offer dedicated, symmetric, point-to-point connection to a network termination point at least on one end belong in the market for terminating segments. This is the case irrespective of the technology used to deliver the product.
- 3.123 ComReg recognises that there will be new and more cost-effective ways of delivering services, but where this is to do with process rather than product, then the services should be defined in the same market. For example, in the market for terminating segments, it is immaterial whether the product is delivered over fibre or copper. In other words, the concern is with the service being delivered, and the review remains neutral as to the technology used to deliver the service.
- 3.124 Currently, the market for terminating segments includes the terminating part of Wholesale Leased Lines and the End User Links (EUL) of Partial Private Circuits (PPCs). It is ComReg's view that all current or prospective products which offer similar functionality and similar characteristics form part of the same relevant market.

**Q. 8. Do you agree that all products offering fixed permanent point-to-point symmetric termination belong in the same market? Please state the reasons for your opinions.**

Views of respondents

- 3.125 Four respondents agreed with ComReg's preliminary analysis. Two of these respondents emphasised that the market should include current and prospective products (such as Ethernet) which offer similar functionality.
- 3.126 One respondent did not agree. Its reasoning is that copper networks have a more limited application than fibre networks, and therefore constitute a separate market.

ComReg's position

- 3.127 ComReg agrees that the market for the terminating segments of wholesale leased lines includes all products which offer similar functionality to existing products, and that this includes Ethernet, amongst others. In response to a point raised earlier, ComReg wishes to clarify that the wholesale market for the terminating segments of leased lines includes backhaul, for example for mobile and for LLU.
- 3.128 ComReg notes that one respondent believes that the underlying technology constrains the market to the extent that a separate infrastructure-based market should be defined. ComReg has followed the methodology recommended by the European Commission in the revised Recommendation and accompanying explanatory memorandum, and the starting point for the definition of the wholesale market has been

*“wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity”<sup>24</sup>*

- 3.129 In ComReg's view, while the underlying infrastructure may limit the types of product which can be offered, there is sufficient substitutability along a chain of terminating segment products to render them in the same product market.

What is the geographical scope of the market for terminating segments?

- 3.130 ComReg proposes that the geographical scope of the market for terminating segments is national. As discussed in the context of the market for trunk segments, the definition of a narrower geographical market would involve considering whether an increase in price in one area would attract investment from firms operating in other areas, and whether this would constitute a sufficiently sharp break in conditions of competition, and the establishment of a clear and persistent boundary.
- 3.131 The market for terminating segments is concerned with providing dedicated capacity to an end-user. While there are likely to be variations in the demand and supply conditions associated with, for example, groups of end-users who are more geographically concentrated, ComReg does not believe that these variations occur within clear and persistent boundaries. It is proposed that the geographical scope of the market is national.

**Q. 9. Do you agree that the market for the terminating segments of wholesale leased lines is national in scope? Please provide reasons for your response.**

Views of respondents

- 3.132 Four respondents agreed with ComReg's preliminary view that the market for terminating segments is national in scope.
- 3.133 One respondent did not agree. This respondent, reiterating its view that there is a high bandwidth and a low bandwidth terminating segment market, suggests that the geographical scope of the low bandwidth market is national, but that of the high bandwidth market would be defined by the roll-out of fibre access infrastructure.

ComReg's position

- 3.134 The geographic market for the terminating segments of wholesale leased lines is national in scope.
- 3.135 ComReg has reviewed its analysis of the wholesale market for leased lines, and has concluded that there are not separate markets differentiated by bandwidth. It does not therefore accept that a geographic market should be defined on this basis.

Should the market for wholesale terminating segments of leased lines continue to be a market susceptible to ex ante regulation?

- 3.136 The European Commission revised Recommendation recommended that there is no longer a need to view the market for wholesale trunk segments of leased lines as a market susceptible to *ex ante* regulation, because appropriate wholesale regulation of the terminating segments of leased lines should be sufficient to ensure competitive supply. The European Commission therefore proposed to withdraw it from the list of markets recommended for the consideration of *ex ante* regulation.

- 3.137 The European Commission published the final version of its Recommendation<sup>35</sup> in December 2007, confirming that the wholesale trunk segments of leased lines was no longer considered to be susceptible to *ex ante* regulation.
- 3.138 In order for a market which is not on the European Commission's list of recommended markets to be judged susceptible to *ex ante* regulation, it must meet three cumulative criteria:<sup>36</sup>
- The market should be subject to high and non-transitory entry barriers, which may be legal, structural or regulatory;
  - The barriers to entry indicate that the market will not tend towards competition over time;
  - Competition law alone is not sufficient to redress market failures (absent *ex ante* regulation).
- 3.139 ComReg does not believe that the market for wholesale trunk segments of leased lines would meet these three criteria.
- 3.140 In the case of the first criteria, whether the market is subject to high and non-transitory entry barriers, it is clear from the market structure (further discussed in Section 4) that entry barriers have been overcome. With respect to the second and third criteria, it is ComReg's view that this market is tending towards effective competition and that competition law alone is sufficient to redress any market failures.
- 3.141 However, as the review of this market (for wholesale trunk segments of leased lines), and the related market analysis, was started before the European Commission issued its Revised Recommendation on Relevant Markets, ComReg believes that it is appropriate to conclude the analysis initiated in the Consultation paper. Section 4 sets out ComReg's arguments to this effect.

Summary conclusions on the definition of the markets for wholesale trunk segments of leased lines and wholesale terminating segments of leased lines

- 3.142 ComReg has considered in detail all responses to consultation, and has come to the following conclusions:
- There are separate markets for wholesale trunk segments and wholesale terminating segments of leased lines;
  - The boundary between trunk and terminating is not determined by any operator's specific network topology. Trunk segments connect high densities

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<sup>35</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007 OJ L 344/65.

<sup>36</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) of 17 December 2007 OJ L 344/65

of traffic via high capacity connections, between and within major centres of population. OAO investment on these routes reflects the difference in the underlying economic conditions of supply and demand. Terminating segments generally supply lower densities of traffic on a less aggregated basis. Everything, outside of the trunk segment market, and including the main points of handover, is considered to be part of the terminating segment market;

- Self-supply should be considered part of the market where an operator has capacity which it would be likely to offer on a wholesale market without significant costs, and within a reasonable timeframe;
- The market for wholesale trunk segments should not be further differentiated by bandwidth;
- All high bandwidth products form part of the same trunk segment market;
- The market for wholesale terminating segments of leased lines should not be further differentiated by bandwidth;
- All products offering fixed permanent, point-to-point, broadly symmetric termination are in the same market for wholesale terminating segments of leased lines, regardless of the underlying technology;
- The geographic market for wholesale trunk segments of leased lines is national in scope;
- The European Commission no longer recommends that the wholesale trunk segment of leased lines is suitable for ex ante regulation.
- ComReg proposes that all current regulatory obligations arising from a previous finding of SMP in the market for wholesale trunk segments of leased lines should be withdrawn.
- The relevant product market for the purposes of Regulation 26 of the Framework Regulations is the market for wholesale terminating segments of leased lines.
- The relevant geographic market for wholesale terminating segments of leased lines for the purposes of Regulation 26 of the Framework Regulations is national in scope.

## 4 Relevant Market Analysis

### Introduction

- 4.1 In the Consultation, ComReg outlined its approach to the analysis of the relevant market. Having defined the scope of the relevant product and geographic market, the next step is to determine if the relevant market is effectively competitive or if significant market power (SMP) exists.
- 4.2 The European Community regulatory framework for electronic communications networks and services has aligned the concept of SMP with the competition law definition of dominance advanced by the European Court of Justice (“ECJ”) in *United Brands v. Commission*:
- “The dominant position thus referred to [by Article 82] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers”*<sup>37</sup>.
- 4.3 Article 14 of the Framework Directive effectively mirrors this definition of dominance and equates SMP with *“a position of economic strength affording it [the undertaking] the power to behave independently of competitors, customers and ultimately consumers”*.
- 4.4 The above definition of SMP identifies three key sources of competitive constraint that may affect an undertaking’s ability to profitably sustain price levels above, or to restrict output below competitive levels. These potential constraints derive principally from:
- Existing competitors;
  - Potential competitors; and
  - Strong buyers<sup>38</sup>.
- 4.5 In the Consultation, ComReg considered a number of factors in coming to a view on the extent to which each of the above possible constraints actually influence an undertaking’s ability to exert market power in reality. Such factors included<sup>39</sup>:

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<sup>37</sup> Case 27/76 *United Brands v Commission* [1978] ECR 207, para. 65.

<sup>38</sup> Although an undertaking may not be subject to competitive constraints from existing competitors, potential competitors or large buyers, in markets subject to ex-ante regulation an undertaking may still be restricted from profitably sustaining prices above, or reducing output below competitive levels by way of regulatory controls imposed by the NRA. Notwithstanding this, it is necessary to also consider the potential ability of the undertaking to exert market power in the absence of such ex-ante SMP regulation. To do otherwise might lead to a finding of non-dominance on the basis of regulatory remedies that would cease to exist following the review and in the absence of which the operator may be able to exert market power and possibly engage in anti-competitive behaviour. The purpose of the regulatory remedies is to mitigate the likely anti-competitive effects arising from a position of SMP. The key question is therefore how is the operator in question likely to behave if it were free from SMP regulatory constraints and if the continued imposition of remedies is as such warranted.

<sup>39</sup> The SMP Guidelines also identify potentially relevant factors in an SMP analysis as including inter alia:

- Market shares and concentration levels over time;
  - Level of competition posed by existing competitors;
  - Barriers to entry, e.g., economies of scale/scope, vertical integration, etc;
  - Barriers to expansion, e.g., customer switching costs, etc;
  - Overall threat posed by potential competition; and
  - Strength of any countervailing buyer power.
- 4.6 The above is not intended as a checklist of all possible factors relevant for determining SMP. Rather it is intended as a guide to the types of evidence that help provide an insight to the relevant market dynamics. Furthermore, the relative importance of each factor may vary from one analysis to the next as the market characteristics/dynamics change. ComReg's analysis considered potential constraints on competition in the markets for the wholesale trunk segments and the wholesale terminating segments of leased lines<sup>40</sup>. In line with approach described above, the analysis considered firstly existing competition in the market, secondly potential competition, and finally an assessment of countervailing buyer power examined the impact of any strong buyers.
- 4.7 As noted in the previous section, the European Commission Revised Recommendation on Relevant Markets recommended that there is no longer a need to view the market for wholesale trunk segments of leased lines as a market susceptible to *ex ante* regulation.
- 4.8 In order for a market which is not on the European Commission's list of recommended markets to be judged susceptible to *ex ante* regulation, it must meet three cumulative criteria, i.e. that the market should be subject to high and non-transitory entry barriers, which may be legal, structural or regulatory; that the barriers to entry indicate that the market will not tend towards competition over time; and that competition law alone is not sufficient to redress market failures (absent *ex ante* regulation). ComReg does not believe that the market for wholesale trunk segments of leased lines would meet these three criteria.
- 4.9 Furthermore, as the review of this market (for wholesale trunk segments of leased lines), and the related market analysis, was started before the European Commission issued its Revised Recommendation on Relevant Markets, ComReg believes that it is appropriate to conclude the analysis initiated in the Consultation paper. This section sets out ComReg's arguments to this effect.

### Existing Competition

- 4.10 ComReg's analysis of existing competition in the markets considered three key elements. First of all, an examination of **market structure** identified the mechanics

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Overall size of the undertaking; Control of infrastructure not easily duplicated; Technological advantages or superiority; Absence of or low countervailing buyer power; Easy or privileged access to capital markets/financial resources; Product/services diversification (e.g., bundled products or services); Economies of scale; Economies of scope; Vertical integration; A highly developed distribution and sales network; Absence of potential competition; Barriers to expansion.

<sup>40</sup> In line with the Commission recommendation in force at the time of the Consultation, ComReg defined and analysed the market for wholesale trunk segments and the market for wholesale terminating segments.

of supply and demand. Secondly, a review of **market shares** presented data and assesses trends. Thirdly, ComReg assessed whether any competitor was able to act independently of other competitors. The analysis was based on an examination of historical trends and a consideration of likely future developments in the market.

- 4.11 As far as is practicable, ComReg has updated information following the response to Consultation.

## Market structure

### Supply

- 4.12 There are currently four<sup>41</sup> main suppliers of wholesale leased lines in Ireland. They are:
- Eircom;
  - BT Ireland;
  - ESBT; and
  - E-Net.
- 4.13 Eircom and BT Ireland are active in both the trunk and terminating segment markets. ESBT predominantly supplies trunk segments only, and e-Net operates metropolitan rings and connections to the rings.
- 4.14 The suppliers have significantly different market profiles, which affects competitive conditions in the market.
- 4.15 Eircom supplies both the wholesale trunk and the wholesale terminating segments of leased lines. At the last review, Eircom was mandated to provide two products in the wholesale terminating segment market as an SMP remedy. These are Partial Private Circuits (PPCs) and traditional Wholesale Leased Lines (WLLs). Both products are subject to regulated price controls. The wholesale market has seen a migration from traditional wholesale leased lines to PPCs over the last two years. However, there remains a significant installed base of WLLs, and it is ComReg's view that this base will persist during the lifetime of this review. Further, it is likely that there will continue to be circumstances in which WLL, rather than PPC, is the appropriate product. Examples would include circumstances where moving to a PPC would incur unacceptable switching costs, or where local demand is insufficient to justify infrastructure investment.
- 4.16 BT Ireland is active in the markets for wholesale trunk and terminating segments. BT Ireland resells some Eircom terminating segments (for the last mile connection to end-users), primarily to leverage its sale of wholesale trunk segments.

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<sup>41</sup> There is some activity from other operators, but at such a low level the impact on the market is negligible.



- 4.17 The Irish Government has actively promoted market entry, with the aim of increasing Ireland's broadband penetration. The 2000-2006 National Development Plan included financial provision for the construction of fibre optic networks by alternative operators, and the Broadband Action Plan and Connectivity Framework Deals provided support for access and use of those networks.<sup>42</sup>
- 4.18 ESB Telecom was established in 2001, as a wholly-owned subsidiary of the Electricity Supply Board. It has been a beneficiary of government funding for network construction under the National Development Plan. ESB Telecoms built and owns a 1300 km fibre optic network, constructed in a "figure of 8" around Ireland. It comprises 48 core fibre and is wrapped on the electricity high voltage network. ESBT offers managed bandwidth services and dark fibre. The relevant product offering in the context of this review is point-to-point connectivity using SDH and Ethernet technologies. ESBT is mainly active in the wholesale market. Access to the network is at POPs or in certain circumstances direct to customer location. ESBT supplies high to very high capacities on its national core network.
- 4.19 The National Development Plan also includes a programme to address the perceived high speed infrastructure deficit by constructing high speed open access broadband networks in association with local and regional authorities. The Metropolitan Area Networks ("MANs") are publicly owned, while allowing all telecommunication operators open access to the networks. They are fibre-based and technology neutral resilient networks. The 27 Phase One MANs are managed by e-Net, who were awarded the 15-year services concession contract in June 2004. The next phase of the MANs (for which e-Net has also been appointed manager) covers 66 towns.
- 4.20 E-Net operates metropolitan rings (trunk segments) and offers connection to the rings (terminating segments). It also offers connection between customer sites (terminating segments). E-net thus offers access from the MANs to ESBT and other infrastructure, and vice versa.
- 4.21 E-Net offers a full suite of products including ducting, sub-ducting, dark fibre, high level managed capacity, co-location facilities and relevant auxiliary services.
- 4.22 Although both ESBT and E-net have been in the market for some time, both companies have seen rapid growth rates since the period of the last review, and the companies' own projections indicate that this is expected to continue.

## Demand

- 4.23 In general, wholesale leased line services are purchased:
- By mobile operators, who purchase both trunk and terminating segments. Trunk segments provide core network bandwidth. Terminating segments are typically used to provide Radio Base Station (RBS) backhaul, which connects the mobile operator's base station with the network of the other operator.
  - By OAOs looking to extend their own networks, by buying trunk core capacity, perhaps between regional nodes, and/or by buying terminating segment connection to specific end-users.

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<sup>42</sup> <http://www.dcmnr.gov.ie/Communications/Communications+Development/Metropolitan+Area+Networks>

- By OAOs seeking to enter specific retail markets.
- 4.24 By revenue, mobile operators account for almost 40% of demand for the total wholesale leased line market. OAO purchases for the extension of their own networks and for specific retail applications account for around 60% of the overall market<sup>43</sup>.

#### Market Shares and Concentration Levels over Time

- 4.25 Market shares are not on their own determinative of SMP but high market share, while not determinative, is indicative of dominance. It is clear from EC jurisprudence and the SMP Guidelines that concerns about SMP are more likely to arise in instances where an undertaking holds a large market share sustained over a period of time. According to established case law and the SMP Guidelines:

*“...very large shares are in themselves, and save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking which has a very large market share and holds it for some time... is by virtue of that share in a position of strength...”<sup>44</sup>*

- 4.26 The European Court of Justice stated further in *AKZO* that a market share of persistently above 50% could be considered to be very large so that in the absence of exceptional circumstances pointing the other way, an undertaking with such a market share could be considered to be dominant<sup>45</sup>.
- 4.27 ComReg recognises that large market shares are not in themselves sufficient to form the basis of a finding of SMP and that other factors that may contribute to SMP must also be taken into account. Therefore, ComReg does not view the existence of large market shares on their own as being determinative of the question of whether or not SMP exists but nonetheless considers it an important starting point in the analysis.
- 4.28 In order to quantify the market, ComReg issued a data request to several stakeholders in the leased lines market, in August 2006. This was supplemented by discussion with operators, and ComReg sought detailed information from suppliers and purchasers of wholesale leased lines. As the data request was issued prior to the market definition exercise, ComReg asked for information to be provided in such a manner as to facilitate various alternative potential definitions of the market.
- 4.29 ComReg has calculated the market shares based on volume and on revenue. Because ComReg collected data both from suppliers and purchasers of wholesale leased lines, it was able, in most cases, to cross-check information.

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<sup>43</sup> Calculated from responses to ComReg's data requests.

<sup>44</sup> Case 85/76 Hoffmann-La Roche v Commission, [1979] ECR 461, [1979] 3 CMLR 211, para. 41; and the SMP Guidelines, para. 75.

<sup>45</sup> Case C-62/86 AKZO Chemie BV v Commission [1991] ECR I-3359, para. 60.

- 4.30 ComReg considered the European Commission guidelines on possible methods used for measuring market size and market share. The EC notes that volume sales and value sales may each provide useful information for market measurement. In considering the leased line markets, the European Commission states that :

*“...leased line revenues, leased capacity or numbers of leased line termination points are possible criteria for measuring an undertaking’s strength on leased line markets.....Of the two criteria, leased line revenues may be more transparent and less complicated to measure”<sup>46</sup>*

- 4.31 The objective of measuring market size and share is to help assess the relative strength and position of each provider. In order to present a complete picture of the market, ComReg has calculated market share by volume and by revenue. Details of the methodology used are provided in Annex C. However, ComReg agrees with the European Commission guideline that market share by revenue provides a more reliable measure of market power in the leased line markets.

#### Market for trunk segments

- 4.32 At the time of the first round review, Eircom’s market share was calculated as 85% when measured by volume, and 80% when measured by revenue. However, it should be noted that this calculation was for the wholesale leased line market overall, and so did not differentiate between trunk and terminating segments.
- 4.33 The data below demonstrates the market share figures as of August 2006<sup>47</sup>, as presented in the Consultation.
- 4.34 Table 1 shows market shares in the trunk segment market<sup>48</sup>:

<b>Trunk Market – August 2006</b>		
<b>Operator</b>	<b>Share by bandwidth %</b>	<b>Share by revenue %</b>
Eircom	40.4%	61.2%
BT Ireland	13.4%	24.2%
ESBT	46.2%	14.3%

**Table 1**

<sup>46</sup> Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, 2002/C 165/03, para 76.

<sup>47</sup> In drawing conclusions about these markets, market share data was just one data source to which ComReg referred.

<sup>48</sup> Source – ComReg data analysis September 2007.

- 4.35 ComReg has updated its market share analysis in preparing this response to consultation. Table 2 below demonstrates the market share figures as of March 2008.

<b>Trunk Market – March 2008</b>		
<b>Operator</b>	<b>Share by volume%</b>	<b>Share by revenue%</b>
Eircom	43.9%	47.3%
BT Ireland	22.5%	29.4%
ESBT	32.5%	21.0%
e-net	0.8%	2.0%

**Table 2**

- 4.36 For all operators, there is a discrepancy between shares based on revenue and shares based on capacity. In the case of Eircom and BTI, their share of the market by capacity is lower than their share by revenue, while ESBT has a share by revenue which is significantly less than its share of capacity.
- 4.37 There are several possible factors which can explain this. It may be that revenue per volume is not evenly distributed. This means that if we were to calculate revenue per unit of capacity, lower capacity circuits may generate more revenue per unit than higher capacity circuits. In this case, an operator which primarily supplied very high capacity circuits, such as ESBT, would typically have a much higher share of volume than it would of revenue.
- 4.38 Another factor to be considered is differences in pricing amongst operators. Eircom’s pricing is currently regulated, and typically, regulated prices act as a ceiling. If it is shown that other operators charge less, then an outcome would be that other operators would have a higher share based on capacity, and a lower share based on revenue.
- 4.39 The key change in the trunk segment market since the time of the first round review has been the growth of ESBT’s market share. Prior to the last review, Eircom’s market share had been relatively stable for several years. However, Eircom’s market share by revenue is now just under 50%, and OAOs are now supplying close to 60% of all capacity in the trunk market.

Market for terminating segments

- 4.40 ComReg has updated its analysis of market shares in the wholesale terminating segment market. Table 3 below shows the market shares as of August 2006 and March 2008.

<b>Terminating Market – August 2006</b>			<b>Terminating Market – March 2008</b>		
<b>Operator</b>	<b>Share by volume %</b>	<b>Share by revenue %</b>	<b>Operator</b>	<b>Share by volume %</b>	<b>Share by revenue %</b>
Eircom	92.6%	83.6%	Eircom	84.4%	78.8%
BT Ireland	6.7%	13.6%	BT Ireland	13.7%	16.5%
E-net	0.3%	1.0%	E-net	0.8%	3.7%
Others	0.4%	2.0%	Others	1.1%	1.5%

**Table 3**

- 4.41 In the Consultation, ComReg noted that market shares in the terminating segment market indicated that OAOs combined to make up just over 7% of the market by capacity, but over 16% by revenue. The relationship between volume and revenue is the opposite way round to the trunk segment market, where OAOs had high volume but low revenue, and reflects the difference in market characteristics. In the trunk market, operators are more likely to build own infrastructure between points of connection, whereas in the terminating segment market, the connection is to a specific end-user.
- 4.42 The analysis of market shares carried out in March 2008 confirmed that Eircom's market share was continuing to decline, both when measured as volume and as revenue. However, Eircom still has a very high share of the wholesale terminating segment market.
- 4.43 Since the time of the first round review, there has been a significant shift within the terminating segment market from the purchase of traditional leased lines to the purchase of Partial Private Circuits (PPCs). Data provided to ComReg in the course of this review suggests that most OAOs are migrating from WLLs to PPCs where this is possible.

#### Changes to market share since previous review

- 4.44 In considering market share movement since the time of the first round review, it must be noted that the data has been collected on a different basis in each of the reviews, and so a direct comparison of market share rates is not valid. However, using the current market share methodology, ComReg believes that Eircom's share of the trunk segment market was considerably higher at the time of the last review than it is now. Several general points can be made:
- In the market for **trunk segments**, market entry by ESBT had taken market share from both Eircom and BTI, although BTI's market share appears to be recovering over the last year. Eircom's market share has declined to around 50% when measured by revenue, and below 50% when measured by volume. ComReg's assessment is that Eircom's share of the trunk segment market is likely to continue to fall.
  - In the market for **terminating segments**, Eircom's market share remains very high, both when measured by volume and by revenue. There has been new market entry, but this is very recent and the impact on market share is still very limited.

#### Ability to Act Independently of Existing Competitors

- 4.45 At the time of the Consultation, Eircom had a market share in excess of 50% (by revenue) in the markets for trunk segments and for terminating segments of wholesale leased lines. However, Eircom's market share by volume was less than 50% in the trunk segment market, and ComReg noted that it may be that there are factors in one or both of the markets which qualify the market power suggested by the revenue market share alone.
- 4.46 ComReg therefore examined the extent to which suppliers in the wholesale leased line markets can act independently.

## Market for trunk segments

- 4.47 It is important to consider not only the current state of the market, but also the extent to which competitors are likely to be able to act independently over the lifetime of this review. Since the time of the last review, ESBT had become more active in the market, and had built market share at the expense of Eircom, and to some extent of BTI. ComReg's discussion with purchasers of leased lines suggests that they increasingly view ESBT and BTI as alternatives in the trunk segment market, although it should be noted that alternative operator coverage is limited to certain routes, and does not have the ubiquity of that of Eircom. ComReg understands that the newer market entrants have significant additional capacity available. Having already incurred the sunk costs associated with market entry, it is conceivable that product and service offerings in the trunk segment market could be expanded relatively quickly and without incurring significant extra costs.
- 4.48 Another factor which has an impact on the trunk segment market is the ability of purchasers to self-supply. ComReg is aware that this is particularly important in the case of the mobile operators. It was noted above that mobile operators currently account for over a third of the purchasing in the wholesale leased line markets. ComReg does not believe that mobile operators have an interest in entering the wholesale leased line market, in the sense of making capacity available to another operator. However, over the last two years, mobile operators have been increasing the proportion of their networks which are self-supplied. Discussions with operators confirm that this trend is likely to continue.
- 4.49 ComReg notes that the trend for mobile operators to seek to supply their own trunk capacity reduces the size of the wholesale leased line market, as self-supply without the potential or inclination to offer capacity on a wholesale basis to other operators is outside the scope of the market.

## Market for terminating segments

- 4.50 ComReg suggests that ability to act independently from competitors is much more pronounced in the market for terminating segments. The terminating segment market has seen some market entry, but the impact of new entrants on the market has been much less than in the trunk market. The possibility of self-supply is also more limited in the terminating segment market. ComReg is aware that some mobile operators may be in a position to self-supply local connections using technologies such as microwave radio, and that this would serve to reduce the overall size of the wholesale market. However, the nature of the investment required at this network level suggests that the self-supply of terminating segments is not likely to have a major impact on reducing the ability of Eircom to act independently.

## Summary of conclusions on existing competition

- 4.51 In the market for **wholesale trunk segments**, ComReg analysed market share by volume and by revenue. At the time of the Consultation, by volume, ESBT had almost 50% of the market, while Eircom had 40% and BT Ireland 11%. By revenue, Eircom had over 60% of the market, while BT Ireland had 24% and ESBT 14%. ComReg's recent analysis indicates that Eircom's market share by both revenue and volume has fallen below 50% by March 2008.
- 4.52 ComReg notes the impact of the entry of ESBT, and the consequent change in the dynamics of the trunk market. It is suggested that there are now one or more

competitors on some major routes between urban centres, and that this may act to constrain the ability of the incumbent to behave independently. It is noted also that there is excess capacity on some parts of the core network. However, ComReg notes that Eircom's share of the market by revenue remains in excess of 50%.

- 4.53 In the market for **wholesale terminating segments**, data analysed for the Consultation indicated that Eircom's market share remained above 90% by volume and above 80% by revenue. More recent data shows that Eircom's market share has declined to over 80% by volume and just under 80% by revenue. There has been no significant challenge to Eircom's dominance in this market since the time of the first round review, and no market entry on a scale which would change the competitive landscape. ComReg has not seen evidence which would suggest that a change is likely within the lifetime of this current review.

**Q. 10. Do you agree with ComReg's analysis of existing competition in the wholesale leased line markets? Please provide reasons for your response.**

Views of respondents: market for wholesale trunk segments

- 4.54 In the market for the wholesale trunk segments of leased lines, three respondents agreed with ComReg's analysis and preliminary conclusions, and two disagreed.
- 4.55 For the respondents who did not agree, the main concern was with the level and extent of alternative infrastructure. One of these respondents pointed out that, at the time of the Consultation, Eircom's market share by revenue remained above 50%. Further, in this respondent's view, apparent competition in the wholesale trunk segment market is not likely to be sustainable because a major competitor is state-owned, and, in the respondent's view, not likely to be subject to the same constraints and commercial decision-making as other operators.
- 4.56 The other respondent who did not agree with ComReg's analysis disputed the ability of competitors to constrain Eircom's behaviour. In the respondent's view, other operator activity is limited to certain routes. The respondent noted its experience in seeking backhaul on routes where OAOs were present, and on routes where they were not, and indicated significant pricing differences on routes where Eircom was the sole supplier.
- 4.57 One respondent who did not agree also raised the issue of self-supply by mobile operators. In this respondent's view, mobile operators are likely to increase their purchase of wholesale leased lines, particularly trunk segments, as deployment of 3G HSDPA increases. The respondent suggested that the need to provide backhaul connectivity to support mobile broadband means that mobile operators will need to increase their transmission capacity, deploying fibre further out into the network. The respondent believes that, because of the need to support higher and higher bandwidth services, mobile operators will not be able to rely on radio links, and in the respondent's experience, there is a shift by mobile operators away from dark fibre towards high capacity managed services. This leads the respondent to propose that demand from mobile operators for wholesale leased lines is likely to increase in the medium term.

#### ComReg's position: market for wholesale trunk segments

- 4.58 ComReg notes concerns raised by two respondents about the level of competition in the trunk market. However, this concern may be based on a misinterpretation of the definition of the trunk market. The definition which ComReg proposed in the Consultation, and has upheld in this Response to Consultation, finds a trunk market limited to certain routes on the core network, concentrated in areas of highest traffic density, and within and between high concentrations of population. The trunk market is not, therefore, synonymous with the core network.
- 4.59 ComReg notes that the respondent who described pricing differences on routes where OAOs were present, and on routes where there is no competition, describes very well the competitive differences between the trunk and terminating segment markets, such that the pricing differences are a manifestation of a constraint on Eircom.
- 4.60 ComReg notes that entry to the market for wholesale trunk segments of leased lines has been facilitated to a certain extent by state funding. While this may affect the feasibility of further investment in this market, ComReg does not believe that this affects the sustainability of current trunk provision.
- 4.61 ComReg has further considered issues raised regarding the interpretation of mobile operators' strategies in the wholesale leased line markets. In the market for wholesale trunk segments, ComReg agrees with the respondent that mobile operators are less likely to be able to self-supply (particularly with radio links) than they may be in the terminating segment market. Even if the respondent's view is correct, such that demand for wholesale trunk segments by mobile operators is likely to increase, then this does not change ComReg's eventual conclusion on market power. At present, mobile operators purchase wholesale trunk segments from Eircom and OAOs, and an increase in the overall size of the market would not be likely to change that. Thus, even if ComReg accepted the respondents' alternative view of likely trends in the purchase of wholesale trunk segments by mobile operators, it would not significantly alter the SMP designation.

#### Views of respondents: market for wholesale terminating segments

- 4.62 Four respondents agreed with ComReg's analysis and preliminary conclusions put forward in the Consultation.
- 4.63 The respondent who did not agree based its analysis on its alternative definition of the market, and suggested that a high bandwidth terminating segment market was characterised by an "aggressive and accelerating competitive environment".

#### ComReg's position

- 4.64 ComReg has already addressed the question of differentiation within the market for the wholesale terminating segments of leased lines, and has explained why, in its view, it is not appropriate to differentiate on this basis in Ireland. ComReg agrees with this respondent that there is some variation in competitive conditions within the market for wholesale terminating segments, but not to the extent which would justify the definition of separate markets. Furthermore, ComReg notes Eircom's continuing high market share in both wholesale and retail leased line markets, and considers that this must be taken into account when assessing the level of existing competition.



## Potential Competition

4.65 In assessing the possibility for existing and potential new entrants to act as a constraint on the undertaking alleged to have SMP over the period of this review, ComReg analyses the nature and extent of any barriers to firms both entering and expanding in the relevant market. This section examines firstly the barriers to entry to the wholesale leased lines markets. This includes a consideration of the potential impact of sunk costs, economies of scale and scope, control of infrastructure, and organisational integration. The analysis then considers potential barriers to expansion.

### Barriers to Entry

4.66 Barriers to entry generally comprise any disadvantage that a new entrant faces when entering a market that incumbents do not currently face. According to the Explanatory Memorandum accompanying the Relevant Markets Recommendation:

*“... high structural barriers may be found to exist when the market is characterised by substantial economies of scale, scope and density and high sunk costs”<sup>49</sup>.*

### Sunk Costs

4.67 Entry to, and expansion in, the wholesale leased line market involves considerable sunk costs. Initial investment is required in trenches, duct and underground plant. While there may be some resale value, the majority of these costs are not likely to be recovered on any eventual exit from the market.

4.68 The mere existence of sunk costs does not automatically imply that entry barriers are high. It is acknowledged that a certain level of sunk costs will always be needed to enter most markets, and that the incumbent may also have had to incur a similar level of sunk cost before it entered the market. Notwithstanding this, the OECD’s 2005 report on Barriers to Entry notes that in some circumstances it is more difficult for new entrants to break into a market than it was for the incumbent that was the first firm to enter and that *“when a market is already occupied by an incumbent potential entrants might face an entrenched brand or brands, as well as demand that is insufficient to permit efficient operation”*.

4.69 The OECD Report notes further that where sunk costs are high, an established incumbent who has already incurred substantial sunk investments may have the ability to respond to new entry by charging prices above its own average costs but below what the new entrant would need to cover its sunk costs of entry. The sunk costs create a decisional asymmetry that is capable of deterring entry because incumbents have already paid them and entrants have not. If sunk costs are high relative to the post-entry price or expected profit opportunity from being in the market, then entry may be deterred - *“In general, the higher the sunk costs of entry, the less likely it is that a firm will enter”*.

4.70 In considering future developments in the wholesale leased line markets, ComReg notes that much of recent market entry has occurred with the support of public-funded initiatives. Considerable funding has been made available for the construction of fibre-optic networks, and in support for increasing the use of services on these networks. This must be taken into account when assessing the extent to

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<sup>49</sup> Explanatory Memorandum to the Recommendation, p. 10.

which sunk costs constitute an enduring barrier to entry, as it could be argued that new entrants have been at least partially shielded from the effects of sunk costs.

- 4.71 In the Consultation, ComReg suggested that the market for **trunk segments** of leased lines is characterised by sunk costs associated with the initial investment needed to enter the market. However, it was suggested that these costs do not constitute an insuperable barrier to entry. Even taking into account Government financial support, this is borne out by the actual entry into this market.
- 4.72 In the market for **terminating segments**, the nature of the initial infrastructure investment means that sunk costs continue to constitute a high barrier to entry.

#### Economies of Scale, Scope and Density

- 4.73 Economies of scale, scope and density refer to potential advantages that larger incumbents may enjoy over smaller new entrants. Economies of scale generally refer to the cost advantage which a large-scale operator may have over a smaller operator where the marginal cost of production decreases as the quantity of output produced increases. Economies of scope refer to the potential efficiencies which may be gained by a firm jointly producing a range of goods and services, e.g., where a cable network could be used to provide TV, voice telephony and Internet access services simultaneously. Economies of density refer to potential efficiencies associated with supplying customers who are geographically concentrated.
- 4.74 In the Consultation, ComReg proposed that the wholesale leased line markets are characterised by large economies of scale. This is primarily because of the initial costs involved in building infrastructure, such as ducts and cable. Once the initial costs have been sunk, the cost of supplying additional circuits, or higher capacity, is relatively low.
- 4.75 The ability to exploit scale economies is potentially available to any operator which has made the necessary investment. In the **trunk market**, an operator makes the investment in infrastructure between two points, and is then able to manage its service offering between these locations. ComReg has considered the Minimum Efficient Scale (MES) which can be achieved in the market for trunk segments. The MES represents the minimum number of customers, volume of output or level of sales which has to be achieved for an operator to be cost-efficient. It is ComReg's view that economies of scale constitute a moderate barrier to entry in the market for trunk segments, because the MES is achieved only with a fairly high level of sunk costs.
- 4.76 In the **terminating segment** market, the operator's costs are much more variable, and depend on factors such as customer density. For example, the more leased line customers which are served by one local exchange, or at one customer site, the cheaper it will be (per customer) to supply them. Therefore, an operator which has a widespread access network will be much more able to exploit economies of scale in the terminating segment market. The MES achieved in the terminating segment market involves a very high level of sunk costs, and economies of scale constitute a high barrier to entry.
- 4.77 An operator could exploit economies of scope where the network used to carry leased lines could be used to carry a range of additional products. ComReg proposed in the Consultation that all operators offering wholesale **trunk segments**

would be able to achieve economies of scope, and that all operators currently carry a range of services across the network.

- 4.78 In the market for **terminating segments**, ComReg suggested that the ubiquity of Eircom's network, and the range of products and services it offers, allow it to achieve greater economies of scope and scale than would other operators.
- 4.79 The ability to achieve substantial economies of density is evident in both of the wholesale leased line markets, where the cost of supply per customer decreases in line with the number of customers supplied.
- 4.80 In considering the extent to which economies of scale, scope and density constitute barriers to entry; ComReg noted that the wholesale leased line markets are associated with high sunk costs on market entry and expansion. This acts to exacerbate the effects of economies of scale, scope and density. The effects are greatest in the market for terminating segments, largely because the potential revenue per customer is much lower than in the trunk market.

#### Control of Infrastructure/Inputs Not Easily Replicated

- 4.81 The SMP Guidelines note control of infrastructure not easily duplicated as a relevant criterion for assessing whether SMP exists. This may be relevant where, for example, access to a certain infrastructure is necessary to produce a particular product or service, the required infrastructure is exclusively or overwhelmingly under the control of a certain undertaking and there are high and non-transitory barriers associated with replacing the infrastructure in question<sup>50</sup>. According to the SMP Guidelines, a network operator can be in a dominant position if the size or importance of their network affords them the possibility of behaving independently from other network operators<sup>51</sup>. Ownership of a significant infrastructure may confer an absolute cost advantage on the incumbent and the cost and time involved in operators replicating the infrastructure in question may pose a significant barrier to new entry. In addition, it may be possible for the owner of the infrastructure in question to leverage their market power into horizontally or vertically related markets. This is discussed further in the "Vertical Integration" section below.
- 4.82 In the **trunk segment** market, in order for an operator to be able to compete with Eircom in the provision of wholesale trunk segments through supply to other operators, it would need to be able to replicate Eircom's trunk infrastructure on the routes it wished to supply.
- 4.83 To assess the extent to which this is possible, ComReg examined maps provided by Eircom and other operators showing the extent and coverage of their trunk networks. As would be expected, other operator network build is concentrated on routes which are likely to be the most significant in terms of capacity requirements and revenue potential. That is, routes between main urban centres, and within the commercial parts of Dublin.

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<sup>50</sup> See Revised ERG Working Paper on the SMP concept for the new regulatory framework, ERG (03) 09 rev3, September 2005, available from:

[http://erg.eu.int/doc/publications/public\\_hearing\\_concept\\_smp/erg\\_03\\_09rev3\\_smp\\_common\\_concept.pdf#search=%22ERG%20working%20paper%20SMP%22](http://erg.eu.int/doc/publications/public_hearing_concept_smp/erg_03_09rev3_smp_common_concept.pdf#search=%22ERG%20working%20paper%20SMP%22), p. 5.

<sup>51</sup> Ibid, paras 81-82.

- 4.84 ComReg suggested therefore that the infrastructure associated with the provision of trunk segments can be replicated, subject to constraints identified above in the discussion of sunk costs.
- 4.85 In the market for **terminating segments**, replication of the associated infrastructure would require an operator to be able to replicate Eircom's access network. ComReg considered the extent to which Eircom's ownership of its access network constitutes a barrier to entry or expansion. The importance of sunk costs and the potential to achieve economies of scale, scope and density are all related to Eircom's control of a widespread network which would not be easy to replicate.
- 4.86 ComReg noted that instances where mobile operators, for example, are able to use microwave to self-supply terminating segments could be seen as examples of replication of Eircom's access network. However, this is a small part of the overall market for terminating segments, and ComReg proposed in the Consultation that its significance is marginal.

#### Vertical and horizontal Integration

- 4.87 A vertically-integrated operator can enjoy significant efficiencies arising from its presence in upstream and downstream markets. Such efficiencies can also be passed to consumers in the form of cheaper prices, lower transaction costs and/or enhanced product quality. However, vertical integration can also constitute an entry barrier where the presence of a firm at multiple levels of the production or distribution chain raises the costs of new entry (e.g., where prospective new entrants perceive the need to enter multiple markets simultaneously to pose a viable competitive constraint on the integrated operator) and/or increases the possibilities for the integrated operator to foreclose competition at one or more levels in the value chain.
- 4.88 A firm with market power in one market may also be capable of leveraging that market power into related markets. In the wholesale leased line markets, it may be possible for an integrated operator to use its position in the wholesale markets to leverage control into the downstream retail markets, and so reinforce entry barriers to the wholesale markets. It may also be possible for an integrated operator to use its position in the terminating segment market to leverage horizontally into the trunk market, and vice versa.
- 4.89 ComReg has considered the extent to which an integrated operator could leverage dominance between the retail and wholesale markets for leased lines. Where a retail circuit included a trunk segment, an integrated operator would self-supply this, and so a proportion of the trunk market would be closed to other operators. This would put the integrated operator at an advantage, as it would have a predictable high volume of trunk sales, and would be better able to exploit economies of scale.
- 4.90 In the presence of a vertically-integrated operator, a market entrant may perceive it as necessary to enter the upstream and downstream markets, in effect mirroring the structure of the vertically-integrated operator. However, assessment of the wholesale leased lines markets suggests that this is not the case, and that alternative operators – for example, mobile operators – have not felt compelled to offer a vertically-integrated product.

## Barriers to Expansion

- 4.91 Barriers to growth and expansion are obstacles that a new entrant or smaller existing competitor (that is equally, or more, efficient than the incumbent) faces in its ability to grow or expand in a particular market and which limit its ability to pose a viable competitive threat to the incumbent over the medium to longer term. Barriers to entry and expansion are closely related as many of the factors that make entry harder also make it harder for entrants who have recently entered the market to grow or expand their market shares. Furthermore, high barriers to expansion may further discourage new entry.

## Switching Costs

- 4.92 These refer to real or perceived costs that customers face when switching their purchases between suppliers but which are not incurred by remaining with the existing supplier<sup>52</sup>. Switching costs may act as both a barrier to entry and expansion. Even where the products of alternative providers are similar or identical to those provided by the incumbent, the presence of switching costs may make it more difficult for rivals to attract significant numbers of customers from the incumbent. Furthermore, if there are high sunk costs and significant economies of scale, scope or density and/or it is a relatively mature market, then the presence of high customer switching costs may pose an additional significant barrier to new entry/expansion.
- 4.93 The wholesale leased line markets are characterised by significant switching costs. Of particular note are the following:
- Contracts are generally long-term, with roll-over clauses or penalties for early termination.
  - Buyers tend to be informed and sophisticated, but there are relatively few purchasers.
- 4.94 ComReg suggests that switching costs are high, in both the market for trunk segments and the market for terminating segments. It is difficult for customers to switch while they are within contract. Switching at the end of a contract period is possible, but requires a long lead time, and may incur additional investment costs.

## Summary of conclusions: Overall Ability to Act Independently of Potential Competition

- 4.95 In the market for **trunk segments**, ComReg assessed the nature and extent of barriers to entry and expansion, and the overall scope for potential competition to arise in the relevant market.
- 4.96 The preliminary conclusions set out in the Consultation were that:
- While high sunk costs and economies of scale are characteristics of this market, it is noted that there has been market entry, but that this has, to a large extent, been publicly funded.
  - Switching costs in this market pose a significant barrier both to entry and expansion. Generally, contract terms are long and it is difficult and costly to

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<sup>52</sup> OFT (OFT 655), April 2003, Economic Discussion Paper Switching Costs Part one: Economic Models and Policy Implications, p. 1.

switch supplier during a contract period. However, buyers are prepared to consider switching at the end of contract periods.

4.97 In the market for **terminating segments**, preliminary conclusions were that:

- High sunk costs and economies of scale constitute barriers to entry which are likely to be significant and non-transitory.
- Switching costs are a significant barrier to entry and expansion.

**Q. 11. Do you agree with ComReg's analysis of potential competition in the markets for wholesale leased lines? Please provide a reasoned response.**

Views of respondents

4.98 In the market for wholesale **trunk segments**, one respondent did not agree with ComReg's analysis. In this respondent's view, ComReg has underestimated the barriers to entering the wholesale trunk segment market. The respondent believes that the outlook for competition in this market is poor, and does not believe that Eircom's dominance will be challenged in the coming years. Another respondent, while agreeing with some aspects of ComReg's analysis, suggested that the market was skewed by state funding, and that in fact Eircom remains dominant in the market for wholesale trunk segments.

4.99 In the market for wholesale **terminating segments**, one respondent did not agree with ComReg's analysis. The respondent's view is based on its belief that there is a separate market for high bandwidth terminating segments, and that this separate market is prospectively competitive.

ComReg's position

4.100 In considering the detailed points made by one respondent on the assessment of barriers to entry in the wholesale **trunk segment** market, ComReg notes that the respondent's concerns are based on a broader definition of the trunk market than has actually been proposed. ComReg has proposed a narrower trunk market definition than was proposed in the last round of the market review, because this best reflects the economic conditions of supply and demand in the wholesale leased line markets in Ireland. Thus, when the respondent expresses concern about the lack of competition (and perceived lack of potential competition) on routes where there are no alternative suppliers, and which do not connect the largest population centres, ComReg notes that these routes would not be considered part of the trunk market as defined in this review.

4.101 ComReg notes the contribution of state funding to the development of a competitive market for trunk segments. However while this may constrain the physical expansion of this market, it does not constrain the provision of further capacity in the market as defined.

4.102 In the market for wholesale **terminating segments**, ComReg refers back to the reasoning behind the market definition. ComReg has not defined separate markets for wholesale terminating segments on the basis of bandwidth, and has fully explained the reasoning behind this.

## Countervailing Buyer Power

- 4.103 A potential constraint on an undertaking's ability to exercise market power is buyer power. Countervailing buyer power can arise if, for example, a particular purchaser is sufficiently important to its supplier to influence the price or other terms and conditions of supply. The circumstances where countervailing buyer power might be observed include where a customer:
- Accounts for a significant proportion of the supplier's total output;
  - Is well-informed about alternative sources of supply; and
  - Is able to switch to other suppliers at little cost to itself or to self-supply the relevant product relatively quickly and without incurring substantial sunk costs.
- 4.104 In the Consultation, ComReg considered whether countervailing buyer power may be exercised in the wholesale leased line markets, and if so, what impact this may have on any SMP.
- 4.105 For some suppliers of **trunk segments**, a very high proportion of their total output is purchased by a single customer. This would suggest that a customer in this position may be able to exercise buyer power, should alternatives exist at a reasonable cost and within a reasonable timeframe.
- 4.106 ComReg noted the following:
- For connectivity between the busiest inter-regional routes, there is now an alternative to the incumbent. Response to the data request indicated that capacity was available, and that prices were reducing, so that there may be an incentive to switch.
  - There is some evidence of customer switching over the last two years, when contracts come up for renewal. ComReg's discussions with purchasers of trunk segments indicated a readiness to consider switching supplier. It was made clear that purchasers will increasingly combine network elements from more than one supplier.
  - Some of the largest purchasers of wholesale leased lines may be able to self-supply as an alternative to continuing to purchase from other operators. Even if the provision of self-supply acted to reduce rather than replace the level of purchase, it could be considered as the exercise of buyer power.
- 4.107 ComReg's conclusion in the Consultation was that two factors suggest the potential exercise of buyer power in the trunk segment market. First, there are alternative products available, and while barriers to switching during a contract period are high, evidence shows that purchasers are prepared to switch at the end of a contract period. Second, some large purchasers may be able to move to self-supply some or their entire requirement. Technological changes, such as the ability to replace some circuits with microwave, or the possibility of operators shifting to dark fibre, increase this possibility.
- 4.108 The market for **terminating segments** is more diffuse than the trunk segment market, and purchaser power is consequently less concentrated. This means that there is less likelihood of an individual purchaser being able to exercise bargaining power.

- 4.109 Wholesale supply in the terminating segment market depends on a widespread access network, as the sunk costs involved are otherwise too high. Evidence of this is the extent to which other operators, even those with own infrastructure, use Eircom for the last mile to the end-user.

#### Summary of conclusions on countervailing buyer power

- 4.110 In the Consultation, ComReg assessed whether or not countervailing buyer power exists in the relevant markets and its preliminary conclusion was that buyer power is potentially significant in the market for trunk segments, but not in the market for terminating segments.

**Q. 12. Do you agree with ComReg's assessment of countervailing buyer power? If not, please provide reasons for your response.**

#### Views of respondents

- 4.111 In the market for **wholesale trunk segments**, three respondents agreed with ComReg's analysis and two did not. Of the respondents who did not agree, one suggested that Eircom's ubiquitous network and multiple customer relationships means that Eircom is cushioned to some degree from the exercise of CBP. The other respondent who did not agree questioned ComReg's statement on the significance of a high volume of purchases associated with a single customer.
- 4.112 In the market for **wholesale terminating segments**, four respondents agreed, and one did not. The respondent who did not agree noted its perception of the increase in self-supply by mobile operators, and suggested that similar constraints may apply in the case of large corporate networks seeking fibre-based terminating segments.

#### ComReg's position

- 4.113 ComReg has reviewed its analysis of the potential for Countervailing Buyer Power to constrain Eircom's ability to exercise market power in the market for **wholesale trunk segments** and in the market for wholesale terminating segments. In the market for trunk segments, ComReg maintains that the existence of alternative products, including the potential to self-supply, means that CBP is a potential constraint on the market.
- 4.114 ComReg recognises that, in the market for **wholesale terminating segments**, self-supply particularly by mobile operators has increased recently. However, ComReg does not agree with the respondent who believes that this indicates a significant lowering of entry barriers to the wholesale market for the terminating segments of leased lines, and refers back to the explanation in the Market Definition. ComReg therefore maintains that CBP is not sufficient to constrain Eircom's behaviour in the market for the wholesale terminating segments of leased lines.

#### Summary of Conclusions on Market Analysis

- 4.115 ComReg has analysed developments in the structure of the market since the first round review, and the nature and extent of any competitive constraints posed by existing and potential competitors and by any countervailing buyer power in the markets under consideration. ComReg has updated the data analysis since the



publication of the Consultation, and has deepened its analysis of various aspects of the market.

#### Market for trunk segments

4.116 Given that the market for trunk segments of leased lines is no longer recommended as a market susceptible to ex ante regulation, ComReg's conclusions in respect of its analysis of this market are included here for completeness only. In light of this, ComReg's conclusions are that:

- Eircom's market share remains high, at just under 50% by revenue. However, market share has fallen over the last two years, since the time of the first round review.
- Competition in the market has grown, especially since ESBT has become more active. ComReg understands that there is spare capacity in the trunk segment market.
- High sunk costs and economies of scale are characteristics of the trunk segment market. However, it is ComReg's view that they do not pose insuperable barriers to entry, and indeed there has been market entry.
- The nature of the market is such that there are relatively few contracts, and contracts tend to be long-term. This means that the cost of switching can be substantial, and that change in the market is not rapid.
- However, ComReg believes that there is evidence of increasing countervailing buyer power due to the size of the undertakings involved, and to the increasing possibility of self-supply.

4.117 ComReg's conclusion is that, on balance, the market for trunk segments of wholesale leased lines is tending towards competition.

#### Market for terminating segments

4.118 This is the relevant market under Regulation 26 of the Framework Regulations which ComReg is analysing under Regulation 27 of the Framework Regulations. In this regard, ComReg's conclusions are that:

- Eircom has a very high and enduring market share, of just under 80% by revenue.
- Competition in the market is very limited and consists mainly of the resale of Eircom's product. ComReg notes that resale would not constrain Eircom's ability to act independently.
- Sunk costs and economies of scale are high, and constitute high barriers to entry.
- Countervailing buyer power is very limited.

4.119 ComReg's conclusion is that the market for the terminating segments of wholesale leased lines is not tending towards competition and is not likely to do so within the lifetime of this review.

## Proposed Designation of Undertakings with Significant Market Power

- 4.120 Where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations<sup>53</sup> that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged to designate an undertaking under Regulation 27(4) of the Framework Regulations as having significant market power.
- 4.121 In the Consultation, ComReg, having regard to the preliminary conclusions of the market analysis proposed that:
- The market for the trunk segments of wholesale leased lines is tending towards competition. No operator has SMP.
  - Eircom should be designated as having SMP in the market for the terminating segments of wholesale leased lines.

**Q. 13. Do you agree with ComReg's proposed SMP designation? If you disagree, please provide reasons for your response.**

### Views of respondents

- 4.122 In the market for **wholesale trunk segments**, three respondents agreed with ComReg's proposed SMP designation, and two objected strongly. Those who objected stated that, in their view, it was premature to withdraw *ex ante* regulation, and was potentially damaging to competition in both the wholesale and retail leased line markets. One of these respondents believes that ComReg's analysis may be correct, but that its conclusions are wrong. This respondent notes that, on many trunk routes, there are still no alternatives to Eircom.
- 4.123 In the market for **wholesale terminating segments**, four respondents agreed and one did not. The respondent who objected, did so on the basis that it believes that there is a copper based termination segment market, and a separate high bandwidth terminating segment market which is prospectively competitive.

### ComReg's position

- 4.124 ComReg notes the concerns expressed by respondents who do not believe that there is a sufficient level of current or prospective competition in the market for the wholesale trunk segments of leased lines to warrant the withdrawal of *ex ante* regulation. However, some of these concerns are based on a view of the market which is broader than that defined by ComReg through this market review process. The market for wholesale trunk segments which ComReg has defined is characterised by the presence of alternative infrastructure, as in this market, the economic conditions are such that it is commercially attractive for an OAO to invest.

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<sup>53</sup> European Communities (Electronic Communications Networks and Services) (Framework) Regulations, 2003 (S.I. No. 307 of 2003).

4.125 ComReg does not agree that there are separate markets for wholesale terminating segments based on the nature of the underlying infrastructure. ComReg has maintained a technology neutral approach throughout its analysis, and refers back to this discussion in the Market Definition.

4.126 ComReg therefore maintains that:

- The market for wholesale trunk segments of leased lines is tending towards competition. No operator has SMP.
- Eircom is designated as having SMP in the market for the wholesale terminating segments of leased lines.

## 5 Proposed Market Remedies

### Introduction

- 5.1 Where an operator is designated as having SMP on a relevant market ComReg is obliged, under Regulation 9(1) of the Access Regulations<sup>54</sup>, to impose on such an operator, such of the wholesale obligations set out in Regulations 10 to 14 of the Access Regulations, as ComReg considers appropriate.
- 5.2 In the Consultation, ComReg highlighted a number of actual and potential competition concerns associated with the lack of effective competition in the relevant markets. Accordingly, ComReg proposes a number of remedies based on the nature of the competition problems identified, which are proportionate and justified in the relevant circumstances, in accordance with Regulation 9(6) of the Access Regulations.
- 5.3 Regulation 5 (right to request and the obligation to negotiate interconnection when requested) and Regulation 6 (power of the regulator to impose obligations to ensure end to end connectivity) of the Access Regulations apply to all operators, and apply to all markets, irrespective of whether or not the market is deemed to be competitive.

### Potential Competition Problems

- 5.4 It is important to note in this discussion of possible competition problems that it is not necessary for ComReg to point to examples of actual anti-competitive activity within the meaning of Article 82 of the E.C. Treaty of Rome and/or Section 5 of the Competition Act, 2002 that have occurred or are occurring. The finding of significant market power indicates the potential for competition problems to arise, and this is sufficient to justify the imposition of *ex ante* regulation. In considering the form which *ex ante* regulation should take, ComReg has been guided by experience in the market, in particular by the types of competition problem which continue to arise. The appropriateness and proportionality of the proposed remedies is further demonstrated by the Regulatory Impact Analysis carried out below in accordance with policy direction 6 of the Ministerial Direction (issued by the Minister for Communications Marine & Natural Resources pursuant to section 13 of the Communications Regulation Act, 2002) and published in February 2003. ComReg has also considered other relevant Ministerial Policy Directions from 2004 and 2003.
- 5.5 In the Consultation, ComReg outlined the types of potential competition problems which could arise in the absence of SMP regulation in the wholesale market for the terminating segments of leased lines. In summary, absent regulation, a dominant undertaking has the potential ability to influence a range of competition parameters, including prices, innovation, output and the variety or quality of goods and services provided. Three broad types of competition problems may arise where an undertaking has SMP on one or more markets. These potential problems essentially involve conduct by the SMP operator that is aimed at:

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<sup>54</sup> European Communities (Electronic Communications Networks and Services) (Access) Regulations, 2003 (S.I. No. 305 of 2003).

- exploiting customers by virtue of its SMP position;
  - leveraging its market power into adjacent vertically or horizontally related markets; and
  - foreclosing or excluding competitors such as to protect its existing significant market power on the market or markets in question.
- 5.6 ComReg proposed that, absent regulation, Eircom would have the potential and the incentive to engage in such practices.

**Q. 14. Do you agree with ComReg's assessment of potential competition problems in the market for the terminating segments of wholesale leased lines? Please provide a reasoned response.**

#### Views of respondents

- 5.7 All respondents broadly agreed with ComReg's preliminary assessment of actual and potential competition problems. There was an additional view that the competition problems described were evident also in the trunk segment market. One respondent provided information about specific problems experienced in the market, around Service Level Agreements (SLAs) and their enforcement, provision and repair, timeliness, and transparency.

#### ComReg's position

- 5.8 ComReg confirms its view expressed in the Consultation that, in the market for the terminating segments of leased lines, the finding of significant market power indicates the potential for competition problems to arise. This justifies the imposition of *ex ante* remedies.
- 5.9 ComReg recognises the concerns expressed by respondents about the withdrawal of *ex ante* regulation from the market for trunk segments. The reasoning behind this was explained in the market analysis section.
- 5.10 ComReg notes further examples of actual competition problems experienced by operators in the terminating segment market. These competition problems manifest themselves in various ways, and have been described above.
- 5.11 The nature of the market for terminating segments of leased lines is such that, as noted earlier, there are considerable barriers to entry. For market entry to take place, or for existing market players to be able to compete across the market, it is essential to ensure that a range of wholesale products are available. A well-defined range of these products will also promote efficient infrastructure investment.
- 5.12 It is also ComReg's position that, in light of the finding that the markets for retail leased lines and wholesale trunk segments are prospectively competitive, it is essential that the set of remedies available for the uncompetitive market for terminating segments of leased lines is robust and effective.

## Principles in Selecting Remedies

- 5.13 In choosing remedies pursuant to Regulation 9(6) of the Access Regulations, ComReg must ensure they are:
- based on the nature of the problem identified;
  - proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act of 2002; and
  - only imposed following Consultation in accordance with Regulations 19 and 20 of the Framework Regulations.
- 5.14 The relevant objectives, as set out in section 12 of the Communications Regulation Act, 2002 which must be taken into account when applying remedies are as follows:
- to promote competition;
  - to contribute to the development of the internal market; and
  - to promote the interests of users within the Community.
- 5.15 ComReg believes that the remedies it proposes below are based on the nature of the problem identified, are proportionate and justified in accordance with the objectives laid down in section 12 of the Communications Regulation Act, 2002. These proposed remedies have also been considered in light of the requirements set out in the Access Regulations, specifically Regulations 9 to 14 inclusive.

## Remedies Proposed

- 5.16 ComReg's consideration of appropriate remedies in the market for wholesale terminating segments of leased lines is discussed below in terms of:
- Access to and use of specific network elements and associated facilities;
  - Transparency;
  - Non-discrimination;
  - Price Control and Cost Accounting; and
  - Accounting Separation.

### Access to and use of specific network facilities

- 5.17 In the Consultation, ComReg proposed, pursuant to Regulation 13 of the Access Regulation, to continue to impose an access obligation on Eircom for the terminating segments of wholesale leased lines. In summary, ComReg proposed to continue to impose an access obligation on Eircom, and to continue to mandate the products of Wholesale Leased Lines (WLLs) and Partial Private Circuits (PPCs). In addition, ComReg described a number of conditions regarding how access was to be provided, and how the obligation was to be implemented.

**Q. 15. Do you agree with ComReg's proposal to impose an access obligation? Do you agree with how ComReg proposes to impose that obligation? If not, please provide reasons for your response.**

## Views of respondents

- 5.18 Four respondents broadly agreed with ComReg's proposals, but all four recommended that the measures should be extended. One respondent suggested that ComReg should consider using its competition powers to support the SMP obligations. Another respondent suggested that the measures proposed for the terminating segment market were also required in the market for trunk segments. One respondent requested that ComReg consider mandating wholesale products for Ethernet technology, and another respondent indicated that, in its view, new technologies should be added to the current mandated products.
- 5.19 The final respondent raised several issues concerning ComReg's proposed access obligation. The respondent believes that ComReg's proposed remedies should apply only to PPCs, and not to WLLs. The respondent believes that the application of the access remedy to WLLs would affect the SMP operator's ability to participate in the unregulated trunk market because, in the respondent's view, WLLs incorporate elements of trunk and terminating segments.
- 5.20 The respondent suggested further that there is no need to continue with a WLL product, and proposes a sunset clause to enable migration from WLLs to PPCs.
- 5.21 The respondent also objected to ComReg's proposal regarding access to facilities already granted, because of the perceived unbounded terms of the proposal.

## ComReg's position

- 5.22 ComReg will continue to impose an Access obligation, pursuant to Regulation 13 of the Access Regulations, on Eircom for the terminating segments of wholesale leased lines. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology required to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet.
- 5.23 The market analysis indicated that, currently and within the period of this review, OAOs will need access to Eircom's network in order to deliver services to end-users which require wholesale terminating segments of leased lines as an input, and so allow them to compete with Eircom in the downstream market. ComReg notes that all respondents accepted that an access obligation is an appropriate remedy for competition problems in the wholesale terminating segment market.
- 5.24 ComReg does not consider that it is appropriate or permissible in this Market Review to prescribe remedies other than those provided for under Regulation 9 of the Access Regulations. Regulation 9 of the Access Regulations sets out ComReg's powers in respect of remedies following market analysis in accordance with Regulation 27 of the Framework Regulations. To prescribe certain other remedies, such as permissible or contemplated by the Competition Act 2002, would necessitate a separate investigation and a separate exercise by ComReg of its *ex post* competition law powers.
- 5.25 Eircom is mandated, pursuant to Regulation 13 of the Access Regulations, to provide Wholesale Leased Lines and Partial Private Circuits.

- 5.26 ComReg believes that the competition problems identified earlier indicate a continuing need for mandated products in the wholesale market for terminating segments.
- 5.27 Two types of wholesale product are currently mandated, and ComReg proposes that this mandate should continue:
- Wholesale Leased Lines (WLLs); and
  - Partial Private Circuits (PPCs).
- 5.28 This access obligation applies generally to the market defined as wholesale terminating segments, and specifically to these currently mandated products within that market. The access obligation recognises that current products are not static, and the obligation will apply as the products evolve. For instance, PPCs are currently defined as a specific set of products, but may be subject to change from time to time as appropriate. PPCs are wholesale inputs enabling an operator to provide retail and wholesale products using alternative infrastructure and can also be used to aggregate interconnect circuits and terminating segments to provide economies of scale for operators.
- 5.29 The PPC product description includes a transport link, which facilitates handover between the trunk and terminating markets. The service provided by a transport link is part of the PPC suite, and is therefore part of the wholesale terminating segment market.
- 5.30 The provision of Wholesale Leased Lines (WLLs) involves purchasing a full end-to-end leased line from the incumbent operator, while Partial Private Circuits (PPCs) allow an OAO to combine elements of their own network infrastructure with parts of Eircom's network. The WLL product is essentially the same product that Eircom sell at the retail level, albeit currently priced using a "Retail Minus" mechanism. ComReg's view is that competition would best be served by encouraging OAOs to use PPCs rather than traditional WLLs where possible, because this involves a greater investment in infrastructure by operators, and a lesser reliance on reselling Eircom's product. As previously noted, WLLs may be provided using infrastructure that is used to provide other services that do not fall into the terminating segment market.
- 5.31 ComReg notes that one respondent believes that the access remedy should not be applied to the WLL product, that the WLL product should not be mandated, and that the WLL product should be phased out.
- 5.32 ComReg believes that the WLL product should continue to be mandated for a number of reasons, explained below.
- 5.33 In the absence of a WLL product, operators not currently active, or active only in a small way, in the leased line markets would be required to invest in PPCs before being in a position to supply terminating segments of leased lines to either retail or other wholesale customers. This would clearly limit market entry at the outset, because it might also preclude the operations of certain OAOs who may use WLLs to supplement a wider product portfolio. Should the WLL product not exist, these operators would be required to purchase these services from Eircom at a full retail price. This would give Eircom an undue advantage over operators, which would not, in ComReg's view, be in the best interests of competition.



- 5.34 In addition, a WLL product is necessary in order to ensure that OAOs (either new entrants or existing market players) are able to offer a full suite of leased line products to effectively compete with the portfolio currently offered by the incumbent. The WLL product is, for instance, required by an OAO wishing to provide a retail leased line service to an end-user who currently rents such a service from another operator. For example, if Eircom currently supplies Company A with a retail leased line, an OAO wishing to win this business must either avail of the “in-situ” transfer process associated with the WLL product, or pay to provide new physical infrastructure into the premises of Company A. The latter acts as a barrier to entry to the gaining operator.
- 5.35 ComReg has carefully considered one respondent’s proposal that WLLs should be phased out. ComReg notes the migration from WLLs to PPCs, and believes that OAOs are likely to use PPCs rather than WLLs where this is possible. Where there is a competitive trunk segment market, for example, it is likely that an OAO would use PPCs to connect to the trunk segment. However, there are large parts of the country where there is not a competitive trunk market, and where OAOs are still reliant on their ability to purchase WLLs as a wholesale end-to-end product. It is ComReg’s view that the proposed sun-setting of WLLs is premature.
- 5.36 In the Consultation ComReg proposed the simultaneous removal of SMP obligations from both the retail terminating and wholesale trunk segments markets and considers this to be a significant change to the regulatory landscape of the leased line market. Therefore ComReg wishes to at least maintain obligations in the remaining wholesale market and notes that OAOs would require WLLs to ensure a full product portfolio to maintain a competitive marketplace, as already outlined above.
- 5.37 As already argued in the preceding section on market definition, ComReg does not believe that the market for terminating leased lines should be further differentiated by bandwidth, and therefore does not propose to apply differentiated remedies.
- 5.38 In the Consultation, ComReg did not propose to mandate any specific new products at this time, but expected to monitor the extent to which the proposed obligations facilitate the development of new products or variants of products. Two respondents requested ComReg to consider mandating further products, specifically Ethernet.
- 5.39 ComReg recognises that there is demand in the market for wholesale Ethernet products, and that this is not met by existing wholesale products. However, ComReg has made the point clear through the market analysis that other products offering similar services to traditional WLLs and PPCs are included within the market definition, and so form part of the market for the wholesale terminating segments of leased lines. ComReg envisages that existing products may need to be developed, or new products introduced, in line with demand in the wholesale market. ComReg is also aware that the evolution of products is often associated with long lead times, and would seek to ensure that this does not unduly delay the ability of OAOs to offer competitive products.
- 5.40 ComReg believes that where a technology such as Ethernet is used to offer a service similar to WLLs and PPCs, it is included within the market for the wholesale terminating segments of leased lines. This means that new technologies offering similar services are subject to the remedies described in this market review. This is discussed further in terms of reasonable request for access, below. ComReg expects

that products should be developed in response to market demand without recourse to their being mandated, and will monitor this situation closely.

- 5.41 Eircom shall continue to have, as part of its Access obligation, an obligation not to withdraw access to facilities already granted, unless this withdrawal has been approved by ComReg.
- 5.42 In the Consultation, ComReg proposed that Eircom should continue to have an obligation pursuant to Regulation 13(2)(c), not to withdraw access to facilities already granted, unless this had been approved by ComReg. ComReg believes that this obligation is necessary to ensure that OAOs have sufficient certainty to provide retail services to the marketplace and so compete with Eircom.
- 5.43 In addition ComReg noted that Eircom's gradual migration to NGN technology might give rise to instances where Eircom might wish to withdraw access to existing facilities. ComReg has considered the issue with regard to withdrawal of access where an operator may be required to retain facilities already in place at a time when it is re-designing its network architecture and redeploying network infrastructure and where access facilities, if not withdrawn, could impede development.
- 5.44 The obligation not to withdraw access to facilities already granted would also apply, for example, to the possible migration between WLLs and PPCs, where network development or essential network upgrades may result in particular WLL services requiring migration to PPCs.
- 5.45 One respondent objected to this proposal, on the grounds that it perceived the terms to be unbounded. ComReg believes that it has considered the interests of all parties in the market, and has recognised that there will be instances where Eircom needs to withdraw access as part of network improvement. On the other hand, it is essential that OAOs have some degree of certainty about infrastructure. ComReg has signalled its intention to ensure that its decision on the withdrawal of access will be proportionate and justified, and emphasises that it will take into account the interests of all parties.
- 5.46 Eircom will continue to be obliged to provide information which supports existing and future wholesale leased line terminating segment services. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology used to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet.
- 5.47 In the Consultation, ComReg proposed, pursuant to Regulation 10(1) of the Access Regulations, to oblige Eircom to continue to provide information which supports wholesale leased line services. Information would include such information necessary for the provision of services, such as technical specifications, network characteristics, terms and conditions for supply and use, and prices.
- 5.48 This could also include information which may be available through access to ordering systems and billing systems, where appropriate. In addition to information necessary for the provision of services this obligation would apply to any and all information that an OAO may reasonably require in order to provide a retail service which is at least of a similar quality to Eircom's own offer.
- 5.49 There were no specific comments on this subject from respondents.

- 5.50 Eircom will continue to be obliged to meet reasonable access requests in relation to terminating segments of wholesale leased lines. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology used to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet.
- 5.51 In the Consultation, ComReg proposed to continue to impose the obligation on Eircom to meet reasonable access requests and to address any disputes accordingly. This obligation is pursuant to Regulation 13(1) of the Access Regulations.
- 5.52 ComReg believes that OAOs will need to avail of products within the relevant wholesale market that will allow them to develop retail offerings to compete in the retail market. An access remedy allows OAOs to make reasonable requests for products according to their specifications pursuant to Regulation 13 (2) (a) or (f) of the Access Regulations.
- 5.53 ComReg noted in the Consultation that an obligation to meet reasonable access requests would allow OAOs to request variants of products (for example the provision of wholesale leased lines above 2Mb/s or non-traditional interface products, using Ethernet or symmetric DSL technologies) and is appropriate given the experience of OAOs and ComReg to date in requiring Eircom to introduce new products. ComReg does not propose at this stage to mandate the provision of any such new products or features but expects Eircom to consider all requests for such from OAOs, and to meet all requests which are reasonable.
- 5.54 ComReg noted earlier that all existing and potential products which offered service similar to that currently offered by WLLs and PPCs were to be considered as part of the same market, and that the remedies which are applied to the currently mandated products would apply to all products in the market. ComReg expects that a request for either a new product that falls within the market, or a variant of an existing product, would be considered under the obligation to meet reasonable access requests.
- 5.55 Reasonable access would apply also to requests for wholesale variants of Eircom retail products. ComReg believes that it is reasonable to expect wholesale variants of retail products offered by Eircom to be made available on a timescale which would not disadvantage an OAO wishing to offer a similar retail product. ComReg expects that this should be done on a proactive as well as a reactive basis. That is, that Eircom should consider requests from OAOs for wholesale variants of Eircom retail products, and also that Eircom should ensure that wholesale variants of retail products are available to OAOs.
- 5.56 Eircom is obliged to comply with a set of Key Performance Indicators (Regulatory Product Performance Metrics) further to Regulation 13(3), the content of which will be subject to further consultation.
- 5.57 In the Consultation, ComReg identified the need to ensure that Eircom delivers a fit-for-purpose product. For a product to be considered fit-for-purpose, it needs to meet agreed criteria on elements such as product delivery and service assurance. ComReg is aware that issues around speed of provisioning and repair have been obstacles in this market, and believes that a clearer definition of fit-for-purpose, accompanied by a set of measurable product process points and targets to be achieved are necessary to address competition problems.

- 5.58 ComReg proposed that further consultation would be required to agree the actual measures and targets to be applied. For the purposes of this review, ComReg wishes to establish the principle that Eircom will be obliged to comply with Key Performance Indicators (KPIs) as a means of ensuring that a robust product is delivered according to an agreed timescale, and that its service performance is assured. KPIs are seen as a set of measures established by the regulator which are independent of any specific agreement reached with an individual OAO. Further consultation will identify and define the KPIs to be used, and will attach targets to them. ComReg envisages that the agreed set of KPIs will form part of the product description, and so will be incorporated in the Reference Offer.
- 5.59 The KPIs will establish a baseline for the product, against which its adequacy may be measured. If the performance targets are not reached, or the targets consistently drop below the reasonable performance threshold for the measurement period, then ComReg would be able to make a finding of non-compliance and to take appropriate enforcement action to compel compliance with Eircom's access obligation and any related conditions of fairness, reasonableness and timeliness that are imposed.
- 5.60 Eircom should continue to provide wholesale terminating segment leased line services on terms and conditions which are fair, reasonable and timely further to Regulation 13(3).
- 5.61 Such terms and conditions should be supported by Service Level Agreements as part of Eircom's Access obligation.
- 5.62 In the Consultation, ComReg proposed that, pursuant to Regulation 13 (3) of the Access Regulations, those terminating segment leased line services which Eircom supplies at a wholesale level should be provided on terms and conditions which are fair, reasonable and timely. ComReg proposed that terms and conditions should be supported by a Service Level Agreement (SLA).
- 5.63 Some respondents have commented on the types of issues which an SLA should address. One respondent, for example, emphasised the importance of the SLA in ensuring good service provision and repair.
- 5.64 This respondent also proposed that ComReg should intervene to ensure that the Reference Offer is much more detailed, and that the Reference Offer should contain not only descriptions of products and services, but also measures of service level and quality of provision. In the respondent's view, the Reference Offer should also set out the amount of compensation payable by one party to another for failure to perform contractual commitments.
- 5.65 ComReg proposes that the Reference Offer and the SLA should ensure that Eircom has a commercial incentive to provide at minimum a fit-for-purpose product supported by appropriate processes. These processes should address all elements necessary to offer wholesale terminating segments of leased lines.
- 5.66 ComReg expects that OAOs will be able to conclude SLAs which reflect the OAO's need to offer differentiated service levels to different market segments. For example, an OAO may wish to offer a faster response time to corporate customers. It is ComReg's view that a reasonable request for a particular level of service would constitute a reasonable access request.

- 5.67 ComReg notes that issues have been raised repeatedly concerning the adequacy of the SLA in ensuring good service, and in providing restitution for any failure to provide good service. ComReg notes the views of respondents on this, and indicates that it may intervene to revise certain terms and conditions of the SLA should it fail to meet its objectives. ComReg notes further that the SLA should specify a level of compensation that adequately compensates the customer for the failure to deliver service as described in the SLA. The process of compensation should not be burdensome on either party, and the provision of service credits should be automatic.
- 5.68 Eircom should be obliged to negotiate in good faith with undertakings requiring access.
- 5.69 Pursuant to Regulation 13(2)(b) of the Access Regulations ComReg is of the view that Eircom should have the obligation to negotiate in good faith with the undertakings requesting access.
- 5.70 Eircom should continue to be required to provide access to wholesale terminating segment leased line services to competitors at an equivalent standard and at an equivalent time as to its own retail arm as part of its Access obligation further to Regulation 11 of the Access Regulations.
- 5.71 In the Consultation, ComReg proposed that Eircom should continue to be required to provide access to wholesale terminating segment leased line services to competitors on a non-discriminatory basis.
- 5.72 Furthermore ComReg proposed that Eircom should be required to promptly provide competitors with information necessary for access to its wholesale leased line services on a non-discriminatory basis.
- 5.73 This view is maintained.
- 5.74 Eircom should continue to grant open access to technical interfaces, protocols, or other key technologies and should be required to provide such Operational Support Systems ('OSS') or similar software necessary to ensure fair competition in the provision of services as part of its Access obligation.
- 5.75 In the Consultation, ComReg proposed that pursuant to Regulation 13(2)(e) of the Access Regulations Eircom should continue to promptly grant open access to technical interfaces, protocols, or other key technologies and should also be required to provide such Operational Support Systems ('OSS') or similar software necessary to ensure fair competition in the provision of services to OAOs.
- 5.76 Even where the provision by Eircom of certain products is mandated ComReg believes that there is an incentive for Eircom to limit access or make access more difficult. It is necessary for OAOs to have open access to technical interfaces, protocols, and OSS for them to take up mandated products and allow them to compete with Eircom at the retail level in winning customers.

## Transparency

- 5.77 In the Consultation, ComReg proposed that a Transparency obligation should continue to be imposed on Eircom. Transparency is a necessary means of ensuring that ComReg and OAOs can observe price and non-price terms and conditions for Eircom's wholesale leased line terminating segment products. A Transparency obligation is required to support any accounting separation obligations, as this would allow the calculation of costs and prices (i.e. internal price transfers) to be rendered visible. This would also allow ComReg to monitor compliance with any non-discrimination obligations, and address competition problems relating to cross-subsidisation, price discrimination and the application of price squeezes.
- 5.78 ComReg proposed that the Transparency obligation should be implemented by, amongst others, the publication of Reference Offers for all products in the wholesale market for the terminating segments of leased lines. ComReg proposed that transparency should be applied to the publication of SLAs and performance metrics. Also, ComReg proposed that price changes should be notified and published according to an agreed schedule.

**Q. 16. Do you agree with ComReg's proposal to impose a transparency obligation?**

**Do you agree with how ComReg proposes to impose that obligation?**

**Please provide a reasoned response.**

### Views of respondents

- 5.79 All respondents agreed in principle with the proposed Transparency obligation.
- 5.80 In line with its general view of the market, one respondent believes that the obligation should apply only to PPCs, and not to WLLs. In this respondents' view, there would then be no need for a reference offer for all wholesale terminating segment services, as the current PPC offer would suffice. The same respondent proposed that, while it accepted that performance metrics should be available, performance against the SLA should be provided bi-laterally to individual OAOs. The respondent suggested that the publication of aggregated information would not be sufficiently useful for OAOs, and the publication of detailed information may be commercially sensitive.
- 5.81 Another respondent confirmed the importance of SLAs and performance metrics in ensuring quality of service, and proposed that enhanced service options should be provided for.
- 5.82 One respondent noted the importance of a Transparency obligation in ensuring that there was no discrimination, particularly between Eircom's treatment of OAOs and its treatment of its own downstream arm. This respondent requested that ComReg provided more detail in specifying what Eircom was required to do, particularly in relation to SLAs.

## ComReg's position

- 5.83 A transparency obligation shall continue to be imposed on Eircom pursuant to Regulation 10 of the Access Regulations and as regards the wholesale terminating segment market. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology used to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet.
- 5.84 ComReg proposes that a Transparency obligation should continue to be imposed on Eircom. It is stated as part of the Access Directive<sup>55</sup> that transparency may be used in relation to 'interconnection and/or access, requiring operators to make public specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices'. All respondents agreed in principle with this proposal.
- 5.85 The implementation of the transparency obligation will include a requirement to publish a Reference Offer for all products in the wholesale terminating segment market. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology used to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet. The publication obligation will include a date by which the Reference Offer should be published.
- 5.86 The Access Regulations provide for publication of a reference offer that is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested – this should include a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices. ComReg notes that there is no coherent reference offer for the current mandated wholesale terminating segment products. Service schedules for PPCs are currently published as part of Eircom's Reference Interconnect Offer (RIO), and documentation for traditional Wholesale Leased Lines is published on a piecemeal basis.
- 5.87 In the Consultation, ComReg proposed that Eircom should produce and maintain a new Reference Offer for wholesale terminating segment leased line products. This Reference Offer would cover currently mandated products (that is, Wholesale Leased Lines and Partial Private Circuits) and would provide a structure within which any new product or service offering would be detailed.
- 5.88 One respondent did not agree with this proposal, because in its view, no remedies should be applied to WLLs. ComReg does not agree with this position, as already set out in paragraphs 5.25 to 5.36 inclusive.
- 5.89 ComReg believes that its proposal that Eircom should produce and maintain a Reference Offer for wholesale terminating segment leased line products is a means of improving coherence in this market. ComReg's proposal would make it simpler for all market participants to access relevant documentation. Furthermore, a Reference Offer of this kind would establish a framework within which new products could be offered.

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<sup>55</sup> Article 10, S.I. No. 305 of 2006, "European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003.

- 5.90 This Reference Offer should be kept up-to-date, complete and should evolve over time as new variants of existing products and new products are developed.
- 5.91 This proposal brings together documentation which, for the most part, already exists. It cannot therefore be considered to constitute a significant burden on Eircom, although ComReg recognises that there will be some effort required.
- 5.92 Eircom should publish changes to wholesale prices, and changes to the application of prices, three months before they come into effect. Eircom should notify ComReg of proposed changes to wholesale prices or their application, at least 5 working days prior to advance publication. This may be varied, on a case-by-case basis, in agreement with ComReg.
- 5.93 In the Consultation, ComReg considered whether Eircom should be obliged to publish changes to wholesale prices in advance of their coming into effect. At present, Eircom publishes changes to the wholesale price according to structures that govern changes to the Reference Interconnect Offer (RIO).
- 5.94 In order to promote competition, ComReg proposed that Eircom should provide advance publication of changes to wholesale prices three months before the changes come into effect.
- 5.95 ComReg noted that compatibility must be ensured between its proposal and section 17(4) of the Universal Service Regulations which requires undertakings to notify their subscribers not less than one month prior to the date of implementation of any proposed modification in the conditions of the contract for that service. This means that an operator offering a retail service must give one month's notice of price changes to its retail customers. ComReg's proposal that wholesale price changes should be published three months in advance of their effect is considered an appropriate time to allow change and notification of subsequent retail price changes.
- 5.96 In order to ensure compliance with any price controls in the wholesale market for the terminating segments of leased lines, it was proposed that Eircom should notify ComReg of proposed wholesale price changes at least 5 working days before advanced publication
- 5.97 All respondents agreed with this proposal.
- 5.98 Following further consultation by ComReg, Eircom should publish a standard industry SLA on its wholesale website.
- 5.99 Eircom should make available performance metrics (Key Performance Indicators) as required by ComReg, and these may be published.
- 5.100 In the Consultation, ComReg proposed that a Transparency obligation is required to support the Access obligation concerning SLAs. A Transparency obligation would require Eircom to publish a standard industry SLA on its wholesale website. In addition, ComReg proposed that Eircom should be obliged to provide performance metrics (KPIs) as required, and that ComReg reserved the right to publish this information.
- 5.101 Respondents' comments on SLAs and performance metrics are discussed above in the context of the Access obligation.



- 5.102 One operator suggested that actual performance against the KPI targets should be shared bi-laterally with the relevant OAO, rather than publish the total performance on the Eircom wholesale website. This would preclude commercially sensitive information being published, whilst allowing the OAOs to measure how particular services have performed.
- 5.103 ComReg agrees that there may be merit in OAO-specific information being shared bi-laterally with OAOs rather than being published on the Eircom wholesale website, but believes that there is value in the aggregated information being published. This would allow a level of transparency around the overall performance of Eircom versus the target KPIs, and provide an incentive for Eircom to ensure that its performance is above acceptable minimum levels. ComReg intends to include the potential form of publication of metrics within its proposed further consultation on KPIs. In the meantime, Eircom should continue to publish performance metrics on a monthly basis, as is currently the case.
- 5.104 ComReg continues to believe that commercially negotiated SLAs are the best way for OAOs to ensure that they receive whatever customised options they believe are best for their circumstances. However, as noted in the Consultation paper, ComReg believes that there is a requirement for a standard SLA to be developed. This will ensure that at least this SLA will be available to all operators in the market, regardless of their size and/or influence.

#### Non-discrimination

- 5.105 In the Consultation, ComReg proposed to impose an obligation not to discriminate.
- 5.106 In general non-discrimination<sup>56</sup> requires that the SMP undertaking ‘applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provides services and information to others under the same conditions and of the same quality as it provides to its own internal division, or those of its subsidiaries or partners’. A non-discrimination obligation requires that OAOs are treated no less favourably than an incumbent’s internal divisions.

**Q. 17. Do you agree with ComReg’s proposal to impose an obligation not to discriminate? Do you agree with how ComReg proposes to impose that obligation? Please provide reasons for your response.**

#### Views of respondents

- 5.107 All respondents agreed in principle with ComReg’s proposal to implement an obligation not to discriminate.
- 5.108 One respondent suggested that there should be explicit mention of the need for sufficient lead time for OAOs to be able to build a competing product to Eircom retail.

<sup>56</sup> Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, Article 10.

- 5.109 Another respondent proposed that Eircom should be obliged to provide and demonstrate “Equivalence of Input” (EoI) so as to ensure an absence of discrimination. In this respondent’s view, current non-discrimination obligations are not working effectively.
- 5.110 One respondent suggested that the emphasis of a non-discrimination obligation should be on ensuring the technical and commercial replicability of Eircom’s offerings on the retail market. This respondent objected to ComReg’s description of Eircom’s retail arm, and put forward its view that Eircom’s retail arm is Eircom, and therefore not in the same position as an OAO.

#### ComReg’s position

- 5.111 The remedy of non-discrimination will continue to be imposed on Eircom pursuant to Regulation 11 of the Access Regulations and as regards the wholesale terminating segment market. This will apply to all products and services in the market for the terminating segments of wholesale leased lines, as defined in this review. This will apply irrespective of the technology used to provide leased or dedicated capacity, including, inter alia, services provided over Ethernet.
- 5.112 All respondents agreed in principle with ComReg’s proposal that Eircom should be obliged not to discriminate.
- 5.113 ComReg notes that one respondent objected to the description of Eircom’s retail operation. There was no intention to imply that Eircom’s retail arm is an OAO. However, as a vertically-integrated operator, Eircom is active in both the wholesale and the retail markets for leased lines. In ComReg’s view, it is essential to be able to compare the service which Eircom provides to an OAO with the service which it provides to itself. The key issue is not what Eircom’s retail provision is called, but rather how retail provision is done and on what terms. The ERG Remedies document for example, states that:

*‘In general non-discrimination requires that the SMP undertaking ‘applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provide services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its subsidiaries or partners’. This shows that the scope of the non-discrimination obligation clearly covers a firm’s internal processes. The general non-discrimination obligation requires that third party access seekers are treated no less favourably than the operator’s internal divisions.’<sup>57</sup>*

- 5.114 Furthermore, ComReg believes that to ensure a level playing field for all operators active, or potentially active, in the market for terminating segments of leased lines, wholesale equivalent products should be available for those bundled products available at the retail level that have as one of their components a leased line element. To clarify, any product offered by the incumbent at a retail level, which has a retail leased line component should have an equivalent offering with the leased element offered on a wholesale basis, where appropriate. This is especially important in a situation such as this, where there is no current *ex ante* regulation at the retail level.

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<sup>57</sup> ERG Common Position on the approach to appropriate remedies in the new regulatory framework.

- 5.115 In particular ComReg proposes that Eircom be required to provide information and services to alternative operators in timescales, on a basis, and of a quality, which are at least as good as those provided to Eircom's retail operation. It is also important to ensure that there is no discrimination regarding quality of service between one wholesale customer of the SMP operator and another, which could afford one operator a competitive advantage.
- 5.116 One appropriate mechanism, that would ensure that Eircom is seen to be treating all operators, including Eircom Retail, on an equivalent basis, could be the publication of an Internal Reference Offer (IRO). An IRO would detail the products, services and associated facilities that Eircom Retail purchase or receive from other entities in the Eircom Group. ComReg will consider this matter further, and if necessary consult on whether or not it is appropriate to require Eircom to publish such an Offer.
- 5.117 ComReg has also considered the proposal from one respondent that Eircom should be required to prove "Equivalence of Input". ComReg is investigating this approach separately. If it transpires that there is a consistent pattern of wholesale products being delivered on a substantially different basis to Eircom Retail than OAOs, then it may be appropriate to require "Equivalence of Input". Should this be the case, ComReg will consult further.
- 5.118 It is also important that information gained by Eircom as a result of their provision of wholesale services to another operator is not improperly used by Eircom's downstream arms in any manner. Eircom's retail arm could use information obtained by Eircom's wholesale arm by virtue of providing access to other operators to target other operators' customers.
- 5.119 ComReg therefore proposes that Eircom should be required to provide all current and any new services that fall into the market for wholesale terminating segments of leased lines that are introduced in the period of the review to competitors at an equivalent standard and at an equivalent time as provided to Eircom's retail arm.

## Price Control and Cost Accounting

### **Price control**

- 5.120 In order to promote competition, ComReg proposes price controls in respect of the mandated WLL and PPC products in accordance with Section 14 of the Access Regulations. Absent regulation, a vertically-integrated operator with market power in wholesale markets may be able to exert its market power by charging an excessive price for wholesale inputs, and may be able to foreclose the retail market by means of a margin squeeze.
- 5.121 Historically OAOs in Ireland have purchased Eircom's WLL services to enable the offering of retail services to end users in areas where their own networks have not been built. As a result of ComReg's previous market review, access to Eircom's WLLs was introduced using price terms governed by a retail-minus formula. The availability of WLLs priced at a discount to retail equivalents has enabled the development of a limited amount of service based competition, and as a consequence efficient OAOs have been able to grow larger customer bases. As the customer bases of OAOs achieves a critical mass, this provides a more stable environment for

further infrastructure investments in core networks by OAOs. Such investments over the course of time will reach further to customer locations.

- 5.122 Since the time of the last review, OAOs have had the opportunity to migrate, and have migrated (to a certain extent), from using Eircom's WLL products to using Eircom's PPC products.
- 5.123 ComReg has approached the design of the proposed price control remedies in the wholesale market for the terminating segments of leased lines by developing a framework that promotes efficient infrastructure investment and encourages OAOs to climb up the ladder of investment, for example through the mandated PPC product<sup>58</sup>. This will facilitate effective and sustainable competition. Infrastructure based competition is also more likely to lead to the eventual withdrawal of many proposed regulatory obligations.
- 5.124 In the Consultation, ComReg proposed that wholesale terminating segments should be offered at prices which are cost-oriented. This would apply to all current and prospective products which fall within the market.

### **PPC Price Control**

- 5.125 In the Consultation, ComReg proposed to continue the obligation that PPCs are offered at prices that are cost oriented. Currently this is based on forward looking long run incremental costs (FL-LRIC). While the methodology may be reviewed, the general principle of cost-orientation will continue to apply.

### **Wholesale Leased Line Product Price Control**

- 5.126 At present, WLLs are offered at prices based on a "retail-minus" formula, where the minus is currently 8%. ComReg believes that a price control continues to be required in the wholesale market for the terminating segments of leased lines, but has considered whether the retail minus mechanism is still appropriate.
- 5.127 In this Consultation, ComReg has indicated that the retail market for leased lines is prospectively competitive, and has proposed that this market will no longer be susceptible to *ex ante* regulation. This means that, if ComReg's Consultation proposals are accepted, all SMP obligations in the retail market will be removed. The maintenance of a retail-minus price control in the wholesale market which depends on the publication and monitoring of prices in the retail market becomes more difficult to implement and to enforce.
- 5.128 ComReg considered the following options in the Consultation:
- Maintain a retail-minus mechanism, and introduce a requirement for Eircom to provide a statement of compliance with the wholesale price control each time the retail price changes. The advantage of this approach is that it directly addresses the objective of ensuring the maintenance of an appropriate margin between the wholesale and retail prices, without imposing an additional burden on Eircom or on ComReg. The disadvantage is that, in a market where SMP regulation has been withdrawn, the pricing structure may be complex and so the control would be difficult to monitor in a transparent way.

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<sup>58</sup> See for example ERG Common Position on Remedies, April 2003 available on [www.erg.eu.int](http://www.erg.eu.int).

- Move to a full cost-based price control. This has the appeal of standardising the approach to traditional leased lines and PPCs, and may be considered to most accurately reflect the principles of cost orientation. However, it may be unduly burdensome to develop and implement.
- Develop a cost-based price control which is based on the prevailing PPC model. This would recognise that the costs involved in providing traditional terminating segments are incremental to the costs involved in supplying PPCs. The advantage of this option over a full FL-LRIC approach is that it would be much less burdensome to implement, but would still achieve the objective of limiting the leverage of market power from the wholesale market into the retail market.

5.129 ComReg suggested that, given the proposed withdrawal of SMP obligations in the retail market, it may be more appropriate to consider a cost-based, rather than a retail-minus, price control in the wholesale market. ComReg proposed to enter into a Consultation process with regard to this at a later date, as it is of the view that the issue is a complex one, where further analysis is needed on both the potential impact on end-users and whether a transitional process will need to be put in place. ComReg proposes that in the interim the existing retail minus price control would continue as a transitional measure.

**Q. 18. Do you agree with ComReg’s proposal to implement price controls in this market? Do you agree that PPCs should be offered at cost oriented prices and that FL-LRIC should be maintained in the interim? Do you agree that WLLs should ultimately be offered at cost-oriented prices with retail minus being retained in the interim? Do you agree that all wholesale terminating segments of leased lines should be offered at cost-oriented prices? How should this best be done?**

#### Views of respondents

- 5.130 Four respondents agreed that it was appropriate to impose price controls in this market, although one respondent believes that this should be restricted to PPCs. The fifth respondent declined to comment, because it does not purchase PPCs or WLLs.
- 5.131 Two respondents referred to on-going pricing issues regarding the current PPC controls, and one suggested that PPC prices are too high, particularly relative to WLL prices, and by extension, retail prices. This respondent also expressed concern about the impact on pricing of the relaxation of regulation in the retail market.
- 5.132 One respondent suggested that equivalence of inputs should apply, so that the retail arm of an SMP operator would purchase wholesale inputs on the same terms and conditions, and prices, as any other retail provider.
- 5.133 Respondents generally agreed that prices should be cost-oriented, but recognised that the migration to cost-orientation may be complex.

## ComReg's position

- 5.134 Price control obligations will continue to be imposed on Eircom pursuant to Regulation 14 of the Access Regulations and Eircom will be obliged to offer PPCs at prices which are cost-oriented, with FL-LRIC being retained at least in the interim. ComReg proposes to further consult as appropriate on the most suitable price control for other products in the market for wholesale terminating segments of leased lines (including WLLs) offered by Eircom. In the interim, the prices charged by Eircom to any other undertaking for Wholesale Leased Lines of capacities up to and including 2Mb/s shall be no more than those charged to that undertaking at the effective date. Furthermore, the prices charged by Eircom to any other undertaking for WLL of capacities above 2Mb/s shall be offered to other operators on terms and conditions equivalent to those offered to Eircom's retail arm. Eircom will be obliged to ensure that the relationship between its wholesale and retail pricing does not constitute a margin squeeze.
- 5.135 All respondents who commented on price controls agreed that this was an appropriate measure in the wholesale market for the terminating segments of leased lines, with one respondent qualifying that the application should be restricted to PPCs. ComReg intends to consult further on how cost-oriented pricing may best be implemented in this market. Furthermore, ComReg notes that absent regulation, as noted in the Consultation, a vertically-integrated operator with market power in wholesale markets may be able to exert its market power by charging an excessive price for wholesale inputs, and may be able to foreclose the retail market by means of a margin squeeze. Eircom should be obliged to ensure that the relationship between its wholesale and retail pricing does not constitute a margin squeeze.
- 5.136 Pending the outcome of that Consultation, the current price control for PPCs will be maintained, while the price control for WLLs will be as noted in paragraph 5.134 above.

## Cost Accounting

- 5.137 In the Consultation, ComReg noted that the obligation of cost accounting systems supports the obligations of price control and accounting separation, and can assist ComReg in monitoring the obligation of non-discrimination.
- 5.138 In order to demonstrate compliance of a service or product with a price control obligation, it is necessary for Eircom to establish cost accounting systems that capture, identify, value and attribute relevant costs to its services and products in accordance with agreed regulatory accounting principles, such as cost causality. A key part of this process is the stage which identifies those parts of the underlying activities or elements that directly support or are consumed by those services or products. These elements are referred to as network components. As these components are frequently used to provide more than one product or service, it is also necessary to determine how much of each component is used for each service or product.
- 5.139 As operators may operate in both SMP and non SMP designated markets, the division of services and products, and the corresponding costs, capital employed and revenues between the different markets should be reflected in costing systems, and coherence and integrity of information should be assured. Where such particular costs form part of the cost of an SMP service ComReg needs to have visibility as to the basis of and amount of allocation across all services.

**Q. 19. Do you agree with ComReg's proposal on cost accounting? Please provide a reasoned response.**

Views of respondents

5.140 Four respondents agreed with ComReg's proposal, although one qualified this by agreeing only where the proposal applied to PPCs. In this respondent's view, it has identified a market for high bandwidth terminating segments, which it judges to be competitive, and therefore not subject to *ex ante* regulation. Another of the four respondents believes that ComReg's proposals do not go far enough. One respondent declined to comment.

ComReg's position

5.141 The existing level of cost accounting system obligations on Eircom will be maintained until a further Consultation on Accounting Separation on Regulated markets in general is carried out and Decisions made.

5.142 Since the previous market review, ComReg has been engaged in a public Consultation on the detailed implementation of accounting separation and cost accounting remedies under the new framework. ComReg is in the process of reviewing this with the incumbent and intends to publish a further consultation on current reporting procedures for regulatory services etc later this year.

Accounting Separation

5.143 Separated accounts help disclose possible competition problems and make visible the wholesale prices and internal transfer prices of a dominant operator's products and services.

5.144 ComReg intends to implement accounting separation on a service and/or product basis. ComReg believes it is not sufficient to implement such an obligation at a market level as it is important to discourage possible cross-subsidisation of pricing.

**Q. 20. Do you agree with ComReg's proposal on accounting separation? Please provide reasons for your response.**

Views of respondents

5.145 Four respondents agreed, with one agreeing where an accounting separation obligation applied only to PPCs. One respondent indicated that, in its view, the proposal does not go far enough.

### ComReg's position

- 5.146 ComReg proposes to impose a cost accounting obligation on Eircom further to Regulation 12 of the Access Regulations to maintain the existing level of accounting separation obligations on Eircom until such time as a detailed Consultation on Accounting Separation markets in general is carried out and Decisions made.
- 5.147 Since the previous market review, ComReg has been engaged in a public Consultation on the detailed implementation of accounting separation and cost accounting remedies under the new framework. ComReg is in the process of reviewing this with the incumbent and intends to publish a further consultation on current reporting procedures for regulatory services etc later this year.



## 6 Regulatory Impact Assessment

### Introduction

- 6.1 In the Consultation, ComReg outlined its approach to Regulatory Impact Assessment (RIA) in line with the Guidelines published in August 2007<sup>59</sup>. This RIA also takes into account the Government's Better Regulation Programme<sup>60</sup>.
- 6.2 The purpose of the RIA is to assess whether the proposed obligations placed on the operator designated with SMP in the wholesale market for the terminating segments of leased lines are appropriate, proportionate and justified on the basis of the analysis of competition in this market. Ministerial Policy Direction No. 6 of 2003 requires that ComReg complete a RIA where regulatory obligations are imposed. ComReg is obliged to comply with Ministerial Policy Directions pursuant to Section 13 of the Communications Regulation Act.

### Policy issue and objectives

- 6.3 In this market review, ComReg's conclusion is that the wholesale market for the terminating segments of leased lines is not effectively competitive, and is not likely to become competitive within the lifetime of this review. ComReg's analysis noted that Eircom has a very high and persistent share of the market, and that this is not appreciably qualified by other factors such as countervailing buyer power. Competition in the market is very limited, and barriers to entry associated with sunk costs and economies of scale are high. ComReg's view is that Eircom should be designated with SMP in this market, and that appropriate remedies should be applied.
- 6.4 ComReg's principal objectives, therefore, are to ensure that a dominant operator is prevented from the potential exploitation of its market power, and to facilitate the rapid development of effective competition.
- 6.5 ComReg would note that the overall effect of this market review will be to withdraw some regulatory obligations, in that it is proposing that there is no longer SMP in the trunk market, and no longer SMP in the retail market for the minimum set of leased lines. It also notes that, generally, the majority of obligations proposed in the terminating market are already in place. As such, the cost to Eircom of continuing these obligations is likely to be considerably less than if they were being imposed for the first time, thus the overall impact of these obligations is likely to be relatively limited as they should not involve significant set-up costs.

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<sup>59</sup> "Guidelines on ComReg's Approach to Regulatory Impact Assessment" ComReg doc 07/56a, 10 August 2007

<sup>60</sup> [www.betterregulation.ie](http://www.betterregulation.ie)

## Regulatory options

6.6 The proposed wholesale obligations are:

6.7 **Access** to wholesale terminating segments of leased lines by obliging

- Access to mandated products, currently WLLs and PPCs
- Access to facilities already granted
- Access to specified information which supports existing and future wholesale leased line services
- Eircom is obliged to meet reasonable access requests
- Wholesale products must be delivered on terms and conditions that are fair, reasonable and timely, and negotiation should be carried out in good faith. This should be supported by a Service Level Agreement.
- Compliance with Key Performance Indicators (Regulatory SLA), the content to be developed through further consultation
- Wholesale products must be delivered by Eircom to competitors at an equivalent standard and timescale as to its own retail arm.
- Access to technical interfaces, protocols, key technologies, Open Support Systems and similar software

6.8 **Transparency**

- Obligation to publish a Reference Offer for all leased line services
- Obligation to make available Key Performance Indicators, which may be published
- Obligation to publish a standard SLA
- Obligation to publish changes to wholesale prices, and to the application of prices, in advance of their coming into effect, and to notify ComReg in advance of publication.

6.9 **Non-discrimination**

- General obligation not to discriminate

#### 6.10 **Price Control**

- Maintenance of current cost-based price control on PPCs
- Maintenance of current price control on WLLs
- Consultation on future price control mechanisms
- Obligation to ensure that the relationship between wholesale and retail pricing does not constitute a margin squeeze
- Continuation of cost accounting and accounting separation obligations, pending the outcome of further consultation on accounting systems and methodologies

6.11 The approach which ComReg has taken is to assess the implications of, first of all, forbearing from regulation, and then of adding incremental levels of regulatory control. In the Consultation, ComReg considered the following regulatory options:

- Option 1: forbear from regulation
- Option 2: apply obligation not to discriminate
- Option 3: apply Transparency obligation
- Option 4: apply Access obligation
- Option 5: apply cost accounting and accounting separation
- Option 6: apply price controls

#### 6.12 **Option 1: forbear from regulation**

ComReg has considered the Ministerial Policy Direction No. 5 that requires regulation only where necessary. The EU Framework, however, requires ComReg to apply remedies when SMP is found pursuant to Regulation 9(1) of the Access Regulations, so ComReg is obliged to address dominance in the wholesale market for the terminating segments of leased lines. Forbearance from regulation is therefore not an option in this market once SMP has been found.

#### 6.13 **Option 2: apply obligation not to discriminate.**

ComReg has considered whether it would be sufficient to apply an obligation not to discriminate. This obligation would ensure that Eircom had to supply products and services of an equivalent quality to all operators, including its own retail arm. While ComReg views non-discrimination as a necessary remedy, it is not sufficient as it does not address the range of actual and potential competition problems which have been identified.

#### 6.14 **Option 3: apply transparency obligation**

A Transparency obligation ensures that ComReg and OAOs can observe price and non-price terms and conditions for Eircom's wholesale leased line terminating segments products. The transparency and non-discrimination obligations are necessary supporting obligations for obligations concerning access and price controls and are not considered to be sufficient by themselves.

**6.15 Option 4: apply access obligations**

The Access obligations which are proposed are a continuation of current obligations. Taken together, the Access obligations would ensure that operators have the right to access wholesale products, and to implement them, and that access would be provided in a manner which was fair, reasonable and timely, and to a standard equivalent to that provided to Eircom's retail arm.

**6.16 Option 5: apply cost accounting and accounting separation**

The cost accounting and accounting separation obligations are necessary to ensure appropriate cost recovery mechanisms, and to monitor price controls. In order to demonstrate the cost orientation of a service or product, it is necessary for Eircom to establish cost accounting systems that capture, identify, value and attribute relevant costs in accordance with agreed regulatory accounting principles.

**6.17 Option 6: apply price controls**

ComReg proposes to continue to apply the FL-LRIC price control on PPCs in the interim. It is proposed that a cost-based price control should be developed for WLLs. While this would incur additional costs, the objectives in the market would be better addressed by bringing the WLL product into line under a cost-based approach rather than continuing to derive the wholesale price control from the retail market.

Impact on stakeholders

6.18 ComReg has considered the impact of its regulatory options on stakeholders.

**6.19 Non-discrimination**

The direct cost of implementing a non-discrimination obligation is very low for the SMP operator, as the obligation essentially addresses behaviour in the market. There are regulatory costs associated with ensuring compliance, but it is ComReg's view that these costs are not likely to be significant, given the measures are already in place to ensure non-discrimination. ComReg would note that there might be indirect costs in that, without such an obligation, Eircom might discriminate towards its own retail arm in a manner that could make that arm more profitable. However, any such behaviour is likely to result in other operators being less profitable. Discriminatory behaviour is likely to have strong negative effects on competition, and ultimately, the welfare of end-consumers.

6.20 **Transparency**

ComReg has proposed that the SMP operator should publish a Reference Offer for leased line services, and should comply with a Regulatory Service Level Agreement (Key Performance Indicators). While the Reference Offer is a new obligation, ComReg believes that it mainly involves streamlining and centralising the collection and publication of information which is currently published in a variety of locations. ComReg is aware that there will be an initial extra burden on Eircom, but believes that it is in the interests of all participants in the market to move to a coherent statement of Eircom's offer in the wholesale market for terminating segments of leased lines.

- 6.21 The obligation to comply with Key Performance Indicators is a new obligation, and will constitute an extra burden on Eircom and on ComReg. ComReg proposes to consult further on the product metrics and performance targets which will define a fit-for-purpose product, and which will constitute the Regulatory SLA. However, it is ComReg's view that the principle of implementing a Regulatory SLA is essential for ensuring that a fit-for-purpose product is available, and that the benefits will therefore outweigh the costs.

6.22 **Access**

The proposed Access obligations are a continuation of existing obligations in this market. The impact of any new products being mandated will be duly considered.

6.23 **Cost accounting and accounting separation**

The additional costs of complying with the proposed obligations on cost accounting and accounting separation should be minimal, as Eircom already prepares and publishes regulatory financial statements, and has cost accounting systems in place.

6.24 **Price controls**

ComReg proposes to continue a cost-based price control on PPCs, and to consider the development of a cost-based price control for WLLs.

- 6.25 It is ComReg's view that a wholesale price control remains essential, not only in addressing competition problems in the wholesale market, but also in ensuring that competition can develop in the retail market. It should be noted that ComReg's proposal to withdraw regulation from the retail market is based on the view that compliance with wholesale regulation would be sufficient to ensure the development of competition in the retail market. The withdrawal of regulation from the retail market is therefore contingent on the adequacy of compliance with regulation in the wholesale market. It is ComReg's view that the imposition of cost-based price controls in the wholesale market are essential to ensure that the SMP operator does not charge a monopoly price, which would have a negative effect on the wholesale and the associated retail markets.

### Impact on competition

- 6.26 It is ComReg's view that, in the absence of regulation in the wholesale market for the terminating segments of leased lines, there would be no effective competition. As discussed in the SMP analysis, with the significant entry barriers and Eircom's current dominant position, removal of these remedies would have a drastic effect on competition in this market, and would also involve a "knock-on" negative effect on competition in the market for retail leased lines. The set of remedies chosen are, ComReg feels, the minimum necessary to ensure an opportunity for effective competition to develop in this market.

### Impact of chosen option

- 6.27 ComReg has suggested that, given the nature of competition problems identified, a range of remedies should be applied in this market.
- 6.28 ComReg recognises that there are direct and indirect costs associated with the proposed remedies. Direct costs are to do with the costs of implementing new or extended obligations, while indirect costs are to do with effects such as opportunity costs.
- 6.29 ComReg recognises that Eircom will bear additional direct costs in implementing some of the remedies. However, these costs are limited, and should involve relatively few new costs, and are thus judged to be appropriate and proportionate. If Eircom feel that the costs are likely to be extremely significant, they should provide substantiated evidence of this in any response they might make.
- 6.30 As for indirect costs, ComReg recognises that several of the proposed obligations restrict the commercial freedom of the SMP operator, and this should be considered as an indirect cost of the proposed measure. However, it is ComReg's view that such restriction is necessary in order to facilitate competition in the market, and that the benefits significantly outweigh the costs.

### Conclusion

- 6.31 It is ComReg's view that the selected regulatory options are appropriate, proportionate and justifiable as a means of ensuring that Eircom does not exploit its market power in the wholesale market for the terminating segments of leased lines. ComReg has sought the least burdensome means of achieving its aims, and has noted where additional costs may be incurred.

**Q. 21. Do you agree with ComReg's assessment of the regulatory impact of the proposed measures? If not, please provide reasons for your response.**

### Views of respondents

- 6.32 Four respondents agreed with ComReg's assessment of regulatory impact, and one did not. One respondent, while agreeing with ComReg's analysis, suggested that there should have been further examination of the impact on stakeholders of withdrawing *ex ante* regulation from the market for wholesale trunk segments.

- 6.33 The respondent who did not agree with ComReg's assessment believes that a full Cost Benefit Analysis (CBA) should have been carried out in order to determine whether or not proposed measures are appropriate and proportionate.

#### ComReg's position

- 6.34 ComReg's principal objective is to ensure that the operation of the market for wholesale terminating segments of leased lines provides optimum encouragement for the development of competition. To this end, ComReg aims to ensure that a dominant operator is prevented from the potential exploitation of its market power in the market, as this would impact on the wholesale market and on the downstream retail markets which depend on wholesale leased lines as an input.
- 6.35 ComReg notes concerns expressed by the respondent who suggested that further analysis was required of the potential impact on competition of withdrawing *ex ante* regulation from the market for wholesale trunk segments. While this analysis was not presented in the Regulatory Impact Assessment section of the Consultation, the analysis was undertaken and presented in the discussion of the trunk segment market.
- 6.36 ComReg notes that this is a second round market review, and that regulatory remedies were put in place following the last market review. While the market analysis has considered the market definition absent regulation, the assessment of regulatory impact should, in ComReg's view, predominantly take into account the fact that the market currently operates in the presence of regulation.
- 6.37 In line with the approach outlined in the Government's White Paper<sup>61</sup>, ComReg considers that, in a market which is already regulated, the focus should be on answering the following:
- Is regulation still necessary in this market?
  - Does current regulation achieve objectives as simply as possible?
  - Are changes to regulation required?
- 6.38 ComReg considers that its Regulatory Impact Assessment outlined in the Consultation addresses all of these questions.
- 6.39 The first round review of the market for wholesale leased lines imposed a full suite of obligations on the SMP operator in the market for wholesale terminating segments. The market analysis indicated that Eircom had a high and persistent market share, and that this was not appreciably qualified by any other factors in the market. A range of actual and potential competition problems were identified, and in order to address these, remedies were proposed.
- 6.40 In considering whether regulation is still required in the market for wholesale terminating segments, ComReg notes that the broad dynamic of the market is relatively unchanged since the time of the last review. Eircom still has a high and persistent share of the market, and this is not likely to change within the lifetime of this review. Barriers to entry remain high and non-transitory. This review has come

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<sup>61</sup> Regulating Better, Department of the Taoiseach, January 2004

to a view that Eircom has SMP, and therefore ComReg is obliged to impose some regulation.

- 6.41 In reviewing the operation of current regulation, ComReg identified elements of the current obligations which require development. This identification was made on the basis of a consideration of competition problems in the market for wholesale terminating segments. In ComReg's view, the obligations need to better consider how the products and performance of products can be established, with a view to demonstrating that the products are fit-for-purpose, and that there is no discrimination. In ComReg's view, this means that competition problems around the constitution and implementation of Service Level Agreements (SLAs) must be addressed. ComReg proposed in the Consultation that Key Performance Indicators (KPIs) should be developed, and intends to consult further on the implementation of KPIs.
- 6.42 In the Consultation, ComReg proposed some changes to current regulation, and recognised that these changes would entail additional direct costs for Eircom. In particular, the development of KPIs will entail additional direct costs for Eircom and for ComReg. Possible changes to the price control mechanisms would also entail direct costs. However, ComReg notes that these obligations do not require changes to the products or associated processes. Rather, the concern is to find means of demonstrating that wholesale terminating segment products are fit-for-purpose, in the case of KPIs, and that there is no discrimination between OAOs and Eircom's retail operation.
- 6.43 ComReg has proposed that the development of KPIs, and the review of price control mechanisms, will be subject to further consultation, and notes that the potential impact of these measures will be examined during this process. For that reason, ComReg does not consider that it is appropriate to undertake a full Cost Benefit Analysis at this stage. For the other measures proposed, ComReg considers that they are largely a refinement of existing obligations, and that the processes and procedures are for the most part already in place.



## Annex A: Draft Decision Instrument

***NOTE: This Draft Decision Instrument is for information purposes only and is not the final Decision Instrument. Respondents to the consultation are asked to provide their detailed views from a commercial, practical and legal perspective in relation to the Draft Decision Instrument.***

***ComReg has notified the significant market power designation to the European Commission for its approval, as it is legally required to do pursuant to Regulation 20 of the Framework Regulations. The significant market power designation cannot be made final, until the European Commission has approved it.***

### 1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

- 1.1 This Decision Instrument (“Decision”) relates to the market for wholesale terminating segments of leased lines defined in the document entitled Market Analysis: Leased Lines Markets Response to Consultation Document No. 08/63 and as identified in the European Commission’s Recommendation<sup>62</sup> and is made by the Commission for Communications Regulation (“ComReg”):
- i. Having had regard to sections 10 and 12 of the Communications Regulations Act, 2002;
  - ii. Having taken account, of its functions under Regulation 6(1) of Access Regulations<sup>63</sup>;
  - iii. Having where appropriate complied with the Policy Directions made by the Minister further to section 13 of the Communications Regulation Act 2002<sup>64</sup>;
  - iv. Having taken the utmost account of the European Commission’s Recommendation<sup>65</sup> and the Significant Market Power Guidelines<sup>66</sup>;

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<sup>62</sup> European Commission Recommendation of 17 December, 2007 on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services – OJ L 344/65.

<sup>63</sup> S.I. No. 305 of 2003 the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003 (“Access Regulations”) which transposes Directive 2002/19/EC of the European Parliament and the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities.

<sup>64</sup> Policy Directions made by Dermot Ahern T.D. (the then) Minister for Communications, Marine and Natural Resources on 21 February, 2003 and 26 March, 2004.

<sup>65</sup> European Commission Recommendation of 17 December, 2007 on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services – OJ L 344/65.

- v. Having had regard to the market definition, market analysis and reasoning conducted by ComReg in Market Analysis: Leased Lines Markets Review ComReg Document No. 07/77 doc, the analysis and reasoning set out in Market Analysis: Leased Lines Markets Response to Consultation Document No. 08/63 and the reasoning and individual decisions set out previously in this document, each of which form part of and shall where necessary, be construed with this Decision Instrument;
- vi. Having taken account of the submissions received in relation to Document No. 07/77;
- vii. Having notified the draft measure imposing significant market power to the European Commission, further to Regulation 20 of the Framework Regulations whereby it was also made accessible to national regulatory authorities (NRAs) in other EU Member States, and the European Commission having informed ComReg that it had examined the draft measure and that it had no comments in relation thereto and pursuant to Article 7(5) of the Framework Directive<sup>67</sup>, ComReg could adopt the resulting draft measure;
- viii. Having consulted with the Competition Authority further to Regulation 27 of the Framework Regulations<sup>68</sup>;
- ix. Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 9, 10, 11, 12, 13 and 14 of the Access Regulations.

## 2 SCOPE AND APPLICATION

- 2.1 This Decision Instrument applies to eircom Limited and its successors and assigns (“Eircom”).
- 2.2 This Decision Instrument is binding upon Eircom and Eircom shall comply with it in all respects.

## 3 MARKET DEFINITION

- 3.1 Pursuant to Regulation 26 of the Framework Regulations, the relevant product market in this Decision Instrument is defined as the market for the wholesale terminating segments of leased lines (“the Market”) as defined in section 3 of the document entitled Market Analysis: Leased Lines Markets Response to Consultation

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<sup>66</sup> European Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services of 11 July 2002 – OJ C 165/6.

<sup>67</sup> Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

<sup>68</sup> S.I. No. 307 of 2003 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services.

Document No. 08/63 taking utmost account of the Significant Market Power guidelines and in accordance with the European Commission's Recommendation.

- 3.2 Pursuant to Regulation 26 of the Framework Regulations, the relevant geographic market with respect to the Market is defined as Ireland.

#### 4 DESIGNATION OF UNDERTAKING WITH SIGNIFICANT MARKET POWER ("SMP")

- 4.1 Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations, eircom Limited ("eircom") is designated as having SMP on the Market.

#### 5 SMP OBLIGATIONS

- 5.1 ComReg is imposing certain SMP obligations on eircom in accordance with and pursuant to Regulations 9, 10, 11, 12, 13 and 14 of the Access Regulations, as detailed further below. All obligations imposed should be met by Eircom in a technically and economically efficient manner.

#### 6 OBLIGATION TO PROVIDE ACCESS

- 6.1 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall meet all reasonable requests for access to and use of such wholesale access products, features or additional associated facilities, by undertakings requesting access or use of such access products, features or additional associated facilities in the Market irrespective of technology and including services provided over Ethernet. For the avoidance of doubt, this includes the continued provision of Wholesale Leased Lines ("WLLs") and Partial Private Circuits ("PPCs") including handover.
- 6.2 Without prejudice to the generality of section 6.1, Eircom shall:
- i. Pursuant to Regulation 13(2)(a) of the Access Regulations, give third parties access to specified network elements, facilities or both such elements and facilities (including, but not limited to the in-situ transfer of end to end leased lines);
  - ii. Pursuant to Regulation 13(2)(b) of the Access Regulations negotiate in good faith with undertakings, requesting access;
  - iii. Pursuant to Regulation 13(2)(c) of the Access Regulations, not withdraw access to facilities granted without the prior approval of ComReg (including, but not limited to the in-situ transfer of end to end leased lines);
  - iv. Pursuant to Regulation 13(2)(e) of the Access Regulations, grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services;
  - v. Pursuant to Regulation 13(2)(h) of the Access Regulations, provide access to Operational Support Systems ("OSS") and similar software systems necessary to ensure fair competition in the provision of services; and
  - vi. Pursuant to Regulation 13(2)(i) of the Access Regulations to interconnect networks or network facilities.

## 7 CONDITIONS ATTACHED TO THE ACCESS OBLIGATIONS

- 7.1 Without prejudice to the generality of section 6 the obligations and requirements set out in that section shall, pursuant to Regulation 13(3) of the Access Regulations, be subject to conditions dealing with fairness, reasonableness and timeliness.
- 7.2 It shall be a condition of the obligations and requirements contained in section 6 that Eircom shall comply with a set of key performance indicators to ensure Eircom is delivering a product, service, feature or additional associated facility which is fit for purpose. The set of key performance indicators will be subject to further consultation.
- 7.3 Pursuant to Regulation 13(3) of the Access Regulations, it shall be a condition of the obligation to provide the product, service, feature or additional associated facility referred to in sections 6, related to fairness, reasonableness and timeliness, that Eircom shall:
- i. Conclude legally binding and fit-for-purpose Service Level Agreements (“SLAs”) with Other Authorised Operators (“OAOs”) in respect of those products, services or associated facilities referred to in section 6;
  - ii. Negotiate in good faith with OAOs in relation to the conclusion of legally binding and fit-for-purpose SLAs;
  - iii. Ensure that all SLAs include provision for service credits arising from a breach of the SLA. Until further consultation from ComReg, agreed service credits shall be a matter of negotiation between Eircom and OAOs and recovery of service credits shall be in the first instance, a matter for OAOs and Eircom. This shall not preclude the possibility of ComReg exercising its dispute resolution powers, or of intervening on its own initiative;
  - iv. Update the industry SLA as required, such updates may also be required by ComReg;
  - v. Publish the standard industry SLA (and any updates thereto) on the Eircom wholesale website;
  - vi. Until further consultation from ComReg, maintain the detailed contents (including performance metrics) of the existing SLA; and
  - vii. Provide to ComReg and publish on its website, on a monthly basis, performance statistics in writing in respect of the services provided to OAOs. ComReg may at its discretion publish such statistics. In addition, ComReg may if it deems necessary, conduct audits of the reported performance statistics.

## 8 OBLIGATION OF NON-DISCRIMINATION

- 8.1 Eircom shall have an obligation of non-discrimination as provided for by Regulation 11 of the Access Regulations. This obligation will apply to all products, services, facilities and appropriate process points in the Market irrespective of the technology required or used to provide leased or dedicated capacity including services provided over Ethernet.

- 8.2 Without prejudice to the generality of section 8.1, Eircom shall:
- i. Provide a wholesale equivalent for retail offerings offered by Eircom in the Market;
  - ii. Apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services and provide services and information to others under the same conditions and of the same quality as Eircom provides for its own services or to those of its subsidiaries or partners; and
  - iii. Ensure that information and services are provided to OAOs under the same conditions, according to the same timescales, on a basis, and of a quality, as Eircom provides for its own services or to those of its subsidiaries or partners.
- 8.3 Without prejudice to the generality of sections 8.1 and 8.2 Eircom shall:
- i. provide access to other undertakings (requesting access in accordance with sections 6.1 and 6.2 of this Decision) to any additional wholesale inputs which are necessary to enable those undertakings to provide end to end leased lines to end-users;
  - ii. continue to make available the in-situ transfer of end to end leased lines in accordance with the “In-Situ Transfer Of Leased Lines Inter-Operator Process Manual - Eircom To Other Authorised Operator.

## 9 OBLIGATION OF TRANSPARENCY

- 9.1 Eircom shall have an obligation of transparency as provided for by Regulation 10 of the Access Regulations in respect of the Market. This transparency obligation shall apply irrespective of the technology used or required to provide leased or dedicated capacity including services provided over Ethernet
- 9.2 Without prejudice to the generality of the obligation in section 9.1, pursuant to Regulation 10(2) of the Access Regulations, Eircom shall publish and keep updated a Reference Offer (RO) for the services and facilities referred to in sections 6 and 8. For the avoidance of doubt, this obligation also applies to any new product, service or associated facility in the Market. The RO shall be published 3 months from the effective date or at a later date if agreed with ComReg. The RO shall be sufficiently unbundled so as to ensure that other undertakings availing of such facilities are not required to pay for facilities which are not necessary for the service requested and the RO shall include:
- i. A description of the relevant offerings broken down into components according to market needs; and
  - ii. A description of the associated terms and conditions, including prices.
- 9.3 For the avoidance of doubt such a RO shall be substantially in same form and detail as Eircom’s Reference Interconnect Offer or Access Reference Offer.
- 9.4 Eircom shall publish at least three months in advance any proposed changes to the RO and any proposed changes to Wholesale prices and the application of such prices on its website for the purpose of notifying all interested parties of such changes. Eircom shall notify ComReg at least 5 days in advance of any such publication taking place. This period of 5 days may be varied from time to time with the

agreement of ComReg. Proposed changes to the RO and proposed changes to Wholesale prices and the application of such prices shall not be implemented without prior notification to ComReg and OAOs and prior approval from ComReg. For the avoidance of doubt, any new product, service or associated facility in the Market shall not be launched without prior notification to ComReg and OAOs and prior approval from ComReg.

- 9.5 ComReg may issue Directions to Eircom from time to time requiring it to publish specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use and prices. As provided for by Regulation 10(5) of the Access Regulations, ComReg may issue Directions requiring Eircom to make changes to the RO to give effect to obligations imposed in this Decision Instrument and to publish the RO with such changes.
- 9.6 Without prejudice to the generality of the obligation in section 9.1, Eircom shall make public information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of the services and facilities referred to in Sections 6 and 8, as specified by ComReg from time to time.
- 9.7 Eircom shall publish all SLAs concluded and as from time to time amended. Following further consultation by ComReg, Eircom shall publish a standard industry SLA on its wholesale website.
- 9.8 Following further consultation by ComReg, Eircom shall publish key performance indicators as required by ComReg to demonstrate that a product or service is fit for purpose.
- 9.9 Without prejudice to the generality of the obligation in section 9.1, Eircom shall provide to OAOs information which is required to support existing and future products, services and associated facilities in the Market in an accurate and timely manner, further to a reasonable request for such information from an OAO.

## 10 OBLIGATION OF ACCOUNTING SEPARATION

- 10.1 Pursuant to Regulation 12 of the Access Regulations, Eircom shall have an obligation to maintain separated accounts. All of the obligations in relation to accounting separation applying to Eircom and in force immediately prior to the effective date of this Decision Instrument related to the Market shall be maintained in their entirety and Eircom shall comply with all of those obligations, pending a further decision to be made by ComReg following further consultation in relation to the details of and implementation of accounting separation obligations and cost accounting obligations.
- 10.2 Without limiting the generality of the obligation to comply with all accounting separation obligations in force immediately prior to the effective date of this Decision, Eircom shall continue to comply with inter alia, the obligations described in the following Decision Notices previously issued by ComReg which include:
  - D5/99 – Accounting Separation and Publication of Financial Information for Telecommunication Operators
  - D8/99 – Costing Methodology for use in Accounting Separation

- D10/99 – Accounting Separation and Publication of Financial Information for Telecommunications Operators
- D9/00 – Accounting Separation and Publication of Financial Information for Telecommunications Operators
- D10/00 – Accounting Separation and Publication of Financial Information for Telecommunications Operators, Supplemental Information referring to Decision Notice D9/00
- D2/01- Accounting Separation for Internet Service provision and Report on Investigation into Indigo and eircom.net.
- D7/01- Eircom’s Reference Interconnection Offer & Accounting Separation and Publication of Financial Information for Telecommunications Operators
- D12/01- Revision of Timetable for Publication of Separated Accounts and Financial Information by Eircom

## 11 OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

- 11.1 Pursuant to Regulation 14(1) of the Access Regulations, Eircom shall continue to comply with all of the obligations in relation to cost accounting in force immediately prior to the effective date of this Decision Instrument, until such time as ComReg makes a decision, following further consultation in relation to accounting separation obligations and cost accounting obligations.
- 11.2 Pursuant to Regulation 14(1) of the Access Regulations, the prices charged by Eircom to any undertaking for those products and services and associated facilities described in section 6 and section 8 shall be cost oriented.
- 11.3 Pursuant to Regulation 14(1) of the Access Regulations, until a decision is made by ComReg following further consultation in relation to price control for products, services and associated facilities in the Market, the prices charged by Eircom to any other undertaking for Wholesale Leased Lines of capacities up to and including 2Mb/s shall be no more than the prices in place at the effective date.
- 11.4 Pursuant to Regulation 14(1) of the Access Regulations, until a decision is made by ComReg following further consultation in relation to price control for products, services and associated facilities in the Market, including the prices charged by Eircom to any other undertaking Wholesale Leased Lines of capacities above 2Mb/s shall be offered to other operators on terms and conditions equivalent to those offered to Eircom’s retail arm.
- 11.5 Notwithstanding the provisions of section 11.3 and 11.4, pursuant to Regulation 14(1) of the Access Regulations, the prices charged by Eircom to any undertaking for PPCs shall be cost oriented and such costs shall be calculated using a pricing model based on forward looking long run incremental costs (“FL- LRIC”) or an alternative pricing model, if ComReg decides, following consultation, to adopt such an alternative pricing model.
- 11.6 Notwithstanding the provisions of section 11.3, Eircom shall have an obligation not to cause a margin squeeze.

- 11.7 Eircom shall not make available any new product, service or associated facility in the Market without ComReg's prior approval of the price for that product, service or associated facility. Eircom shall not change any price for an existing product, service or associated facility in the Market without ComReg's prior approval.

## 12 STATUTORY POWERS NOT AFFECTED

- 12.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it under any primary or secondary legislation (in force prior to or after the effective date of this Decision Instrument) from time to time as the occasion requires.

## 13 MAINTENANCE OF OBLIGATIONS

- 13.1 Unless expressly stated otherwise in this Decision, all obligations and requirements contained in Decision Notices and Directions made by ComReg applying to Eircom and in force immediately prior to the effective date of this Decision, are continued in force by this Decision and Eircom shall comply with same.
- 13.2 If any section, clause or provision or portion thereof contained in this Decision is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section, clause or provision or portion thereof shall, to the extent required, be severed from this Decision and rendered ineffective as far as possible without modifying the remaining section(s), clause(s) or provision(s) or portion thereof of this Decision, and shall not in any way affect the validity or enforcement of this Decision.

## 14 WITHDRAWAL OF SMP OBLIGATIONS

- 14.1 It is hereby decided that the market for the minimum set of leased lines and the market for the wholesale trunk segments of leased lines as defined in Annex A and Annex D to the Decision Notice – Designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No. 05/29 of 30 March 2005 are not susceptible to *ex ante* regulation. These markets respectively do not fulfil the three cumulative criteria for *ex ante* regulation, namely:
- the existence of high and non-transitory entry barriers;
  - barriers to entry indicate that the market will not tend towards competition over time; and
  - competition law alone is not sufficient to redress market failures.
- 14.2 Pursuant to Regulations 8 and 9 of the Access Regulations, all existing SMP obligations imposed on the market for a minimum set of leased lines contained in Annex A Decision to the Decision Notice – Designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No. 05/29 of 30 March 2005 are hereby withdrawn. The finding of SMP contained in the Annex A decision in relation to the market for a minimum set of leased lines is also hereby withdrawn.



- 14.3 Pursuant to Regulations 8 and 9 of the Access Regulations, all existing SMP obligations, imposed on the market for wholesale trunk segments of leased lines contained in Annex D Decision to the Decision Notice – Designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No. 05/29 of 30 March 2005, are hereby withdrawn. The finding of SMP contained in the Annex D decision in relation to the market for wholesale trunk segments of leased lines is also hereby withdrawn.
- 14.4 Sections 14.2 and 14.3 of this Decision Instrument will take effect 28 days from the effective date or on the date on which sections 5, 6, 7, 8, 9, 19 and 11 take effect, whichever is the later. All SMP obligations, on Eircom in force immediately prior to the effective date of this Decision Instrument to which Eircom was subject to by virtue of its having had SMP on the minimum set of retail leased lines and the wholesale trunk segment of leased lines market, are withdrawn with effect from 28 days from the effective date.

## 15 REVOCATION OF DECISIONS

- 15.1 The following Decisions are revoked:
- Annex A of decision Notice – designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No 05/29 of 30 March 2005;
  - Annex C of decision Notice – designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No 05/29 of 30 March 2005;
  - Annex D of decision Notice – designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No 05/29 of 30 March 2005.
- 15.2 Sections 15.1 of this Decision Instrument will take effect 28 days from the effective date or on date when sections 5, 6, 7, 8, 9, 10 and 11 take effect, whichever is the later. All SMP obligations on Eircom arising out of Decision Notice – Designation of SMP and Related remedies Market Analysis Retail Leased Lines and Wholesale Terminating and Trunk Segments of Leased Lines (National) D7/05 Document No. 05/29 of 30 March 2005 in force immediately prior to the effective date of this Decision Instrument to which Eircom was subject to by virtue of its having had SMP are withdrawn with effect from 28 days from the effective date.

## 16 EFFECTIVE DATE

- 16.1 This Decision Instrument is effective from the date hereof until further notice by ComReg. This Direction shall be effective from the date of its publication and shall remain in force until further notice by ComReg.
- 16.2 Sections 5, 6, 7, 8, 9, 10 and 11 of this Decision Instrument shall apply 28 days from the effective date.

**JOHN DOHERTY  
CHAIRPERSON  
THE COMMISSION FOR COMMUNICATIONS REGULATION  
THE [ ] DAY OF [ ] 2008**

## Annex B: Notification of Draft Measures Pursuant to Article 7(3) of the Directive 2002/21/EC

Under the obligation in Article 16 of the Directive 2002/21/EC, ComReg has conducted an analysis of the market for wholesale terminating segments of leased lines.

In accordance with Article 6 of the Directive 2002/21/EC, ComReg has conducted a national consultation, contained in ComReg Document 07/77. This consultation ran from 01 October 2007 to 09 November 2007. The responses to this consultation have been taken into consideration and ComReg has now reached decisions in relation to market definition, designation of SMP and imposition/withdrawal of regulatory obligations, which are contained in ComReg Document 08/63.

ComReg hereby notifies the Commission of its proposed remedies and obligations in accordance with Article 7(3) of Directive 2002/21/EC. These remedies and obligations are set out in the attached summary notification form. Under Regulation 27(1), ComReg is required to liaise with the Competition Authority in its definition and analysis of markets. ComReg has consulted with the Competition Authority (“Authority”) in relation to its findings on the leased lines markets and provided the Authority with a summary of these findings.

### Section 1 - Market Definition

**Please state where applicable:**

<p><b>1.1</b></p>	<p>The affected relevant product/service market (s).</p> <p>Is this market mentioned in the Recommendation on relevant markets?</p>	<p>ComReg proposes to define the following markets:</p> <ul style="list-style-type: none"> <li>Wholesale market for terminating segments of leased lines.</li> </ul> <p>This is noted as Market 6 in the Revised Recommendation of Relevant Markets<sup>69</sup>.</p>	<p>Pages 17 – 34</p>
<p><b>1.2</b></p>	<p>The affected relevant geographic market (s)</p>	<p>Ireland.</p>	<p>Page 32</p>
<p><b>1.3</b></p>	<p>A brief summary of the opinion of the national competition authority where provided;</p>	<p>ComReg consulted with the Competition Authority (Authority) in relation to its findings on the Leased Lines Market further to Regulation 27(1) of the Framework Regulations<sup>70</sup> and provided the Authority with a summary of its preliminary findings.</p>	
<p><b>1.4</b></p>	<p>A brief overview of the results of the public consultation to date on</p>	<p>Five responses to the consultation were provided by:</p>	

<sup>69</sup> Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Second edition) {(C(2007) 5406)}

<sup>70</sup> S.I. No. 307 of 2003 the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 which transposes Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services

	<p>the proposed market definition (for example, how many comments were received, which respondents agreed with the proposed market definition, which respondents disagreed with it).</p>	<ul style="list-style-type: none"> <li>• ALTO</li> <li>• BT Ireland</li> <li>• Eircom</li> <li>• E-Net</li> <li>• ESB Telecoms</li> </ul> <p>There was general agreement among respondents on the analysis and conclusions reached. While one respondent disagreed with the market definition exercise for this market and accordingly with elements of the market analysis findings, no robust alternative market definitions were put forward. Some respondents disagreed with the proposed removal of an SMP designation from the market for trunk segments of leased lines. Overall, the proposed conclusions remained unchanged after the consultation.</p>	
<p><b>1.5</b></p>	<p>Where the defined relevant market is different from those listed in the recommendation on relevant markets, a summary of the main reasons which justified the proposed market definition by reference to Section 2 of the Commission's Guidelines on the definition of the relevant market and the assessment of significant market power<sup>71</sup>, and the three main criteria mentioned in recitals 9 to 16 of the recommendation on relevant markets and Section 3.2 of the accompanying Explanatory Memorandum<sup>72</sup>.</p>	<p>The defined relevant market is as listed in the recommendation on relevant markets, cited above.</p>	

<sup>71</sup> Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications and services, OJ C 165, 11.7.2002, p. 6.

<sup>72</sup> Commission Recommendation of 11.2.2003 on Relevant Product and Service Markets with the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for ECNs and ECSS, C (2003) 497

**Section 2 - Designation of undertakings with significant market power****Please state where applicable:**

2.1	The name(s) of the undertaking(s) designated as having individually or jointly significant market power. Where applicable, the name(s) of the undertaking(s) which is (are) considered to no longer have significant market power	eircom Ltd. is designated as having SMP in the following markets: <ul style="list-style-type: none"> <li>Wholesale terminating segments of leased lines.</li> </ul> ComReg found that the market for trunk segments of leased lines did not meet the three criteria set out in the Relevant Markets Recommendation and as such <i>ex ante</i> regulatory intervention is unwarranted.	Pages 55 – 56  Pages 55 – 56
2.2	The criteria relied upon for deciding to designate or not an undertaking as having individually or jointly with others significant market power	<ul style="list-style-type: none"> <li>Market shares and concentration levels over time;</li> <li>Level of competition posed by existing competitors;</li> <li>Barriers to entry, e.g., economies of scale/scope, vertical integration, etc;</li> <li>Barriers to expansion, e.g., customer switching costs, etc;</li> <li>Overall threat posed by potential competition; and</li> <li>Strength of any countervailing buyer power.</li> </ul>	Pages 39 – 54
2.3	The name of the main undertakings (competitors) present/active in the relevant market.	<ul style="list-style-type: none"> <li>eircom Ltd</li> <li>BT Ireland</li> <li>e-Net</li> </ul>	
2.4	The market shares of the undertakings mentioned above and the basis of their calculation (e.g., turnover, number of subscribers)	<ul style="list-style-type: none"> <li>Shares by volume – Eircom 84.4%, BT Ireland 13.7%, e-Net 0.8%</li> <li>Shares by revenue – Eircom 78.8%, BT Ireland 16.5%, e-Net 3.7%</li> </ul>	Pages 40 – 42

**Please provide a brief summary of:**

2.5	The opinion of the national competition authority, where provided	The Authority considered ComReg’s findings and following discussions with ComReg concluded that they were appropriate in relation to the market analysis exercise.	
2.6	The results of the public consultation to date on the proposed designation(s) as undertaking(s) having significant market power (e.g., total number of comments received, numbers agreeing/disagreeing)	<p>Five responses to the consultation were provided by :</p> <ul style="list-style-type: none"> <li>• ALTO</li> <li>• BT Ireland</li> <li>• Eircom</li> <li>• E-Net</li> <li>• ESB Telecoms</li> </ul> <p>There was general agreement among respondents on the analysis and conclusions reached. While one respondent disagreed with the market analysis findings, arising from the market definition exercises as noted above. Some respondents disagreed with the proposed removal of an SMP designation from the market for trunk segments of leased lines. Overall, the proposed conclusions remained unchanged after the consultation.</p>	

**Section 3 - Regulatory Obligations**

**Please state where applicable:**

3.1	The legal basis for the obligations to be imposed, maintained, amended or withdrawn (Articles 9 to 13 of Directive 2002/19/EC (Access Directive))	<p>The following obligations are proposed for the market for wholesale terminating segments of leased lines under Articles 9 to 13 of Directive 2002/19/EC (Access Directive):</p> <ul style="list-style-type: none"> <li>• Transparency – Article 9,</li> <li>• Non-discrimination – Article 10,</li> <li>• Accounting Separation – Article 11</li> <li>• Access to, and use of, specific network facilities – Article 12, and</li> <li>• Price Control and Cost Accounting – Article 13.</li> </ul> <p>All existing SMP regulatory obligations currently imposed on eircom in the market for trunk segments of leased lines should be withdrawn, in accordance with Article 16(4) of the Framework Directive. These</p>	<p>Pages 57 – 77</p> <p>Page 56</p>
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		<p>obligations include:</p> <ul style="list-style-type: none"> <li>• Transparency,</li> <li>• Non-discrimination,</li> <li>• Accounting Separation,</li> <li>• Access to, and use of, specific network facilities, and</li> <li>• Price Control and Cost Accounting.</li> </ul>	
<b>3.2</b>	<p>The reasons for which the imposition, maintenance or amendment of obligations on undertakings is considered proportional and justified in the light of the objectives laid down in Article 8 of Directive 2002/21/EC (Framework Directive). Alternatively, indicate the paragraphs, sections or pages of the draft measure where such information is to be found</p>	<p>Such information can be found in Section 5 of this document.</p>	<p>Pages 57 – 77</p>
<b>3.3</b>	<p>If the remedies proposed are other than those set out in Articles 9 to 13 of Directive 2002/19/EC (Access Directive), please indicate which are the ‘exceptional circumstances’ within the meaning of Article 8(3) thereof which justify the imposition of such remedies. Alternatively, indicate the paragraphs, sections or pages of the draft measure where such information is to be found</p>	<p>Not Applicable.</p>	

**Section 4 - Compliance with international obligations**

**In relation to the third indent of the first subparagraph of Article 8(3) of Directive 2002/19/EC (Access Directive), please state where applicable:**

<b>4.1</b>	Whether the proposed draft measure intends to impose, amend or withdraw obligations on market players as provided for in Article 8(5) of Directive 2002/19/EC (Access Directive)	Not Applicable.	
<b>4.2</b>	The name(s) of the undertaking(s) concerned	Not Applicable.	
<b>4.3</b>	Which are the international commitments entered by the Community and its Member States that need to be respected	Not Applicable.	



## Annex C: Glossary of Terms

**ATM** (Asynchronous Transfer Mode) is a technology that enables data transfer asynchronously relative to its input into the communications system. The data is put into cells and transmitted through the network to be re-constructed at the output.

**CSH** (Customer Sited Handover) allows interconnection to occur at a communications provider's premises.

**EUL** (End-User Links) is the part of a PPC that connects from the customer's premises to an OAO Transport Link.

**FL-LRIC** (Forward Looking-Long Run Incremental Cost) is the costs of providing all the services in a particular *increment* in the long run. What the costs would be for a hypothetical *efficient entrant* building a new network using modern equivalent assets to provide the services in the most efficient way.

**FR** (Frame Relay) is a packet switched data service providing for the interconnection of Local Area Networks and access to host computers at up to 2Mbit/s.

**IP** (Internet Protocol) is the communications protocol used for transmitting a data packet between a source and a destination on some data networks including the Internet.

**MANs** (Metropolitan Area Networks) is a telecommunications term used to describe a network serving a business and residences in an urban area. In this context, it refers to the roll-out of publicly-funded telecommunications infrastructure in specific towns around Ireland.

**MPLS** (Multi-Protocol Label Switching)

**NRA** (National Regulatory Authority) is the relevant regulatory authority in each country. In Ireland, the NRA is ComReg.

**NGN** (Next Generation Networks) is commonly defined as a single, IP-centric network which separates the services and service control layers from the network to allow rapid development of new services. An NGN will also generally have the capability of supporting multiple low and high bandwidth services including mobility, rich voice and multi-media services.

**PDH** (Plesiochronous Digital Hierarchy) is an older method of digital transmission used before SDH which requires each stream to be multiplexed or de-multiplexed at each network layer and does not allow for the addition or removal of individual streams from larger assemblies.

**PPCs** (Partial Private Circuits) is a generic term used to describe a category of private circuits that terminate at a point of connection between two communications providers' networks. It is therefore the provision of transparent transmission capacity between a customer's premises and a point of connection between the two communications providers' networks. It may also be termed a part leased line.

**RIO** (Reference Interconnect Offer) is a document that Eircom produces, and is presented in the form of a standard contract. It deals with Interconnect Services which Eircom offers to operators authorised under the Authorisation Regulations, operating in the Irish market. It also deals with Interconnect Services, which Eircom offers to Operators Authorised in other EU Member States, for termination of traffic presented at Eircom Interconnect Nodes which originates in other EU Member States.

**SMP** (Significant Market Power): An entity is designated with SMP when the NRA determines that the market under review is not effectively competitive.

**SSNIP** (Significant Non-Transitory Increase in Price) is a “Small but Significant Non-transitory Increase in Price”, usually considered to be 5 to 10 per cent, which is part of the hypothetical monopolist test used in market definition analysis.

**STM** (Synchronous Transport Module) is the basic rate of transmission of the SDH fiber optic network transmission standard.

**SDH** (Synchronous Digital Hierarchy) is a method of digital transmission where transmission streams are packed in such a way to allow simple multiplexing and demultiplexing and the addition or removal of individual streams from larger assemblies.

**Transport Link** is that part of a PPC which connects the Eircom network with the OAO network.

**VPNs** (Virtual Private Networks) consist of private networks that may be based around one or more inter-linked “islands” connected together through secure connections.

## Annex D: Consultation Questions

Q. 1. Do you agree that, in the presence of regulation of the wholesale market for leased lines, the market for the minimum set of retail leased lines should no longer be considered susceptible to ex ante regulation? Please provide reasons for your answer. ....	14
Q. 2. Do you agree that trunk and terminating segments fall within different markets? Do you agree with ComReg’s proposed boundary between trunk and terminating segments? Please state the reasons for your opinions. ....	20
Q. 3. Do you agree with ComReg’s reasoning on self-supply? Please provide reasons for your response. ....	23
Q. 4. Do you agree that the market for trunk segments should not be further differentiated by bandwidth? Please provide a reasoned response. ....	25
Q. 5. Do you agree that all high bandwidth products form part of the same market? Please provide reasons for your response. ....	26
Q. 6. Do you agree that the market for trunk segments is national in scope? If not, please give reasoned arguments to support your views. ....	27
Q. 7. Do you agree that the market for terminating segments should not be further differentiated by bandwidth? Please provide a reasoned response. ....	29
Q. 8. Do you agree that all products offering fixed permanent point-to-point symmetric termination belong in the same market? Please state the reasons for your opinions. ....	31
Q. 9. Do you agree that the market for the terminating segments of wholesale leased lines is national in scope? Please provide reasons for your response. ....	32
Q. 10. Do you agree with ComReg’s analysis of existing competition in the wholesale leased line markets? Please provide reasons for your response. ....	44
Q. 11. Do you agree with ComReg’s analysis of potential competition in the markets for wholesale leased lines? Please provide a reasoned response. ....	51
Q. 12. Do you agree with ComReg’s assessment of countervailing buyer power? If not, please provide reasons for your response. ....	53
Q. 13. Do you agree with ComReg’s proposed SMP designation? If you disagree, please provide reasons for your response. ....	55
Q. 14. Do you agree with ComReg’s assessment of potential competition problems in the market for the terminating segments of wholesale leased lines? Please provide a reasoned response. ....	58
Q. 15. Do you agree with ComReg’s proposal to impose an access obligation? Do you agree with how ComReg proposes to impose that obligation? If not, please provide reasons for your response. ....	59
Q. 16. Do you agree with ComReg’s proposal to impose a transparency obligation? Do you agree with how ComReg proposes to impose that obligation? Please provide a reasoned response. ....	67
Q. 17. Do you agree with ComReg’s proposal to impose an obligation not to discriminate? Do you agree with how ComReg proposes to impose that obligation? Please provide reasons for your response. ....	70
Q. 18. Do you agree with ComReg’s proposal to implement price controls in this market? Do you agree that PPCs should be offered at cost oriented prices and that FL-LRIC should be maintained in the interim? Do you agree that WLLs should ultimately be offered at cost-oriented prices with retail minus being retained in the interim? Do you agree that all wholesale terminating segments of leased lines should be offered at cost-oriented prices? How should this best be done? ....	74
Q. 19. Do you agree with ComReg’s proposal on cost accounting? Please provide a reasoned response. ....	76
Q. 20. Do you agree with ComReg’s proposal on accounting separation? Please provide reasons for your response. ....	76

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Q. 21. Do you agree with ComReg's assessment of the regulatory impact of the proposed measures? If not, please provide reasons for your response. .... 83

## Annex E: Methodology for calculating market shares

### Introduction

The aim of analysing operator shares of the market is to assess the contribution of market shares to any market power. ComReg's approach was to collect information in as disaggregated a form as possible, so that the data could eventually be analysed in line with the way in which the markets were defined. ComReg also sought to collect information from suppliers and purchasers of wholesale leased lines. This allowed information to be cross-checked, and allowed any anomalies to be explored.

### Data requests

Requests for data were issued to operators in August 2006<sup>73</sup>. Because this was prior to the market definition exercise, ComReg aimed to ensure that data could be analysed in line with any eventual definition of the market. A subsequent data request was issued in January 2008 and account was taken of the data collected. It can be noted also that having sufficiently granular data allows a check of some of the conclusions in the market definition phase. For example, market data allows the confirmation of breaks in demand and supply conditions.

Operators were asked to provide volume and revenue data for their sales and purchases in the wholesale leased line market for time period 2004-2006<sup>74</sup>. In the subsequent data request, operators were asked to provide updated information for the period up to January 2008. ComReg believes that, where possible, it is important to analyse both volumes and revenues in order to build up a complete picture of market behaviour.

In order to avoid pre-judging the definition of the market, operators were asked to provide data on the following products:

- Analogue leased lines;
- Digital leased lines;
- PPC EULs (excluding transport links);
- ATM;
- Frame Relay;
- Ethernet;
- MPLS;
- Wavelength; and
- Other dedicated access products.

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<sup>73</sup> Two operators were added in February 2007.

<sup>74</sup> 2006 data was provisional and estimated by operators based on first half of the year. In some cases, ComReg extrapolated data based on first half year purchases and sales.

Volume and revenue information related to the sale of these products was requested by circuit capacity and distance<sup>75</sup> using the following bands:

Circuit Capacity/Distance	<10k m	10km – 100k m	>100 km
• 64kb/s – 128kb/s			
• 192kb/s – 512kb/s			
• 576kb/s – 1024kb/s			
• 1088kb/s – 1984kb/s			
• 2Mb/s			
• 34Mb/s			
• 45Mb/s			
• 155Mb/s (STM-1)			
• Above STM-1 (please specify)			

Operators were asked to break down sales by purchaser. In order to cross-check data, ComReg also requested data from operators who purchase but do not necessarily supply wholesale leased lines.

#### Operator discussions

Follow-up discussions were held with main suppliers and purchasers in the market. The aims were to clarify and confirm data provided; to address any anomalies between demand and supply information; and to identify any qualitative issues which would impact on market share analysis.

#### Market share analysis

Key assumptions made in the analysis are as follows:

- All 2M channelised costs were bundled into sub 2M costs
- Where available, costs for CSH/ISH bearers are assumed to be spread equally between leased/PPC and voice interconnect services

Following the market definition analysis, trunk capacity was defined as any capacity used by any carrier to service two or more customers. This included capacity between main cities and in the Dublin area, but excluded infrastructure purchases. ComReg also carried out sensitivity analysis on the data, principally by broadening the market definition to include infrastructure purchases, and by narrowing the definition to exclude capacity under 34Mb/s.

<sup>75</sup> Information on distance was only requested for sales.