Response to Consultations and Decision

Market Review: Wholesale (Physical) Network Infrastructure Access (Market 4)

Further Response to ComReg Document No. 08/104, Response to ComReg Document No. 09/42 and Decision (the “Decision Document”)

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1 Executive Summary

Background

1.1 ComReg is responsible for the regulation of the electronic communications sector in Ireland and this is largely achieved through the regulation of wholesale markets that are deemed not to be effectively competitive. One market that is susceptible to \textit{ex ante} regulation is the market for Wholesale Physical Network Infrastructure Access (‘WPNIA’) which, in simple terms, has traditionally represented the Local Loop Unbundling (LLU) market and has related to the provision of wholesale access over copper telephone loops between a telephone exchange and an end-users’ premises.

1.2 LLU has, to date, been regulated pursuant to a 2004 ComReg decision concerning the Wholesale Unbundled Access (WUA) market\(^1\). However, arising from a 2007 European Commission Recommendation\(^2\) (the ‘Recommendation’), the WUA market has been replaced by the more technology neutrally focussed WPNIA market which can now cover not only copper networks, but also potentially allows for other physical infrastructures such as, for example, fibre, wireless and cable.

1.3 Over the last two years, ComReg has undertaken an extensive analysis of the WPNIA market in accordance with the European Commission Recommendation. This has involved:

\begin{itemize}
  \item the definition of the WPNIA market;
  \item an analysis of competition within it to determine whether an operator has significant market power (SMP);
  \item the identification of potential competition problems that may arise;
  \item a consideration of regulatory options (along with their impacts); and
  \item the identification of proposed regulatory obligations to be imposed in order to prevent any abuse of SMP.
\end{itemize}

1.4 In carrying out the review of the WPNIA market, ComReg has consulted with industry and other stakeholders through the publication of the following consultation documents:

\footnotesize
\begin{enumerate}
  \item Market Analysis Wholesale Unbundled Access (including shared access) to metallic loops and sub loops. Designation of SMP and Decision on Obligations (ComReg Document No. 04/70, Decision No. D8/04).
\end{enumerate}
1.5 ComReg has also consulted with the European Commission and has taken the utmost account of the views it has expressed. ComReg has also consulted with the Competition Authority.

1.6 This document, “Market review: Wholesale Physical Network Infrastructure Access, Response to Consultation and Decision, ComReg Document No. 10/39” (the ‘Decision Document’), follows the publication of the abovementioned consultation papers and completes ComReg’s review of the WPNIA market. ComReg has summarised the key findings of its review below, with a more detailed analysis supporting the conclusions set out in this Decision Document.

**Retail Market Trends and Analysis**

1.7 The core focus of the market definition exercise is on the WPNIA market (i.e. the wholesale market), particularly given that the European Commission has already identified in its Recommendation that the WPNIA market is one which is susceptible to *ex ante* regulation. While ComReg is not required to conclude on the precise scope of the retail broadband market, it has carefully examined the dynamics of this market in order to inform its analysis of the WPNIA market.

1.8 ComReg has examined trends in the retail broadband market across the range of broadband platforms and has also considered demand side and supply side substitutability issues. Having considered a range of factors, ComReg’s view is that the retail broadband product market (if it were to define a retail broadband market for the purpose of this market review) would be likely to include broadband products provided over Digital Subscriber Line (DSL), cable, Fixed Wireless Access (FWA) and fibre networks.

1.9 ComReg considers that broadband products provided over mobile, satellite, leased line and narrowband platforms would be likely to fall within a different product market(s) than the retail broadband product market relevant for the purpose of this market review, due to perceived differences related to functional/technical product characteristics, pricing and other considerations.

1.10 ComReg also considers that the geographic scope of the retail broadband market is likely to be national, though in any case, ComReg considers it unnecessary to conclude on the precise geographic scope of this retail market for the purpose of this WPNIA analysis, as it is not required to do so under the regulatory framework.
WPNIA Market Definition

Product Market

1.11 At present, there is only one WPNIA product available on this wholesale market, namely, Local Loop Unbundling (LLU) provided by Eircom over its copper access network (and its associated facilities). There are a number of purchasers availing of these specific WPNIA services.

1.12 ComReg has considered the likely substitutability of potential wholesale physical access products that could be provided over alternative platforms (such as cable, FWA and fibre) and whether they should also fall within the same product market as copper based WPNIA. In doing so, amongst the issues considered by ComReg are demand and supply side substitutability considerations and whether the actual or potential presence of such wholesale physical access products on alternative networks would be sufficient to constrain a hypothetical monopolist (providing WPNIA on a ubiquitous copper network) from profitably sustaining price increases\(^3\) above the competitive level. ComReg has also considered whether competition in the downstream retail broadband market could act as a sufficient indirect constraint to render unprofitable a SSNIP by a hypothetical monopolist providing copper based WPNIA.

1.13 Apart from the copper based WPNIA product made available by Eircom, there are no other wholesale physical access products offered by alternative operators and, based on the information available to ComReg, this is unlikely to change within the short to medium term. ComReg also considers it unlikely that, in response to a SSNIP of copper based WPNIA by a hypothetical monopolist, a WPNIA purchaser would consider building new infrastructure as an alternative given, for example, the significant costs involved.

1.14 One of the issues that has arisen in the course of the analysis is whether wholesale physical access products provided over all fibre platforms/networks should be included within the WPNIA product market. ComReg has examined the issue from two perspectives. Firstly, ComReg has considered whether fibre upgrades by a supplier offering copper based WPNIA on a ubiquitous copper access network warrants inclusion within the WPNIA product market. ComReg is of the view that such fibre upgrades to the network (either in part or in whole) warrant inclusion in the WPNIA product market given that they are likely to be substitutable from a demand and/or supply side perspective.

1.15 Secondly, on the basis of evidence available, ComReg has considered whether dispersed and small scale fibre networks owned by alternative operators should be included within the WPNIA product market. ComReg notes that such networks are scattered around approximately 30 different geographic locations which pass around

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\(^3\) The Small but Significant Non-transitory Increase in Price ("SSNIP") test provides a conceptual framework within which to identify the existence of close demand substitutes. The SSNIP test examines whether, in response to a permanent price increase in the range of 5% to 10% by a hypothetical monopolist, sufficient customers would switch to readily available alternative substitute products such that it would render the price increase unprofitable. If the level of switching to alternative products is sufficient to render the price increase unprofitable (say because of the resulting loss of sales) then the alternative products are included in the relevant product market.
15,000 premises and that this position is not expected to materially change within the
next two to three years. Furthermore, the operators of such fibre networks have
indicated that they do not intend making a wholesale physical access product
available. Existing purchasers of copper based WPNIA services have also stated that
they would be unwilling to switch their consumption to small and geographically
separate fibre networks. From both the demand and supply side perspectives, the
provision of wholesale physical access on alternative fibre networks is, therefore,
unlikely and does not warrant inclusion in the WPNIA market. Notwithstanding, even
if such a wholesale physical access product were to become available and were to be
demanded, ComReg’s view is that the level of substitution that could occur would be
insufficient so as to render unprofitable a SSNIP of WPNIA offered by a hypothetical
monopolist on a ubiquitous copper/fibre access network. ComReg’s position is,
therefore, that such alternative fibre networks do not fall within the WPNIA product
market. ComReg intends to keep this matter under review in light of any developments
that may occur with respect to alternative operators’ fibre networks.

1.16 ComReg has also examined whether potential wholesale physical access products
provided over other platforms such as cable and Fixed Wireless Access networks
warrant inclusion in the WPNIA product market. However, given the lack of demand
and supply side substitutability and the weakness of indirect pricing constraints,
ComReg’s position is that potential wholesale physical access products provided over
these other platforms do not warrant inclusion. ComReg notes that the topology of the
cable broadband network is currently technically incapable (and this position is not
expected to change within the period of this review) of supporting a wholesale
physical access product (within a reasonable timeframe) that could be deemed to be an
effective substitute for copper based WPNIA. Specifically, individual coaxial cable
lines cannot be physically unbundled because the access element of the network is
shared. This view is shared by the European Commission.

1.17 ComReg has, therefore, concluded that the WPNIA product market is comprised of

- Wholesale physical network infrastructure access products provided over current
generation copper network infrastructure and its associated facilities at a fixed
location.

- Wholesale physical network infrastructure access products provided over next
generation fibre network infrastructure and its associated facilities at a fixed
location.

- Self-supplied physical network infrastructure access is included in the WPNIA
market only if certain conditions are satisfied. Based on the analysis set out in
section 4, the self provision of network access by Eircom falls within the WPNIA
product market.

**Geographic Market**

1.18 ComReg has examined pricing and other trends in the WPNIA market. ComReg has
found no material evidence of different pricing constraints between urban and rural
areas in the WPNIA market. In the absence of direct competition in the WPNIA
market and in the interest of executing a thorough analysis, ComReg re-examined
retail pricing across Ireland and found that retail broadband prices do not vary
according to location. ComReg considers that the national pricing strategy employed
across the industry at a retail level suggests that a national WPNIA market exists.
1.19 ComReg notes that there exists some variance in the degree of competition observed at the retail level between different parts of Ireland, such as in certain areas where retail broadband products are available on cable and fixed wireless networks. However, ComReg remains of the view that this variance cannot be observed in the upstream WPNIA market. Access seekers remain limited to a single provider of WPNIA (presently LLU products provided by Eircom) in urban and in rural areas alike.

1.20 Accordingly, ComReg considers that the conditions of competition in the upstream WPNIA market are sufficiently similar across Ireland to warrant the definition of a single nationwide market. The WPNIA geographic market is, therefore, national in scope.

**Competition Analysis and SMP**

1.21 ComReg has assessed market power within the WPNIA market in line with the criteria set out by the European Commission in its SMP Guidelines\(^4\). In doing so, ComReg has examined both the extent of existing and potential competition in the WPNIA market, as well as indirect pricing constraints. In summary, ComReg’s assessment is that:

- There are no alternative WPNIA suppliers and thus Eircom, being the only operator providing WPNIA (through both self-supply and merchant market supply in light of current regulatory obligations), has a market share of 100%. This is not likely to change within the lifetime of this review.
- Eircom controls WPNIA infrastructure that is not easily duplicated.
- The WPNIA market is characterised by economies of scale, scope and density.
- High and non-transitory barriers (primarily related to the sunk costs involved in duplicating Eircom’s access network, and economies of scale and scope) to entry and expansion exist in the WPNIA market.
- Potential competition is not likely to constrain Eircom in the WPNIA market.
- Countervailing buyer power is negligible.
- As a vertically integrated operator, Eircom is in strong position to leverage market power between the WPNIA market and the retail broadband market.
- Competition in the retail market is not likely to be sufficiently strong to constrain the behaviour of the incumbent in the WPNIA market within the lifetime of this review.

1.22 A range of other criteria have also been examined but are considered to be less relevant in the context of this particular WPNIA market.

1.23 ComReg has concluded, therefore, that the WPNIA market is not effectively competitive, and is unlikely to become effectively competitive within the timeframe of this market review. ComReg’s position is that Eircom has SMP in the market for

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\(^4\) Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, OJ C 165, 11 July 2002, pg. 6 (“the SMP Guidelines”).
Wholesale Physical Network Infrastructure Access and is, therefore, imposing a number of specific and proportionate regulatory obligations on Eircom.

**Remedies**

1.24 ComReg is obliged to impose on an undertaking designated with SMP such specific obligations as it considers appropriate. ComReg has differentiated its approach in imposing remedies on Eircom in relation to next generation WPNIA (fibre infrastructure and associated facilities) and current generation WPNIA (copper infrastructure and associated facilities). A detailed Decision Instrument which imposes remedies on Eircom is set out at Appendix C (‘Decision Instrument’).

**Next Generation (NG) WPNIA Remedies**

1.25 ComReg expects the conditions of competition in the WPNIA market to remain unchanged (i.e. Eircom’s position of significant market power will prevail) in instances where Eircom overlays or replicates its existing copper access network with fibre infrastructure and associated next generation facilities. ComReg’s position is that the deployment of next generation infrastructure on the incumbent’s network should not (as the consequence of a technology specific access obligation) allow for the restoration of monopoly/bottleneck conditions over the access network. To ensure that this objective is met, the imposition of next generation WPNIA remedies is necessary to safeguard the development of competition.

1.26 ComReg’s approach to next generation WPNIA remedies is to be specific in terms of the principles of the obligations that will apply, but not specific in terms of the detailed manner within which these obligations will be further implemented. The reason for this approach is that the nature and timing of next generation WPNIA developments is uncertain. This flexible approach also provides an opportunity for the market, in the first instance, to decide upon the specific type and nature of next generation WPNIA to be supplied. ComReg plans to consult on the detailed specification and further implementation of next generation WPNIA remedies. However, ComReg’s intention is to ensure that the manner in which Eircom rolls out its next generation infrastructure facilitates (and does not inhibit) the development of effective competition.

1.27 While noting the above, Eircom is obliged to comply with the following obligations with respect to the provision of NG WPNIA products and services:

- an obligation to meet reasonable requests for access to, and use of, specific WPNIA network elements and associated facilities.
- an obligation to negotiate in good faith with OAOs requesting access.
- transparency obligations, including the requirement to make publicly available, on a quarterly basis or such other suitably regular basis as may be specified by ComReg, information regarding the introduction of new infrastructures, technologies, services or facilities which could reasonably be expected to support services or facilities in respect of Next Generation WPNIA.
- non-discrimination obligations.
- price control and cost accounting obligations.
- obligations concerning accounting separation.

1.28 The above obligations are set out in section 13 to 18 of the Decision Instrument at Appendix C.
Current Generation WPNIA Remedies

1.29 ComReg has been specific with respect to the detailed imposition of remedies to current generation (copper) based WPNIA. In establishing the specific nature of remedies to be imposed, ComReg has been guided by experience in the market, in particular, by the types of competition problem which have arisen as well as competition problems which could potentially arise. ComReg also notes that many of the obligations are an extension of those remedies with which Eircom was already obliged to comply following the last review of the Wholesale Unbundled Access market (now the WPNIA market) in 2004.

1.30 The following is a summary of current generation WPNIA remedies imposed upon Eircom.

Access Obligations

1.31 Eircom is obliged to meet reasonable requests for access to current generation WPNIA, including associated facilities such as backhaul and migrations. Eircom must negotiate in good faith with undertakings requesting access and, where access is provided, it must be in a fair, reasonable and timely manner. Where a request for provision of access or information is refused (or met only in part), Eircom must provide the objective criteria for the refusal to the OAO which made the request.

1.32 ComReg had examined the possibility of mandating the provision of access to a specific backhaul product, but has decided not to proceed with this measure at this time. The publication of the recent Leased Line Decision provides that wholesale leased line products can be used for LLU backhaul. In view of these developments and, where backhaul is provided as a wholesale terminating segment of a leased line, then the regulatory obligations imposed on that market will apply. Requests for forms of backhaul to support WPNIA other than those required under the Leased Line Decision would, therefore, be dealt with on a case by case basis, under the WPNIA market, subject always to such requests for access being reasonable.

1.33 Eircom is also obliged not to withdraw access to services and facilities already granted, without the prior approval of ComReg. ComReg has not mandated a specific timeframe for the prior notification of any intended withdrawal of access. However, it has signalled that a timeframe of 5 years is reasonable but acknowledges that there may be circumstances within which a shorter timeframe may be appropriate. Each occasion will, therefore, be considered on a case by case basis.

1.34 Amongst the other access obligations with which Eircom is obliged to comply are:

- an obligation to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services; and
- an obligation to provide access to Operational Support Systems or similar software systems necessary to ensure fair competition in the provision of services.

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• an obligation to conclude, maintain or update, as appropriate, legally binding Service Level Agreements which include provision for associated Performance Metrics\(^6\) with OAOs;
• obligations associated with the payment of service credits due under its SLA.

1.35 The access obligations are set out in detail in section 7 and 8 of the Decision Instrument at Appendix C.

**Non-discrimination Obligations**

1.36 ComReg has imposed an obligation of non-discrimination on Eircom which requires it to

• apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
• ensure that all services and information are provided to other undertakings under the same conditions and of the same quality as the services and information that Eircom provides for its own services or those of its subsidiaries or partners.

1.37 In order that Access Seekers may be in the same position as Eircom’s retail or downstream division, Eircom shall provide Access Seekers with information and services in relation to such WPNIA. Access provided to Operational Support Systems and information must also be of the same standard and quality as that which Eircom provides to itself.

1.38 Non-discrimination obligations are set out in detail in section 9 of the Decision Instrument.

**Transparency Obligations**

1.39 As part of its transparency obligations, Eircom is required to publish (and keep updated) an Access Reference Offer (ARO) which must set out a description of the relevant WPNIA offerings broken down into components according to market needs, along with a description of the associated terms and conditions, including prices. The ARO must be sufficiently unbundled so as to ensure that OAOs are not required to pay for services or facilities which are not necessary for the service or facility requested.

1.40 Unless otherwise agreed by ComReg, Eircom is also required to provide, on its website, at least two months advance notification of any proposed changes to the ARO and associated wholesale prices. Eircom must notify ComReg at least one month in advance of any such publication taking place.

1.41 Eircom is also required to make information available on its wholesale website, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of WPNIA services and facilities.

1.42 ComReg has further considered whether to impose the obligation that Eircom should be obliged to develop and publish an Internal Reference Offer (IRO). The rationale for an IRO was discussed in terms of ensuring that eircom demonstrates that it is meeting

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\(^6\) Performance Metrics are the aggregate performance levels actually achieved by Eircom Limited within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its Service Level Agreements.
its access obligations in a manner which is fair, reasonable and timely, and in accordance with its non-discrimination and transparency obligations.

1.43 While Eircom’s self-supply of WPNIA services is considered to fall within the WPNIA market definition, ComReg recognises that Eircom, as a vertically integrated operator, does not ‘purchase’ WPNIA in the same manner in which it is provided to OAOs. However, such differences should not result in OAOs experiencing different outcomes in terms of, for example, the WPNIA services and facilities offered or the quality of service experienced. In light of a respondents’ comments, in particular, the perception that this requirement would be tantamount to functional separation (which ComReg does not accept), and having regard to the objective behind the proposed obligation, ComReg has clarified the way in which this obligation is being imposed. As more fully described under Eircom’s transparency obligations set out in section 10 of the Decision Instrument, Eircom is required as follows:

- Within four months of the effective date of the Decision Instrument, Eircom shall make publicly available, sufficient information to identify and justify any differences between the services and facilities set out in the ARO and the comparable services and facilities which Eircom provides to itself. This is to be kept updated by Eircom as new services or facilities are developed and deployed or existing services or facilities are amended.

- Where Eircom offers WPNIA to its retail or downstream division, it shall provide information regarding such WPNIA on its wholesale website, in sufficient time prior to the retail service or facility, which relies on that WPNIA, being made available on the downstream market.

1.44 It is also a condition of Eircom’s transparency obligations that it will publish:

- Key Performance Indicators (KPIs), the specification and content of which will be subject to further consultation by ComReg.

- all SLAs (and any updates thereto) on a publicly available website.

- information about Performance Metrics on a publicly available website.

1.45 Transparency obligations are set out in detail in section 10 of the Decision Instrument.

**Accounting Separation Obligations**

1.46 Eircom is required to maintain separated accounts and is to comply with all obligations currently in force pending any further decision to be made by ComReg in response to a separate consultation process, namely, Consultation Document No.09/75, Accounting Separation and Cost Accounting Review – Draft Accounting Direction to Eircom Limited.

1.47 Accounting separation obligations are set out in section 11 of the Decision Instrument.

**Price Control and Cost Accounting Obligations**

1.48 Eircom is required to comply with all of the obligations in relation to cost accounting in force immediately prior to the effective date of the Decision Instrument, until any amendment by ComReg. It is required to maintain appropriate cost accounting systems in respect of WPNIA products, services or facilities.

1.49 Prices charged by Eircom to any other undertaking for access to or use of WPNIA products, services or facilities shall be subject to a cost orientation obligation.
1.50 Eircom is also required not to cause a margin/price squeeze.

1.51 Price control and cost accounting obligations are set out in detail in section 12 of the Decision Instrument.

**Conclusion on Remedies**

1.52 The regulatory obligations or 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\(^7\) and under the Access Regulations\(^8\). The various relevant Ministerial Policy Directions were complied with\(^9\). The remedies aim to proportionately address competition problems, to protect consumers against the exercise of market power and to promote competition. ComReg has also carried out a Regulatory Impact Assessment of the likely effects of the amended and new remedies.

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\(^7\) The Communications Regulation Act, 2002, No. 20 of 2002, as amended by the Communications Regulation (Amendment) Act, 2007 No. 22 of 2007 (“the Communications Regulation Act 2002”).

\(^8\) European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003 (S.I. No. 305 of 2003), as amended by European Communities (Electronic Communications Networks and Services) (Access) (Amendment) Regulations 2007 (S.I. No. 373/2007) (“the Access Regulations”).

2 Introduction

2.1 This decision document (“Decision Document”) relates to the market review undertaken by ComReg in relation to the wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location (“WPNIA”).

2.2 The Decision contains three elements:

- Firstly, it sets out ComReg’s reasoned analysis of the market, assessment of significant market power (“SMP”) and analysis of the appropriate remedies.
- Secondly, as part of the first element, it sets out ComReg’s position in relation to responses to consultation documents to the extent that this has not been addressed in other relevant ComReg Documents.
- Thirdly, it contains ComReg’s Decision Instrument made by ComReg in relation to the WNPIA market, which designates Eircom as having SMP in this market and imposes obligations on it in this regard.

2.3 The market review has been undertaken by ComReg in accordance with the Recommendation of the European Commission that National Regulatory Authorities (NRAs) should, in defining relevant markets appropriate to national circumstances, in accordance with Article 15(3) of the Framework Directive, analyse markets identified in the Recommendation, including market 4 - wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location. The European Commission has, applying three cumulative criteria, identified the WPNIA market as one in which ex ante regulation may be warranted given: (a) the presence of high and non-transitory barriers to entry; (b) the structure of the market does not tend towards effective competition within the relevant time horizon; and (c) application of competition law alone would not adequately address the market failure(s) concerned.

2.4 As is clear from the language used by the European Commission in the Recommendation, the WPNIA market allows for the inclusion of non-metallic elements of the physical network infrastructure (such as fibre or duct access) in the market. It is thus broader than the preceding wholesale unbundled access (WUA) market, which is limited to access to metallic loops and sub-loops. ComReg reviewed the WUA market in 2004, found that Eircom had SMP in that market and imposed a suite of remedies including transparency, non-discrimination, accounting separation, access, price control and cost accounting.

2.5 The WPNIA market is concerned with a physical wholesale input used in the provision of a range of retail products which are used by consumers to access the internet, voice telephony services and, potentially, television and other services over a
physical network. The focus of this review is on WPNIA as an upstream input to retail broadband access to internet and related data services. Competition in the retail broadband market plays an important role in enhancing product characteristics (such as speeds), prices and availability of retail broadband products. Competition in the retail market depends on the ability of Internet Service Providers (ISPs) to secure an access/transmission path to consumers. ComReg therefore considers that competition in the wholesale physical network infrastructure access market will assist in driving the development and growth of the retail broadband market.

2.6 The structure of this paper reflects the market analysis approach recommended by the European Commission in its SMP Guidelines, which involves defining a market, and then analysing competition within that market to determine whether an operator has significant market power (SMP). If an operator is found to have SMP, then likely competition problems are identified and regulatory options (along with their impacts) are considered. Finally, regulatory obligations are imposed on the SMP operator in order to prevent it from behaving in a manner which would inhibit the development of competition.

2.7 This Decision Document has been preceded by several preliminary steps, including the publication of three separate consultation papers, which are identified below. This Decision Document does not attempt to respond to all of the arguments submitted by operators throughout the process, since comments previously submitted to ComReg have been analysed in the preceding consultation papers. Rather, it addresses only those points raised in recent submissions that have not yet been addressed. The Decision Document does, however, set out ComReg’s final position on each of the matters considered within this market review exercise, in some cases referring back to previous consultation documents which detail ComReg’s reasoning.

2.8 ComReg is required under the Framework Regulations\(^{13}\) to take utmost account of the Recommendation and of the SMP Guidelines.

**Background to WPNIA market review**

2.9 ComReg published its first-round Decision on the market for Wholesale Unbundled Access (including shared access) to metallic loops and sub-loops (“WUA”) on 15 June 2004 (ComReg Document No. 04/70). This found that Eircom had SMP in this market and, as a consequence, ComReg imposed on Eircom a suite of remedies including transparency, non-discrimination, accounting separation, access, price control and cost accounting.

2.10 ComReg decided to launch a second-round review of the WUA market in October 2007. Following the publication of the European Commission’s Recommendation in December 2007 (which replaced the WUA market defined in the 2003 European Commission Recommendation on markets susceptible to ex ante regulation with the WPNIA market) ComReg commenced its consultation process regarding its analysis of the now renamed WPNIA market. To this end, ComReg published an initial

\(^{13}\) European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003 (S.I. No. 307 of 2003), as amended by European Communities (Electronic Communications Networks and Services) (Framework) (Amendment) Regulations 2007 (S.I. No. 271/2007) (“the Framework Regulations”).
consultation on 11 June 2008 (ComReg Document No. 08/41)\(^{14}\), and received a number of responses (Allen Technologies, BT Communications Ireland Limited, Colt Telecom Ireland, Eircom Limited, Imagine Communications Group, Magnet Networks, Meteor Mobile Communications Limited, Smart Telecom Holdings Limited, 3PlayPlus and Vodafone Ireland). Having considered those responses, ComReg subsequently published a ‘Response to Consultation’ paper on 23 December 2008 (ComReg Document No. 08/104)\(^{15}\).

2.11 A Draft Decision Instrument was published as an Appendix to ComReg Document No. 08/104, which set out the key preliminary findings of the market review, and set out the specific legally-binding regulatory obligations that ComReg proposed to impose on the operator which it proposed to designate as having SMP. ComReg also made the draft measure accessible to the European Commission and the other national regulatory authorities, as it is legally required to do pursuant to Regulation 20 of the Framework Regulations.

2.12 In response to the publication of ComReg Document No. 08/104, ComReg received a number of responses from industry operators (BT Communications Ireland Limited, Eircom Limited, Smart Telecom Holdings Limited, Sky, Tesco Ireland Limited, and Vodafone Ireland).

2.13 In response to the ComReg notification to the European Commission, the European Commission invited ComReg to consider including all access products based on fibre networks, irrespective of ownership of such networks, within the relevant market in its final measure. However, the European Commission noted that the effect in respect of the SMP finding and the remedies would be the same in any event.

2.14 On 13 May 2009, ComReg issued a consultation paper (ComReg Document No. 09/42)\(^{16}\), which considered the European Commission’s invitation to ComReg to include all access products based on fibre networks within the relevant market. In response to the publication of ComReg Document No. 09/42, ComReg received a number of responses from industry operators (BT Communications Ireland Limited, Eircom Limited, Magnet Networks, Smart Telecom Holdings Limited and Vodafone Ireland).

2.15 The positions set out in this Decision Document, including the Decision Instrument, reflect ComReg’s analysis of responses to ComReg Document No. 08/104 and ComReg Document No. 09/42. The analysis has also involved:

- Considering European Commission comments on other NRA analyses of recommended markets;

\(^{14}\) Market Analysis, Wholesale Unbundled Access. Consultation, ComReg Document No. 08/41 ("ComReg Document No. 08/41").

\(^{15}\) Market review, Wholesale physical network infrastructure access (Market 4). Response to ComReg Document 08/41 and Draft Decision, ComReg Document No. 08/104 ("ComReg Document No. 08/104").

\(^{16}\) Wholesale Physical Network Infrastructure Access (WPNIA) Market Review–Market Definition. Consultation on European Commission invitation for ComReg to include alternative fibre networks in the WPNIA market. ComReg Document No. 09/42 ("ComReg Document No. 09/42").
Carrying out further investigation of specific issues raised in response to ComReg’s consultations, including meetings with operators and the issuing of data directions requiring the provision of information to ComReg; and

Reviewing publicly available information and analysis that is relevant and useful.

2.16 Apart from the above, it should be noted that ComReg, prior to the issue of ComReg Document No. 08/104\textsuperscript{17}, consulted with the Competition Authority in relation to its preliminary findings on the WPNIA market, further to Regulation 27(1) of the Framework Regulations.

\textsuperscript{17} See, for example, paragraphs 3.19, 5.4 and 5.71 of ComReg Document No. 08/104.
3 Retail Trends and Analysis

Relationship between retail markets and the WPNIA market

3.1 WPNIA can be used as an input to facilitate the provision of a range of retail products and ComReg’s key interest in analysing the WPNIA market is to ensure that there is effective competition in the provision of retail broadband services to consumers. The WPNIA and the retail broadband markets, while separate, are linked, since demand for WPNIA is ultimately derived from demand for downstream retail products such as retail broadband. Therefore, in order to understand and assess competition in the WPNIA market, it is useful for ComReg to understand the workings of competitive conditions (or lack of such conditions) in the provision of retail broadband.

3.2 In this context, ComReg has reviewed and analysed trends in the retail broadband market.18

Trends in the retail broadband market

ComReg’s preliminary view

3.3 In ComReg Document No. 08/104, ComReg analysed trends in the provision of retail broadband services19.

3.4 ComReg observed in ComReg Document No. 08/104 that, in the third quarter of 2008, Eircom Limited’s (Eircom’s) retail DSL products accounted for approximately 39%20 of all retail broadband subscriptions21. ComReg’s analysis showed that while Eircom’s DSL subscriber base continued to grow, its overall share of retail broadband subscriptions had been steadily declining over the previous two years. This was the result of growing subscriber numbers on other broadband platforms and, in particular, mobile and cable broadband.22

Views of respondents

3.5 Only one operator commented in relation to ComReg’s observations on retail internet trends. That operator argued that the statistics presented by ComReg in the ‘Review of Retail Internet Trends’ section of ComReg Document No. 08/10423 showed a dramatic

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18 Since the retail market is not considered to be susceptible to ex ante regulation, ComReg is not required to carry out a formal market analysis of this market. However, ComReg carries out a characterisation of the retail market to inform the subsequent analysis and definition of the WPNIA market.

19 Please see ComReg Document No.08/104 from paragraph 4.27 for ComReg’s assessment of retail internet trends.

20 See paragraph 4.28 of ComReg Document No. 08/104.

21 For the purpose of this calculation, retail broadband subscriptions include all broadband services provided over cable, copper (typically DSL), fibre, Fixed Wireless Access (FWA), mobile broadband and satellite technology platforms, irrespective of whether the products can be considered to be substitutes in market analysis terms. As at Q4 2008, the total number of retail broadband subscriptions over the aforementioned platforms was 1,443,335.

22 Note that it is ComReg’s view that subscriptions on a mobile network are likely to be associated with individuals, whereas subscriptions on a fixed network are more likely to be associated with households.

23 See paragraphs 4.27 – 4.46 of ComReg Document No. 08/104.
shift away from fixed broadband and Fixed Wireless Access (FWA) towards 3G (mobile) broadband.

**ComReg’s position**

3.6 Since the publication of ComReg Document No. 08/104, ComReg has undertaken further analysis of trends in the retail broadband market. ComReg’s subsequent analysis (having regard, amongst other things, to the data presented in ComReg’s Quarterly Key Data Reports 09/17\(^{24}\), 09/50\(^{25}\), 09/71\(^{26}\), 09/101\(^{27}\) and 10/19\(^{28}\) indicates that DSL broadband, cable broadband and mobile broadband subscriptions have all continued to grow, while subscriptions to FWA and satellite broadband services have declined. Subscriptions to fibre based broadband services are low, but have remained relatively constant over the period.

3.7 Figure 1 below presents an overview of the growth (or otherwise) of retail broadband subscriptions by platform over the period Q4 2007 to Q4 2009.

*Figure 1: Retail Broadband Subscriptions by Platform*

![Figure 1: Retail Broadband Subscriptions by Platform](image)

Source: Quarterly Key Data Reports

3.8 Growth in retail broadband subscriptions for the 12 months to December 2009 was just over 20%. DSL, mobile and cable broadband account for the largest platforms

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\(^{24}\) Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q4 2008, Document 09/17, 19 March 2009.

\(^{25}\) Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q1 2009, Document 09/50, 17 June 2009.

\(^{26}\) Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q2 2009, Document 09/71, 10 September 2009.

\(^{27}\) Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q3 2009, Document 09/101, 21 December 2009.

\(^{28}\) Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q4 2009, Document 10/19, 18 March 2010.
with subscriptions standing at 714,016, 466,969 and 150,910 respectively. During this 12 month period, mobile, DSL and cable subscribers grew by 158,060, 53,991 and 46,880 respectively.

3.9 In summary, ComReg has observed continued overall growth in broadband subscriptions over DSL, mobile and cable platforms in the twelve months to the end of December 2009.

**Analysis of Retail Broadband Market**

3.10 Having considered general retail broadband trends, ComReg then refines its analysis to consider the likely scope of the retail broadband market. It is important when assessing the WPNIA market to understand demand and supply-side substitutability in the retail broadband market. This is because demand side substitutability in the WPNIA market is likely to be indirectly dependent on the willingness of consumers to substitute products in the retail market. In a practical sense if, hypothetically, consumers would not consider switching from a retail broadband product based on one technology platform (for example, DSL) to a broadband product provided over a different technology platform (for example, cable or mobile), then equally so, at the wholesale level an operator purchasing LLU as an input to its retail offering is unlikely to view an alternative technology platform such as cable as an effective demand side substitute.

3.11 While wholesale demand is largely derived from retail demand, a finding of substitutability at the retail level between different technological platforms does not automatically imply effective wholesale substitution across those platforms, i.e. the retail and wholesale markets may not map onto each other exactly. Notwithstanding, an analysis of the competitive dynamics of the retail market is essential as a means of understanding the dynamics of the wholesale market.

3.12 Additionally, competition in the retail market might, in some cases, limit the exercise of market power held by a SMP operator in the WPNIA market by posing an indirect constraint. For example, an attempt to exert market power in the WPNIA market may be thwarted by customers switching at the retail level to a different technology platform.

**ComReg’s preliminary view**

3.13 In ComReg Document No. 08/104, ComReg presented its preliminary view that retail broadband products offered over alternative forms of fixed network (such as cable, FWA and fibre) are sufficiently similar to DSL based retail products, such that customers would be able, and likely, to switch between products on alternative fixed platforms (where available) given a small but significant increase in price. ComReg’s preliminary view was that all retail fixed broadband access provided over DSL, fibre, FWA and cable platforms are likely to belong in the same retail market.

3.14 ComReg considered that narrowband internet access, mobile broadband, satellite broadband or leased line broadband would not fall within the same retail market as

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29 This followed ComReg’s analysis of responses to its initial WPNIA consultation document, ComReg Document No. 08/41.
products provided over the fixed platforms identified above (notwithstanding the observed rate of mobile broadband adoption in Ireland).

3.15 ComReg proposed that retail broadband pricing across Ireland is uniform, and that as such there is no clear evidence of sub-national retail broadband markets existing. ComReg also noted that it is not required to conclude on the precise scope of the retail broadband market, since the core focus of this market review is the WPNIA market. In any case, ComReg’s preliminary view was that the retail broadband market would be national in scope.

**Overview of responses and analysis**

3.16 All of the respondents save for one agreed with ComReg’s preliminary view on the retail market definition. The respondent that disagreed submitted its view that there is healthy infrastructure-based competition underlying the provision of broadband services in Ireland and a vibrant retail market which has little, if anything, to do with the existence or extent of Local Loop Unbundling. In particular, that respondent disagreed with ComReg’s preliminary view that mobile broadband does not fall within the same market as retail fixed broadband. Each of the arguments put forward by that respondent are paraphrased and considered in sections 3.23 to 3.102 below.

3.17 The same respondent also stated that ComReg’s analysis should distinguish between urban and rural areas. It is not necessary for ComReg to conclude on the precise geographic scope of the retail market, because this analysis is intended only to inform the analysis of the wholesale market. Nonetheless, ComReg has engaged in a comprehensive analysis of the product and geographic characteristics of retail broadband provisioning in Ireland. ComReg paraphrases and addresses the respondent’s comments in that part of section 4 below which deals with the geographic scope of the WPNIA market. This respondent was the only party that commented on the scope of the retail broadband geographic market. Other respondents broadly agreed with ComReg’s proposed analysis of the retail market.

3.18 This section summarises and analyses respondents’ views on the retail broadband market in detail and sets out ComReg’s view in respect of those matters. In so doing, ComReg addresses the following issues:

- Substitutability between fixed and mobile broadband – addressed in paragraphs 3.19 to 3.50 below.
- Whether the awarding of the National Broadband Scheme (NBS) contract to a mobile operator suggests that mobile broadband is a substitute for fixed broadband – addressed in paragraphs 3.51 to 3.57 below.

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30 In accordance with the Explanatory Memorandum to the Recommendation (see part 4), ComReg carries out a characterisation of the retail market in order to inform its analysis and definition of the WPNIA market.

31 Note that Local Loop Unbundling is a wholesale product provided by Eircom Limited pursuant to its existing obligations in the Wholesale Unbundled Access market.

32 See paragraphs 4.116 to 4.130 of this Decision Document.
• Whether the economic recession will further enhance the extent to which mobile broadband is considered a substitute for fixed broadband - addressed in paragraphs 3.58 to 3.62 below.

• The significance of differences in functional and technical characteristics between mobile and fixed broadband platforms - addressed in paragraphs 3.63 to 3.77 below.

• The implication of the fact that fixed broadband products are targeted at multi-user households whilst mobile broadband is aimed at individuals – addressed in paragraphs 3.78 to 3.88 below.

• The implications of the movement of fixed operators into the mobile broadband sector – addressed in paragraphs 3.89 to 3.95 below.

• The implications of industry research into fixed to mobile substitutability – addressed in paragraphs 3.96 to 3.101 below.

• The geographic scope of the retail market – addressed in paragraphs 3.106 to 3.107 below.

**Substitutability between fixed and mobile broadband**

**Views of the respondent**

3.19 The respondent that disagreed with ComReg’s view submitted that ComReg has dismissed pervasive evidence of substitutability between fixed and mobile broadband, in order to avoid concluding that a reduction in the regulation of wholesale fixed broadband markets (if not total deregulation) is now justified.

3.20 The respondent asserts that the comparability of prices for fixed and mobile services is material evidence of substitutability. The respondent argues that the product pricing changes made by Eircom (particularly to the 3MB and 7MB broadband products) during the second half of 2008 were made in direct response to competitive pressures being exerted by mobile broadband providers.

3.21 The respondent considers that ComReg should focus its substitutability analysis on a comparison of the relative growth of ‘net new additions’ by platform rather than overall platform-by-platform growth in subscribers. It noted that ‘net new additions’ figures for DSL have fallen considerably since the launch of mobile broadband products in the Irish market. The respondent noted that:

“In little over a year, mobile broadband customers have increased from accounting for just over 6% of the total market to over 24% of the total market (a fourfold increase in market share) and now account for over 53% of all new connections during the period. In contrast, DSL market share has fallen from 69% to 57% (a reduction of 12 percentage points), and its share of new connections during the period was just 37%. By any reckoning, these statistics show a dramatic shift away from fixed broadband to 3G-based broadband. It is also notable that during this period, FWA subscriptions lost 4 percentage points of market share (compared to 12 points for DSL). Inexplicably, however, ComReg (at 4.119) [of ComReg Document No. 08/104] is prepared to accept that there may be substitution between FWA and mobile, but not between DSL and mobile.”

3.22 According to the respondent, this trend suggests that mobile broadband is considered a substitute for DSL broadband.
**ComReg’s response**

3.23 ComReg disagrees with the assertion that there is pervasive evidence of fixed-mobile substitutability occurring in the market. The respondent who raised this issue has not provided evidence of such substitutability other than its view that it is accounted for by a fall in the growth rate of DSL based broadband in comparison to an increase in the growth rates of mobile broadband. ComReg notes that comments and data received from respondents throughout the conduct of this exercise (including from some mobile operators) do not support this assertion. ComReg also considers that the growth of mobile broadband does not, in itself, imply a significant degree of demand-side substitutability between fixed and mobile broadband. It is also important to note that DSL (along with cable) has continued to grow alongside mobile broadband, as was highlighted by Eircom in its recently published Annual Report for 2009.

3.24 ComReg’s view that mobile broadband is not an effective substitute for fixed broadband is also consistent with the public comments expressed by Eircom, the principal DSL provider in the State, where it stated:

“We [Eircom] don’t actually have any direct evidence of customers switching from DSL to mobile broadband....... what we are seeing is customers who previously did not have DSL, but who own laptops, having mobile broadband and some customers who have laptops but also prefer to use a fixed connection at home actually having both fixed and mobile broadband together. So it’s really very difficult to determine that particular impact. Clearly, mobile broadband is actually trading at something of a discount in certain promotional areas to fixed. And, in areas where there is 3G coverage but no DSL available, that is a natural choice for customers. The critical thing for us [Eircom] is that we are able to offer the full suite of services to customers which, since the launch of our mobile broadband product through Meteor and now Eircom, we’re in a position to do.”

3.25 These comments suggest that, on the whole, Eircom views mobile broadband as a complementary technology to fixed broadband, whilst also acknowledging that mobile broadband is a ‘natural choice’ for certain types of customers (who didn’t previously use or have the ability to access DSL broadband). This statement also appears to

33 Vodafone expressed the view that mobile broadband is complementary to fixed broadband. Three Ireland and O2 have indicated that mobile broadband is a substitute for lower/entry level bandwidth fixed broadband products. Meteor expressed the view that mobile broadband and fixed broadband are substitutable products. See further discussion in paragraph 3.27 which discusses an analysis of data presented by a range of operators regarding customer switching behaviour.

34 A similar assessment was undertaken by ComReg (and other NRAs) in the case of substitutability between retail fixed calls and retail mobile calls. Decision notice and Decision instrument – Retail fixed calls market review, ComReg Decision number 07/111, 28 December 2007 upheld ComReg’s previous view (set out in ComReg Document 06/51) that retail mobile calls fall in a separate market to fixed retail calls because of differences in quality, price, and functionality between fixed and mobile calls.

35 Eircom investor relations conference call by Eircom’s senior management to interested parties on 27 August 2009. The file is available at [http://media.eircom.net/ir/confcall_aug.wma](http://media.eircom.net/ir/confcall_aug.wma). The comment was made 36mins 32 seconds into the call by Paul Donovan, CEO of Eircom Limited, in responding to a specific question relating to substitutability between mobile broadband and fixed broadband.
support the rationale for Eircom’s launch, through its wholly owned subsidiary Meteor Mobile Communications Limited (Meteor), of a mobile broadband product alongside Eircom’s already existing fixed broadband products. Indeed, ComReg also notes that Eircom, in addition to its provision through Meteor, also offers its own branded mobile broadband product, namely ‘Eircom Mobile’\textsuperscript{36}, to its customers.

3.26 ComReg considers that the growth of mobile broadband is characteristic of a product at the beginning of its lifecycle, rather than an indicator of substitutability between fixed and mobile broadband. This view is consistent with the S-curve theory of diffusion that is used for forecasting sales of innovative products that are purchased infrequently.\textsuperscript{37} An S-curve pattern implies that new product sales initially grow at a rapid rate, then the rate of growth tapers off, and finally declines with time. Mobile broadband was introduced as an innovative product that encompassed a unique combination of functions and characteristics that were previously not available in Ireland, in particular, providing the ability to utilise broadband reliant applications while on the move. Thus, fast growth ensued as previously untapped demand for the product was met (initially ‘innovators’, then early adopters, and so forth). The theory predicts that demand will taper off over time as demand reaches saturation point. Similar theories have been espoused in relation to the growth of mobile telephony, where sales reduce once the market matures and draws nearer to saturation.\textsuperscript{38} In any case, since growth continues to occur in fixed and mobile subscriptions in Ireland, the rate of growth of mobile, in itself, is not evidence of substitutability between fixed and mobile broadband.

3.27 ComReg also acknowledges that in particular circumstances, there may be some consumers who would substitute mobile broadband for fixed broadband. ComReg has undertaken additional research and sought further information/evidence from industry participants in order to determine the extent to which this may occur. In doing so ComReg sought details of any available qualitative (attitudinal surveys) or quantitative (evidence based on analysis of actual switching data). A number of respondents did not have any data or only had data of an anecdotal nature or based on very limited customer sample sizes. Having analysed the data which was provided, it showed overall that the majority of customers switching from fixed DSL service providers, moved to other fixed broadband platforms (including DSL), with a smaller proportion moving to mobile broadband platforms. The evidence presented also indicates that only a minority of customers cancelled their fixed broadband connections in favour of mobile broadband connections. ComReg is, therefore, of the view that evidence presented by industry does not support the respondent’s assertion in relation to substitutability between fixed and mobile broadband.

\footnotesize{\textsuperscript{36} See www.eircom.ie


\textsuperscript{38} Eva-Maria Cronrath and Alexander Zock, Forecasting the Diffusion of Innovations by Analogies: Examples of the Mobile Telecommunications Market. The paper is available online at: http://www.systemdynamics.org/conferences/2007/proceed/papers/CRONR444.pdf}
3.28 This view is supported\(^{39}\) by recent research\(^{40}\) conducted by ComReg, which found that of those consumers using mobile broadband, 18% stated that it was a substitute for a previous fixed broadband connection, while 62% said it was not a substitute. Of the 18% who viewed it as a substitute, over one third (36%) said they used mobile broadband because it was cheaper than other forms of broadband. The research also asked those who had previously (but no longer) subscribed to mobile broadband products why they no longer subscribed. The main reasons cited were poor coverage and slow speed of mobile broadband products.

3.29 The same survey also highlights that there is a relatively low incidence of consumers switching broadband providers with just 10% having done so in the 12 months previous to Q2 2009 (the figure for the same period the previous year was 12%). A more recent ComReg survey\(^{41}\) shows that this figure has declined further to 8%.

3.30 ComReg also disagrees with the respondent’s assertion that the retail broadband market in Ireland is characterised by vibrant competition. On the contrary, in a European Broadband research paper (September 2008) the European Commission observed a lack of competitive pressure on fixed broadband in Ireland.\(^{42}\) Other data more recently published\(^{43}\) by the European Commission shows that fixed broadband speeds in Ireland continue to lag behind EU averages. Another recent report published by Forfas noted that only 5 percent of broadband connections in Ireland are above 10Mbps – a much lower proportion than leading EU countries such as Portugal (47 percent), Belgium (45 percent) or Sweden (34.5 percent).\(^{44}\)

3.31 ComReg considers that the absence of strong competitive pressure on fixed broadband platforms in Ireland (along with issues relating to broadband speed, quality, coverage and availability) is a factor which has contributed to the growth of mobile broadband.

3.32 ComReg disagrees with the respondent’s assertion that similar pricing between fixed and mobile broadband is evidence that the products fall within the same market. Leaving aside functional differences, while the headline prices of mobile broadband products are typically cheaper than those of fixed broadband products, the actual price per megabit (Mbit) that can be downloaded on mobile broadband networks is significantly higher on average than that of fixed broadband (particularly when factoring in the charges for data in excess of inclusive monthly download limits). The

\(^{39}\) It is important to highlight that the results of surveys carried out are not sufficient alone to draw definitive conclusions across all aspects of consumer broadband preferences. Such results should be considered alongside other available evidence.

\(^{40}\) ComReg Residential ICT Services Survey Quarter 2, 2009: A review of findings by Millward Browne Lansdowne July 2009 (ComReg Document No. 09/60).


\(^{44}\) Ireland’s Broadband performance and policy actions, Forfas, January 2010.
respondent’s assessment that pricing between fixed and mobile broadband is similar is not a like-for-like comparison of products, particularly when considered in the context of the products’ inclusive download allowances.

3.33 ComReg also observes that inclusive monthly download allowances for Irish mobile broadband products are more limited in comparison to those offered by fixed broadband providers, and that charges for exceeding these inclusive monthly limits are significantly higher for mobile broadband\(^45\) than for fixed.

3.34 For example, considering the bill pay (i.e. not pre-pay) entry level mobile broadband products\(^46\) offered by the four mobile broadband providers\(^47\), Meteor offers an inclusive download allowance of 5 gigabits (GBs) per month for their entry level product, O2 offers 7GBs per month, Vodafone offers 10GBs per month, while Three Ireland allows 15GBs\(^48\) per month. Monthly prices for these retail products range from €16.99 to €24.90 and the charge applied for exceeding inclusive download allowances ranges from between €0.02 (Vodafone, O2 and Meteor) to €0.05 (3 Ireland) per Mbit. In contrast, fixed broadband products have inclusive monthly download allowances starting at 10GB for a DSL entry level product or 40GBs for a cable broadband entry level product, with significantly greater download allowances being offered for higher specification products (also offering unlimited download allowances). Where monthly download limits are placed on fixed broadband products, customers also typically have the option of switching to a higher bandwidth product, which has a higher inclusive monthly download allowance, at a significantly lower price premium than would occur with a mobile broadband product where the only option is to incur the excess download allowance charges. Furthermore, in contrast to mobile broadband products, fixed broadband products typically levy a lower charge for any data downloaded in excess of the products’ inclusive download limit.

3.35 For example, users exceeding the relatively low inclusive monthly download allowances offered by Vodafone, O2, and Meteor would increase by €20 for every additional GB downloaded over the inclusive download limit. Three Ireland offers a higher inclusive monthly download allowance of 15 GB, although charges €50 euro for every additional GB of data downloaded after that.

3.36 In contrast, Eircom’s\(^49\) 1Mbps (megabit per second) download entry level product has a monthly download limit of 10GB for €24.99, but the customer can upgrade to a 3Mbps download product with a 30GB download limit for an additional €5 (i.e.

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\(^{45}\) Additional charges for data downloaded in excess of the monthly allowance range between €0.02 and €0.05 per MB on mobile networks (or between €20 and €50 per GB), meaning that the price of mobile broadband increases significantly (almost doubles) if the customer exceeds the monthly download limit by even 1GB. See further discussion below in paragraphs 3.35 to 3.37.

\(^{46}\) Comparison here based on 12 month minimum term contract, however, longer minimum contract terms (or modem choices) may be available with different pricing structures.

\(^{47}\) Data presented correct at 18 May 2010.

\(^{48}\) On 28 April, 2010 3 Ireland published a notification to subscribers on its website ([http://www.three.ie/terms/customer_notification.htm](http://www.three.ie/terms/customer_notification.htm)) indicating, with effect from 8 June 2010, the inclusive monthly download allowance is to be reduced to 10GBs.

\(^{49}\) See [www.eircom.ie](http://www.eircom.ie). Data presented in paragraph 3.36 correct at 18 May 2010.
€29.99), to a 7Mbps download product with a 50GB download limit at a cost of €39.82 and a 24Mbps download product with a 75GB download limit at a cost of €47.99. The charge for exceeding the inclusive monthly download allowances on these Eircom’s products is €2 per GB and is between 10 and 25 times cheaper that the excess download charges that apply on mobile broadband networks. On 29 March 2010 Eircom also announced the introduction of a number of new ‘Next Generation Broadband’ products which are available at certain exchanges, mostly located in Dublin. Eircom’s ‘Next Generation Broadband Basic’ product has a download speed of 8Mbps, an inclusive download allowance of 10GB and costs €24.99 per month. Its ‘Next Generation Broadband Regular’ product has a download speed of 8Mbps, an inclusive download allowance of 30GB and costs €29.99 per month. Its ‘Next Generation Broadband Advanced’ product has a download speed of 8Mbps, an unlimited download allowance and costs €39.82 per month. Again, the charge for exceeding the inclusive monthly download allowances on these Eircom’s products is €2 per GB.

3.37 UPC’s 5 Mbps entry level product has a 40GB download limit at a cost of €22 per month, but can be upgraded to 15Mbps or 30Mbps connections, both with unlimited monthly downloads, for additional costs of €10 and €20 respectively. Thus the prices of bandwidth on a fixed broadband network to a consumer are lower. Furthermore, options to upgrade to higher download speed specifications products are not available on mobile broadband networks.

3.38 ComReg does not, therefore, agree with the respondent’s position that mobile and fixed broadband pricing is similar or, indeed, that such a comparison, in itself, would result in these products being regarded as substitutes.

3.39 The product design and marketing of fixed broadband products by service providers emphasises the availability of higher monthly download caps. This suggests a recognition that broadband customers place a value on the ability to use the internet and download data more liberally and cost-effectively (this is why fixed broadband operators position higher bandwidths and inclusive download allowances as a unique selling point). Larger bandwidths and download allowances are likely to be particularly relevant for households and heavy bandwidth users, where the service and download limits can be shared by multiple users.

3.40 In any case, even if there was similar pricing between two products (which is not the case here), it is not in itself evidence that the products fall within the same markets. Perceived functional and technical differences can also impact on the degree of substitutability (see the analysis below starting at paragraph 3.63 for discussion on these aspects).

3.41 To further feed into the assessment regarding the substitutability of fixed and mobile broadband products, ComReg sought to assess whether differences exist in consumers’ monthly download usage profiles when using products offered on these platforms. To this end, ComReg has assessed data available to it in relation to consumer download profiles for DSL and mobile broadband networks. This data shows that consumers using DSL based broadband products download approximately five times more data than consumers on mobile broadband products. This variance in the level of utilisation

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is suggestive of different underlying consumer preferences in using fixed broadband networks for more bandwidth intensive applications, in particular, due to their differing technical capabilities.

3.42 ComReg has considered whether Eircom’s retail product changes are a direct response to competition from the introduction and growth of mobile broadband. Since the end of 2006, Eircom has upgraded the technical specifications of a number of existing products and has also introduced a number of new products. Eircom now offers at least four different broadband products, each having a different download speed capability, inclusive download allowance and retail price.

3.43 Mobile broadband was introduced by Vodafone Ireland in Q2 2006, by Three Ireland in the December 2006, followed shortly thereafter by O2. Meteor, a wholly owned subsidiary of Eircom, launched its mobile broadband product offering in March 2009. Similar to Eircom’s DSL products, mobile broadband operators have also upgraded the technical specification and pricing of their offerings. While the technical capabilities of each of the mobile broadband operators’ networks differ the maximum download speeds of the retail mobile broadband offerings range from 3.6Mbps to 7.2Mbps. Mobile broadband operators also offer different inclusive download allowances based on the different minimum contract periods.

3.44 ComReg has compared the changes that have occurred across Eircom’s DSL and mobile operators’ mobile broadband products in the period September 2006 to February 2010. A summary of this comparative evaluation is captured at Appendix A. ComReg considers that the pricing behaviour demonstrated in the market does not support a conclusion that mobile broadband is a substitute for DSL broadband.

3.45 Mobile broadband subscribers have been steadily increasing since it was launched in the market and as at the end of Q4 2009 stood at 466,969. As noted in ComReg Document No. 08/104, mobile broadband can deliver broadband speeds similar to low-specification entry level fixed broadband products, although with less reliability/consistency of throughput.

3.46 In the two and a half year period following the introduction of mobile broadband in Ireland, Eircom’s pricing for its lower speed range (those comparable in speed and price to mobile broadband) remained unchanged, while Eircom’s higher end products were upgraded without any corresponding change in the retail price points. At a time when NTL (UPC) was upgrading its cable broadband network and growing its subscriber base, Eircom upgraded its 2Mbps product to 3Mbps (€24.79), and its 3Mbps product to 7.6Mbps (€40.00) whilst maintaining the price point. Eircom also made several other changes to higher specification products, such as reducing the price of its 12Mbps product from €169 to €99. Eircom also announced, in January 2010,

51 The maximum network download speeds of each network vary from 3.6Mbps to 14.4Mbps.
52 Launched in Q2 2006.
53 Data presented obtained by ComReg over time from Eircom Limited at www.eircom.ie.
56 Eircom Business Enhanced product.
its 24Mbps\textsuperscript{57} product offering which is available in certain exchanges. Furthermore, on 29 March 2010 Eircom announced that at certain exchanges (currently mostly in Dublin) that it would be upgrading its existing 1Mbps, 3Mbps and 7Mbps products to a download speed of 8Mbps\textsuperscript{58}.

3.47 The respondent infers that the price reductions are due to competitive pressure posed by mobile broadband in the retail broadband market. ComReg notes, however, that these product upgrades are consistent with long term trends in the Irish retail broadband market, where product specifications are upgraded along a given price point from time to time. Such upgrades are likely to occur due to technology developments, improvements in economies of scale resulting from the continual growth of fixed broadband subscriber numbers, and the general perceived threat resulting from competing fixed broadband products (in particular, broadband provided over cable networks).

3.48 ComReg does not, therefore, accept that Eircom’s product upgrades were a specific response to the entry of mobile broadband.

3.49 It is important to note that even if the price/product changes could be attributed as being a direct competitive response to mobile broadband developments, the decision by Eircom to upgrade its product specifications beyond the capabilities offered by Irish mobile broadband networks (currently offering download speeds of up to 7.2 Mbps for some providers, but noting that actual speeds experienced by consumers are likely to be lower due to a number of factors) served to widen the functional differences between fixed and mobile broadband products and limit the potential effects of any competitive constraint of mobile broadband on fixed broadband.

3.50 ComReg has also considered the respondent’s view that the focus of the substitutability analysis should be on ‘net new additions’. ComReg considers that the impact of a price increase would affect all broadband consumers and not only net new additions. Focusing on net new additions would skew the substitutability analysis. Further, ComReg has considered the respondent’s assertion that the increasing share of mobile broadband and the decreasing share of DSL broadband subscriptions, insofar as overall retail broadband consumption is concerned, is evidence of substitutability. ComReg’s analysis has focused on actual growth in terms of subscriptions on broadband platform, and (as noted above) revealed that growth has continued to occur on mobile and DSL (and other) platforms. Furthermore, ComReg considers that the noteworthy growth of mobile broadband in recent years does not, in itself, imply a significant degree of demand-side substitutability between fixed and mobile broadband. As outlined above, ComReg has engaged in a comprehensive substitutability assessment taking account of a range of different parameters, including functionality, price and available evidence of customer switching behaviour.

\textsuperscript{57} Eircom Home Turbo product available in those exchanges which have been upgraded to ADSL2+ technology.

\textsuperscript{58} Three 8Mbps products exist, each with different inclusive download allowances, ranging from 10GB to an unlimited allowance. Prices differ for each product.
**Whether the awarding of the National Broadband Scheme (NBS) contract to a mobile operator suggests that mobile broadband is a substitute for fixed broadband?**

**Views of respondent**

3.51 The respondent points to the recent awarding of the NBS contract by the Government to Hutchison 3 and suggests that this is evidence that mobile broadband is a substitute for fixed broadband, at least for a portion of the Irish population. The respondent argues that this demonstrates that the Government Department with responsibility for telecommunications has concluded that 3G delivered broadband is comparable in terms of functionality and consumer benefit to fixed broadband.

3.52 The respondent noted that 3 Ireland will also launch a wholesale product over that network.

**ComReg’s response**

3.53 ComReg does not consider that the awarding of the National Broadband Scheme (NBS) contract to a mobile broadband operator is evidence of substitutability between fixed and mobile broadband. In this case, the respondent contends that the Government’s recent decision to award the NBS contract to a mobile operator is evidence that mobile broadband is a sufficient substitute for at least a portion of the Irish population, whilst acknowledging that the NBS scheme was designed to provide services to an area where little or no alternative forms of broadband exist.

3.54 The NBS aims to ensure that some form of broadband is available in certain areas where a commercially-driven broadband offering is not widely available: i.e., it was designed to address a failure of the market to deliver a basic broadband service\(^{59}\).

3.55 ComReg’s also notes that the tender/procurement process to award the contract for the NBS took place under a unique set of conditions, in the sense that:

- The NBS was a technology neutral, competitive public procurement exercise under which tenders were invited from suppliers to provide, amongst other things, a minimum specification broadband product.
- The NBS contract was awarded, not just on the basis of the service provider being able to meet this minimum product specification, but also having regard to the ability to meet a range of other tender criteria (coverage, roll-out, pricing, level of subsidy sought, etc.).
- The award of the contract to a mobile service provider was as a result of the winning bidder having the most economically advantageous tender having regard to its performance across a range of award criteria, and not purely on the basis of it being a mobile broadband provider.
- Having regard to the objective of the NBS, consumers in the NBS area are faced with a choice of no broadband or mobile broadband.

3.56 For these reasons, the Government’s decision to award the NBS contract to a mobile broadband service provider should not be viewed as being representative of overall

\(^{59}\) See [www.dcenr.gov.ie](http://www.dcenr.gov.ie) for details regarding the National Broadband Scheme.
consumer behaviour. As noted publicly by Eircom, the company itself has indicated that it had seen no direct evidence of switching from fixed broadband to mobile broadband, though it noted that mobile broadband would offer a ‘natural choice’ to consumers in areas where fixed broadband is not available.

3.57 ComReg considers that where the choice of both fixed (particularly DSL) and mobile broadband is available, mobile broadband is not likely to be considered an adequate substitute for fixed broadband (such as DSL) by a significant number of customers, but may hold appeal as a complementary broadband product. Mobile broadband might also appeal to particular broadband consumers, such as those who do not require a fixed telephone line and do not require the ability to utilise broadband intensive/sensitive applications, first time broadband users or, indeed, broadband users that require mobility. This position is supported by consumer survey data discussed above in paragraph 3.28. For some consumers, there may be a degree of substitutability between mobile broadband and other fixed broadband offerings. However, as discussed above ComReg does not consider this to be of a scale such that it can be considered as broadly representative of consumer behaviour to the extent that it would act as a competitive constraint on fixed broadband services.

Whether the economic recession will further enhance the extent to which mobile broadband is considered a substitute for fixed broadband

Views of respondent

3.58 The respondent submitted that the economic recession will accelerate this trend further because increasing numbers of broadband subscribers will respond to adverse economic conditions abandoning fixed line connections in favour of mobile solutions.

ComReg’s response

3.59 ComReg disagrees with the position set out by the respondent that broadband subscribers will react to adverse economic conditions by substituting fixed line connections with mobile solutions. The respondent makes the following three assumptions:

• consumer demand for fixed broadband is elastic and sensitive to the prevailing macro-economic conditions;
• broadband subscribers will consider mobile broadband to be a suitable substitute for fixed broadband;
• broadband subscribers will reduce their broadband spending by choosing mobile broadband instead of fixed broadband.

3.60 The first assumption has not been substantiated by the respondent in its response and it has not provided any evidence to support a view as to the elasticity of demand in

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60 Eircom investor relations conference call on 27 August 2009. The file is available at http://media.eircom.net/ir/confcall_aug.wma and at 36mins 32 seconds into the call, eircom’s CEO responded to a specific question relating to substitutability between mobile broadband and fixed broadband.

relation to fixed broadband. Such a view also appears inconsistent with recent retail
trends observed by ComReg, in that overall DSL subscriptions (along with cable and
mobile broadband) have continued to grow at a steady pace since the initial stages of
the current economic decline in Ireland.\footnote{Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q3 2009, Document 09/101, 21 December 2009.} As pointed out in paragraph 3.8, DSL broadband subscriptions have grown by 53,991 in the 12 month period ending 31 December 2009.

3.61 The second assumption in paragraph 3.59 appears to be the core of the argument
presented by the respondent and is considered throughout this entire section. ComReg’s view, based on its analysis as presented, does not lead it to accept this assumption.

3.62 ComReg’s view is that the third assumption in paragraph 3.59 may hold for a small
number of customers (those whose characteristics were set out by ComReg in
Document No. 08/104\footnote{See paragraph 4.86 of ComReg Document No. 08/104.}) such as individuals who do not require a fixed line, are light internet users and are the sole user of the broadband connection. Households with multiple broadband users could spend less on broadband by sharing a fixed line connection rather than each purchasing a mobile broadband product (or sharing a mobile broadband product, but potentially exceeding the monthly download limit and incurring the associated cost).

The significance of differences in functional and technical characteristics
between mobile and fixed broadband platforms

Views of respondent

3.63 The respondent does not accept ComReg’s preliminary view that the differences in
functional and technical characteristics are significant enough to justify considering
mobile and fixed broadband not to be in the same retail market. The respondent argues
that the characteristics of the broadband products in terms of speed, latency\footnote{Latency (one way latency) typically refers to the length of time it takes to send a data packet from a source (computer) to the destination receiving it (say a webpage hosted on a data server). Round Trip Latency is length of time it takes to send a data packet from a source to the destination receiving it and the latency from the destination back to the al source.} and contention\footnote{Contention can be considered to be the simultaneous sharing of the available bandwidth on a network by users.} are similar between all platforms. The respondent argues that the fact that
different technology is used for mobile broadband networks compared to fixed
broadband networks is no reason to exclude mobile from the market.

ComReg’s response

3.64 ComReg disagrees with the respondent’s assertion that mobile broadband offers
similar functionality to fixed broadband. On the basis of the information available,
ComReg remains of the view that there are distinct functional differences between
fixed broadband products and mobile broadband products that render the products
attractive to different sets (which may be complementary sets) of customers, for different purposes.

3.65 While noting the consumer switching behaviour and pricing analysis identified earlier, ComReg is also of the view that the functional differences described in ComReg Document No. 08/104 (paragraphs 4.79 – 4.149) mean that mobile broadband is not likely to be considered a substitute by most fixed broadband customers. ComReg’s view is that, in practice, mobile broadband products offer a different broadband experience to that which is offered by fixed broadband products. In particular, mobile broadband offers the customer mobility, but is limited compared to fixed broadband in terms of throughput capability, reliability of service, latency, contention management and various other factors discussed in ComReg Document No. 08/104.

3.66 ComReg’s own most recent research\(^66\) indicates that actual download throughput experience on mobile networks is variable\(^67\) due to the fact that the access network layer (i.e. the area served by a mobile base station) within the mobile broadband network is shared dynamically across end users utilising the broadband services within that area. For example, the demands placed on the finite amount of download capacity available within an area served by a mobile base station are variable having regard to both the number of active end users and the capacity they are using. This issue is further exacerbated given the mobile nature of the broadband service, in particular, the ability for end users to ‘roam’ across the mobile network. While some of these difficulties can also be experienced in FWA networks, they can be mitigated more easily than on mobile networks (for example, where mobility of users is less of an issue and through the deployment of fixed antennae at premises).

3.67 ComReg also notes that mobile broadband operators do not offer (or advertise) differentiated broadband product speeds (they can only specify the maximum achievable speed of the network and modem, which can have little bearing on the actually speed experienced by the end user). Mobile operators cannot guarantee minimum bandwidth which would be available to broadband customers.

3.68 ComReg’s most recent analysis indicated that, across all of the locations surveyed\(^68\), the four mobile broadband networks in Ireland are delivering, on average, between 607Kbps and 1.69Mbps to customers. This research also indicates that download speeds are highly variable across the surveyed locations. It also shows that, despite having theoretical advertised maximum product download capabilities of between 3.6Mbps and 7.2Mbps (depending on the network capability\(^69\) of the individual mobile broadband operator and their particular single speed product offering), actual maximum download speeds achieved are considerably lower.

3.69 In comparison, DSL broadband services are not shared in the access network layer (i.e. within the geographic area served by a radio site) as the broadband services are

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\(^{66}\) 3G quality of service drive test programme conducted on behalf of ComReg by Vilicom Limited in at various times between October 2007 and November 2009.

\(^{67}\) This variability not only between the networks of mobile operators but also within individual networks themselves.

\(^{68}\) Outdoor tests carried out at 77 urban/suburban locations throughout Ireland.

\(^{69}\) The network capabilities of mobile network operators range from 3.6Mbps to 14.4Mbps.
provided over a dedicated copper path between the end user’s premises and the local telephone exchange. ComReg notes that DSL services can be shared higher up within the broadband network; however, this is done at a network layer where the availability of bandwidth is less of a problem and can be managed more easily.

3.70 ComReg also notes that Eircom, in its 2009 annual report, has commented with respect to broadband speeds, in particular, that:

“We continue to see growth in broadband, albeit at a slower rate. Fixed Line DSL customers increased by 72,000 in the year, to 665,000. Over 61% of our retail DSL customers are now on speeds of 3Mbs or greater, up from 12% a year ago, and we are planning to increase our basic product speed to 8Mbs during the current year.”

3.71 This indicates that large numbers of fixed broadband customers are migrating to higher speed broadband products for which no comparable product is available on mobile broadband networks. Migration to higher speed broadband products on fixed networks is occurring as the result of upgrades driven by the consumer, and also by upgrades implemented by fixed broadband providers (presumably offered to retain retail customers, on the basis that customers will attribute value to products with increased broadband speeds). This migration by customers to higher download speed specification products is also borne out by data received by ComReg from broadband service providers. In the period Q1 2008 to Q3 2009, the percentage of consumers availing of broadband services in the download speed range 2Mbps to 9.99Mbps has increased from 52.4% to 69.2% respectively. In the same period, the percentage of consumers availing of broadband services in the download speed range below 2Mbps has decreased from 43.4% to 24.1%.

3.72 Furthermore, according to submissions provided by industry participants to ComReg the average speed achieved on fixed networks is typically closer to the theoretical maximum/advertised speed, and in the case of specific DSL broadband products the average customer throughput is approximately 80% of the advertised individual product speed. Thus there appears to be a gap between mobile and fixed broadband capability in terms of the throughput available to end-users. As noted in ComReg Document No. 08/104, the network capabilities on both fixed and mobile broadband networks continue to improve, though to date the gap between the capabilities of the network technologies has remained. ComReg anticipates that a material gap in performance between fixed and mobile broadband networks will remain over the period of this market review.

3.73 Cable broadband networks are shared in the access network (as typically a number of premises will be served by the same cable ring, with the network having multiple cable rings). However, ComReg notes that the topology of the cable network differs

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71 See figure 3.3.6 of Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q3 2009, Document 09/101, 21 December 2009.

72 Based on information provided in response to data requests to operators.
sufficiently such that it does not result in the level of variability experienced by mobile broadband networks.

3.74 The value to broadband consumers associated with receiving greater throughput is also evident, most notably in the premium paid by broadband customers for higher speeds, from the download speed-focused marketing strategies of broadband providers, and through the network investments being made by broadband operators to increase the speeds that they are able to offer to their retail customers. The inability of mobile networks to provide reliable throughput at a comparable level to that available on fixed broadband networks is likely to limit the extent to which mobile broadband would be considered to be an effective substitute by many consumers of fixed broadband. This limitation was also described by Eircom at an appearance before the Oireachtas’s Joint Committee on Communications, Energy and Natural Resources where it was stated that:73

“3G wireless is built as a mobile service and its orientation is to provide broadband on the go. However, it has limitations in that, intrinsically, mobile and 3G mobile or HSPA mobile is a shared access medium... There is an effective throughput of approximately 6 Mb to share among the people who are within the coverage sector of the base station...[for base stations with a theoretical maximum throughput of 14.4Mbps] If no one else in the sector wishes to use it, the throughput will be 6 Mb, whereas if ten other people are in there and wish to use it, it will be typically 600 kb.”

3.75 There is a key difference in a wireless environment because, effectively, one is sharing the spectrum with the other users in that cell. In this regard Eircom also noted:

“The second dimension is that in many cases, once one reaches the base station, one also encounters congestion in the backhaul.”

3.76 Similarly, in comparing the latency of fixed versus mobile broadband products, ComReg’s analysis, which is consistent with submissions provided by fixed operators, has found that DSL broadband connections typically experience between 40 and 60 milliseconds of latency, whilst according to data provided from operators, mobile broadband networks experience approximately 120 to 140 milliseconds of latency. Thus the latency on mobile networks is higher than that experienced on a fixed network and, as a result, mobile networks’ ability to support certain applications will be less effective than that offered by fixed broadband platforms.

3.77 ComReg acknowledges that mobile broadband products provide a valuable service for many people. This has been evidenced by the pace of growth of mobile broadband in Ireland since 2007. However, ComReg considers that the functional differences in mobile broadband products identified above render mobile broadband a less attractive alternative product for a significant number of fixed broadband users (who often have different needs in a broadband service).

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73 This is an extract from a presentation made by the Chief Technical Officer of Eircom to the Joint Committee on Communications, Energy and Natural Resources, Next Generation Networks: Discussion with Eircom, Wednesday 11 March 2009. The full presentation, which included a more detailed explanation of the technical differences between fixed and mobile broadband, can be found at http://debates.oireachtas.ie/Debate.aspx?F=MAJ20090311.xml&Page=1&Ex=H2#H2
**The implications of the fact that fixed broadband products are targeted at multiple-user households whilst mobile broadband is aimed at individuals**

**Views of respondent**

3.78 The respondent suggested that ComReg’s observation that fixed broadband is marketed towards household units, whilst mobile products tend to be focused on individuals, was immaterial. The respondent argued that many fixed broadband providers do not provide Wi-Fi modems\(^{74}\) with their broadband packages, and that in any case mobile operators could offer Wi-Fi if they wished. The respondent noted that this matter related to marketing of services and had nothing to do with the substitutability of the services from either a demand or supply perspective.

**ComReg’s response**

3.79 ComReg acknowledges that two mobile broadband providers (O2 and 3 Ireland) have recently introduced Wi-Fi modems as an optional extra. The Wi-Fi modems allow a mobile broadband product to be shared between multiple devices (PCs, iPods etc) and between end users within a household. ComReg observed in ComReg Document No. 08/104\(^{75}\) that, on the whole, mobile broadband products tend to be marketed primarily at individuals, whereas fixed broadband is typically targeted at households. This is particularly so in the case of Vodafone and O2 (but also by Eircom which wholly owns Meteor), which each offers mobile broadband as well as fixed DSL-based broadband.

3.80 The different marketing strategies for mobile broadband products when compared with fixed broadband products suggest that the products are viewed by consumers differently, and therefore would appeal to different groups of consumers. Regardless of whether Wi-Fi modems are made available on mobile broadband networks, the different functional characteristics of fixed broadband products, and the fact that fixed broadband connections are necessarily attached to premises, mean that fixed broadband is more suited as a shared product within a household/business. Fixed broadband providers target households because they consider that their broadband product is well suited to meeting the broadband needs of a household. Similarly, mobile broadband providers target individual customers who value mobility.

3.81 For example, Eircom advertises ‘home broadband’ on its website as a distinct product from its ‘mobile broadband’ product (in a different section of the website). Eircom bundles a wireless modem with all of its ‘home broadband’ products at no extra cost, which suggests that most ‘home broadband’ customers value multiple-user connectivity. The inclusion of a Wi-Fi modem at no extra cost to the customer suggests that Eircom predicts that doing so will render the broadband product more attractive to the target market. Eircom’s website emphasises the value to customers of sharing a broadband connection on its website:

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\(^{74}\) A Wi-Fi modem allows multiple users to access a broadband product.

\(^{75}\) See, for example, paragraphs 4.55, 4.84 and 4.115 of ComReg Document No. 08/104.
“This is a wireless modem worth €49.78 that we give to you for FREE. It allows up to 4 users to surf at the same time anywhere in the house.” [Emphasis added].”

3.82 This marketing focus suggests that the target market is a household unit and that the target market values the ability to connect multiple users simultaneously to the broadband service and maintain the wireless connection anywhere in the house.

3.83 Mobile operators, on the other hand, appear largely focused on emphasising the mobility feature of the broadband product. For example, Meteor’s mobile broadband product is aptly named – ‘Broadband to go’. If a mobile broadband operator wished to also target households, presumably it could also provide the means for multiple users to connect to the broadband connection at the same time (since the behaviour of fixed operators suggests that household broadband customers value this facility). However, Eircom or Meteor (its subsidiary) do not offer Wi-Fi modems as part of their mobile broadband offerings. O2 and 3 Ireland have both offered Wi-Fi modems available to their mobile broadband customers as an optional extra (rather than being included in the standard product). This suggests that a significant portion of consumers are unlikely to value multi-device/user connectivity to the same mobile broadband connection.

3.84 The targeting of individuals rather than households by mobile broadband providers suggests that these operators are looking to attract a specific profile of broadband users with a set of needs distinct from those of typical fixed broadband users.

3.85 Even if mobile operators begin marketing mobile products at households, the pricing of mobile products (high price per unit of download, with a low data cap), and the inability to upgrade to higher bandwidth products, would be less favourable for a household sharing a connection. Multiple users are likely to draw on more bandwidth than an individual user and, as such, households could be likely to place more emphasis on the restraint imposed on their use by a low monthly download limit, or high per-unit data prices.

3.86 Additionally, given that mobile broadband is shared in the access network (between the base station and the end-user), the speed capabilities on a per user basis are typically lower than a those of a fixed network and currently provide limited ability for users to upgrade to separate higher speed products (due to network constraints). Fixed networks offer separate higher speed/specification products that offer sufficient bandwidth and throughput to maintain a high quality of service in a shared user environment.

3.87 This is consistent with comments made by Eircom in a presentation before the Oireachtas’s Joint Committee on Communications, Energy and Natural Resources on 11 March 2009. In the presentation, Eircom referred to the key difference between fixed and mobile networks; in particular, mobile networks have limitations due to contention in the access network, and it was noted that the speed experienced by the end user will depend on how many broadband users are drawing on the particular cell

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76 Source www.eircom.ie, correct at 18 May, 2010
at the time of use (this is more unpredictable on mobile networks since customers roam freely between cells). Eircom concluded on this point by noting that:

“There is a key difference in a wireless environment because, effectively, one is sharing the spectrum with the other users in that cell. If one considers how a wireless network is built up, typically one has three sectors. In a 3G environment with the licences that we have at present, each sector has a maximum of three units of currency or three units of bandwidth that are independent in the first instance. Although in the case of the networks that are available at present, one theoretically can achieve 14.4 Mb per second from them, based on feedback from the vendors the actual throughput is more likely to be 6 Mb per second simply because of different coverage conditions — for example, some people will be indoors and others will be outdoors, and some people will be closer to the base station while others will be further away. There is an effective throughput of approximately 6 Mb to share among the people who are within the coverage sector of the base station. It is a shared access technology. If no one else in the sector wishes to use it, the throughput will be 6 Mb, whereas if ten other people are in there and wish to use it, it will be typically 600 kb.

The second dimension is that in many cases, once one reaches the base station, one also encounters congestion in the backhaul. One encounters congestion both during the access and in the backhaul. Obviously, we are building a high capacity 3G network as a complement to our fixed broadband network. Our view on the marketplace is that, ultimately, there is a 1.6 million home market for fixed broadband and a 4.2 million person market for mobile broadband. We see them as being complementary technologies.

This last point above also emphasises that Eircom views mobile broadband as a personal product which is targeted at individuals, whereas its DSL product is targeted at users in fixed locations (and which can be shared by multiple users).

The movement of fixed operators into mobile broadband sector

Views of respondent

The respondent argues that, in traditional competition analysis, the expansion of firms in adjacent markets into one another’s area of business would be seen as a strong indication of overlap between the two markets, if not the emergence of a new, combined market.

The respondent submits that this expansion of fixed and mobile operators into each other’s area of business is strong evidence that they consider themselves to be competing for the same customers and are acting to defend their existing business base and their respective growth prospects. The respondent suggests that such behaviour is characteristic of many industries and markets in which firms use multiple brands and distribution channels to acquire customers.

ComReg’s response

ComReg considers that the expansion of fixed operators into mobile broadband, and vice versa, highlights the perceived differences in fixed broadband products compared with mobile broadband products.

Horizontal product diversification referred to by the respondent is typically undertaken where a firm is attempting to benefit from economies of scope, i.e., using the same
assets, production platform, and staff to produce a variant of existing products (e.g., the launch of text messaging services on mobile voice telephony networks).

3.93 In this case, the potential gains in economies of scope available from expanding from mobile into fixed broadband (or vice versa) are not obvious, since the diversifying firm is required to incur high sunk costs in building a new network. ComReg considers it unlikely that a rational firm would invest to this magnitude by building a different network in the same geographic area as its existing network, only to compete in the same market for the same customers. Rather, ComReg considers that such investment is intended to allow the firm to service new markets and access a new customer base that has different needs.

3.94 A mobile broadband provider could invest in a fixed broadband operation in order to provide services to customers that prefer fixed broadband. For example, Vodafone has engaged in such a strategy through its acquisition of Perlico Communications, and has expanded its fixed broadband customer-base further to its recent acquisition of BT Communications Ireland Limited’s (BT Ireland’s) retail residential and SME customers. ComReg’s view is that the deployment of a fixed broadband network by a mobile broadband network operator (and vice versa) would not be commercially rational were mobile broadband to be considered a close substitute for fixed broadband in the retail market.

3.95 Therefore, the diversification of mobile broadband operators into supplying fixed broadband services (and vice versa) strongly suggests to ComReg that mobile broadband products are in a separate retail market to fixed broadband products.

**Industry research into fixed to mobile substitutability**

**Views of respondent**

3.96 The respondent referenced additional research material that it considered supported the view that retail fixed and retail mobile broadband are substitutes. In particular, the respondent suggested that the research studies referred to by ComReg to support its view are countered by more recent work published by the same researcher (Analysys Mason).

3.97 The respondent refers to a December 2008 article entitled ‘Mobile Broadband: Changing the face of the industry’ where Analysys Mason noted that:

“...since the summer, the biggest development in telecoms has been the unprecedented increase in the adoption of mobile broadband...”

3.98 Analysys Mason also predicted that

“...by 2013, 47% of European broadband subscriptions will use mobile networks and nearly a quarter of broadband-equipped sites will use mobile-only. The speed of take-up of broadband via mobile USB modems has surprised many in the fixed broadband business.”

**ComReg’s response**

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In the course of conducting this market review, ComReg has taken account of a wide range of research inputs. A summary of relevant findings was included in the initial consultation, and was updated and extended in ComReg Document No. 08/104. ComReg is aware that there is a lack of unanimity amongst commentators, particularly when forecasting potential trends in the market. ComReg has recognised throughout the review process that there are differing views as to how the general market may develop, and the views of commentators do not necessarily remain stable over time.

ComReg has exercised sound judgement in coming to its conclusions, and has considered a wide range of information available to it from a broad range of sources (including respondents themselves) in reaching the view that mobile broadband does not fall within the retail broadband market for the purpose of the market review.

In terms of the Analysys Mason comments referenced by the respondent, ComReg is of the view that the growth of mobile broadband alone is not sufficient evidence of substitutability such that it would support a case that it falls within the same retail broadband market as fixed broadband products. The growth predictions presented by Analysys Mason do not necessarily support a view that mobile falls in the same market as fixed broadband. For example, massive growth was experienced in mobile calls after the introduction of mobile telephony to the mass market. However, this did not lead ComReg, or other NRAs, to a view that mobile calls were in the same market as fixed line phone calls.

**Conclusion on substitutability between fixed and mobile broadband products**

ComReg has received detailed comments from respondents on ComReg Document No. 08/41 and ComReg Document No. 08/104. ComReg has carefully considered all comments received and has considered any new information that has come to light during the consultation process (including through its own analysis). ComReg has taken into account the responses received in the course of the aforementioned consultations as well as any new information provided, which includes:

- The functional differences between fixed and mobile broadband;
- The manner in which fixed and mobile products are marketed to consumers;
- Consumer survey data and statements made by operators regarding substitutability;
- Consideration of whether a pricing response from fixed operators can be attributed to the entry and growth of mobile broadband;
- Pricing differences between mobile and fixed broadband.

In addition to the analysis detailed above, ComReg considered the SSNIP test analysis (set out in ComReg Document No. 08/104\(^{79}\)), which indicated that the likely extent of switching by retail broadband customers from fixed to mobile broadband in response to a SSNIP in the price of fixed broadband would not be sufficient to prevent a successful SSNIP of fixed broadband.

Overall, ComReg considers that the degree of substitutability between fixed broadband and mobile broadband would not be sufficient to prevent a hypothetical

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\(^{79}\) See paragraphs 4.126 to 4.138 of ComReg Document No. 08/104.
monopolist of fixed retail broadband from imposing a successful SSNIP. ComReg, therefore, remains of the view that that retail fixed broadband and retail mobile broadband would not fall within the same retail broadband market. Notwithstanding such views, ComReg would also point out that it is not required to conclude on the precise scope of the retail broadband market, since the core focus of this market review is the WPNIA market, and the European Commission has already identified in its recommendation that the WPNIA market is one which is susceptible to ex ante regulation.

**Geographic scope of the retail broadband market**

*ComReg’s Preliminary View*

3.105 ComReg noted in ComReg Document No. 08/104 that its assessment of the geographical scope of the retail broadband market was carried out in order to inform the discussion of the wholesale market, as the retail market is not considered susceptible to ex ante regulation. It was therefore unnecessary for ComReg to conclude on the precise scope of the retail geographic market. It also noted that a detailed analysis of possible geographical variation in demand and supply was carried out in the context of the assessment of the wholesale market.

*Views of Respondent*

3.106 One respondent considered that ComReg’s analysis should distinguish between urban and rural areas. This respondent was the only party that commented on the scope of the retail broadband geographic market. Other respondents broadly agreed with ComReg’s proposed analysis of the retail market.

*ComReg’s position*

3.107 ComReg’s view remains that it is not necessary to conclude on the precise geographic scope of the retail market, because this analysis is intended only to inform the analysis of the wholesale market. Nonetheless, an examination of the geographic scope of the retail broadband market can provide useful insights for the purposes of identifying possible regional/local variances in competition in defining the WPNIA market. ComReg, therefore, addresses the respondent’s comments in sections 4.116 to 4.130 below which deals with the geographic scope of the WPNIA market.

3.108 Notwithstanding the above, ComReg has examined the retail broadband market and considers that its geographic scope would be likely to be national. If the competitive constraints differ significantly between areas, and clear delineations can be identified, then a National Regulatory Authority (NRA) should consider defining sub-national markets accordingly. ComReg has observed, while some variances exist in terms of the coverage and the number of retail broadband service providers operating in different geographic locations within Ireland, retail broadband prices tend to be geographically averaged by service providers i.e. the price for a given broadband product offered by a service provider does not differ by geographic location. Similarly, retail product functionalities/characteristics tend to be homogenous across different areas. This would appear to suggest that the conditions of competition are sufficiently similar to support a conclusion that the retail geographic market is likely to be national.

3.109 As it is not necessary for ComReg to conclude on the precise geographic scope of the retail market, ComReg has therefore addressed the respondent’s specific comments (regarding variance in competitive conditions throughout Ireland) in sections 4.116 to
4.130 below, which assesses the geographic scope of the WPNIA market. However, ComReg has also considered geographic aspects of the retail broadband sector in order only to inform its analysis of the wholesale market.

3.110 If the competitive constraints differ significantly between geographic areas, and clear delineations can be identified, then it may be appropriate for a National Regulatory Authority (NRA) to consider defining sub-national markets. ComReg has observed that while variances exist in terms of the coverage and the number of retail broadband service providers operating in different geographic locations within Ireland, there appears to be no clear evidence of distinct variances in competitive conditions across Ireland. In particular, retail broadband prices tend to be geographically averaged by service providers i.e. the price for a given broadband product offered by a service provider does not differ by geographic location. As such, there is insufficient evidence to support a conclusion that sub-national retail broadband markets exist.

3.111 ComReg intends to continue to monitor the situation with respect to any variances in competition which may emerge in the retail broadband market and to keep the position under review.

**Conclusion on retail broadband trend analysis**

Having regard to the analysis presented in ComReg Document No. 08/41, ComReg Document No. 08/104, ComReg Document No. 09/42 and this Decision Document, and while ComReg is not required to define a retail broadband market, ComReg considers that it would likely include the following broadband products:

- broadband products provided over DSL based copper networks;
- broadband products available over cable based networks;
- broadband products provided over fixed wireless access networks;
- broadband products provided on fibre access networks;

ComReg considers that these broadband products would likely fall within a product market which is distinct from products provided over mobile broadband and leased line networks, as well as retail narrowband access and satellite networks.

ComReg considers that the geographic scope of the retail broadband market would likely be national in scope, although it is not necessary for ComReg to conclude on this issue.
4 WPNIA Market Definition

ComReg’s general approach to market definition

4.1 Under Regulation 26 of the Framework Regulations, ComReg is, as soon as possible after the adoption of a recommendation referred to in Article 15(1) of the Framework Directive, (and subject to Regulations 19 and 20 of the Framework Regulations and taking utmost account of such recommendation and of guidelines referred to in Article 15(2) of the Framework Directive), required to define relevant markets appropriate to national circumstances, in particular relevant geographic markets within their territory, in accordance with the principles of competition law.

4.2 Market definition is undertaken as part of the market review in order to provide the context for the competition analysis.

4.3 ComReg analyses the recommended market (in this case the WPNIA market) having regard to the specific circumstances prevailing in Ireland. The analysis considers both demand and supply side perspectives.

4.4 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 product market. For two products to be effective demand side substitutes, it is not necessary that all consumers switch to a competing product, but that enough switching takes place to render a relative price increase unprofitable. In some cases, 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.

“The question to be answered 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”.

4.5 However, ComReg notes that the SSNIP test is not specifically designed to give a clear-cut result, but instead acts as a helpful tool that assists decision-making when considered alongside other relevant factors. In particular, it allows the identification of the main price constraints on the product in question.

4.6 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%) non-transitory price increase above the competitive level because a sufficient number

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of customers would switch to alternative products/services so as to render that price increase unprofitable. Where the price of a service is regulated, it is important to consider how the actual price relates to a competitive price, as, if it is significantly different, the findings of the SSNIP may be misleading. Should the level of consumer switching to a particular product be sufficient to render the hypothetical monopolist’s 5-10% price increase unprofitable, this implies that the product/service in question imposes a sufficient competitive constraint and should be included in the relevant product market.

4.7 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 a SSNIP. In order for firms which are not currently active in the market to be regarded as being capable of producing 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 reasonable timeframe. Accordingly, ComReg 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.

4.8 The European Commission’s Notice on Market Definition notes that supply-side substitutability may also be taken into account:

“Supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy.”

4.9 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.”

4.10 Once the relevant product market is identified, the next step in defining the market is to examine the geographical dimension. ComReg has approached the definition of the relevant geographic market by identifying

“…..a clearly defined geographic area in which [the product] is marketed and where the conditions are sufficiently homogeneous for the effect of the economic power of the undertaking concerned to be able to be evaluated” and

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82 According to competition law principles, only short-term entry (i.e. less than one year) is taken into account for the purpose of market definition. See European Commission Staff Working Document Explanatory Note accompanying the Recommendation, (SEC (2007) 1483/2) (the 'Explanatory Note'), page 12.

83 Notice on Market Definition, paragraph 20.

84 Ibid.

“.....which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.”

4.11 In that regard, ComReg has had regard to whether a SSNIP by a hypothetical monopolist of copper based WPNIA in a given geographic area would lead consumers to switch to readily available substitutes or to suppliers located in other areas.

4.12 The European Commission’s Notice on Market Definition further outlines its approach to geographic market definition where it states that the European Commission:

“.......will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level.”

Wholesale Physical Network Infrastructure Access (WPNIA) Market

4.13 This market analysis is focused on the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, which has been identified by the European Commission in its Recommendation as a market susceptible to ex ante regulation in accordance with the Framework Directive. ComReg has undertaken this market definition analysis in accordance with the European Commission’s SMP Guidelines, which set out a framework for defining markets. These guidelines place an emphasis on assessing the demand-side and supply-side substitutability of products.

4.14 Eircom is currently the only supplier of WPNIA in Ireland. Eircom supplies its retail division with WPNIA, and is also required by regulation to provide collocation facilities at its telephone exchanges and copper-based Local Loop Unbundling (‘LLU’) products over its ubiquitous access network on the merchant (wholesale) market. These products are purchased by a number of Eircom’s wholesale customers (including BT Ireland, Magnet Networks, Smart Telecom Holdings Limited and Three Play Plus) and can be availed of throughout Ireland. WPNIA is used by service providers seeking access to infrastructure (‘access seekers’) as a means of providing various telecommunications services either to end users or, in some cases, to their own wholesale customers. In practice, WPNIA provides the access seeker with connectivity between a physical point of interconnection (typically at a telecommunications exchange) and the end user premises.

4.15 For the purpose of defining the WPNIA product market definition, ComReg has taken the provision of copper based WPNIA to be the appropriate starting point (or candidate market) from which to consider whether, based on demand-side and supply-side considerations, potential wholesale physical access products on alternative

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86 Notice on Market Definition, paragraph 8.
87 Notice on Market Definition, paragraphs 28-31.
88 The European Commission’s Notice on Market Definition further outlines that it will also need to be established whether companies in different areas constitute an alternative source of supply for customers and whether companies located in different areas would face impediments to developing their sales on competitive terms throughout the whole geographic market.
platforms should be included in the WPNIA market. As noted above, Eircom currently provides WPNIA to third parties (in the form of LLU), but Eircom also supplies its retail arm with WPNIA for the purpose of providing electronic communications services directly to the retail market. As discussed in ComReg Document No. 08/104\textsuperscript{89}, ComReg includes not only wholesale physical access supplied to third parties in the market, but also includes the self-supply of wholesale physical access on Eircom's network within the WPNIA market. Self-supply of WPNIA by Eircom was included in the proposed WPNIA market on the basis that:

- Eircom’s network offers the coverage expected by access seekers;
- There is sufficient demand from third parties for a wholesale physical access product on Eircom’s network;
- A customer could avail of Eircom’s wholesale physical access product without incurring significant additional cost, relative to other suitable alternative options available;
- The provision of wholesale physical access on Eircom’s network is technically feasible;
- Eircom, as a self-provisioning operator, has sufficient capacity to provide a wholesale physical access product without incurring significant additional investment costs.

4.16 Whilst at present, WPNIA has been limited to wholesale physical access products supplied by Eircom on its copper access network, the telecommunications sector is rapidly evolving, and there is potential for alternatives to become available in the future. In defining the WPNIA market, ComReg has considered any potential substitutes for the current form of copper based WPNIA that may emerge during the period of this market review.

4.17 In order to assess demand-side and supply-side substitutability, it is important to gain an understanding of the characteristics of WPNIA products and, in particular, of those characteristics that are valued by purchasers of WPNIA. Identified below in paragraphs 4.18 to 4.20 are examples of these characteristics, and factors likely to impact on substitutability of a given product as a demand-side and supply-side substitute for the existing copper based WPNIA products (the starting point for ComReg’s definition of the WPNIA market). It should be noted that a product might meet most of these characteristics, yet still not be considered a substitute on account of failing to meet an essential requirement. With this in mind, ComReg has undertaken its final analysis of the WPNIA market definition below.

4.18 The wholesale WPNIA product should offer the other authorised operator (‘OAO’) purchasing it, autonomy in designing a range of flexible retail services for its customers. The wholesale WPNIA product should also enable the purchasing OAOs to directly manage their customers.

4.19 The wholesale WPNIA product should offer sufficient scale (in terms of network coverage and end user reached) to allow the purchaser to achieve economies of scale and support a business case for the significant level of investment required in building

\textsuperscript{89} Paragraphs 4.282 and 4.294 of ComReg Document No. 08/104.
the necessary infrastructure required in order to be able to avail of the WPNIA wholesale product (it should be noted that purchasing WPNIA involves significant investment in systems and network infrastructure).

4.20 The supply side substitutability analysis will, amongst other things, need to have regard to whether any alternative sources of WPNIA supply exists (or could exist), including self-supply of wholesale physical access, and whether these should be included in the WPNIA product market. Issues to be considered here include the likelihood that alternative suppliers would provide WPNIA, whether a given supplier would actually use or switch its productive assets to produce a WPNIA product and costs of such switching.

ComReg’s preliminary view

4.21 In ComReg Document No. 08/104, ComReg proposed that the relevant market includes access to current (copper based) as well as next generation fibre access (NGA) network infrastructure on the incumbent’s access network (that is, next generation access network upgrades, including fibre overlays, either in part or in its entirety, on the incumbent’s existing access network are included in the WPNIA market). This is because the conditions of competition are likely to remain similar, regardless of whether current generation networks remain in place or, for example, fibre is overlaid on the network (either in whole or in part) as part of a next generation network upgrade. In defining a WPNIA market, it is important first to acknowledge that there is, at present, only one WPNIA product available on this wholesale market, this being copper based Local Loop Unbundling provided by Eircom. Therefore, ComReg considers the likely substitutability of wholesale physical access products that could potentially be provided over alternative networks and whether these warrant inclusion in the WPNIA market. For the purpose of this analysis, ComReg refers to products on these alternative networks as potential wholesale physical access products. If, through the analysis, they are deemed to be adequate substitutes for copper based WPNIA, only then are included in the WPNIA product market.

4.22 For the purpose of the WPNIA market review, ComReg considered that potential wholesale physical access products provided over alternative operators’ cable, fixed wireless, mobile, and satellite networks do not fall within the WPNIA market. Potential wholesale physical access products provided over an alternative Fibre to the Home (FTTH) network were also excluded from the WPNIA market because of the limited scale and limited geographic reach of such networks in Ireland and, therefore, the unlikelihood that they would be considered effective substitutes for existing copper based WPNIA products.

4.23 In each of these cases, it was proposed that within the period of this review (the next 2-3 years) potential wholesale physical access products on these platforms would not

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90 See ComReg Document No. 08/104, Page 61.
91 This product is provided by Eircom in accordance with existing regulatory obligations imposed by ComReg under the Wholesale Unbundled Access market analysis (2004), in which Eircom was considered to have SMP in the WUA market. See ComReg Document No. 04/70.
92 The view that mobile broadband falls outside of the WPNIA market has been unanimously held by National Regulatory Authorities across European Union Member States.
93 See ComReg Document No. 08/104, page 77.
become effective substitutes, to the extent that would constrain a hypothetical monopolist from profitably sustaining SSNIP of copper and fibre based WPNIA.

4.24 ComReg’s preliminary view was that wholesale broadband access (WBA) is in a separate product market from WPNIA\(^{94}\), because the functions of WBA and the extent of investment required to utilise it are sufficiently different to the extent that the products are not effective substitutes. ComReg is also required to separately analyse the WBA market. ComReg also noted that WPNIA is not presently available over alternative platforms such as cable, fixed wireless and satellite, and that these networks were unlikely to provide demand-side or supply-side substitutes for WPNIA within the period of this review (the next 2-3 years), and therefore do not fall within the market. ComReg’s preliminary view was that leased lines\(^{95}\) also fall outside of the market.

4.25 ComReg defined a WPNIA market that is national in scope.

**Views of respondents**

4.26 Six operators responded to ComReg’s Response to Consultation Document No. 08/104. The European Commission also commented with respect to ComReg’s notification to it of the draft measure set out in ComReg Document No. 08/104.

4.27 Since interested parties had already had a previous opportunity to comment on views published in ComReg Document No. 08/41, the responses received from industry participants in relation to the consultation process concerning ComReg Document No. 08/104 tended to be limited to a number of specific issues. Of the six responding operators, one disagreed with ComReg’s WPNIA market definition and, in doing so, commented on a number of specific issues.

4.28 As noted above, the European Commission also commented on the proposed WPNIA market definition as set out in ComReg Document No. 08/104, suggesting that the definition of a relevant product market should be made with reference to the product characteristics which, in the European Commission’s view, at present do not indicate that the functionality of possible access products provided over separate FTTH networks would differ to such an extent that this would justify their exclusion from the WPNIA market.\(^{96}\)

4.29 Broadly speaking, having regard to both industry and the European Commission’s responses, three issues were raised:

- Should fibre and Next Generation Access (NGA) infrastructure be included in the WPNIA market?

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\(^{94}\) The European Commission, in its Recommendation, has also identified the WBA market (market 5) as being separate to the WPNIA market (market 4) and one which is also susceptible to ex ante regulation.

\(^{95}\) The European Commission, in its Recommendation, has also identified the Leased Line market (market 6) as being separate to the WPNIA market (market 4) and one which is also susceptible to ex ante regulation. ComReg is also required to separately analyse the Leased Line market.

\(^{96}\) In issuing the comment, the European Commission stated that it did not challenge ComReg’s finding, and noted that in its view, the regulatory outcome (i.e., the SMP Designation) is not affected given the very limited roll-out of fibre networks in Ireland.
• Should alternative OAO fibre networks be included in the WPNIA market?
• Should cable networks be included in the WPNIA market?

4.30 While considering these issues and, in particular, to ensure that ComReg could take the utmost account of comments received from the European Commission, ComReg decided to consult further on the issue of the inclusion of OAO fibre in the WPNIA market. To this end, a follow-up consultation was published with the publication of ComReg Document No. 09/42 in May 2009.

4.31 ComReg addresses below each of the key issues raised in response to both ComReg Document No. 08/104 and ComReg Document No. 09/42. This analysis has been carried out by ComReg in accordance with the SMP Guidelines. In each case, ComReg has considered the likely degree of demand-side and supply-side substitutability between the products in question.

**ComReg’s Analysis**

4.32 ComReg notes that a number of the preliminary views set out in ComReg Document No. 08/104 and ComReg Document No. 09/42 were not commented on by respondents. ComReg has highlighted below those areas where respondents made comments and addresses these. Where comments were not made, ComReg’s views remain unchanged from those as set out in ComReg Document No. 08/104 and ComReg Document No. 09/42.

4.33 The first two issues identified in paragraph 4.29 above are intrinsically linked, but it is useful in carrying out the analysis to break down the issue into two discrete questions. The first considers whether, in principle, physical access to fibre and NGA infrastructure falls within the WPNIA market. This involved considering whether fibre/NGA network upgrades (and the potential offering of fibre based WPNIA) by an existing supplier of copper based WPNIA provider would be an effective substitute from a demand and/or supply side perspective. The second question considers whether potential wholesale physical access products on alternative OAOs fibre/NGA networks fall within the WPNIA market. These questions require separate consideration because the functionality and value of a wholesale physical access product on a given network may differ depending on the geographic coverage of the network (this is true irrespective of the technology that constitutes the network, as is discussed further below). For example, a network that reaches a large number of customers serves a different functional purpose for an access seeker, and offers a different value proposition from that of a network that extends to only a small number of customers. Therefore, the willingness of WPNIA access seekers to switch to a potential wholesale physical access product offered on small and fragmented alternative OAO networks (regardless of the technology being employed) may differ in comparison to the willingness of WPNIA access seekers to switch between technologies on the ubiquitous access network of a WPNIA supplier.

4.34 In analysing respondents’ comments below, ComReg examines

• the ‘in principle’ matter as to whether fibre and NGA networks fall within the WPNIA product market

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Consultation on European Commission invitation to include alternative fibre networks in the WPNIA market, 13 May 2009, ComReg Document No. 09/42 (‘ComReg Document 09/42’).
whether OAO alternative network fibre deployments fall within the WPNIA product market; and
whether cable falls within the WPNIA product market.

4.35 In doing so, ComReg presents its preliminary view as set out in ComReg Document No. 08/104 and summarises respondents’ comments. Finally, ComReg analyses these comments and then sets out its position.

**Inclusion of fibre and Next Generation Access (NGA) infrastructure in the WPNIA market**

**Summary of ComReg’s preliminary view**

4.36 ComReg’s view as set out in ComReg Document No. 08/104 was that NGA would allow for either the replication of current WPNIA services or for the provision of higher quality services. Therefore, access seekers are likely to perceive WPNIA on the incumbent’s fibre (NGA) network as an effective substitute for current generation WPNIA. This view is consistent with the European Commission’s Recommendation which indicates that incremental upgrades in network infrastructures are rarely translated into a new or emerging market, thus indicating that access seekers will see NGA as an evolved form of WPNIA.

4.37 ComReg’s preliminary view, as set out in ComReg Document No. 08/104, was that the WPNIA market includes wholesale physical access to current generation copper as well as next generation fibre network infrastructure. ComReg’s preliminary view was that an operator purchasing WPNIA would consider fibre overlays on a WPNIA suppliers’ copper network to be an effective substitute for current generation copper based WPNIA. This is because, in addressing the access bottleneck, it is immaterial whether copper or fibre is used to deliver broadband services, as the conditions of competition are similar and it is likely that similar products can be provided over fibre. ComReg therefore maintained that where a WPNIA supplier switched from providing wholesale physical access over copper to providing wholesale physical access over fibre, then both types of access would form part of the same product market.

**Views of respondents**

4.38 The European Commission, in its response to ComReg’s proposed WPNIA market definition, noted that the definition of a relevant market should be made with reference to product characteristics, and invited ComReg to include all fibre within the WPNIA product market, including OAO fibre.

4.39 One respondent argued that ComReg should not include any fibre-based access within the definition of WPNIA at this time since, in the respondent’s view, this automatically creates an obligation to provide unbundled fibre access. In the respondent’s opinion, this obligation would be premature.

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98 European Commission Recommendation, paragraph 7.
99 It would, of course, be nonsensical to attempt to carry out a SSNIP test because the eventual “competitor” is the same hypothetical monopolist.
4.40 All other respondents to ComReg Document No. 08/104 agreed with the market definition proposed by ComReg. Respondents’ comments to ComReg Document No. 09/42 relating specifically to alternative fibre networks are considered in the following section.

**ComReg’s response**

4.41 ComReg disagrees with one respondent’s assertion that the proposed approach regarding the inclusion of NGA infrastructure within the market automatically creates an obligation on Eircom to provide unbundled fibre access. The definition of the relevant product market is an exercise that informs the competition analysis, and is separate and distinct from the competition assessment, SMP designation and the subsequent design of appropriate regulatory obligations, including access. The obligation to unbundle fibre is based, not an automatic conclusion arising from having a position of SMP, but as a consequence of the imposition, as appropriate, of specific obligations/remedies in accordance with Regulation 13 of the Access Regulations. Any such obligations imposed have regard to, amongst other things, a consideration of whether the denial of access would hinder the development of a sustainable competitive market at the retail level. The consideration of remedies is, therefore, subsequent to the SMP analysis, and the discussion on these aspects is contained in section 7 of this Decision Document.

4.42 The revision of the relevant market (formerly WUA) by the European Commission acknowledges that over the period of this market review, non-metallic physical network infrastructure (such as fibre or duct access) may be used in a WPNIA capacity. The revision ensures only that such developments are captured within the WPNIA market definition.

4.43 In considering the scope of the WPNIA product market in an NGN/NGA environment, ComReg notes that the provision of WPNIA is intended to address competition problems in wholesale, and ultimately, in retail broadband markets. ComReg’s preliminary view was that network upgrades of this nature (where the incumbent replaces, either in whole or part, its copper network with fibre) do not present a new set of competitive conditions. Rather, equivalent competition conditions (the same bottleneck) still exist where fibre is deployed to supersede existing current generation copper based access in the incumbent’s access network. As next generation networks develop and begin to supersede current generation networks as a platform for delivering broadband (and other) services, consumers are likely to continue demanding the provision of services over these networks. In turn, WPNIA access seekers are likely to seek access to next generation fibre infrastructure so that they can continue to compete and offer services in downstream retail markets.

4.44 It is probable that the access network bottleneck that currently exists will continue to be replicated as technology and infrastructure within the access network evolves. ComReg considers that the WPNIA market definition should be reasonably forward-looking, and should not be bound by current products and technologies.

4.45 In response to ComReg Document No. 08/41 and ComReg Document No. 08/104 access seekers have broadly supported the inclusion of fibre/NGA based WPNIA on the incumbent network in the WPNIA market. As such, ComReg’s view is that WPNIA access seekers are likely to perceive wholesale physical network infrastructure access on a WPNIA supplier’s next generation fibre network as a suitable demand-side substitute for current generation copper based WPNIA (for example, LLU).
4.46 Therefore, during any transition phase where the WPNIA supplier was to upgrade its existing copper access network to include fibre, operators (WPNIA access seekers) will look to fibre/NGA based WPNIA as a ‘next step’ substitute in order to obtain access to end users. As such, the deployment of fibre/NGA networks will offer an improved capability within access networks, via an additional or superseding form of fibre based WPNIA. In the likely scenario where the WPNIA supplier’s ubiquitous copper infrastructure is eventually to be replaced by fibre, either in whole or in part, access seekers will likely switch from copper based WPNIA to fibre based WPNIA (such a switch would be the only means available to the access seeker of reaching the end user). It is counterintuitive to suggest that, under those circumstances, an access seeker would not switch to fibre based WPNIA as a natural alternative to copper based WPNIA. As copper based access networks are overlaid and replaced with fibre, ComReg expects that WPNIA access seekers will demand a WPNIA product that ensures continuity in the delivery of retail broadband access to end users. This may involve gradually and incrementally switching across to the WPNIA supplier’s fibre network on an ‘as required’ basis, whilst continuing to utilise the copper based WPNIA product to service customers in areas where fibre has not yet been installed by the WPNIA supplier. ComReg’s view is, therefore, that access to fibre within a WPNIA supplier’s ubiquitous access network would represent an effective demand side substitute for the current copper based WPNIA products.

**Overall conclusion on whether fibre and NGA infrastructure is included within the WPNIA market**

4.47 ComReg has carefully considered views expressed by respondents, and maintains that wholesale physical access to next generation infrastructure (including, but not limited to, fibre deployments by a WPNIA supplier) would represent an effective demand-side substitute for current generation copper based WPNIA. Thus for the reasons outlined above, fibre and NGA infrastructure is (in principle) included in the WPNIA market.100

**Whether to include alternative access networks (particularly fibre networks) in the WPNIA product market**

**Summary of ComReg’s preliminary view**

4.48 In ComReg Document No. 08/104, ComReg considered whether potential wholesale physical access products provided over a small number of alternative FTTH networks (predominantly deployed in small pockets around parts of Dublin)101 should be included in the WPNIA market. ComReg’s preliminary view was that potential products on such networks should be excluded from the WPNIA market because of their limited scale and limited geographic scope, which would impact their

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100 Note that the degree of substitutability will also depend on the degree of ubiquity/reach of a given network (described in detail in the following section). Therefore, a potential wholesale physical access product on any network that is not of sufficient scale to offer a viable and commercially attractive product could be excluded from the WPNIA product market, due to a lack of demand-side or supply-side substitutability.

101 The coverage of OAO fibre networks in Ireland is very limited and fragmented (owned by two operators (Magnet and Smart Telecom), having several small scale networks across a number of locations). The total number of alternative operator fibre lines connected to premises is estimated at 15,000. Of these lines, 5,636 fibre lines were connected to active subscribers as at Q4 2009.
attractiveness to access seekers as a potential source of WPNIA supply. This was also proposed on the basis that such potential wholesale physical access products, even if they existed, would not provide sufficient constraint to prevent a hypothetical monopolist from imposing a successful small but significant non-transitory increase in the price (SSNIP) of WPNIA. The exclusion of these networks from the WPNIA market was unrelated to the type of infrastructure employed by these alternative operators as being fibre based – in fact, ComReg had set out its view that fibre based infrastructure was, in principle, an effective substitute for other wholesale physical access products in the WPNIA market.

4.49 ComReg’s approach took into account the limited scale, coverage and dispersed nature of alternative operator fibre networks in Ireland. As was noted in paragraph 4.19 above, the scale (in terms of network coverage and end user reached) of an access network is important to access seekers, in that it must allow the purchaser to achieve economies of scale and support a business case that covers the level of investment required in building the necessary infrastructure required in order to be able to justify availing of the WPNIA wholesale product. ComReg’s preliminary view was that these characteristics significantly mitigate the competitive constraint posed by these networks in the WPNIA market. For example, access seekers (such as BT Ireland, or Smart Telecom Holdings Limited) do not consider wholesale physical access to these small and dispersed fibre networks as an effective substitute for a WPNIA product provided over a network that reaches a larger number of potential retail customers (such as, for example, that provided by Eircom on its ubiquitous access network through its copper based Local Loop Unbundling product suite).

4.50 Accordingly, the exclusion of OAO FTTH (fibre-to-the-home) from the WPNIA product market was proposed, not on the basis of technology, but rather because the networks in question are not of sufficient geographic coverage to enable the provision of a viable substitute for WPNIA. Moreover, the reach of these networks is not likely to increase over the period of this market review to the extent that would lead to them be deemed by existing access seekers as an effective substitute product. ComReg also indicated that if market conditions changed materially during the life of the period to be covered by this WPNIA market review (such as the significant expansion of fibre networks), then ComReg would examine the issue to assess whether any changes to the market definition were required.

Views of respondents

4.51 As highlighted in paragraph 4.38, the European Commission noted that ComReg had proposed in its review that fibre is included in the relevant market, but that FTTH network infrastructure deployed by alternative operators is excluded from the WPNIA product market. The European Commission reminded ComReg that the definition of a relevant product market should be made with reference to the product characteristics which, in the European Commission’s view, at present do not indicate that the functionality of possible access products provided over separate FTTH networks would differ to such an extent that this would justify their exclusion from the WPNIA market.

102 European Commission letter to ComReg of 20 February 2009 (the ‘European Commission Letter’). See Appendix C of ComReg Document No. 09/42.
4.52 The European Commission stated that it did not challenge ComReg’s finding with respect to its WPNIA market definition, and noted that, in its view, the proposed regulatory outcome (i.e. SMP Designation and the obligations that flow from that, as notified to the European Commission) was not affected by the exclusion of OAO fibre, given the very limited roll-out of fibre networks in Ireland. However, the European Commission invited ComReg to include all access products based on fibre networks, irrespective of ownership of such networks, within the relevant market in its final measure.

4.53 In order to take the utmost account of the European Commission’s comments and to give interested parties a chance to make further comments, ComReg published an additional consultation paper on the specific issue of whether to include OAO fibre networks in the WPNIA product market. This consultation paper, ComReg Document No. 09/42, was published 15 May 2009.

4.54 In ComReg Document No. 09/42, ComReg asked interested parties to comment on the European Commission’s invitation for ComReg to include fibre deployed by alternative operators in the WPNIA market.

4.55 Of the five respondents to the consultation, two supported the European Commission’s invitation to include ‘all access products based on fibre networks’ within the WPNIA market. Of the two that supported the European Commission’s invitation, one respondent submitted that if fibre was to be included in the WPNIA market, then all operators’ fibre networks should be included. However, it should be noted that this respondent previously submitted that fibre should be excluded from the WPNIA market in totality. The respondent went further and suggested that cable should also be included in the market given that cable TV networks encompass an element of fibre (as well as copper) and also argued that cable poses an indirect constraint on the WPNIA market via the retail broadband market (the theory being that Eircom would be prevented from increasing the price of LLU because if it were to do so, downstream retail customers would switch to cable based broadband products, resulting in Eircom losing wholesale revenue).

4.56 The respondent considered that the geographic coverage of alternative fibre access networks was not a legitimate factor to take into account when defining the relevant product market.

4.57 The respondent argued that fibre is becoming increasingly prevalent in Irish cable networks, such that these networks are at least as much fibre based as any FTTC/VDSL network. For this reason, the respondent’s view was that ComReg should reconsider its market definition to include cable (and also mobile broadband networks, which can have fibre running to the edge network or to base stations).

4.58 Another respondent supported the European Commission’s invitation on the grounds that amending the market definition in line with the invitation would avoid a potential issue which could be raised in litigation at a national level and therefore facilitate a speedier conclusion to the market analysis exercise. This suggests to ComReg that the view was based on practicality and a need to ensure the speedy effect of any ComReg decision, rather than being based on a reasoned substitutability analysis. This view represented a change in the position presented to ComReg by that party in its previous consultation responses.

4.59 The three other respondents all agreed with ComReg’s preliminary view, as expressed in ComReg Document No. 08/104.
**ComReg’s Response**

4.60 ComReg notes that the total collective coverage of alternative fibre networks and take-up of fibre-based retail products in Ireland is extremely limited. As at Q4 2009 there were approximately 15,000 fibre access paths in Ireland (dispersed across approximately 30 geographic locations) of which 5,636 are being actively used to provide services to retail customers.

4.61 ComReg notes that the number of retail fibre subscriptions (used to provide any combination of telephony, broadband and television) has only modestly grown since September 2007. Over that period, the number of fibre subscriptions has increased from 4,516 (Q3 2007 Quarterly Key Data Report) to 5,636, with a decrease in fibre subscriptions in the latest quarter. This analysis illustrates the limited presence of alternative operator fibre in the Irish retail broadband market, and indicates that growth has been insubstantial over the past two years.

4.62 Additionally, there are currently no wholesale physical access products of any form made available by alternative fibre network operators. Given the absence of any level of participation by these alternative fibre network operators in the wholesale market (and that this is unlikely to change in the next three years), ComReg sets out below its analysis as to whether self-supply of fibre physical access by these alternative operators falls within the WPNIA product market. In so doing, ComReg has had regard to European Commission guidance in relation to the treatment of self-supply in defining product markets.

4.63 The SMP Guidelines and the Explanatory Note both point to the importance of competitive constraints, in particular, to the scale of a network as being a determinant of its competitive constraint. In addition, the European Commission’s Notice on Market Definition considers three forms of competitive constraints – demand substitutability, supply substitutability and potential competition. It also cautions against over-reliance on the similarity of product characteristics and on functional inter-changeability when defining product markets.

4.64 The European Commission states in the Explanatory Note that:

> “...self-provision of wholesale inputs arises frequently in both defining and analysing markets. In some cases, what is under consideration is the self supply of the incumbent operators. In others, it is the self supply of alternative operators”.

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103 Based on information provided by service providers.
105 Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q4 2009, Document 10/19, 18 March 2010.
106 Given the slowdown in housing construction in Ireland, and the association between housing construction and alternative fibre network deployment, ComReg does not anticipate significant growth in fibre during over the period of this review.
108 Notice on Market Definition, paragraphs 36.
109 All quotes below can be found in the Explanatory Note, page 15, section 3.1.
Additionally the European Commission states that:

“In cases where there is likely demand substitution, i.e. where wholesale customers are interested in procuring from alternative operators, it may be justified to take the self-supply concerned into consideration for the sake of market delineation”.

However, the European Commission considers that

“…..this is not justified if alternative operators face capacity constraints, or their networks lack the ubiquity expected by access seekers, and/or if alternative providers have difficulty in entering the merchant market readily”.

The Explanatory Note also states that:

“Other access technologies including wireless local loops... are starting to become available, but only on a scale that imposes little if any constraint on the local loop operators.”

Having regard to the European Commission’s SMP Guidelines, the Explanatory Note and the Notice on Market Definition, the following criteria are considered by ComReg in determining whether self-supply of alternative fibre networks falls within the WPNIA product market:

- whether the network offers the coverage expected by access seekers;
- whether there is sufficient demand side substitution;
- whether the provision of a WPNIA product is technically feasible;
- whether the self-provisioning operator has sufficient capacity to provide a wholesale physical network infrastructure access product;
- whether suppliers could switch to the provision of a WPNIA product (and offer it in the merchant market) in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.

The question whether the scale of geographic coverage of an alternative fibre access network is a legitimate factor in defining a product market pertains to the general principles of market definition (and is not unique specifically to fibre networks).

Demand for access to a wholesale physical access product on a given network depends on the sustainability of the business case to the access seeker. This business case will be dependent on both the revenues and costs associated with such access. OAOs would incur investment costs related to new infrastructure deployment to facilitate co-location, backhaul, contractual issues, administration and localised marketing. The potential revenues available will depend on the number of subscribers that can be potentially served by the access seeker through gaining access to that alternative fibre network. These demand side factors would likely impact on the potential demand for WPNIA on these alternative operator fibre networks.

See Page 31, Explanatory Note.
Two operators (Magnet Networks and Smart Telecom Holdings Limited) are providing retail broadband over fibre access networks. The fibre networks were in most cases installed in new residential developments that lay in proximity to a fibre backhaul path.\footnote{111} Deployment of these networks involved building a backhaul link from the operator’s core network infrastructure to one or more central hub(s) in the access network. Hubs may be located in building basements, or in a street cabinet. From that point, dedicated lines run to each individual unit (residence/building). In some cases fibre is run directly into the unit, while in other networks copper or cable only extends from the hub/building basement into each unit.

As noted above in paragraph 4.60, the coverage of OAO fibre networks in Ireland is very limited, covering a total of approximately 15,000 homes (out of a total of 1.4m homes in Ireland), and is fragmented (supplied by two operators across approximately 30 non-adjacent locations). The largest fibre deployment in Ireland extends to 1000 residential units, serviced by two hubs. By comparison, the average size of an exchange unbundled by access seekers in Ireland is approximately 10,000 lines per exchange\footnote{112}.

Industry participants have indicated that OAO infrastructure such as fibre networks are not currently deployed on a sufficiently widespread basis to represent an effective substitute for Eircom’s ubiquitous network.\footnote{113} Further, ComReg’s understands that neither Smart Telecom, nor Magnet, has received expressions of interest from any retail broadband provider seeking WPNIA to their fibre networks. This indicates a lack of demand-side substitutability between existing Eircom WPNIA products and hypothetical WPNIA products on alternative fibre networks.

ComReg’s analysis indicates that access seekers expect greater coverage than that which could be offered on an alternative fibre network (were a wholesale product to be available). For this reason, a potential wholesale physical access product offered on alternative operator fibre networks is not likely to be considered to be a demand side substitute by access seekers.

Notwithstanding the lack of demand from access seekers, ComReg has also considered supply side factors identified in paragraph 4.68 above (technical feasibility; available capacity; and ability and willingness to switch production).

ComReg considers that it is technically feasible to provide a wholesale physical access product on fibre networks. However, the limited scale of these alternative fibre networks impacts the business case such that they are not likely to make such a physical access product available. This is due to the costs of developing a wholesale product and putting the necessary systems in place and the likely revenues that may

\footnote{111} Fibre networks have typically been installed in new developments because the ducting and fibre can then be installed in tandem with the construction of other core infrastructure (i.e. water, power networks) so as to reduce the deployment cost. New developments that are located near core network facilities are more attractive commercially because the cost of backhaul to the access network hub is reduced.
\footnote{112} OAOs do not currently unbundle exchanges with fewer than approximately 2,600 lines. Approximately 95% of those unbundled exchanges have more than 4,000 lines.
\footnote{113} For example, Vodafone Response – ComReg 09/42 WPNIA Market Review – Market Definition, 16 June 2009.
accrue. This view is supported by views expressed to ComReg by alternative fibre network operators in which they indicated that there is no commercial incentive to provide a wholesale physical access product and to do so would not be consistent with their business strategy.

4.77 The capacity of alternative fibre network operators to supply a physical access product is limited by the coverage of their networks - approximately 15,000 fibre paths. ComReg does not expect this level of coverage to materially change within the next three years. In ComReg’s view, these factors would prevent the provision of a wholesale physical access product on these networks in the short term without network operators incurring significant costs.\(^{114}\)

4.78 In summary, the self-supply of these alternative fibre networks would not, in ComReg’s view, meet the necessary criteria (and therefore does not provide sufficient direct competitive constraint) such that they would warrant inclusion in the WPNIA product market.

*Indirect constraint*

4.79 ComReg has also assessed the strength of the indirect constraint posed by alternative fibre networks. Specifically, ComReg considered whether competition posed by alternative fibre networks in the retail broadband market would prevent a hypothetical monopolist from imposing a successful SSNIP in the WPNIA market.

4.80 ComReg has applied the European Commission’s criteria for assessing the strength of indirect constraints. The European Commission suggests\(^ {115}\) that in order to justify the inclusion of a given platform in the product market on the basis of indirect constraints, it should be shown that, in response to a SSNIP:

- Internet Service Providers (ISPs) would be forced to pass a hypothetical wholesale price increase on to their consumers at the retail level based on the wholesale/retail price ratio;
- there would be sufficient demand substitution at the retail level such as to render the wholesale price increase unprofitable; and
- the customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.

4.81 Since the only WPNIA supplier is vertically integrated, access seekers are competing against the WPNIA supplier in the downstream retail broadband market. Were access seekers to attempt to pass on the wholesale price increase in WPNIA to their retail

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\(^{114}\) In addition, for new entrants, fibre deployment would involve, amongst other things, gaining permission to undertake civil engineering work in populated areas, digging up roads and footpaths, building ducting and potentially finding cabinet space. The incumbent network operator will also face these costs when rolling out fibre, but to a lesser extent since the incumbent already has established infrastructure, customers and systems in place which contribute to lower customer acquisition costs, economies of scale and scope in providing WPNIA.

customers, they would likely risk losing a portion of their retail customers to the retail broadband product offered by the WPNIA supplier’s downstream arm, and to other retail broadband suppliers. Thus, it is unclear whether and to what extent a price increase in WPNIA would be passed on by access seekers to their retail customers.

4.82 In considering this issue, ComReg notes that the cost of WPNIA is an input cost to the overall retail broadband price (the retail/wholesale price ratio) and the extent of any pass through of an increase in the cost of WPNIA to an access seeker’s retail customers would, therefore, be diluted. ComReg has calculated that the wholesale price of WPNIA represents approximately 26% of the price of retail line rental/broadband services offered\textsuperscript{16} by OAOs (using the existing ULMP product), therefore a 10% SSNIP of WPNIA is likely to translate to only a 2.6% increase in the price of the retail broadband product. This dilution effect is likely to have an impact on the access seeker’s decision as to whether or not to pass on the price increase in WPNIA at the retail level. Furthermore, in circumstances where it is passed on, the retail consumer’s decision as to whether to switch to an alternative service provider will be impacted by the level of the retail price increase (along with their sensitivity to this) and the availability of effective substitute products.

4.83 In response to a SSNIP in WPNIA, ComReg considers that the number of access seekers’ retail customers (served via a copper/fibre based WPNIA supplier) that would switch to retail broadband providers other than the WPNIA supplier is unlikely to be significant because the diluted price increase is insubstantial.

4.84 The level of switching that would occur is also impacted by the availability of substitute products from alternative broadband providers. Many retail broadband customers are not within reach of alternative fibre broadband networks (which cover only 15,000 homes in Ireland, the majority of which are located in Dublin), so are unable to exercise that option. Those customers within reach of an alternative fibre network would also incur costs when switching to alternative networks which may further undermine the rationale for switching. These may include costs associated with new modems and installation, as well as less measurable and intangible costs such as time and effort expended. These costs would, in ComReg’s view, be likely to place a further limiting effect on the degree of switching (when the price savings to be made by switching are insubstantial).

4.85 For those customers that do elect to switch, it is likely that a significant portion would switch to the WPNIA supplier’s retail broadband product (assuming the WPNIA supplier held its own retail prices constant). In such cases the hypothetical monopolist gains the retail revenues associated with that customer (which offsets the loss of the wholesale revenue from the access seeker). This effect further diminishes the potential for alternative fibre networks to indirectly constrain the hypothetical monopolist.

4.86 ComReg therefore considers that the indirect constraint posed by alternative fibre networks would not prevent a hypothetical monopolist from imposing a profitable SSNIP of WPNIA and, therefore, does not justify the inclusion of alternative fibre networks in the WPNIA market.

\textsuperscript{16} Calculation is based on an average retail price of various OAOs that provide such services using WPNIA.
4.87 In any case, as ComReg has noted earlier, the coverage of OAO fibre networks in Ireland is very limited covering a total of approximately 15,000 homes. Even if such alternative fibre networks were to be included in the WPNIA market, its impact on competition would be minimal (see further discussion in Section 5 dealing with the competition analysis).

**Conclusion on whether alternative fibre networks fall within the WPNIA market**

4.88 There are currently no wholesale products of any form made available by alternative fibre network operators. Given the absence of any level of participation by these alternative fibre network operators in the wholesale market (and that this is unlikely to change in the next three years), ComReg has considered whether their self-supply falls within the WPNIA product market. In so doing, ComReg has had regard to European Commission guidance in relation to the treatment of self-supply in defining product markets. ComReg’s view is that alternative operator fibre networks do not meet the necessary conditions (and therefore do not provide sufficient direct constraint) to justify inclusion in the WPNIA market. Similarly, ComReg considers that the indirect constraint posed by alternative fibre networks would not prevent a hypothetical monopolist from imposing a profitable SSNIP of WPNIA and, therefore, does not justify the inclusion of alternative fibre networks (or any other alternative network) in the WPNIA market on the basis of indirect constraints. ComReg’s view is that alternative fibre networks fall outside of the WPNIA product market.

4.89 This position has been reached after taking the utmost account of the European Commission’s comments and invitation, and relevant European Commission guidance that provides a context for those comments and that invitation.

**Whether cable networks should be included in the WPNIA product market, either as a direct or an indirect constraint**

**Direct constraint**

*Summary of ComReg’s preliminary view*

4.90 In ComReg Document No. 08/104, ComReg excluded cable networks from the WPNIA product market on the grounds that a potential wholesale physical access product provided over a cable network would not justify inclusion in the product market in response to a SSNIP of WPNIA.

4.91 It should be noted that only two of the National Regulatory Authorities (NRAs) in the European Union, those being OfCom117 (UK NRA) and ANACOM (Portuguese NRA), have included cable in the WPNIA market. In both cases, cable was included on the basis of indirect constraints. In the case of ANACOM, the European Commission commented118 in response to the notification that, in its view, cable should not be included.

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117 OfCom notified the European Commission in respect of Market 4 on 23 March 2010. The European Commission has not yet responded to OfCom’s notification. However, OfCom also included cable in its previous analysis of the LLU market in 2004. At that time, the European Commission commented on the inclusion of cable in the market. [http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/uk/registeredsnm/uk2004094/sq-greffe_2044001pdf/_EN_1.0 &a=d](http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/uk/registeredsnm/uk2004094/sq-greffe_2044001pdf/_EN_1.0 &a=d)

included in the WPNIA market in Portugal because there is no direct constraint (since cable networks cannot be unbundled), and there is insufficient evidence that cable networks would pose an indirect constraint in Portugal.

4.92 The European Commission remains of the general view that cable should be excluded from the WPNIA market. The European Commission notes in its Explanatory Note that:

“The unbundling of cable networks at this stage does not appear technologically possible, or economically viable, so that an equivalent service to local loop unbundling cannot be provided over cable networks.”

4.93 The Commission does point out however that the indirect constraint exercised by cable networks will need to be taken into account when assessing whether an operator enjoys SMP (in the competition analysis section).

4.94 ComReg also considered that existing cable operators are unlikely to enter the merchant WPNIA market in response to a SSNIP.

Views of respondents

4.95 All respondents, save for one, agreed with ComReg’s proposal to exclude cable from the WPNIA market definition. One respondent proposed that cable networks exercised a direct constraint on the supply of WPNIA, in particular, because of the increased use of fibre within cable networks.

ComReg’s response

4.96 There is not currently a cable based wholesale physical access product (or wholesale access product of any sort) available in Ireland. Given there are no wholesale physical access products offered on cable networks and such products are not likely to be provided, the question is whether the self-supplied inputs of the cable operator could be used to provide a wholesale physical access product that would warrant inclusion in the WPNIA market.

4.97 In response to a request for information from ComReg, the only cable operator of any significant scale in Ireland has indicated that it would be unlikely to be able to supply a wholesale product of any form within 12 months in response to a SSNIP by a hypothetical WPNIA monopolist, primarily due to the cost and time involved in establishing the systems required for providing a wholesale product.

4.98 ComReg has therefore considered the same factors as outlined in paragraph 4.68 above (coverage expected by access seekers; demand side substitution; technical feasibility; available capacity; and ability and willingness to switch production) in assessing whether self-supply by cable operators should be included in the WPNIA market.

4.99 Data gathered by ComReg from the largest cable operator in Ireland indicates that the topology of the cable broadband network is currently technically incapable of supporting a physical access product that could be deemed to be a substitute for copper based WPNIA. Specifically, individual coaxial cable lines cannot currently be physically unbundled because the network is designed in a 'ring and spur' structure.

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which means that a single line at the hub serves multiple end users (a shared coaxial ring passes by between 500-1000 end-user units, which are connected to the shared ring via short dedicated spurs). In contrast with copper networks, each line serves a single premise and is not shared. ComReg understands that the extension of fibre into cable broadband networks does not address this access problem or enable the delivery of a WPNIA product, since the inhibiting element is the remaining shared coaxial cable ring that links the fibre backhaul connection to multiple end users’ premises.

4.100 Additionally, ComReg also notes that the cable network is currently unable to support any other form of wholesale physical access product that would amount to an effective substitute for WPNIA. In particular, the DOCSIS (Data Over Cable Service Interface Specification) international standard used by cable operators does not currently support frequency sharing or any other traffic management model that would support the provision of wholesale physical access to a third party operator on a cable network.

4.101 It is also worth noting that the European Commission’s Explanatory Note states the following in relation to cable networks:

“While upgraded cable systems have become more widely developed and deployed in some parts of the Community, such systems overall still have a limited coverage. Moreover, the unbundling of cable networks at this stage does not appear technologically possible, or economically viable, so that an equivalent service to local loop unbundling cannot be provided over cable networks.”

4.102 This comment from the European Commission is consistent with ComReg’s understanding of the cable broadband presence in Ireland. Cable broadband networks reach approximately 35% of households in Ireland, and it is not technologically possible or economically viable to provide a physical access product.

4.103 As noted in paragraph 4.97 above, capacity constraints associated with the diverting of production from self-supply to the supply of a potential cable based wholesale physical access product (even if it were technically feasible) in the merchant market are likely to exist (such as the development of the necessary wholesale processes and systems required for providing a such a wholesale product). In response to a SSNIP of copper/fibre based WPNIA by a hypothetical monopolist, such constraints are likely to impact on the ability for a cable based wholesale physical access product to be made available, within a reasonable timeframe, such that it would render the SSNIP unprofitable.

4.104 These technical and capacity factors would limit the direct constraint imposed on the WPNIA market by cable networks, were they to offer a wholesale physical access product. Existing access seekers purchasing copper based WPNIA (via Eircom’s LLU product suite) have already built their networks to connect with Eircom and a switch to a potential wholesale physical access product on a cable network would be difficult and would take time (whereas a first time purchaser of potential wholesale physical access on a cable network would not face such switching difficulties).

120 Explanatory Note, Page 31.

121 Source: Data obtained by ComReg from UPC. Data correct as at end 2009.
4.105 For this and other reasons identified above, ComReg does not consider that access seekers are likely to demand access to a potential wholesale physical access product on a cable network.

4.106 In summary, therefore, the self-supply of these alternative cable networks would not, in ComReg’s view, warrant inclusion in the WPNIA product market. The inclusion of potential cable based wholesale physical access products in the WPNIA market is not justified due to a lack of effective demand-side and supply-side substitutability.

**Indirect constraint**

**Summary of ComReg’s preliminary view**

4.107 In ComReg Document No. 08/104 ComReg assessed the strength of indirect constraints in order to determine whether potential wholesale physical access products offered over alternative platforms such as cable should be included in the WPNIA market. ComReg considered that the competitive constraint posed by cable in the downstream market for retail broadband would not prevent a hypothetical monopolist from imposing a successful SSNIP in the WPNIA product market. On that basis, ComReg’s preliminary view was that cable would not be included in the WPNIA market on the basis of indirect constraints.

**Views of respondents**

4.108 Five of the six respondents to ComReg Document No. 08/104 agreed with ComReg’s proposed market definition. One respondent argued that cable poses an indirect constraint in the WPNIA market because of the increasingly competitive position of cable in the retail market. On that basis, the respondent’s view was that cable should be included in the WPNIA market.

**ComReg’s response**

4.109 ComReg has considered the respondent’s comments and has had regard to the European Commission’s suggested methodology in considering the strength of the indirect constraint posed by cable. Once again, ComReg considered the European guidelines for assessing indirect constraints, which are set out above in paragraph 4.80.

4.110 In applying the European Commission’s test, ComReg noted above that any potential indirect constraint in the WPNIA market from competing alternative providers in the downstream retail broadband markets are diminished because:

- It is unclear whether, and to what extent, a SSNIP of WPNIA would be passed on to retail customers
- Any pass-through to retail broadband customers would be diluted, since, for example, a 10% increase in the price of WPNIA (e.g. LLU) represents a smaller increase in the price of retail broadband (approximately 3% increase in the retail price according to ComReg’s calculations). When taking into account the costs (money and time) associated with switching, ComReg expects that few customers would switch away from their existing supplier as a result of the small price increase in retail broadband
- Of the customers that do switch away from their existing suppliers, a significant proportion would be likely to switch to the WPNIA supplier’s retail broadband product
4.111 As noted in the previous section, the level of switching that would occur is also impacted by the availability of substitute products from alternative broadband providers. Many retail broadband customers are not within reach of cable broadband networks (which cover approximately 35% of homes in Ireland, the majority of which are located in Dublin), so are unable to exercise that option. Those customers within reach of a cable network would also incur costs when switching to alternative networks which may further undermine the rationale for switching. These include costs associated with new modems and installation, as well as less measurable and intangible costs such as time and effort expended. These costs would, in ComReg’s view, be likely to place a further limiting effect on the degree of switching.

4.112 ComReg therefore remains of the view that the indirect constraint posed by alternative platforms such as cable would not prevent a hypothetical monopolist from imposing a profitable SSNIP of WPNIA and, therefore, does not justify the inclusion of cable (or any other alternative network) in the WPNIA market.

**Conclusion on whether cable falls within the WPNIA product market**

4.113 ComReg remains of the view that neither the direct constraint nor the indirect constraint posed by alternative platforms would prevent the hypothetical monopolist from imposing a successful SSNIP of WPNIA and, therefore, does not justify the inclusion of cable (or any other alternative network) in the WPNIA market.

**Summary conclusion on WPNIA product market definition**

4.114 Having regard to technology neutrality and the need to address the inclusion of infrastructures associated with NGA, the draft Decision Instrument\(^\text{122}\) in ComReg Document No. 08/104 stated that:

> “Next generation access is considered to include access networks which permit very high speed access reaching from multifunctional access and aggregation nodes to the end-user. In the context of the WPNIA market as defined this will mean that part of the access network that is composed of fibre optic cable but may include other new infrastructure that permits very high speed access.”

4.115 Having regard to the analysis set out in this Section 4 and the likely development of networks and infrastructures in the market within the period to be covered by this review, ComReg has further clarified (in the Decision Instrument at Appendix C), the definition of WPNIA provided over next generation networks such that it now specifically refers to fibre and its associated facilities.

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\(^{122}\) See Appendix A of ComReg Document 08/104, paragraph 12.1.
Having regard to the analysis presented throughout this section (and in ComReg’s Decision 08/41, 08/104, and 09/42), ComReg has arrived at the following conclusions in defining the WPNIA product market. Subject to the qualifications set out in the subsequent paragraphs below, the WPNIA product market consists of:

- Wholesale physical network infrastructure access provided over current generation copper network infrastructure and its associated facilities at a fixed location
- Wholesale physical network infrastructure access provided over next generation fibre network infrastructure and its associated facilities at a fixed location

This would include, for example, the LLU products and associated facilities currently provided by Eircom.

Self-supplied physical network infrastructure access is included in the WPNIA market only if the following conditions are satisfied:

- whether the network offers the coverage expected by access seekers;
- whether there is sufficient demand side substitution;
- whether the provision of a WPNIA product is technically feasible;
- whether the self-provisioning operator has sufficient capacity to provide a wholesale physical network infrastructure access product;
- whether suppliers could switch to the provision of a WPNIA product (and offer it in the merchant market) in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.

ComReg considers that, based on the analysis set out in this section (section 4), the self-supply of network access by Eircom satisfies these conditions, and therefore falls within the WPNIA product market.

ComReg considers that, based on the analysis set out in the preceding section, the self-supply of physical network infrastructure access by alternative operators in Ireland (regardless of the technology underlying these networks) is unlikely to meet these conditions within the period of this market review, and therefore does not fall within the WPNIA product market.

ComReg considers that Wholesale Broadband Access, narrowband access and leased line products are in a separate product market from WPNIA, because the functionality of WBA and leased line products and the extent of investment required to utilise them are sufficiently different from WPNIA such that the products are not effective substitutes.\(^\text{123}\)

\(^{123}\) See ComReg Document No. 08/104 for full analysis.
Geographic Market Definition

Summary of ComReg's preliminary view

4.116 ComReg noted that, at the present time, the WPNIA product market is made up almost entirely of demand for and supply of local loop access (regulated copper local loop access products or self-supplied equivalent).

4.117 Eircom is the only provider of WPNIA across urban and rural areas. Whilst there are alternative networks providing retail broadband products operating in some urban areas, ComReg excluded those networks from the WPNIA market on the basis that they do not provide a material constraint in the WPNIA market.

4.118 ComReg found no evidence of different pricing constraints between urban and rural areas in the WPNIA market.

4.119 In the absence of direct competition in the WPNIA market (based on ComReg’s WPNIA product market conclusion set out above), ComReg re-examined retail pricing across Ireland, in the interest of executing a thorough analysis, and found that retail broadband prices do not vary according to location. ComReg considered that the national pricing strategy employed across the industry at a retail level further suggested that a national WPNIA market exists.

4.120 ComReg noted that there is insufficient evidence of localised competition in the WPNIA market leading to geographically differentiated pricing in the WPNIA or retail broadband markets.

4.121 ComReg acknowledged that demand for and the supply of WPNIA is likely to vary across the country. For example, copper based WPNIA (LLU as a product) may offer a less attractive commercial proposition in areas with low population. ComReg considered that individual operators, rather than the regulator, are best placed to determine the commercial feasibility of unbundling a given exchange, and that it should not prejudge the commercial strategy of operators by excluding ‘low population density’ exchanges from the relevant market. Therefore, in applying the market analysis methodology to the assessment of the geographic scope of the market, there is no reason to exclude particular geographic areas from the relevant market.

4.122 The WPNIA analysis is not materially affected by the outcome of the NBS award, because the NBS operator is not required to offer a physical access service in the NBS area, and would not be likely to offer a wholesale physical product without having a regulatory obligation to do so. The NBS provider is obliged to offer a non-physical access product (more akin to WBA). ComReg would note that it is not aware of any service provider having availed of the NBS wholesale product provided by the NBS operator.

4.123 Overall, ComReg considered that there is insufficient evidence to suggest that competition within the WPNIA market across Ireland varies to the extent that the delineation of sub-national markets would be justified. In particular, competitive conditions are likely to be similar in all areas where demand and supply for WPNIA occur within the period of this review (the next 2-3 years).

4.124 ComReg considered that the WPNIA market is national in scope.

124 The NBS operator has offered a non physical access wholesale product since April 2009.
Views of respondents

4.125 Only two out of twelve parties, who responded to ComReg’s Consultation documents at some point throughout the course of the market review, disagreed with ComReg’s disagreed in principle with ComReg’s proposed WPNIA market definition (note that in relation to the two parties, one company is a wholly owned subsidiary of the other).

4.126 One respondent submitted in response to ComReg Document No. 08/104 that competitive circumstances in urban and rural areas differ, and therefore varied regulation is required. That respondent considers that ‘lighter-touch’ regulation would be required in some areas. However, the respondent did not provide reasoning behind this view, other than to suggest that Ireland experiences healthy infrastructure-based competition in the provision of broadband and a vibrant retail market.

ComReg’s response

4.127 ComReg acknowledges that there exists some variance in the degree of competition observed at the retail level between different parts of Ireland, such as in certain areas where retail broadband products are available on cable and fixed wireless networks. Although some differences in the coverage of networks exist, ComReg has observed that the significant majority of retail broadband service providers do not charge different retail prices for the same service across different geographic areas. Similarly, the functionality/characteristics of individual service provider retail offerings do not substantially differ across geographic areas (save, for example, due to inherent limitations in some network capabilities).

4.128 However, ComReg remains of the view that this variance cannot be observed in the upstream WPNIA market. Access seekers remain limited to a single provider of WPNIA (presently LLU provided by Eircom) in both urban and in rural areas alike.

4.129 ComReg would note that it has recently determined\textsuperscript{125} the maximum national monthly rental prices that Eircom may charge for the provision of access to copper loops and sub-loops. These prices have been calculated taking into account the fact that lines in smaller exchanges, are less likely to be unbundled within the term of the price control period (November 2012). In determining the appropriate maximum monthly rental charge for LLU under the price control mechanism, ComReg applies a threshold based on the number of copper lines in exchanges (greater than 2,500 copper lines) and the probability that such exchanges will be unbundled by an OAO. ComReg has not, as part of the price control review, ruled out the possibility that exchanges with less than 2,500 copper lines will be unbundled, and has applied a probability factor to the likelihood of such exchanges being unbundled.

4.130 The presence of FWA and cable networks operating in some urban (and rural) areas does not provide an alternative source of WPNIA for access seekers and, therefore, urban areas do not present a different set of competitive circumstances to those present in rural areas. Accordingly, the conditions of competition in the upstream WPNIA market are sufficiently similar across Ireland to warrant a single nationwide market. Neither the submissions received in response to ComReg Document No. 08/104 or

\textsuperscript{125} Response to Consultation Documents No. 09/39 and 09/62. Local Loop Unbundling (“LLU”) and Sub Loop Unbundling (“SLU”), Maximum Monthly Rental Charges, ComReg Document No. 10/10.
ComReg’s own examinations lead ComReg to arrive at an alternative conclusion in this regard.

**Conclusion on WPNIA geographic market definition**

ComReg’s conclusion is that the WPNIA market is national in scope.
5 **Competition and SMP Analysis**

5.1 Having defined the WPNIA market, ComReg is then required to consider whether any operator has significant market power (SMP) in that market. In ComReg Document No. 08/104, ComReg set out a detailed review of industry comments and analysis of competition in the WPNIA market.\(^{126}\)

5.2 It was noted that the 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*: \(^{127}\)

> “The dominant position thus referred to [by Article 102 TFEU] 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.”

5.3 Article 14 of the Framework Directive\(^ {128}\) effectively mirrors this definition of dominance and equates SMP with:

> “...a position of economic strength affording it [the undertaking] the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.”

5.4 This is transposed by Regulation 25 of the Framework Regulations. Regulation 27 of the Framework Regulations, which implements Article 16 of the Framework Directive, requires ComReg to conduct a market analysis in accordance (where appropriate) with an agreement with the Competition Authority\(^ {129}\), taking utmost account of the SMP Guidelines.

5.5 The European Commission’s SMP Guidelines focus on the competitive constraint imposed on an undertaking by existing and potential competition. The European law jurisprudence stresses that the existence of a dominant position cannot be established on the sole basis of large market shares. Rather, the existence of a high market share indicates that the undertaking might be in a dominant position. The European Commission recommends in its SMP Guidelines that, in the presence of a high market share, a number of criteria may be used as a guide to measuring the power of an undertaking to behave independent of competitors, customers, and consumers.

\(^{126}\) See the competition analysis section of ComReg Document No. 08/104


\(^{129}\) ComReg has deemed it appropriate to consult with the Competition Authority on this market review. ComReg has entered into a Cooperation Agreement with the Competition Authority further to Section 34 of the Competition Act 2002 for the purposes of the Framework Regulations.
5.6 In ComReg Document No. 08/104 the extent of market power within the WPNIA market was assessed in line with the criteria set out by the European Commission in its SMP Guidelines\(^{130}\). In so doing, ComReg noted that each factor may in fact be interrelated and all available evidence must be considered as a whole before a determination on SMP can be made. ComReg expressed the view that Eircom has SMP given:

- Eircom currently has a market share of 100%.
- Eircom is the only operator providing wholesale physical network infrastructure access, and this is not likely to change within the lifetime of this review.
- Eircom controls infrastructure that is not easily duplicated.
- There are no existing competitors in the WPNIA market, and there is unlikely to be entry into the WPNIA market within the period of this market review.
- High and non-transitory barriers associated with entry and expansion into the WPNIA market. These are primarily related to the sunk costs involved in duplicating Eircom’s access network, and economies of scale and scope required to compete in this market.
- Countervailing buyer power is negligible.
- Product/services diversification (e.g. bundled products or services).
- As a vertically integrated operator, Eircom is in strong position to leverage market power between the WPNIA market and the retail broadband market.
- Indirect pricing constraints are not likely to be sufficiently strong to constrain the behaviour of the incumbent within the lifetime of this review.

5.7 Apart from the above criteria, other issues were also considered, in particular,

- Overall size of the undertaking.
- Technological advantages or superiority.
- Easy or privileged access to capital markets/financial resources.
- A highly developed distribution and sales network.
- Product or services diversification.

5.8 However, such issues were considered to be less relevant in the context of this particular WPNIA market\(^{131}\).

5.9 Based on the above, and further to consultation with the Competition Authority, pursuant to Regulation 27(1) of the Framework Regulations, under a Co-operation Agreement between ComReg and the Competition Authority adopted pursuant to Section 34 of the Competition Act 2002, ComReg expressed its view that the WPNIA market was not effectively competitive and that Eircom has significant market power further to Regulation 27 (4) of the Framework Regulations.

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\(^{130}\) SMP Guidelines, Section 3.1.

\(^{131}\) See paragraphs 5.6 and 5.61 to 5.63 of ComReg Document No. 08/104.
5.10 As noted in paragraph 4.30 above, ComReg also issued ComReg Document No. 09/42 in May 2009 to consult on the European Commission’s comments with respect to the proposed exclusion of potential wholesale physical access products provided over alternative fibre networks from the WPNIA product market definition. Within ComReg Document No. 09/42, ComReg also asked respondents whether the competition assessment and subsequent SMP designation would be affected by virtue of the inclusion within the WPNIA market definition of wholesale physical access products provided over alternative fibre networks.

**Views of Respondents**

5.11 While, in response to ComReg Document No. 08/104, there were no comments directed specifically in relation to the competition assessment, views were expressed by six respondents in relation to issues relevant to this topic. All but one of the respondents to ComReg Document No. 08/104 supported ComReg’s preliminary view on the competition analysis, with one operator disagreeing with ComReg’s assessment of the competitive impact posed by alternative networks. This respondent commented, in particular, that ComReg should acknowledge the important competitive constraint that competition between fixed and mobile broadband providers imposes on Eircom’s ability to exercise market power in the WPNIA market.

5.12 Of the five respondents that commented with respect to ComReg Document No. 09/42, one respondent (the same respondent identified in paragraph 5.11 above that disagreed with ComReg’s view) stated that the inclusion of wholesale physical access products provided over alternative fibre networks could be significant in terms of its impact on the WPNIA competition assessment. In expressing this view, the same respondent stated that it is highly likely that competitive pressures exerted by cable and mobile broadband networks would obviate the need for the regulation of the WPNIA market. The four other respondents expressed the view that the competition assessment and SMP designation would remain unchanged if wholesale physical products provided over alternative fibre networks were included within the WPNIA market definition.

**ComReg’s Position**

5.13 ComReg has further considered respondents’ comments in relation to ComReg Document No.08/104 and ComReg Document No. 09/42 and sets out its further analysis below. It is worth noting that throughout the course of this WPNIA market review process (most recently in ComReg Document No. 09/42), ComReg has assessed the degree of competitive constraint posed by wholesale physical access products provided over alternative networks and whether, as a result, such products warrant inclusion in the WPNIA market.

5.14 ComReg considers that the arguments submitted by the one respondent that disagreed with ComReg’s competition assessment are issues more appropriately dealt with in the context of WPNIA market definition rather than competition analysis. As such, ComReg has assessed and responded to those points relating to cable and mobile broadband in the market definition\(^{132}\) section of this Decision Document.

\(^{132}\) See, for example, Section 3 and Section 4, paragraphs 4.90 to 4.113 above.
5.15 Taken into account further submissions and information received from interested parties, ComReg again re-examines the WPNIA market competition assessment below having regard to existing competition, potential competition and countervailing power.

**Existing Competition**

**Supply of WPNIA**

5.16 Eircom is currently the only supplier of WPNIA in Ireland and is not, therefore, currently subject to direct competitive constraints in that market.

5.17 ComReg has also considered how the deployment of next generation networks\(^{133}\) by Eircom could potentially change the structure of the local access network architecture and potentially modify conditions in the WPNIA market. Any such deployment could result in a change in the manner in which WPNIA products are supplied to OAOs, including changing the point at which OAOs interconnect to the local access network. Such changes would pose both economic and technical difficulties for operators using existing WPNIA in its current form. However, as set out in Section 4 dealing with the WPNIA market definition, ComReg considers that the access bottleneck would remain, irrespective of changes in how Eircom structures or supplies WPNIA over its access network.

5.18 ComReg’s WPNIA product market definition excludes alternative fibre networks for the reasons described in paragraphs 4.36 to 4.89 of Section 4 (the WPNIA market definition section). ComReg nonetheless considers the impact on existing competition in the WPNIA market, in the scenario where self-supply of potential wholesale physical access products on alternative fibre networks were to be included in the WPNIA product market definition. Under this hypothetical scenario, an additional 5,636 active fibre lines (which are currently ‘self-supplied’ by alternative fibre network operators for the purpose of providing retail broadband services) would fall within the WPNIA product market. An additional 9,400 (approximately) fibre lines are currently inactive\(^{134}\) on alternative fibre networks, but could potentially be self-supplied on alternative fibre networks under this scenario (giving a total of just over 15,000 alternative operator fibre lines). ComReg notes that wholesale physical access products are not currently supplied on the merchant market by these alternative fibre network operators. This may be partly due to, amongst other things, the limited and fragmented nature of their geographic coverage rendering the provision of a wholesale physical access product to third parties as a commercially unviable proposition (i.e. the cost of providing such a product may exceed the likely revenues having regard to demand-side and supply side considerations). ComReg takes the view that alternative access networks with such limited and fragmented network coverage would be unlikely to constrain the ability of the existing supplier of WPNIA to behave, to an appreciable extent, independently of its competitors.

\(^{133}\) NGN could result in fibre replacing (either in part or in whole) the local access copper network.

\(^{134}\) While such fibre lines exist, no services (wither retail or wholesale) are being provided over them. However, such lines could be used to provide services.
Demand for WPNIA

5.19 Eircom, as a vertically integrated telecommunications service provider that is extensively operating in various downstream telecommunications markets, is the largest user of WPNIA. Eircom self-supplies WPNIA for the primary purpose of providing retail broadband and telephony products to its consumers. Eircom self-supply represents 98.6%\textsuperscript{135} of the WPNIA market.

5.20 There are currently five OAOs that purchase WPNIA, in the form of unbundled local loops, in Ireland. These are BT Ireland, Colt Telecom, Smart Telecom Holdings Limited (Smart), 3 Pay Plus, and Magnet Networks (Magnet).

5.21 WPNIA products and services on the merchant market (provided by Eircom in accordance with regulatory obligations established previously by ComReg) are purchased by OAOs to enable them to offer a range of retail narrowband and broadband products and services. WPNIA products allow these OAOs the opportunity to innovate and to differentiate their retail service offerings both in terms of product characteristics and price and to offer products (and variants of products) which are not necessarily offered by the Eircom. WPNIA access seekers are typically employing WPNIA ( unbundling local loops) as a means to offer high speed broadband, and a variety of bundles including narrowband voice and broadband.

5.22 At the end of December 2009\textsuperscript{136}, 22,909 local loops had been unbundled, representing an increase of 257 lines since December 2008 (although the number of unbundled lines rose as high as 23,663 during this period). This amounts to around 3\% of all DSL subscriptions in Ireland. Shared lines represent 28\% of total unbundled lines. Typically, an OAO may choose to use a shared line where the narrowband voice service remains with the incumbent, and may use a shared line as an intermediate step towards full unbundling. As highlighted in Figure 2 below, the level of unbundling has remained fairly steady between 2007 and 2009.

\textsuperscript{135} The total number of Eircom active copper paths stood at 1,621,305 as at Q4 2009. There were 22,903 paths within this aforementioned figure, which represents the number of lines unbundled by OAOs on Eircom’s network. Eircom’s self-supply of active copper paths is, therefore, 1,598,402 being 98.6\% of the total number of Eircom active paths.

\textsuperscript{136} Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q4 2009, Document 10/19, 18 March 2010.
5.23 ComReg has taken into account recent developments in the market which may impact the level of take-up of LLU services. According to the terms of a recent agreement\(^ {137} \) between BT Ireland and Vodafone Ireland, BT Ireland plans to offer a bitstream-type product\(^ {138} \) to Vodafone Ireland, commencing in the first half of 2010. In doing so, BT Ireland plans to unbundle an additional 38 exchanges (BT Ireland has effectively unbundled 22 exchanges to date\(^ {139} \)) in the period up to Q2/Q3 2011. ComReg notes that this development is likely to see an increase in third party demand for WPNIA products over the lifetime of this review. The timing of these plans is dependent on BT Ireland’s progress in unbundling these exchanges.

**Market Shares and Concentration Levels over Time**

5.24 Market shares are not on their own determinative of SMP but are nonetheless a useful starting point for defining instances where SMP is more likely to arise. 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.

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\(^{138}\) Bitstream is a non-physical Wholesale Broadband Access (WBA) product which would fall into a separate market to WPNIA.

5.25 It is clear from European law jurisprudence\(^{140}\) and the SMP Guidelines that concerns about SMP are more likely to arise in instances where an undertaking holds a large market share over a period of time. According to the SMP Guidelines\(^{141}\):

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... very large market shares — in excess of 50 % — are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking with a large market share may be presumed to have SMP, that is, to be in a dominant position, if its market share has remained stable over time.
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5.26 The European Court of Justice stated further in *AKZO*\(^{142}\) that a market share of persistently above 50% could be considered as evidence of the existence of a dominant position.

5.27 In order to assess market shares and the demand for and supply of WPNIA, ComReg issued information requests to stakeholders in the broadband market in December 2007. In order to update information, further information requirements were issued in September 2008. This was supported by subsequent clarification discussions with operators, where necessary. ComReg has also sought information from current and potential suppliers and purchasers of WPNIA as well as relying on data presented to ComReg by service providers for the purpose of its quarterly communications market reports\(^{143}\). As part of ComReg’s separate analysis of the Wholesale Broadband Access\(^{144}\) market, information requirements were also issued\(^{145}\) to a number of service providers seeking quantitative and qualitative evidence of retail consumer switching behaviour between the various broadband platforms. This data, where relevant, has also been examined by ComReg.

5.28 As noted in Section 5.6 above, ComReg’s preliminary finding in ComReg Document No. 08/104 was that Eircom has 100% of the WPNIA market (as defined by ComReg) and this has been persistent over time. This 100% market share is calculated by reference to the total of Eircom’s working copper access paths\(^{146}\) on its network which, as at 31 December 2009 was 1,621,305\(^{147}\). This encapsulates all access paths that fall within ComReg’s WPNIA market definition, including access paths supplied by

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\(^{140}\) Case 85/76 *Hoffmann-La Roche v Commission*, [1979] ECR 461, [1979] 3 CMLR 211, paragraph 41;

\(^{141}\) SMP Guidelines, paragraph 75


\(^{143}\) ComReg’s latest report is Commission for Communications Regulation, Irish Communications Market Quarterly Key Data Report, Data as of Q4 2009, Document 10/19, 18 March 2010.

\(^{144}\) The Wholesale Broadband Access Market is one which falls within the European Commissions Recommendation and is separate to the WPNIA market.

\(^{145}\) Data directions issued on various dates between November 2009 and February 2010 to a range of service providers, including the four mobile broadband providers, a cable broadband provider and the major DSL providers and fibre broadband providers.

\(^{146}\) This includes active/working Direct PSTN, Indirect PSTN, Direct ISDN, Indirect ISDN and LLU paths.

\(^{147}\) Figures based on those supplied by Eircom to ComReg. It should be noted that Eircom has access paths which are not active (for example, there copper paths which are classified as pre-cabled and/or in-situ within premises) which could potentially be unbundled. These lines have not been included in this figure.
Eircom to third parties (wholesale customers), and access paths that are self-supplied by Eircom. Its market share has been maintained at this level over time and has not changed since the period of the last review of this market in 2004\(^{148}\).

5.29 Notwithstanding the above and having regard to the discussion in paragraph 5.18, ComReg has nonetheless considered the impact on market shares and concentration over time in the circumstances where wholesale physical access products provided over alternative fibre networks were to be included in the WPNIA product market definition. While there are approximately 15,000 alternative fibre lines in Ireland, only 5,636 of these have active subscriptions. Taking the 5,636 fibre lines self-supplied by alternative operators and including these for the purposes of calculating market shares results in Eircom having a market share as follows:

\[
\frac{1.621,305}{1.621,305 + 5,636} = 99.65\%
\]

5.30 Even in the above scenario where alternative operator fibre networks were to be included in the above calculation it would still result in Eircom having a market share of 99.65%. ComReg does not expect that changes in Eircom’s WPNIA market share over time are likely to be significant, such that it would, in itself, affect ComReg’s view of Eircom’s SMP position in the market.

**Ability to Act to an Appreciable Extent Independently of Existing Competitors**

5.31 The section above has established that Eircom has a market share of 100% (or above 99% in the alternative market definition scenario) in the WPNIA market. While ComReg considers this to be a strong indicator of dominance, it has considered whether there are factors in the market that mitigate the market power implied by the significant market share figure in itself. In particular, further analysis is set out to determine the extent to which the supplier in the WPNIA market can act independently.

5.32 For example, Eircom may not face competition in the provision of WPNIA, but it may face competition from vertically integrated service providers in downstream markets. ComReg has considered whether a degree of competition in a downstream retail market could act as a constraint on Eircom’s ability to act independently, to an appreciable extent, in the WPNIA market.

5.33 In ComReg Document No. 08/41\(^{149}\) and in ComReg Document No. 08/104\(^{150}\), ComReg considered the notion of pricing constraints arising from competition in the

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\(^{148}\) See ComReg Document No. 04/70 (Decision No. 8/04) Market Analysis: Wholesale unbundled access (including shared access) to metallic loops and sub-loops, Designation of SMP and Decision on Obligations, June 2004.

\(^{149}\) See paragraphs 4.21 to 4.27 of ComReg Document No. 08/41.
downstream markets\textsuperscript{151} within the competition analysis. Overall, ComReg’s view was that there is evidence of some pricing constraint in the retail broadband market, but that this constraint does not materially impact in the upstream WPNIA market.

5.34 In Section 4 of this Decision Document\textsuperscript{152} ComReg set out its view that pricing constraint from the retail broadband market is not sufficient to warrant the inclusion of alternative fixed platforms in the upstream WPNIA market.

5.35 In the competition analysis, the objective is to ascertain whether the degree or strength of the constraint from the retail market would be sufficient to exert competitive pressure on Eircom such as to prevent it from exercising significant market power and, if so, the extent to which this may act to constrain Eircom over a two to three year period.

5.36 As was observed previously in the section on market definition (Section 4), the impact of competition in downstream markets (such as the retail broadband market) is significantly diluted in the WPNIA market. This is, in part, due to the limited impact of the exercise of market power by a hypothetical monopolist in the WPNIA market on pricing in the retail market and, therefore, the limited response in the retail market in terms of consumer switching. For example, a small but significant non-transitory increase in the price of WPNIA by a hypothetical monopolist, if passed on by OAO WPNIA purchasers to their retail customers, would likely equate to a small retail price increase (in percentage terms). This is because the WPNIA price is only a proportion of the overall price of the retail service. Therefore it is unlikely that a significant number of retail consumers would switch to alternative operators in response to such a retail price increase. Under this scenario, the hypothetical monopolist’s increase in the price of WPNIA would likely be profitable given the negligible loss in WPNIA sales that would be likely to result (arising from the indirect constraint posed at the retail level). This dilution affect significantly mitigates the extent to which any degree of constraint posed by the retail broadband market would translate to a competitive constraint in the WPNIA market.

5.37 The most likely area where a degree of competitive constraint may be faced by Eircom in the retail broadband market is that posed by cable broadband products (offered by a vertically integrated service provider in downstream markets). However, for the reasons described above, this is unlikely to translate into a material constraint in the WPNIA market. In addition, the indirect constraint is further mitigated in this case by the limited geographic coverage of cable broadband networks in Ireland (35% of premises) which would further act to limit the ability of retail consumers to switch away from DSL based retail broadband products to cable based retail broadband products.

\textsuperscript{150} See paragraphs 5.64 to 5.69 of ComReg Document No. 08/104.

\textsuperscript{151} The theory being tested in this context is that, even when there are no close product substitutes in an upstream (wholesale) market, the price elasticity of demand in that market may be high. For example, where an increase in the wholesale price caused downstream (retail) customers to switch to another retail product, so that not only demand for the downstream (retail) product fell, but also demand for the wholesale input.

\textsuperscript{152} See paragraphs 4.107 to 4.112 above.
5.38 A similar reasoning also applies when assessing the constraint imposed on Eircom (in the WPNIA market) by vertically integrated retail broadband providers operating on fibre networks and fixed wireless networks. For the same reasons, retail products provided on these platforms are not likely to pose a significant constraint on Eircom in the WPNIA market.

5.39 Mobile broadband is not considered likely by ComReg to fall within the same retail broadband market as fixed retail broadband, and therefore mobile broadband retail products do not constrain Eircom in the upstream WPNIA market.

5.40 Overall therefore, ComReg continues to maintain its view that Eircom does not face competition in the WPNIA market, and is not constrained in the WPNIA market by competitors in the downstream retail broadband market. As such, Eircom is able to act ‘independently of competitors’.

**Conclusion on existing competition in the WPNIA Market**

5.41 In light of the foregoing, ComReg’s conclusions from analysing existing competition in the WPNIA market are that Eircom has a market share of 100% (even in the scenario where alternative operator fibre networks were to be included in the WPNIA market definition it would still result in Eircom having a market share of above 99%). The strength of competition in the retail broadband market does not constrain Eircom’s ability to act independently in the WPNIA market.

**Potential Competition**

5.42 In the absence of a material competitive constraint posed by existing competition, ComReg assesses the degree of constraint posed by potential competition in the WPNIA market. The assessment of potential competition considers whether entry into the WPNIA market (over the next three years) is likely, to the extent that it would constrain Eircom’s market power in the WPNIA market.

5.43 ComReg presented its preliminary views in ComReg Document No. 08/41153 and ComReg Document No. 08/104154. ComReg’s preliminary view, in this regard, was that potential competition would not sufficiently constrain Eircom’s market power (that suggested by Eircom’s 100% market share) in the WPNIA market.

5.44 As noted in paragraphs 5.7 and 5.8 above, ComReg has already considered issues that may impact market power such as: the overall size of the undertaking; technological advantages or superiority; easy or privileged access to capital markets/financial resources; a highly developed distribution and sales network; and product or services diversification. ComReg considers these issues to be of less relevance in the WPNIA market, for the reasons previously set out in ComReg Document No. 08/104155.

5.45 ComReg’s analysis has taken into account:

- Barriers to entry and expansion
- Economies of scale, scope and density

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153 See paragraphs 4.28 to 4.49 of ComReg Document No. 08/41.
154 See paragraphs 5.27 to 5.71 of ComReg Document No. 08/104.
155 See paragraphs 5.6 and 5.61 to 5.63 of ComReg Document No. 08/104.
• Control of infrastructure/inputs not easily replicated
• Vertical integration

5.46 ComReg’s preliminary view in ComReg Document No. 08/104, having considered the above factors, was that potential competition would not sufficiently constrain the market power (implied by Eircom’s high market share) in the WPNIA market.

5.47 ComReg considers that the potential competitive constraint to Eircom in the WPNIA market posed by the potential emergence of competing telecommunications networks of a sufficient scale is low, particularly given the significantly high costs (including significant sunk costs) involved in deploying such networks. Initial investment would be required in product development, equipment, 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. Considerable costs would need to be sunk in order to enter the WPNIA market even in a limited way.

5.48 ComReg considers, therefore, that high and non-transitory barriers to entry and expansion exist in the WPNIA market. These are primarily related not only to the sunk costs involved in duplicating Eircom’s access network and entering the WPNIA market, but also to the economies of scale and scope required in order to compete.

5.49 There are a number of alternative vertically-integrated telecommunications service providers that operate telecommunications access networks and offer services in the retail broadband market in Ireland. For example, one retail broadband provider (UPC) operates a cable broadband network that extends to approximately 35% of household and business premises’ in Ireland. These operators focus on the provision of retail products ranging from broadband, telephony and TV services to consumers (sometimes bundled), and do not provide wholesale physical network access and do not foresee entry within the WPNIA market within the next 3 years.

5.50 Public and industry consultation conducted by ComReg suggests that entry by a vertically-integrated broadband provider into the WPNIA market is not likely within the next three years. In particular, vertically-integrated broadband providers have expressed no interest or intention to enter the WPNIA market in the foreseeable future. In most cases, industry participants informed ComReg that entry into the WPNIA market was not viable from a commercial perspective, and in one instance the operator advised ComReg that entry into the WPNIA market was not technically possible on its network as it is a shared access transmission medium.

5.51 In any case, ComReg considers that alternative broadband networks in Ireland lack the geographic network coverage (in particular, the number of customers reached by the network) expected and demanded by access seekers of WPNIA. Furthermore, ComReg does not expect the coverage of these alternative broadband networks to grow to the extent that would significantly constrain Eircom in the WPNIA market. However, ComReg intends to continue monitoring the coverage and activity of retail broadband providers (particularly those operating on alternative access networks) over the period of this review.

5.52 Therefore, direct entry into the WPNIA market over the next three years is highly unlikely and, therefore, is not likely to pose a constraint on Eircom in that market.

5.53 ComReg has also considered whether competition in downstream markets (such as the retail broadband market) is likely to constrain Eircom in the WPNIA market. In the context of assessing indirect constraint in the form of potential competition, ComReg is required to consider whether expansion of a competitor in the retail market may act
to constrain Eircom in the WPNIA market within a three year period. However, for the reasons discussed above in paragraphs 5.36 to 5.39 (that the indirect constraint posed by the retail broadband market on the WPNIA market is likely to be weak), competitors in the retail broadband market (or any other downstream market) would be unlikely to pose a significant constraint on Eircom in the WPNIA market

**Conclusion on potential competition in the WPNIA Market**

5.54 In light of the foregoing, ComReg’s conclusions from analysing potential competition in the WPNIA market are that potential competition is unlikely to constrain Eircom’s market power in the WPNIA market. Eircom has a high and persistent market share of 100% (even in the scenario where alternative fibre networks were to be included in the WPNIA market definition it would still result in Eircom having a market share of above 99%), and that, taking account of other relevant factors in the market, the situation is unlikely to change over the period of this review to the extent that the WPNIA market would become effectively competitive.

**Countervailing buyer power**

5.55 Another potential constraint on an undertaking’s ability to exercise market power is countervailing 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.

5.56 ComReg notes that, in Ireland, there are a small number of actual and potential buyers of WPNIA (at present there are five third party purchasers of WPNIA). In a market with a small number of buyers there exists the potential for individual buyers to account for a significant proportion of total output. However, in the market for WPNIA, Eircom is vertically-integrated. Eircom is the largest user of WPNIA (98.6% of WPNIA is self-supplied with the remaining 1.4% provided to access seekers), and is competing with its WPNIA customers in the downstream retail markets. The remaining five wholesale customers combined account for 1.4% of WPNIA purchases and rely on Eircom’s WPNIA product to provide services to their customers. There is no alternative source of WPNIA supply available in Ireland which further reduces any potential countervailing buyer power that WPNIA access seekers might have had. As such, WPNIA access seekers have negligible countervailing buyer power in their negotiations with Eircom involving the provision of WPNIA. This is not likely to materially change over the next three years.

**Overall Conclusion on Competition in the WPNIA Market**

5.57 ComReg has concluded that the WPNIA market is not effectively competitive, and is unlikely to become effectively competitive within the timeframe of this market review (i.e. the next 2 to 3 years). In arriving at this view ComReg has carried out an analysis taking the utmost account of the criteria set out by the European Commission in its SMP Guidelines.

5.58 Based on these conclusions, and further to consultation with the Competition Authority, pursuant to Regulation 27(1) of the Framework Regulations, under a Co-operation Agreement between ComReg and the Competition Authority adopted pursuant to Section 34 of the Competition Act 2002, ComReg has concluded that the WPNIA market is not effectively competitive for the purposes of Regulation 27(2) of the Framework Regulations.
Designation of Undertakings with Significant Market Power

5.59 Having regard to Regulation 25(1) and regulation 25(2) of the Framework Regulations, where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations, that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged under Regulation 27(4) of the Framework Regulations to designate undertakings with SMP in that market.

5.60 ComReg is, therefore, in accordance with Regulation 27 of the Framework Regulations, designating Eircom as having SMP in the WPNIA market.

Competition problems

Approach

5.61 In ComReg Document No. 08/41 and in ComReg Document No. 08/104, ComReg highlighted a number of potential competition concerns associated with the lack of effective competition that may arise in the WPNIA market.

Summary of position as set out in ComReg Document No. 08/104

5.62 In ComReg Documents No. 08/41 and No. 08/104, ComReg outlined the types of competition problem which may arise when an undertaking has SMP. These potential problems involve conduct by the SMP operator that is aimed at, amongst other things:

- exploiting customers by virtue of its SMP position, for example, through denial of access, excessive pricing, inefficiency or inertia;
- leveraging its market power into adjacent vertically or horizontally related markets, for example, where a vertically-integrated operator has dominance in a wholesale market and could potentially transfer this market power into a downstream (retail) market or into an adjacent wholesale market; and
- foreclosing or excluding competitors such as to protect its existing dominance on the market or markets in question, for example, through predatory pricing or actions designed to raise switching costs.

5.63 ComReg further developed the discussion by providing examples of how these competition problems may manifest themselves in the WPNIA market, and by then linking this discussion to the types of ex ante remedy which may be considered appropriate.

5.64 The preliminary conclusion in ComReg Document No. 08/104 was that there is the potential and incentive for a vertically integrated SMP operator that competes in both upstream and downstream markets to engage in actions which could inhibit the development of competition in the WPNIA market. ComReg noted that the purpose of ex ante regulation is to prevent an operator with SMP from behaving in a manner which would inhibit the development of competition. While actual examples of

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156 Paragraphs 6.1 to 6.19 of ComReg Document No. 08/41.
157 Paragraphs 5.77 to 5.106 of ComReg Document No. 08/104.
158 Paragraph 5.99 of ComReg Document No. 08/104.
Views of respondents

5.65 Respondents commented extensively on competition problems in responding to ComReg Document No. 08/41, and ComReg addressed the issues raised in ComReg Document No. 08/104.

5.66 In response to ComReg Document No. 08/104, one respondent reiterated its previously-expressed view that ComReg should provide evidence of actual instances of anti-competitive behaviour by Eircom, and that ComReg should not give any weight to allegations of anti-competitive behaviour which have not been publicly disclosed.

ComReg’s analysis

5.67 As noted in ComReg Document No. 08/104159, it is not necessary for ComReg to point to examples of actual anti-competitive activity within the meaning of Article 82 of the Treaty (now Article 102 of the TFEU) and/or Section 5 of the Competition Act, 2002 that have occurred or are occurring. The finding of dominance indicates the potential for competition problems to arise, and this is sufficient to justify the imposition of proportionate regulatory obligations. The respondent is not correct in asserting that ex ante regulation must be based on evidence of past anti-competitive behaviour. The European Commission is of the view that the WPNIA market is a market suitable for ex ante regulation and that competition law alone is not sufficient to address problems in the market. Competition law, which is ex post in its application, is generally applied after the anti-competitive event has occurred, and would be concerned with actual instances of past anti-competitive behaviour. Ex ante regulatory obligations are designed to prevent the occurrence of actual competition problems (through the exercise of market power) with a view to ensuring the development of an effectively competitive market.

5.68 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 have arisen as well as competition problems which could potentially arise given the vertically integrated nature of the SMP operator. ComReg’s view is that there is the potential and incentive for an SMP operator to engage in actions which inhibit competition in the WPNIA market. As noted above, ComReg provided examples of actual and potential competition problems in both ComReg Document No. 08/41 and in ComReg Document No. 08/104.

5.69 Turning to the respondent’s comments on the use by ComReg of information provided by industry, ComReg has already explained in ComReg Document No. 08/104160 why it is appropriate to consider such views in arriving at its judgements. In undertaking its analysis of the WPNIA market, ComReg has consulted widely. This has included

159 Paragraph 5.79 of ComReg Document No. 08/104.
160 Paragraphs 6.52 to 6.53 of ComReg Document No. 08/104.
issuing data directions\textsuperscript{161} to industry (and following up on such submissions for clarification where necessary), broad public consultation, and consultation with the Competition Authority and with the European Commission. ComReg has also relied on its own experiences in dealing with issues in the WPNIA market. ComReg uses all of these inputs when forming its judgements. ComReg is entitled to receive confidential material from operators, and is entitled to make use of this information when analysing markets. Where possible, ComReg has summarised respondents’ views in a manner which respects confidentiality.

5.70 ComReg considers that the process of obtaining information and assessing it to have been fair, objective and transparent.

**Conclusion**

5.71 Eircom’s SMP position in the WPNIA market affords it the potential and incentive to behave in a manner which would inhibit the development of competition. The imposition of proportionate regulatory obligations is required to ensure the development of effective competition. The consideration of actual and potential competition problems in ComReg Documents No. 08/41 and No. 08/104 included detailed references to past and current experiences in the WPNIA market, and confirmed that the consideration of potential competition problems arising due to an SMP position is firmly grounded not only on potential competition problems but also having regard to actual experiences in the market.

\textsuperscript{161} Data directions issued in December 2007, September 2008, and on a number of subsequent occasions between November 2009 to February 2010 in relation to retail consumer switching behaviour.
6 Regulatory Impact Assessment

Approach

6.1 Regulatory Impact Assessment (‘RIA’) is an analysis of the likely effect of proposed new regulation or regulatory change. The RIA should help identify regulatory options, and should establish whether proposed regulation is likely to have the desired impact. The RIA provides a structured approach to the development of policy, and analyses the impact of regulatory options on different stakeholders.

6.2 ComReg’s approach to the RIA is set out in ComReg Document No. 07/56 and ComReg Document No. 07/56a and accords with the Ministerial Policy Direction on Regulatory Impact Assessment. In conducting the RIA, ComReg has also taken into account RIA Guidelines adopted under the Government’s Better Regulation programme and, in doing so, has taken into account the Six Principles of Better Regulation.

6.3 Within the RIA carried out in ComReg Document No. 08/41, ComReg described policy issues and identified its objectives. It then identified and described regulatory options, and assessed their potential impacts on stakeholders and on competition. The initial RIA was consulted upon, and the views of respondents were addressed in ComReg Document No. 08/104. Respondents commented on both the process of carrying out the RIA and on the substance of the proposed measures. ComReg has taken account of these submissions in its response as set out in this Decision Document.

6.4 This Decision Document sets out the obligations which are being imposed on Eircom. ComReg has undertaken a final assessment of the regulatory impact of the measures to be imposed, and this is presented in Appendix C.

Summary of position as set out in ComReg Document No. 08/104

6.5 In ComReg Document No. 08/41, it was proposed, in line with the approach outlined in the Government’s Better Regulation programme that, given that the market for Wholesale Physical Network Infrastructure Access is already regulated, the RIA should consider the following:

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164 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 2002.
166 The six principles are necessity, effectiveness, proportionality, transparency, accountability and consistency.
167 See Section 7 of ComReg Document No. 8/41.
168 See Section 6 of ComReg Document No. 08/104.
• Is regulation still necessary in this market?\textsuperscript{169}
• Does current regulation achieve the objectives as simply as possible?\textsuperscript{170}
• Are changes to regulation required?\textsuperscript{171}

6.6 ComReg’s preliminary view was that regulation is still required in the WPNIA market. ComReg then reviewed the operation of current regulation, and proposed to develop current regulation to take account of existing competition problems and of changes necessary to reflect developments in the WPNIA market. ComReg noted, where the development of current regulation was proposed, there would be further consultation on the detailed implementation of imposed remedies.

6.7 ComReg also considered the impact of proposed changes on stakeholders (including consumers), and more broadly, on competition\textsuperscript{172}.

6.8 ComReg took account of the views of respondents to ComReg Document No. 08/41 and, in ComReg Document No. 08/104, further reviewed its position as well as explaining further its methodology in carrying out a RIA.

**Views of respondents**

6.9 In response to ComReg Document No. 08/104, there were no specific comments with respect to the RIA. However, one respondent stated that, in the light of deteriorating economic conditions, ComReg should seek to reduce regulation and also questioned the proportionality of some remedies. The same respondent also set out a number of criteria that it considered ComReg should use in evaluating whether or not to impose remedies.

**ComReg’s analysis**

6.10 In ComReg Document No. 08/41 and ComReg Document No. 08/104 ComReg carefully considered the extent to which its proposed development of regulatory obligations/remedies was appropriate, proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002.

6.11 In considering the Six Principles of Better Regulation identified by the Government, ComReg has clearly outlined why it is necessary to undertake this market review. The WPNIA market has been deemed susceptible to \textit{ex ante} regulation by the European Commission. In ComReg Document No. 08/104, it was confirmed that the market analysis aims to ensure that a dominant operator is prevented from the potential exploitation of its market power in the WPNIA market, as this would impact on the

\textsuperscript{169} See paragraphs 7.9 to 7.13 of ComReg Document No. 08/41, paragraphs 6.9 to 6.13 and 6.43 to 6.60 of ComReg Document No. 08/104.

\textsuperscript{170} See paragraphs 7.14 to 7.27 of ComReg Document No. 08/41, paragraphs 6.14 to 6.30 and 6.43 to 6.60 of ComReg Document No. 08/104.

\textsuperscript{171} See paragraphs 7.28 to 7.29 of ComReg Document No. 08/41, paragraphs 6.31 to 6.32 and 6.43 to 6.60 of ComReg Document No. 08/104.

\textsuperscript{172} See paragraphs 7.30 to 7.39 of ComReg Document No. 08/41 and paragraphs 6.9 to 6.13 of ComReg Document No. 08/104.
wholesale market and the downstream retail markets which depend on WPNIA as an input to them.

6.12 ComReg also assessed the effectiveness of current regulation, and having reviewed actual and potential competition problems in the market, ComReg proposed that several elements of current regulation should be developed. In some cases, this was to better reflect technological changes in the market. In other cases, ComReg proposed changes to address on-going competition problems concerning the performance of WPNIA based products and the manner in which they were being supplied by Eircom to OAOSs. In line with the Better Regulation objectives, ComReg also discussed means of ensuring compliance with proposed regulation.

6.13 ComReg also considered the extent to which proposed regulation is proportionate, and noted that its approach to regulation is incremental and that it would consider the sufficiency of the lightest possible form of regulation before considering more onerous obligations. ComReg considered that it was justified and proportionate to propose the development of specific areas of regulation in relation to Current Generation WPNIA, and indicated that, for others relating to Next Generation WPNIA, it would impose obligations at a high level and would consult further on the detail of their further implementation.

6.14 ComReg notes the views of one respondent that this leaves a degree of uncertainty. However, ComReg considers that its approach strikes an appropriate balance between the need to provide a clear indication as to its intended regulatory approach while at the same time leaving sufficient flexibility to incrementally develop the detailed implementation of the specific remedies having regard to developments. ComReg does not wish to prejudge the outcome of further consultation on how best to implement the detailed nature of the regulatory obligations concerning Next Generation WPNIA. In ComReg’s view, there are different options as to how some WPNIA obligations may be appropriately implemented and these options will be considered, having regard to developments and views received following further consultation. ComReg also stated explicitly in the RIA set out in both ComReg Documents 08/41 and 08/104 that it was aware that the impact of such proposals would fall on Eircom (as the envisaged SMP operator) and on ComReg, and that the proportionality of the various options implementing some remedies in detail would be considered further through a consultation process.

6.15 ComReg notes that one respondent commented on the proportionality of the proposed Internal Reference Offer (IRO). ComReg has taken careful account of the respondent’s comments on this issue. The objective of the proposed IRO was that it would constitute a means of transparently demonstrating that Eircom does not discriminate in the supply of WPNIA inputs to OAOSs and to its own downstream operation, i.e., it is to support an existing non-discrimination obligation. This does not imply an automatic change in, for example, Eircom’s systems or processes, unless of course it transpires that services or information are being provided by Eircom in a manner which is discriminatory. ComReg maintains that visibility of Eircom’s self-supply is essential in order to be able to compare such self-supply with its provision to OAOSs and to demonstrate transparently that its non-discrimination obligations are being met. The principle underlying the originally proposed IRO is therefore justified and necessary. However, ComReg has further considered how best this objective should be met, and how a means of comparison could be appropriately and proportionately implemented. This analysis is presented in section 7 below dealing
6.16 ComReg notes that the same respondent sought clarification of the role of Key Performance Indicators (KPIs) and expressed a view that it would not be proportionate for KPIs to be used as automatic triggers for enforcement of WPNIA access obligations. ComReg has considered the respondent’s comments, and considers that in light of the Universal Service (US) targets which have been imposed (and which in themselves utilise WPNIA inputs), it would not be appropriate to impose additional WPNIA specific targets at this time. However, ComReg maintains that the underlying rationale for KPIs is justified and proportionate, and that the decision not to impose targets associated with KPIs at this time is contingent on the effective compliance with the US obligations. This position on KPIs is discussed further in section 7 dealing with remedies.\footnote{See, for example, paragraphs 7.57 to 7.99 below. See also discussion in relation to remedies concerning non-discrimination and transparency commencing at paragraphs 7.100 and 7.115 respectively.}

6.17 ComReg has been transparent in its approach throughout the entire process of reviewing the market for WPNIA, and in examining the regulatory impact of the measures it proposed should be introduced. Both ComReg Documents 08/41 and 08/104 discussed the methodologies which are used in carrying out the WPNIA market analysis and also discussed and justified ComReg’s preliminary conclusions across a range of issues. These were put to public consultation and full account has been taken of all responses received, including those from industry and the European Commission. Indeed, in order to take utmost account of comments received from the European Commission and to afford other parties an opportunity to comment on ComReg’s approach, a further consultation was held on specific aspects of the market definition relating to the question of including OAO fibre within the WPNIA product market definition.\footnote{\textit{Ibid.}}

6.18 ComReg considers that it has been accountable and has provided all of the detail, information and justification necessary to support the decisions it is taking.

6.19 ComReg considers that its review of the WPNIA market has been consistent in taking account of the regulation of other markets in the Irish electronic communications sector, and having regard to the approaches adopted by other EU National Regulatory Authorities.

**Conclusion**

6.20 ComReg maintains that it has conducted a thorough RIA in accordance with its own ‘Guidelines on ComReg’s Approach to Regulatory Impact Assessment’\footnote{Wholesale Physical Network Infrastructure Access (WPNIA) Market Review–Market Definition. Consultation on European Commission invitation for ComReg to include alternative fibre networks in the WPNIA market. ComReg Document No. 09/42 ("ComReg Document No. 09/42").} and taking

\footnote{ComReg Document No. 07/56 and ComReg Document no. 07/56a, Guidelines on ComReg’s Approach to Regulatory Impact Assessment.}
into account Government and European Commission requirements and best practice. In ComReg Document No. 08/41, ComReg examined the regulatory impact of possible courses of action and its thinking has been developed though the consultation process to take account of comments made by respondents. This was further elaborated upon in ComReg Document No. 08/104. A final version of the RIA, which builds on the RIA proposed in previous consultations, and which concludes with the assessment of the impact of the obligations to be imposed, is set out at Appendix C.
# Remedies

## Approach to defining and imposing remedies

7.1 Further to Regulation 27(2) and Regulation 27(4) of the Framework Regulations, ComReg is obliged to impose on an undertaking with SMP such specific obligations as it considers appropriate. As noted in paragraphs 5.61 to 5.71 of this Decision, ComReg explained in ComReg Document No. 08/41 and ComReg Document No. 08/104 the actual and potential competition problems arising from its then preliminary conclusion of SMP in the relevant market and ComReg’s preliminary view that there were unlikely to be sufficiently significant developments within the period of this review which would prevent Eircom from acting independently of its competitors or customers. ComReg further proposed in ComReg Documents No. 08/41\(^{177}\) and No. 08/104\(^{178}\) to impose a number of proportionate regulatory obligations which it considered to be based on the nature of the actual and potential competition problems identified and justified in light of the obligations laid down in section 12 of the Communications Regulation Act of 2002 (further to Regulation 9(6) of the Access Regulations). The detailed wording of the specific obligations to be imposed on Eircom was set out in a draft Decision Instrument in ComReg Document No. 08/104.

7.2 As noted earlier, ComReg received six responses to ComReg Document No. 08/104. Points raised by respondents have been summarised in the relevant sections below. However, it is noted that some respondents expressed an overall view on ComReg Document No. 08/104 rather than setting out specific views relating to each individual issue discussed. Where specific views on particular issues have been raised these have been summarised in the appropriate section.

7.3 ComReg has taken account of all submissions from industry and comments from the European Commission in considering and in reaching its final decision relating to the imposition of remedies in the WPNIA market. In doing so and, in order to provide greater clarity, ComReg has also reviewed the manner within which certain obligations are expressed within the final Decision Instrument (Appendix C), including the appropriate section in the Decision Instrument where such obligations are found. A number of presentational changes have been made to the Decision Instrument which, having regard to respondent’s comments, are designed to provide clarity in the wording of the obligations.

7.4 Under Regulation 13(1) of the Access Regulations\(^{179}\), ComReg may, in accordance with Regulation 9 of the Access Regulations, impose on an operator obligations to meet reasonable requests for access where ComReg considers that the denial of such access or the imposition by operators of unreasonable terms and conditions would hinder the emergence of a sustainable competitive retail market, and would not be in

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\(^{177}\) Section 8 of ComReg Document No. 08/41.

\(^{178}\) Section 7 of ComReg Document No. 08/104.

\(^{179}\) The European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003 (S.I. No. 305 of 2003), ("the Access Regulations").
the interests of end users and would otherwise hinder the objectives set out in section 12 of the Communications Regulation Act 2002.\footnote{The Communications Regulation Act, 2002, No. 20 of 2002, as amended by as amended by the Communications Regulation (Amendment) Act, 2007 No. 22 of 2007 (“the Communications Regulation Act 2002”).}

7.5 Pursuant to Regulation 13(4) of the Access Regulations, when considering whether to impose obligations referred to in paragraphs (1) and (2) of Regulation 13 and, in particular, when assessing whether such obligations would be proportionate to the objectives set out in section 12 of the Communications Regulation Act 2002, ComReg has taken the following factors into account:

- the technical and economic viability of using or installing competing facilities, in light of the rate of market development, taking into account the nature and type of interconnection and access involved;
- the feasibility of providing the access proposed, in relation to the capacity available;
- the initial investment by the facility owner, bearing in mind the risks involved in making the investment;
- the need to safeguard competition in the long-term;
- where appropriate, any relevant intellectual property rights; and
- the provision of pan-European services.

7.6 The competition analysis and SMP designation set out in Section 5 of this Decision Document has indicated that the provision of WPNIA would not likely exist, absent regulation, that there is not effective competition and that Eircom is dominant in the WPNIA market. The retail broadband market is not, pursuant to the European Commission’s Recommendation, one which is susceptible to \textit{ex ante} regulation. However, the European Commission has also identified that the WPNIA market is susceptible to \textit{ex ante} regulation. In considering the criteria under Regulation 13(1) of the Access Regulations, ComReg notes that, in order for sustainable competition in the retail market to emerge, effective wholesale regulation is required. ComReg has further considered how regulation of the WPNIA market may best be addressed, including an assessment of actual and potential competition problems\footnote{See paragraphs 5.61 to 5.71 of this Decision Document.} in the WPNIA market, and a Regulatory Impact Assessment of options available\footnote{See Section 6 and Appendix B of this Decision Document.}.

7.7 In ComReg Document No. 08/104, ComReg differentiated between remedies it proposed to impose in relation to WPNIA products, services and associated facilities in a Next Generation Access\footnote{In ComReg Document No. 08/104 next generation access was considered to include access networks which permit very high speed access reaching from multi-functional access and aggregation nodes to the end-users Such an NGA network can be made of fibre, coaxial cable, powerline communications, wireless technologies, or hybrid deployments of these technologies, such as combining fibre and copper. In the context of the WPNIA market in Ireland as defined this includes that part of the access network that is composed of fibre optic cable although it might include other new infrastructure that permits very high speed access.} (NGA) environment, and remedies it proposed to

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\footnotesize{ComReg 10/39}
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impose in relation to current generation copper based WPNIA. These are discussed further below.

7.8 ComReg has already considered the impact of regulation of the WPNIA market in section 6 which deals with Regulatory Impact Assessment. In setting remedies (including access and pricing remedies) in relation to current and next generation WPNIA ComReg has also taken account of all factors identified in Regulation 13(1) and Regulation 13(4) of the Access Regulations and has assessed whether such obligations would be proportionate to the objectives set out in section 12 of the Communications Regulation Act 2002.

7.9 ComReg has set out below its consideration of a number of factors relevant to access. ComReg would also note that these issues were considered in ComReg Document No. 08/104.

- **Technical and economic viability:** As regards access over copper loops such access already exists in the form of Local Loop Unbundling and Sub Loop Unbundling and is clearly technically and economically viable. As regards access over fibre, ComReg has imposed a general access obligation in order to avoid a restoration of a monopoly position within the access network. However, it has decided not to be prescriptive about the precise mode of access in order to extend maximum flexibility to the market to determine what products and services should be offered and on what basis. Further consultation will take place in relation to the nature of applicable remedies to next generation access fibre infrastructure. ComReg has considered the technical and economic viability of installing competing facilities. It is of the view that alternative modes of WPNIA access over existing cable, wireless or alternative operator fibre solutions are not likely to emerge within the period of this review. It is also highly unlikely based on the evidence presented to ComReg, that new WPNIA infrastructure, the main element of which is the non-replicable access network element, could be readily deployed.

- **Feasibility of providing access in relation to capacity available:** ComReg’s intention to mandate access to copper loops and sub loops and associated facilities relate to infrastructures which already exist. ComReg also notes that access to these infrastructures has been made available by Eircom to OAOs for a number of years. ComReg is not aware of any material capacity constraint issues having been raised to date such that it would give rise to difficulties in providing future access in the vast majority of cases. Insofar as access to NGA infrastructure is involved, ComReg intends to consult further on the detailed implementation of obligations applied to next generation fibre based WPNIA and, in doing so, will further consider the feasibility of providing access in light of the capacity available.

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184 In ComReg Document No. 08/104 the term “current generation products, services and associated facilities in the Market” referred to those products, services and associated facilities which are at present offered over copper using Digital Subscriber Line technology, including but not limited to those products, services, associated facilities, which are specified in the current Version 1.21 of Eircom’s Access Reference Offer.

185 See, for example, paragraph 7.13 of ComReg Document No. 08/104.
• **The initial investment of the provider:** ComReg’s approach to imposing access remedies, as noted above, ensures a reasonable rate of return on existing infrastructure. The investments made by Eircom in its copper access network are largely sunk, although there is ongoing investment associated with the maintenance of the network. ComReg has already established\(^{186}\) what it considers to be an appropriate rate of return (known as the Weighted Average Cost of Capital or WACC) that can be earned by Eircom in providing its regulated services. In doing so, ComReg has taken into account the investment made by Eircom and has allowed a reasonable rate of return on adequate capital employed, taking into account the risks involved. In terms of next generation (fibre) WPNIA, ComReg has imposed obligations relating to price control and cost accounting at a high level, but not the detail of the obligations to be applied. The rationale for this approach is that ComReg is mindful of the need to provide clarity as to what will be regulated, but to be flexible as to how it is to be regulated in order that it can take account of what emerges. ComReg has also signalled in its recent discussion on Next Generation Broadband\(^ {187}\) that ComReg is open to assessing whether the existing WACC is appropriate to reflect the level of any additional and identifiable systemic risk associated with NGB investment by Eircom. In this regard, ComReg has signalled that it is up to eircom to provide clear and compelling evidence of the existence of risk differentials between new and legacy investments, the latter of which have already been accounted for in the existing WACC.

• **The need to safeguard competition:** As discussed elsewhere in this Decision Document, ComReg’s proposed remedies are essential to ensure that competition over the local access network is safeguarded in the long term. The withdrawal of access remedies would result in the reinforcement of eircom’s dominance in the WPNIA market, and hinder the development of competition in this market and ultimately in the retail broadband market.

• **Intellectual property rights:** No issue regarding intellectual property rights exists.

• **Pan European Services:** ComReg’s approach will facilitate pan European services since they are consistent with the policies of the EU Commission and other NRAs. ComReg also notes that there are a number of OAOs in the retail broadband market which have international operations and which rely on the provision of WPNIA (either directly or indirectly) for the provision of services to businesses which have internationally located operations.

7.10 In terms of pricing remedies, Eircom is obliged to ensure that prices for WPNIA are cost-oriented. This is implemented at present by means of a price control. ComReg has considered whether it is still necessary to ensure that prices for WPNIA are cost-oriented, and whether this should be ensured via a price control. Given Eircom’s

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100% market share, and ComReg’s view that there is limited constraint offered by mitigating factors (such as potential competition), there is no material constraint on Eircom’s pricing. As a vertically integrated operator, Eircom would, in the absence of regulation, have the ability and incentive to increase prices. This would be the case even if other obligations such as non-discrimination, transparency and access were in place.

7.11 Having regard to Regulation 14 (1) of the Access Regulations, and noting that the market analysis indicates a lack of effective competition, it is possible that absent the imposition of a price control obligation, Eircom might sustain prices at an excessively high level, or apply a price squeeze to the detriment of end users. Having regard to Regulation 14 (2) of the Access Regulations, ComReg takes into account any relevant investment made by Eircom in electronic communications networks or services or associated facilities in order to allow Eircom a reasonable rate of return on adequate capital employed, taking into account the risks involved. Having regard to Regulation 14 (3) of the Access Regulations, ComReg seeks to ensure that any cost recovery mechanism or pricing methodology that it imposes serves to promote efficiency and sustainable competition and maximise consumer benefits.

7.12 It is therefore ComReg’s view that the maintenance of cost-based price controls in the wholesale market is essential to ensure that Eircom does not charge a monopoly price, which would have a negative effect on the wholesale and the associated retail markets. ComReg has reviewed experiences in more mature markets where WPNIA is longer established than it is in Ireland, and notes that in no case has the regulator been able to withdraw price controls.

7.13 ComReg has considered the extent to which NGA-based WPNIA prices should be subject to price control, given the uncertainty surrounding the cost base of new services, and given ComReg’s intention to support investment in infrastructure. ComReg intends to consult further on the content and implementation of the price control obligation.

7.14 Having regard to the above, ComReg now sets out below its final approach to imposing remedies on Eircom in the WPNIA market. ComReg notes that it has also further considered some of the issues in paragraph 7.9 above in the RIA contained at Appendix B (see paragraphs B.17 to B.34).

**Obligations applied to current generation WPNIA**

7.15 In ComReg Document No. 08/104, ComReg set out, in detail, a proposed set of obligations which would apply to current generation WPNIA products, services and facilities in the market. These proposed obligations related to:

- Access to and use of specific network elements and associated facilities (Regulation 13 of the Access Regulations);
- Non-discrimination (Regulation 11 of the Access Regulations);
- Transparency (Regulation 10 of the Access Regulations);
- Price Control and Cost Accounting (Regulation 14 of the Access Regulations);
- Accounting Separation. (Regulation 12 of the Access Regulations).

7.16 These are discussed further below, in addition to respondents’ comments on them.
Access Obligations

Access to, and use of, specific network elements and associated facilities

Summary of position as set out in ComReg Document No. 08/104

7.17 ComReg outlined the legal basis for its proposals to oblige eircom to provide access to and use of specific network elements and associated facilities in paragraphs 7.9 to 7.14 of ComReg Document No. 08/104, and further elaborated on its approach to the implementation of the access obligation in paragraphs 7.63 to 7.80.

7.18 ComReg proposed to impose an obligation on Eircom to meet all reasonable requests for access to products, services and associated facilities which fall within the WPNIA market. ComReg also recognised that the obligation should be flexible enough to cater for requests for WPNIA products and services as they evolve. In doing so, the overall aim remains the need to facilitate investment while at the same time safeguarding competition and protecting consumers.

7.19 It was proposed that the access obligation would include (but not be limited to) those products currently offered in Eircom’s Access Reference Offer (ARO version 1.21) and associated documentation. It was proposed that the access obligation would also apply to connectivity/backhaul between cabinet or exchange based equipment and the OAO handover points, as well as to access to duct and cabinet space.

7.20 ComReg also considered in some detail how the obligation to meet reasonable access requests should be applied. In doing so, it was indicated that systems and processes provided by Eircom in support of WPNIA services and facilities should be robust and sufficiently scalable to meet market demand.

7.21 ComReg considered that Eircom, in complying with its obligation to meet reasonable access requests, should manage its resources efficiently. For example, if duct space is not managed efficiently (for instance if unused or obsolete cables are left in place), then it would be unreasonable to refuse an access request for ducts on the basis that there was no available duct space. ComReg indicated that it expected Eircom to meet its access obligations in a fair, reasonable and timely manner to ensure that infrastructure, including but not limited to, duct space, MDF space, co-location footprints, and power supplies, are managed in such a way that OAOs are not unnecessarily hindered in both their requests for access and in having such requests met.

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188 As defined in the Framework Regulations and also within the meaning contained in the definition of access in the Access Regulations.

189 Eircom currently offers a number of wholesale products pursuant to its existing obligations in the WPNIA market. These are detailed in its Access Reference Offer (ARO) and include line sharing (LS); ULMP; GLUMP; co-location; and sub-loop unbundling. In addition, there is one requirement which is currently not captured in the Access Reference Offer – that is the specific offering of cabin co-location for Roches St. Exchange. This requirement should be maintained.

190 Such as the ARO price list, Inter-operator Process Manual (version 5), Service Level Agreement, Product Descriptions (version 5), Copper Loop Frequency Management Plan (Version 5) etc.
7.22 ComReg also noted in ComReg Document No. 08/104 that the process by which Eircom considers requests for access from OAOs should mirror the process enjoyed by Eircom’s retail operation in terms of number of product development process steps, timeliness for considering access requests, transparency, efficiency and coordination with Eircom’s IT development process i.e. it should be non-discriminatory (see further discussion on non-discrimination commencing at paragraph 7.100 below).

7.23 ComReg Document No. 08/104 also set out a specific requirement for OAOs to be able to migrate (whether on an individual or bulk basis) retail customers both to and across WPNIA wholesale products in a fair and timely manner, as well as on terms and conditions which are fair and reasonable. ComReg noted that the ability to “migrate to” and “migrate from” a wholesale product is intrinsic to the ability to access the wholesale products. ComReg set out a range of migration possibilities which included (but was not limited to), the ability to migrate from full loop unbundling to sub-loop unbundling and to migrate from current generation to next generation WPNIA services.

7.24 ComReg Document No. 08/104 also confirmed that co-location is a pre-requisite for OAOs in availing of access to current generation WPNIA products. For example, an OAO that wishes to purchase WPNIA services within an exchange or cabinet requires the ability to co-locate a DSLAM\(^1\) (or similar equipment) in that exchange or cabinet in order to use the local loop. ComReg proposed that Eircom should be obliged to provide access to co-location. ComReg also stated that once co-location has been granted an OAO should be entitled to use it in the most efficient manner possible.

**Views of respondents**

7.25 Four respondents expressed support for ComReg’s approach.

7.26 The remaining respondent expressed concerns about the treatment of backhaul in the proposed access obligation, and asked for clarification on the definition of backhaul. In doing so, it raised three main points:

- the provision of an Ethernet solution between the cabinet and the exchange and between the exchange and the OAO point of handover would effectively mean that WPNIA and Bitstream would be “virtually the same offering”.
- there is no specific need to address backhaul because alternatives exist, and the respondent’s perceived imposition of a “backhaul solution” would represent a cost burden on Eircom.
- a clear and complete set of rules should be included in the Decision Instrument which would allow, for example, Eircom to price backhaul circuits according to cost, and to request reasonable volume commitments and contract durations from OAOs.

7.27 This respondent also stated that the proposed backhaul obligation undermined the promotion of infrastructure-based competition.

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\(^1\) Digital Subscriber Line Access Multiplexer.
**ComReg’s Analysis**

**Differentiation between physical and virtual (non-physical) access**

7.28 ComReg has considered the first point made by the respondent in paragraph 7.26 above. In ComReg Document No. 08/104, ComReg expressed its view that backhaul is an important support and associated facility to WPNIA. ComReg stated that backhaul in this context relates to both backhaul between the cabinet and the exchange and between the exchange and the OAO point of handover.

7.29 In response to the request for a clarification of the definition of backhaul, ComReg has defined backhaul as the provision of dedicated transmission capacity at various bandwidths, between an Other Authorised Operator’s equipment at the co-location site and the Other Authorised Operator’s nominated Point of Handover.

7.30 As noted above, one respondent contended that an obligation to provide backhaul undermines the promotion of infrastructure-based competition because it increases the amount of infrastructure to be provided by Eircom to the point where WPNIA and Bitstream become “virtually the same”. ComReg does not agree with this respondent’s view. Unlike non-physical products such as Bitstream, with WPNIA, the OAO must purchase/rent a number of physical and other services from Eircom (floor space, power, air conditioning etc). Having done this the OAO will then need to purchase and install physical infrastructure (racks, DSLAMs etc) at the exchange/cabinet. Furthermore, unlike Bitstream, the OAO has full control over the equipment in its co-location footprint which allows it, independently of Eircom, to differentiate the type and nature of services that it intends to offer its retail customers. There is, therefore, even with the requirement to provide backhaul, a significant difference between WPNIA and the offering of a non-physical product such as Bitstream.

7.31 ComReg seeks to encourage efficient OAO investment in infrastructure to the greatest extent practicable. The ability of OAOs to utilise WPNIA may be undermined if effective backhaul solutions are not available. When investment in WPNIA is restricted or curtailed by the lack of suitable or available backhaul services, competition may be restricted to services based competition.

**Sufficiency of existing alternative backhaul provision**

7.32 ComReg has considered the second point made by the respondent in paragraph 7.26 above. ComReg notes that the availability of competing backhaul infrastructure is limited and, even where it is available, it may not always be technically viable for an OAO to use or install alternative appropriate backhaul. For example, alternative backhaul will not connect directly to Eircom exchanges and while it may be in close proximity, there are some exchanges where physical access to the exchange is limited due to way-leave issues or indeed due to the location of the Eircom designated handover point.

7.33 ComReg has given further consideration to the relationship between the leased line markets and the WPNIA market, in particular, whether a specific WPNIA backhaul obligation is warranted given the existence of leased line obligations. In parallel with the publication of ComReg Document No. 08/104, ComReg completed its analysis of
the Leased Line Market (the ‘Leased Line Decision’). The adopted Leased Line Decision explicitly defines the leased line market in Section 3 of the Decision Instrument as follows:

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

7.34 The above referenced Market Analysis: Leased Lines Markets Response to Consultation Document No. 08/63 states that wholesale terminating segments of leased lines can be used for the provision of LLU/WPNIA backhaul. In particular, it notes that:

“...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.”

7.35 The Leased Line Decision mandates wholesale products such as Partial Private Circuits (PPCs) and Wholesale Leased Lines (WLLs), and other wholesale products such as Ethernet which are to be made available to OAOs by the SMP operator in response to a reasonable request. In view of these developments, ComReg has decided not to mandate specific backhaul products for current generation WPNIA products and services at this time. Where backhaul is provided as a wholesale terminating segment of a leased line, then the regulatory obligations imposed on that market will apply.

7.36 However, ComReg’s view remains that backhaul is an important facility associated with the provision of a WPNIA service, and that it should be made available when reasonably requested by an OAO. ComReg has identified problems associated with the provision of LLU backhaul. While it is considered that the Leased Line Decision should address many circumstances relating to the provision of backhaul to support WPNIA, ComReg intends to maintain the obligation proposed in ComReg Document No. 08/104 that reasonable requests for access, including backhaul to support WPNIA, shall be met. Requests for forms of backhaul to support WPNIA

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192 Decision D06/08, Response to Consultation on draft Decision Instrument, Final Decision Notice and Decision Instrument, ComReg Document No. 08/103, Dec 2008 (“ComReg Document No. 08/103”).

193 See Appendix A of ComReg Document No. 08/103.

other than those required under the Leased Line Decision would, therefore, be dealt with on a case by case basis, subject to their reasonableness.

7.37 Should the remedies imposed on the leased line market, in addition to the WPNIA obligation to meet reasonable requests for access to backhaul, be insufficient to address competition problems in the WPNIA market, this position will be reviewed.

7.38 ComReg has also considered one respondent’s views that the provision of backhaul would represent a significant cost burden on Eircom. As noted above, the Leased Line Decision sets out the basis upon which Eircom is entitled to price and recover costs for wholesale services falling within that market. Insofar as recovering costs associated with the provision of other backhaul services in the WPNIA market is concerned, ComReg also notes that a cost-orientation obligation also arises and provides the basis upon which Eircom can recover its efficiently incurred costs.

Establishment of a complete set of rules

7.39 ComReg has considered the request put forward by one respondent that a “clear and complete” set of rules governing the provision of backhaul should form part of the Decision Instrument. While understanding the need for the greatest possible certainty and clarity in the implementation of the WPNIA obligations, it is not possible to hypothesise the detail of every potential OAO request, and then to formulate an appropriate response, or set of rules. ComReg has chosen to establish the clear principles underpinning the obligations, and through the consultation process has engaged in dialogue with interested parties about how these obligations would work in practice. ComReg expects that Eircom will consider any OAO backhaul request on the same basis that it would do for its own downstream arm.

Conclusion

7.40 Having considered all responses to ComReg Document No. 08/41 and ComReg Document No. 08/104, ComReg maintains that Eircom should be obliged to meet reasonable requests for access to current generation WPNIA, including associated facilities such as backhaul and migrations. Such access should be provided in a fair, reasonable and timely manner. Eircom shall provide access to those services currently offered in Eircom’s ARO (Version 1.21) and supporting LLU documentation.

7.41 ComReg considers that it is reasonable to expect that Eircom’s resources will be managed efficiently in order to facilitate OAOs’ reasonable access requests. Requests may include, but not be limited to, requests for variants of services, and requests to migrate customers between wholesale services and variants of these services, including between current generation WPNIA and next generation WPNIA. A request to migrate from a non-physical access product such as Bitstream to a physical access product such as LLU or line share would, for example, be considered to be reasonable under the access obligation applied to the WPNIA market.

7.42 Eircom should also be obliged to meet reasonable requests for associated facilities such as backhaul, being the provision of dedicated transmission capacity at various bandwidths, between an OAO’s equipment at the co-location site and the OAO’s nominated Point of Handover. ComReg has decided not to mandate specific backhaul facilities at this time.

7.43 The obligation to provide access to current generation WPNIA is detailed in section 7 of the Decision Instrument at Appendix C.
Obligation to negotiate in good faith

Summary of position as set out in ComReg Document No. 08/104

7.44 In ComReg Document No. 08/104, ComReg’s preliminary view was that Eircom, pursuant to Regulation 13(2)(b) of the Access Regulations, should have an obligation to negotiate in good faith with undertakings requesting access. ComReg noted that the obligation to negotiate in good faith implies that Eircom would be able to demonstrate that it has negotiated in good faith with undertakings with the duty resting with Eircom to demonstrate that any unmet access requests were unreasonable.

Views of respondents

7.45 There were no specific points raised on this in response to ComReg Document No. 08/104.

Conclusion

7.46 ComReg maintains its view that Eircom should be obliged to ensure that it negotiates in good faith with undertakings requesting access to current generation WPNIA, including but not limited to negotiations with undertakings in relation to the conclusion of legally binding and fit-for-purpose SLAs.

7.47 The obligation to negotiate in good faith is detailed in Section 7.4(i) of the Decision Instrument. The specific requirement to apply this obligation in relation to SLAs is detailed in Section 8.2 of the Decision Instrument.

Access to facilities already granted

Summary of position as set out in ComReg Document No. 08/104

7.48 In ComReg Document No. 08/104, ComReg noted that its approach to an obligation not to withdraw access to facilities already granted (pursuant to Regulation 13 (2) (c) of the Access Regulations) has to balance the requirement for OAOs to have some certainty over the future of their WPNIA investments against the requirement to support network development.

7.49 ComReg proposed that Eircom should have, as part of its Access obligation, an obligation not to withdraw or reduce access to facilities already granted, except where this has been approved by ComReg. This relates to all aspects of the WPNIA Product life cycle. It was proposed that no Eircom exchange or exchange dimension/footprint or access to exchange or exchange dimension/footprint, normally consumed as part of the WPNIA product set, may be removed or have its access diminished with less than 5 years notice, except where this withdrawal and associated timescales had been approved by ComReg.

Views of respondents

7.50 Two respondents commented specifically on this obligation.

7.51 One respondent proposed that different notice periods were required to address various eventualities, and requested that ComReg should list exceptions and a waiver process

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195 Paragraphs 7.53-7.59 of ComReg Document No. 08/104.
in the Decision Instrument. A second respondent agreed with ComReg’s proposals, and proposed alternative wording designed to clarify ComReg’s intention.

**ComReg’s Analysis**

7.52 It was confirmed explicitly in ComReg Document No. 08/104\(^{196}\) that there was no intention to rigidly impose and operate a 5 year notice period. In considering circumstances which may lead to a reduction in the 5 year notice period, ComReg stated its intention to consider factors such as the potential for commercial negotiation and the existence of alternative provision and migration paths, for example, in the event of NGN roll-out.

7.53 ComReg emphasised its intention in ComReg Document No. 08/104 to apply a fixed notice period but to review this in a flexible case-by-case manner, where justified. In this regard, ComReg provided examples of the type of factors which could be taken into account when considering whether to permit a shorter notice period. ComReg does not believe it is possible or useful to attempt to detail every possible circumstance which may arise, and to determine what its reaction would be. Rather, ComReg reiterates that, in seeking to strike a balance between OAO certainty and Eircom’s network development, the approach should be reasonable and flexible. ComReg notes that the European Commission has supported the notion of a 5-year notice period. For example, in its comments letter to the Danish Regulator, the European Commission states:

> “The Commission considers that in order to ensure legal certainty and an appropriate return on alternative operators’ investment in local loop unbundling, it is essential that any discontinuation or decommissioning of the copper access network or parts of it is subject to transparent migration arrangements allowing for local loop unbundlers an appropriate transitional period (e.g., five years in line with the standard investment period into local loop unbundling) before TDC’s obligations regarding access to the local loop are alleviated.”\(^{197}\)

7.54 While ComReg notes respondents’ views regarding the undesirability of rigid notice periods and the need for flexibility, ComReg must take a reasonable and proportionate approach that balances the need for certainty for both the underlying infrastructure owners and those investing in WPNIA services. ComReg has explained its intentions behind the default 5 year notice period for withdrawal of access throughout the various WPNIA consultations and, in doing so, has indicated that there is scope for flexibility in its application, particularly to ensure that the obligation does not give rise to an unintended inflexibility. While ComReg considers a 5 year notice period to be reasonable, it will consider requests for shorter periods to be applied on a case-by-case basis. Such requests must be approved by ComReg.

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\(^{196}\) Paragraphs 7.55 and 7.56 of ComReg Document No. 08/104.

\(^{197}\) See Case DK/2008/0860: Wholesale (physical) network infrastructure access at a fixed location. Comments made by the European Commission pursuant to Article 7(3) of Directive 2002/21/EC 02.02.09.
Conclusion

7.55 Having considered the responses to ComReg Document No. 08/104, although ComReg considers a 5 year notice period to be reasonable, it has decided to provide for flexibility on a case-by-case basis. In this regard, and, in accordance with regulation 13 (2) (c) of the Access Regulations, ComReg intends to impose the obligation not to withdraw access to facilities already granted, unless the prior approval of ComReg has been obtained.

7.56 The obligation not to withdraw access to facilities already granted is detailed in the section 7.4(ii) of the Decision Instrument.

Obligations to provide open access to technical interfaces, protocols and other key technologies, and to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services

Summary of position as set out in ComReg Doc No. 08/104

7.57 In ComReg Document No. 08/104, it was proposed that, pursuant to Regulation 13(2)(e) of the Access Regulations, Eircom should continue to grant open access to technical interfaces, protocols, or other key technologies.

7.58 ComReg also addressed specific issues concerning the need to provide access to Operational Support Systems (OSS) necessary to ensure fair competition in the provision of services. ComReg emphasised that there was no intention to prescribe a particular solution as to how this objective is met. Rather, an OAO availing of access to OSS or similar software should experience the same standard and quality of service in terms of access to information, ability to input data, time taken to process requests, quality and completeness of output, and ease of use as is enjoyed by Eircom’s retail operation.

Views of respondents

7.59 Specific comments on this obligation were received from one respondent. The respondent claimed that most processes associated with LLU/WPNIA are common to both OAOs and Eircom’s retail operation, and so a similar quality would be experienced by both. In the respondent’s view, the proposed obligation represents an onerous and costly transformation of systems, facilities and organisation.

ComReg’s Analysis

7.60 In considering OAO access to underlying facilities and related systems and processes, ComReg notes that OAO access is provided over a substantially different interface to the interface used by Eircom’s retail operation. Historically, OAOs have had access to Eircom’s OSS through a Universal Gateway (UG). This has largely been due to the nature and state of the developed Eircom IT systems and related facilities, in particular, due to the need for a broker system which could interface with and interrogate numerous existing backend systems, many of which are legacy in nature and were originally built for a vertically integrated organisation and without regard to third party access. However, ComReg is also aware that Eircom’s downstream arm has had access to many of the same backend IT systems either natively or through

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198 Paragraphs 7.114 to 7.117 of ComReg Document No. 08/104.
different interfaces during this time. ComReg has accepted this practice on the basis that Eircom, in providing different IT interfaces and modes of access for OAOs and Eircom’s downstream arm, does so in a manner which is compliant with its non-discrimination (and other) obligations, that is, that Eircom provides services and information to OAOs under the same conditions and of the same quality as Eircom provides for its own services.

7.61 However, ComReg notes that such an approach (where OAO OSS interfaces are different to those used by Eircom’s retail operation) would not be appropriate where new IT systems and facilities are being developed to support new services and, in such circumstances, it would consider it appropriate that future IT development takes place in a manner which results in both OAOs and Eircom’s retail arm having the same mode and quality of access to OSS and associated facilities (in terms of the access interface itself, the services and information available, and the quality, standard and timeliness of the access being provided). ComReg’s view is that the onus is on Eircom to ensure that its future IT developments occur in a manner which are consistent with its non-discrimination (and other) obligations and, given that these obligations apply as that development is planned and implemented, it would be unreasonable for Eircom to seek to justify any differences in the types or levels of OSS access provided to OAOs on the basis that such differences had been accepted in the past in respect of Eircom’s legacy systems.

7.62 The key point is that the outcome experienced by the OAO should be the same as the experience of Eircom’s retail operation. This does not mean that the method of access needs to be identical. Rather, it needs to be demonstrated that different methods of access facilitate the same outcome and are non-discriminatory. In ComReg’s view, therefore, the need for Eircom to re-engineer systems, facilities or organisation only arises in, for example, the context of its compliance with its non-discrimination obligations. The obligation is on Eircom to ensure that OSS access is provided in a way which ensures fair competition.

7.63 ComReg reiterates its position as expressed in ComReg Document No. 08/104 regarding the proposed obligation to provide access to OSS. In ComReg’s view, the objective of this obligation is to ensure that OAOs can gain access to OSS or similar software necessary to effectively and efficiently support the use of WPNIA services such that they can compete on an equal footing with Eircom’s retail arm.

7.64 The Access Regulations are very clear in setting out the obligations which the Regulator may impose to ensure that the SMP operator does not discriminate between OAOs, or between its own downstream provision and OAOs, in such a way as would distort competition.

Conclusion

7.65 Eircom should ensure that it grants access in a timely manner to technical interfaces, protocols, or other key technologies and should ensure that it provides access to such Operational Support Systems (‘OSS’) or similar software systems necessary to allow OAOs to efficiently order the product and manage WPNIA services. OSS or similar access should be of a standard such that an OAO availing of this access experiences the same standard and quality of service (in terms of access to information, ability to input data, time taken to process requests, quality and completeness of output, and ease of use) as Eircom’s own retail operation.
7.66 ComReg’s view is that the onus is on Eircom to ensure that its future IT developments occur in a manner which is consistent with its non-discrimination (and other) obligations and, given that these obligations apply as that development is planned and implemented, it would be unreasonable for Eircom to seek to justify any differences in the types or levels of OSS access provided to OAOs on the basis that such differences had been accepted in the past in respect of Eircom’s legacy systems.

7.67 The obligation to provide access to technical interfaces, protocols and other key technologies is detailed in section 7.4(iii) of the Decision Instrument. The obligation to provide access to OSS or similar software systems is detailed in section 7.4(iv) of the Decision Instrument with further detail on non-discrimination related aspects provided in section 9.4.

**Conditions attached to the Access Obligations**

*Terms and conditions on a fair, reasonable and timely basis*

**Summary of position as set out in ComReg Document No. 08/104**

7.68 In ComReg Document No. 08/104 it was proposed, pursuant to Regulation 13 (3) of the Access Regulations, that access to WPNIA should be provided on terms and conditions which are fair, reasonable and timely\(^{199}\).

7.69 ComReg further proposed as part of the access obligation that the terms and conditions for access should be supported by Service Level Agreements (SLAs). ComReg proposed to intervene should the SLA fail to meet the objectives of providing access to WPNIA in a fair, reasonable and timely manner.

7.70 ComReg also proposed to consult with industry on how best to set, measure and implement Key Performance Indicators (KPIs)\(^{200}\), as a means of ensuring that WPNIA products are fit-for-purpose and offered in a non-discriminatory manner. ComReg Document No. 08/104 also recognised that the development and implementation of KPIs entailed additional costs, primarily for Eircom, and that this would be borne in mind when considering the appropriate level of detail to be provided under KPIs\(^{201}\).

7.71 It was also proposed that if KPI targets were not reached, or the KPI targets dip below the performance threshold for the measurement period, then ComReg should be able to make a finding of non-compliance and take appropriate enforcement action to compel compliance with Eircom’s access obligation and any related conditions of fairness, reasonableness and timeliness that are imposed.

7.72 ComReg Document No. 08/104 also discussed the need for an Internal Reference Offer (IRO) having regard to the need to ensure fairness, reasonableness and

\(^{199}\) Paragraphs 7.81 to 7.90 of ComReg Document No. 08/104.

\(^{200}\) Paragraphs 7.97 of ComReg Document No. 08/104.

\(^{201}\) In ComReg Document No. 08/104, ComReg discussed the development and establishment of KPIs in terms of the access obligation (paragraphs 7.60-7.63, and 7.95-7.102 of 08/104); and in terms of the non-discrimination obligation (7.107-7.109 and 7.153-7.159). The potential publication of KPIs was addressed in terms of the transparency obligation (7.134-7.139).
timeliness of conditions associated with the access obligation\textsuperscript{202}. The IRO was further discussed in terms of the transparency and non-discrimination obligations\textsuperscript{203}.

**Views of respondents**

7.73 In considering the obligation that access should be provided on a fair, reasonable and timely basis, two respondents commented specifically on the proposed Key Performance Indicators (KPIs) and Internal Reference Offer (IRO) obligations.

**KPIs**

7.74 One respondent suggested that significant improvements made over the past year in LLU internal systems and processes have led to much improved operation of the industry SLA. The respondent also suggested that the timelines within the SLA have been progressively improved over the past two years to a point where LLU services are now delivered in similar timeframes to the Eircom Bitstream\textsuperscript{204} service despite the additional complexity which the respondent believes to be associated with the provision of LLU services.

7.75 The same respondent proposed that if there were any significant compensation or penalty payment issues then these would not be resolved by KPIs and would best be dealt with within the framework of existing obligations. With respect to timelines and targets for repair and provisioning, the respondent believes that industry has agreed to commence a complete review of the current SLA in the timeline of this consultation, and suggests that industry-wide enhancements to the existing SLA provisions could be agreed during this SLA review.

7.76 The same respondent proposed that, should further consultation indicate that the benefits of KPIs would outweigh the costs, then a reasonable set of KPIs should be developed as an “information tool”, but that it would not be proportionate to consider that such a tool should trigger compliance actions for failure to achieve targets. In this respondent’s view, KPIs should only be descriptive, not prescriptive (in terms of targets against which compliance would be triggered).

7.77 Another respondent welcomed ComReg’s proposals on KPIs, and stressed the need for an accurate measurement of the performance of Eircom’s LLU products. This performance, in the respondent’s view, had been problematic in the past.

**IRO**

7.78 One respondent equated an IRO with Equivalence of Inputs (EoI), and insisted that Eircom does not use LLU/WPNIA itself. In the respondent’s view, an integrated organisation cannot operate at arm’s-length to itself, and so Eircom’s retail operation does not use LLU/WPNIA facilities. The respondent proposed that, to the extent that Eircom’s retail operation could be considered a ‘customer’ of Eircom’s wholesale operation, the retail operation uses network services developed, built and operated by Eircom’s network operation. It does not procure exchange footprints, install and

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\textsuperscript{202} Paragraphs 7.90, 7.98 to 7.99 of ComReg Document No. 08/104.

\textsuperscript{203} Paragraphs 7.137 to 7.138 of ComReg Document No. 08/104.

\textsuperscript{204} Eircom provides a Bitstream product pursuant to obligations imposed in the Wholesale Broadband Access market.
maintain equipment on these footprints, contract for the provision of copper pairs separately from other network elements, take co-location space, or procure or manage its own backhaul. In the respondent’s view, while Eircom’s retail operation could be considered to be a customer of Bitstream and WLR services, it does not consume LLU/WPNIA services.

7.79 Another respondent welcomed ComReg’s proposals, and expressed its view that it would address the need for transparency. This respondent said that, in its opinion, the production of an IRO would be reasonably straightforward, as it should align closely with the ARO.

**ComReg’s Analysis**

7.80 ComReg has considered issues raised by some respondents on the proposed obligation that access should be offered on terms which are fair, reasonable and timely, and notes that such respondents particularly commented on proposals to develop KPIs and an IRO.

**KPIs**

7.81 KPIs are intended to address two problems. The first problem is to transparently demonstrate that actual or potential discrimination is not occurring on the basis of the level of service being offered, either between OAOs or between OAOs and Eircom’s retail operation. In addressing this problem, ComReg intends that KPIs would be established as objective descriptive measures of a product’s performance and actual performance will be measured against these.

7.82 As regard one respondent’s comment on SLAs, ComReg notes that a revised SLA for the LLU product set was agreed by Eircom and OAOs and published in September 2007. A subsequent review of LLU SLAs commenced in 2009 and it is understood by ComReg that progress has been made regarding many of the issues of concern to OAOs with a revised SLA having recently been concluded.

7.83 The second problem concerns the quality of the product, and the extent to which it achieves an acceptable standard, irrespective of the non-discrimination obligation. There have been a number of issues raised by operators regarding the perceived quality of the LLU offerings, so that even where all OAOs receive a similar product and a similar service to eircom, the product may still be of a low quality. Respondents will be aware that ComReg has imposed legally binding Universal Service (US) performance targets on Eircom (as the designated US provider). These targets, amongst other things, set out standards to be achieved in relation to fault resolution and provisioning of PSTN services. Such PSTN services utilise copper loops (self supplied by Eircom in the provision of its own retail services) which are used by OAOs when purchasing WPNIA services. The US targets (along with any compliance action by ComReg) therefore have a direct impact in the WPNIA market. In light of this, ComReg does not, at this time, propose to utilise KPI targets to automatically trigger compliance action for failure to provide access to WPNIA in a fair, reasonable and timely manner. However, ComReg will proceed with the requirement for Eircom to publish KPIs which will be used to transparently demonstrate quality of service

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205 Response to Consultation and Decision, Eircom’s Universal Service Obligation- Quality of Service Performance Targets, ComReg Document No. 08/37, May 2008.
being provided and to highlight any differences in level of services being experienced between eircom and OAOs, as well as amongst OAOs themselves. It is therefore more appropriate to mandate the KPI obligation under the transparency obligations.

7.84 ComReg also notes that the requirement to provide Performance Metrics, which are separate to KPIs, was also discussed in ComReg Document No. 08/104, with the obligation being captured within the draft Decision Instrument206. Although no comments were received specifically with respect to Performance Metrics, ComReg has included a definition within the final Decision Instrument in order to clearly distinguish them from KPIs. Performance Metrics are the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out by its SLAs i.e., they measure actual performance achieved under the SLA. Performance Metrics are also discussed further in paragraph 7.120 under the transparency obligations in the context of publication requirements.

7.85 For the purposes of this review, having regard to the need to ensure that Eircom’s supply of WPNIA is fair, reasonable and timely, transparent and non-discriminatory, ComReg considers that the introduction, in principle, of the requirement on Eircom to publish KPIs is warranted. However, while establishing the principle, further consideration is necessary as to the precise content of individual KPIs and how they are to be introduced. ComReg intends, therefore, to engage in a separate consultation process regarding the detailed implementation of KPIs.

7.86 ComReg has also included a clear definition of KPIs within section 2 the Decision Instrument.

IRO

7.87 In ComReg Document No. 08/104 it was proposed that Eircom should be obliged to develop and publish an Internal Reference Offer (IRO). The rationale for an IRO was discussed in terms of ensuring that Eircom demonstrates that it is meeting its access obligations in a manner which is fair, reasonable and timely207 and in accordance with its non-discrimination obligation.208 The IRO was further discussed in terms of the transparency obligation.209

7.88 ComReg’s intention was that the IRO should document existing products and processes used in association with Eircom’s self-supply of WPNIA: it was not intended that such an obligation should necessarily introduce new processes.

7.89 ComReg has given further consideration to respondents’ comments. One respondent raised a concern that imposing the requirement for an IRO which the respondent described as Equivalence of Input (EoI), in parallel with KPIs, would be tantamount to functional separation, as it would entail the transformation of systems, facilities and organisational structures. The respondent claims that:

206 See Appendix A, section 7.6.i of ComReg Document No. 08/104.
207 Paragraph 7.90 of ComReg Document No. 08/104.
208 Paragraphs 7.108 to 7.109 and 7.154 of ComReg Document No. 08/104.
209 Paragraphs 7.137 to 7.138 of ComReg Document No. 08/104.
“…..ComReg makes clear (7.97) that some form of functional separation will be considered in the follow-up consultation [on KPIs]…”

7.90 The respondent’s claims are inaccurate and unfounded. At no stage has ComReg suggested that functional separation was required. In fact, in the paragraph referenced by the respondent (paragraph 7.97), ComReg has explicitly stated that “ComReg has not proposed any functional separation obligation.” ComReg notes this same respondent who raised concerns regarding the introduction of an IRO also stated in its response that:

“Indeed, most OAO processes and systems associated with LLU/WPNIA are shared with eircom retail, and any concerns with regard to the quality of the underlying facilities or related systems and processes would also be experienced in equal measure by eircom’s retail organisation.”

7.91 It is ComReg’s view that ensuring transparency regarding Eircom’s self-supply of WPNIA is both reasonable and justified having regard to the need to demonstrate to the market that Eircom is complying with its non-discrimination obligations. This is particularly relevant where, as a vertically integrated operator, Eircom is operating in both the retail and wholesale broadband markets, and there exists the incentive for unjustifiable differences to occur in how Eircom supplies WPNIA to itself and to OAOs. Such differences could result in divergences in the standard of service experienced.

7.92 ComReg notes the respondent’s statement that most OSS processes and systems are shared with Eircom retail. The need for any new processes, systems or facilities as a result of the imposition of the obligation relating to transparency of self-supply would only appear to arise in circumstances where discrimination was occurring.

7.93 ComReg also wishes to address the same respondent’s comment that Eircom does not consume WPNIA/LLU services. While Eircom’s retail operation does not ‘purchase’ the WPNIA product in the same manner in which it is provided to an OAO, Eircom’s retail operation does avail of WPNIA network inputs in order to be able to offer its own retail services to end users. The way in which Eircom avails of such inputs is a function of the fact that it is a vertically integrated operator. ComReg notes that Eircom accepts that its retail operation consumes Bitstream and WLR services, and it must, therefore, be the case that the retail operation also consumes the inputs to these services, such as copper loops (amongst other things).

7.94 ComReg has given further consideration to the respondent’s comments regarding the manner within which this IRO obligation is to be implemented. While Eircom’s self-supply of WPNIA services is considered to fall within the WPNIA market definition, ComReg recognises that Eircom, as a vertically integrated operator, does not ‘purchase’ WPNIA in the same manner in which it is provided to OAOs. However, such differences should not result in OAOs experiencing different outcomes in terms of, for example, the WPNIA services and facilities offered or the quality of service experienced. It was proposed in ComReg Document No. 08/104 that a transparency obligation would require Eircom to publish information regarding its ‘Internal Reference Offer’. In light of the respondent’s comments, in particular, the perception that this requirement was tantamount to functional separation (which ComReg does not accept), and having regard to the objective behind the proposed obligation, ComReg is clarifying the way within which it will impose this obligation. In accordance with its transparency obligation, Eircom will be required as follows:
within four months of the effective date of the Decision, Eircom shall publish on its website sufficient information to identify and justify any differences between the services and facilities set out in the ARO and the comparable services and facilities which Eircom provides to itself. The information shall include all material associated terms and conditions, including relevant processes, and shall be kept updated by Eircom as new services or facilities are developed and deployed or existing services or facilities are amended.

Where Eircom offers WPNIA to its retail or downstream division, it shall provide information regarding such WPNIA on its wholesale website, in sufficient time prior to the retail service or facility, which relies on that WPNIA, being made available on the downstream market. For the purposes of this provision, sufficient time shall, unless otherwise agreed with ComReg, be a period of at least two months prior to the retail service or facility being made available by its retail or downstream division on the downstream market.

7.95 ComReg has further considered the timescales under which Eircom should be obliged to identify and justify (on foot of the publication of this Decision Instrument) any differences between WPNIA provided to OAOs, and WPNIA it provides to its own downstream operation. Taking into account respondents’ comments, ComReg intends to extend the period for the provision of this justification from three months to four months from the effective date of the Decision Instrument. Specifically, the differences should be set out at least under the headings provided in the Schedule to the Access Regulations: “Minimum List Of Items To Be Included In A Reference Offer For Unbundled Access To The Twisted Metallic Pair Local Loop To Be Published By Notified Operators”. Thus, for example, in relation to “Conditions for access to notified operator's operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing,” Eircom should document and explain to a reasonable level of detail material differences between self-supplied access and access provided to OAOs in relation to the specified items. A similar approach should be taken in relation to the other headings in each of the four categories of the Schedule.

Conclusion

7.96 ComReg maintains that conditions should be attached to the access obligations to ensure that Eircom provides access in a manner which is fair, reasonable and timely.

7.97 In addition to this obligation, ComReg maintains that Eircom should ensure, as part of its access obligation, that its provision of access shall be supported by Service Level Agreements. ComReg is making specific provision that Eircom should be obliged to negotiate in good faith with OAOs requesting access, including in relation to the conclusion of legally binding and fit-for-purpose SLAs. It should be a condition of Eircom’s access obligations that SLAs negotiated with undertakings should include associated performance metrics\(^\text{210}\) (which are separate to KPIs). Eircom should ensure that its SLAs provide for service credits in a timely and efficient manner.

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\(^{210}\) For clarity, ComReg has provided a clear definition of Performance Metrics within section 2 of the Decision Instrument. These are the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its Service Level Agreements.
Key Performance Indicators (KPIs) for WPNIA products will be required, will be published, and will be subject to regular review. The detail of these KPIs, including their implementation, will be decided following further consultation. ComReg has explained how the development of KPIs is required to support Eircom’s obligation of non-discrimination, particularly with respect to the provision of access in a fair reasonably and timely manner. While the obligation to provide access in a fair, reasonable and timely manner is being maintained, ComReg considers that the KPI obligation rests more appropriately as a transparency obligation. ComReg has provided a definition of KPIs in the Decision Instrument and has highlighted in this paper that they will not have specific targets against which an action by ComReg for non-compliance would be automatically instituted. ComReg has considered how best to ensure that Eircom can, insofar as access is concerned, demonstrate that it is complying with its non-discrimination obligations. ComReg maintains that it is essential that the market has visibility of Eircom’s provision to its own downstream operation as well as its provision to OAOs. ComReg has further clarified the nature of this obligation in light of respondents’ comments and, in doing so, considers that this obligation is more appropriately expressed as a transparency obligation.

The general obligation that access should be provided in a fair, reasonable and timely manner is detailed in section 8.1 of the Decision Instrument. The application of this obligation to SLAs is detailed in section 8.2 of the Decision Instrument. The detail of the obligation in relation to KPIs is provided in section 10.7 of the Decision Instrument. The obligation concerning the visibility of Eircom’s provision of WPNIA inputs to its own downstream operation is contained in sections 9 and 10 of the Decision Instrument.

**Non-discrimination**

**Summary of position as set out in ComReg Document No. 08/104**

In ComReg Document No. 08/104, it was proposed that Eircom should be required to provide access to products, services and associated facilities in the WPNIA market on a non-discriminatory basis. This means that, in accordance with Regulation 11 of the Access Regulations, Eircom is obliged to ensure that equivalent conditions are applied in equivalent circumstances when providing access to services and information to other undertakings, and that services and information are provided to other undertakings under the same conditions and of the same quality as Eircom provides for its retail operation.

ComReg Document No. 08/104 also discussed in some detail how it was proposed that the non-discrimination obligation should be implemented, and outlined how it expected the obligation would be applied to existing services and functionality, to new developments initiated by Eircom’s retail operation and to new developments requested by OAOs.

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211 Paragraphs 7.106 to 7.109 of ComReg Document No. 08/104.
212 Paragraphs 7.140-7.159 of ComReg Document No. 08/104.
Views of respondents

7.102 One respondent interpreted ComReg’s proposals as requiring equivalence of inputs (a term which was undefined by the respondent), and stated that, in its view, OAOs would be allowed to direct and even veto the design and development of Eircom’s network products and services, and to engage in an extended external consultative process for all external changes to networks, systems and processes. The same respondent reiterated its comments made in the context of the access obligation in claiming that the proposals were tantamount to functional separation. The same respondent also suggested that the application of the non-discrimination obligation did not extend to the imposition of an Equivalence of Inputs (EoI) regarding the provision of WPNIA and associated facilities and systems. In this regard, the respondent, although noting that Regulation 11(2)(b) of the Access regulations contained an EoI type obligation, provided its view that this was limited to interconnection and access to ‘services and information’ only and did not therefore apply to access or use of network facilities.

ComReg’s Analysis

7.103 In ComReg’s view, the respondent’s suggestion that ComReg’s approach under the non-discrimination obligation is tantamount to functional separation is a distortion of the proposed approach. At paragraph 7.90 above, ComReg has already addressed the issue of EoI and has made it abundantly clear that this has not been, or was it intended to be a requirement. Equally so, ComReg has not proposed that OAOs get involved in the product development process when Eircom is developing its network. One element of the non-discrimination obligation being imposed is to ensure that WPNIA related services and information made available to Eircom’s downstream arm are also provided to undertakings on the same terms and conditions and of the same quality as they are provided by Eircom to its downstream or retail division. Another element of the non-discrimination obligation applies to the provision of access to OSS and information which should be of the same standard and quality as that which Eircom provides to itself.

7.104 While ComReg has already stated that it is not requiring EoI, ComReg must point out that it does not agree with the respondent’s narrow interpretation of the non-discrimination provisions contained in Regulation 11 of the Access Regulations. Regulation 11(1) provides that ComReg may impose “…obligations of non-discrimination in relation to interconnection, access or both interconnection and access.” “Access” is clearly defined within the Access Regulations and includes, for example, facilities, services and information. Regulation 11(2)(a) and 11(2)(b) do not fetter the scope of the obligations which may be imposed under Regulation 11(1) which, as noted above, applies to access or interconnection, but rather provides particular examples of non-discrimination obligations which may be imposed.

7.105 Eircom shall ensure that all services and information are provided to other undertakings under the same conditions and of the same quality as the services and information that Eircom provides to its own services or those of its subsidiaries or partners. In this context, as part of the non-discrimination obligation, Eircom is required to provide Access Seekers with information and services in relation to WPNIA in order that Access Seekers may be in the same position as Eircom’s retail or downstream division. ComReg considers that it is essential that such provision of WPNIA, facilities and information is made in a timely manner, and considers it reasonable that they should be made available to Access Seekers such that they are at
least in the same position as Eircom’s downstream operation. To provide further clarity in this regard, ComReg has specified the period within which WPNIA services and information should be made available to Access Seekers. This period shall be the earlier of:

a) at the same time as the WPNIA service(s) or information is provided to Eircom’s retail or downstream division; or

b) at least two months prior to any Eircom retail service or facility, which relies on the provision of the WPNIA service(s) or information, being made available on the retail or downstream market, unless otherwise agreed with ComReg.

7.106 It should be noted that the above requirement is to provide WPNIA services or information to ‘Access Seekers’\(^\text{213}\) rather than ‘OAOs’. An Access Seeker has been defined such that it refers to an OAO who has signed the ARO and/or entered into a non-disclosure agreement with Eircom. This distinction is being made as it may be appropriate to limit the provision of such information and services to particular parties in light of the possibility that it may contain information of a commercially sensitive nature. The obligation is now set out at section 9.3 of the Decision Instrument and clarifies and replaces the proposed obligations previously out in sections 8.3 to 8.5\(^\text{214}\) of the non-discrimination obligation contained in the draft Decision Instrument in ComReg Document No. 08/104.

7.107 ComReg has already discussed above the development of a means of ensuring transparency of Eircom’s self-supply\(^\text{215}\) of WPNIA services and information to its own downstream operation, as well as the requirement for Key Performance Indicators (KPIs)\(^\text{216}\). Both of these developments play an important role in demonstrating that there is no discrimination, either between OAOs or between Eircom’s own downstream provision and its supply to OAOs. The development and publication of information about Eircom’s provision of WPNIA to its own downstream operation will facilitate comparison between what Eircom offers to OAOs and what it self-supplies. The development and publication of KPIs will ensure that there is a transparent set of measures which can be compared across all operators (including Eircom) which avail of WPNIA products and services.

\(^{213}\) An Access Seeker means an other authorised operator that has entered into an access agreement (the ARO) or, although has not yet accepted the ARO, has entered into a Non-Disclosure Agreement with Eircom.

\(^{214}\) Part 8.3 of the non-discrimination obligation provided that “Where Eircom has an obligation to offer certain products, services or associated facilities or variants of those, which have not yet been made available at the date of the Decision Instrument, it may not offer those or functionally similar products, services or associated facilities as inputs to downstream products, services or associated facilities sold by Eircom until such time as the wholesale elements of those products, services or associated facilities or variants of those, are available to OAOs to enable OAOs to offer a similar retail offering in accordance with the non-discrimination obligation.” Part 8.4 provides that “Information provided to OAOs under section 9 shall be provided to the same standard as that provided to Eircom’s own services or to those of its subsidiaries or partners.” Part 8.5 provides that “Information which is supplied to Eircom including to its own services or subsidiaries or partners which may reasonably be required by an OAO shall be made available to the OAO on the same terms that Eircom provides such information to its own services, or subsidiaries or partners.”

\(^{215}\) See paragraphs 7.87 to 7.97 above.

\(^{216}\) See paragraphs 7.81 to 7.97 above.
7.108  Eircom is obliged under section 7.4(iv) of the Decision Instrument (as part of its Access obligation) to provide access to OSS or similar software systems to ensure fair competition in the provision of services. ComReg has clarified the application of the non-discrimination obligation in relation to access to OSS.

7.109  In considering OAO use of OSS or similar software systems, Eircom should ensure that the OSS service offered to OAOs is of the same standard and quality as that provided by Eircom to its own downstream operation. ComReg understands that Eircom currently provides OSS to OAOs via a different mechanism to that offered to its own downstream operation. While the mechanism may differ, the non-discrimination obligation means that the OSS which is currently available should be provided in a way which does not disadvantage OAOs, for example, vis-à-vis quality, timeliness and completeness of such access. ComReg’s view is that the onus is on Eircom to ensure that all IT developments occur in a manner which is consistent with its non-discrimination obligations.

**Conclusion**

7.110  ComReg maintains that Eircom should continue to be subject to a non-discrimination obligation.

7.111  ComReg wishes to highlight two specific examples of how the application of the non-discrimination obligation should be understood.

7.112  First, when self-supplying WPNIA related services and information to its downstream arm, Eircom should ensure that such services and information are provided to OAOs under the same conditions and of the same quality, including associated timeframes. ComReg has specified the periods within which certain services and information should be made available to OAOs.

7.113  Second, OAO access to OSS or similar software should be provided in a manner which does not disadvantage OAOs compared with the manner in which it is provided to Eircom’s downstream operation. The requirement to demonstrate compliance with non-discrimination obligations will be integral to any future developments by Eircom of its OSS.

7.114  The non-discrimination obligation is detailed in section 9 of the Decision Instrument.

**Transparency obligations**

**Summary of position as set out in ComReg Document No. 08/104**

7.115  In ComReg Document No. 08/104, it was proposed\(^{217}\) that a transparency obligation should be imposed on Eircom. In summary, the proposal obliged Eircom to:

- Publish and keep updated an Access Reference Offer (ARO).
- Publish at least two months in advance any proposed changes to the ARO, including proposed changes to wholesale prices, terms and conditions, and to notify ComReg an additional one month in advance of any publication.
- Publish specified information, as may be directed by ComReg.

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\(^{217}\) The content of the transparency obligation is discussed in Paragraphs 7.118 to 7.139 of ComReg Document No. 08/104.
- Publish industry Service Level Agreements (SLAs) and updates on its website.
- Publish KPIs as defined by ComReg, subject to further consultation with industry.
- Develop and publish an IRO.
- Provide performance metrics to ComReg.
- Provide undertakings with information and documents which they may reasonably require in order to be able to efficiently offer products and services in the market in a timely manner.

**Views of respondents**

7.116 No comments were received which were specific to the transparency obligation. General comments which are also applicable to the transparency obligation are considered below.

**ComReg’s Analysis**

7.117 Transparency obligations can typically support other obligations being imposed and manifest themselves in requirements to make specified information publicly available. No issues were raised concerning the imposition or implementation of the specific transparency obligations. Where issues were raised concerning the remedies being supported by the transparency obligation, these are mainly discussed in the relevant section relating to that remedy, rather than in this section.

7.118 ComReg, in discussing its approach to the formulation and implementation of the access obligations above, noted that, following consideration of responses to ComReg Document No. 08/104, it has decided that Eircom will not be required to develop and publish an Internal Reference Offer. The competition problem which this proposed remedy was intended to address concerns the need for visibility of Eircom’s provision of WPNIA to its own downstream operation in order to ensure that there is no discrimination between services provided to OAOs and services provided as self-supply. It may also assist access seekers in formulating any new access requests. As indicated in paragraph 7.94, ComReg has decided that this requirement would be more appropriately met by obliging Eircom under its transparency obligation to publish information about differences in its self-supply of WPNIA and supply to OAOs.

7.119 Equally so, in paragraph 7.98 ComReg considered that KPIs are required to support eircom’s obligation of non-discrimination, particularly with respect to the provision of access in a fair, reasonably and timely manner. While the obligation to provide access in a fair, reasonable and timely manner is being maintained, ComReg considers that the requirement for KPIs is addressed more appropriately as a transparency obligation.

7.120 ComReg has also considered the requirement to provide Performance Metrics. In the draft Decision Instrument set out in ComReg Document No. 08/104, Eircom was required to provide ComReg with performance metrics. ComReg considers that it would be more appropriate for Eircom to publish this information rather than providing it to ComReg, since the purpose of the transparency obligation is to make specified information public with a view to providing visibility to market participants. Consequently, ComReg has amended this obligation.
7.121 ComReg has also further considered the transparency obligation formerly set out in part 9.9\(^{218}\) of the draft Decision Instrument attached to ComReg Document No. 08/104. While there were no comments received in relation to this part of the transparency obligation, ComReg does not consider it to be necessary to impose it within the Decision Instrument given ComReg has, under the Communications Regulation Act 2002, separate powers to require the provision of information in relation to compliance with obligations.

**Conclusion**

7.122 ComReg maintains that Eircom shall have obligations relating to transparency. In addition to this general obligation, ComReg has decided to impose specific transparency obligations to include requirements to publish:

- an Access Reference Offer;
- sufficient information to identify and justify any differences between the services and facilities set out in the ARO and the comparable services and facilities which Eircom provides to itself;
- at least two months in advance, any proposed changes to the ARO, including proposed changes to wholesale prices, terms and conditions, and to notify ComReg an additional one month in advance of any publication;
- necessary information in an efficient and effective manner, and in compliance with its non-discrimination obligations;
- advance notice to OAOs of any new service or facility, including those which it self-supplies, so that OAOs are in the same position as Eircom’s downstream operation in being able to compete in the retail market;
- its SLA offers and any updates on its website;
- Key Performance Indicators (KPIs) for WPNIA products (KPIs will be defined by ComReg following further consultation); and
- performance metrics.

7.123 The transparency obligation is imposed in section 10 of the Decision Instrument. Details of specific aspects of its implementation are set out in sections 10.2 to 10.10 of the Decision Instrument.

\(^{218}\) Part 9.9 of the proposed transparency obligation stated “Eircom shall provide to ComReg in writing or in such other form as may be specified by ComReg, on a monthly basis or on such other alternative periodic basis as may be specified by ComReg, performance statistics which shall be specified by ComReg, in respect of the services provided to OAOs and, as appropriate, services provided to Eircom itself. ComReg may at its discretion publish such statistics. In addition, ComReg may if it deems necessary and proportionate, take measures to verify the accuracy of the reported performance statistics, including by way of an audit by ComReg or a third party.”
Accounting separation

Summary of position as set out in ComReg Document No. 08/104

7.124 In ComReg Document No. 08/104, it was proposed to maintain existing accounting separation obligations until the detailed implementation consultations are complete.

Views of respondents

7.125 There were no specific comments on accounting separation in response to ComReg Document No. 08/104.

Conclusion

7.126 ComReg maintains that Eircom should continue to comply with all the obligations currently in force until such time as any new or amended obligations are imposed. Eircom shall continue to 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 WUA market, shall be maintained in their entirety. Eircom shall be obliged to comply with all of those obligations, pending any further decision to be made by ComReg following further consultation in relation to the details of and implementation of accounting separation obligations and, in particular, as regards any decision made by ComReg in respect of Consultation Document: Accounting Separation and Cost Accounting Review – Draft Accounting Direction to Eircom Limited, ComReg Document No.09/75 and any other decision or directions which may be issued by ComReg from time to time.

7.127 Obligations regarding accounting separation are detailed in section 11 of the Decision Instrument.

Price control and cost accounting

Price control

Summary of position as set out in ComReg Document No. 08/104

7.128 In ComReg Document No. 08/104, it was proposed, in accordance with Regulation 14 of the Access Regulations, that Eircom should be obliged to offer WPNIA services at prices which are cost-oriented. Further, Eircom should be obliged to ensure that the relationship between its wholesale and retail pricing, and between the pricing of its wholesale products, does not constitute a margin squeeze. The current price control was to be maintained pending the outcome of further consultation. An obligation not to unreasonably bundle was also proposed.

Views of respondents

7.129 There were no specific comments on price control in responses received to ComReg Document No. 08/104.

219 See paragraphs 7.160 to 7.196 of ComReg Document No. 08/104.
Conclusion

7.130 ComReg maintains that Eircom should be obliged to offer WPNIA at prices which are cost-oriented. ComReg also maintains that Eircom should ensure that it does not cause a price/margin squeeze.

7.131 Prices charged by Eircom to any other undertaking for access to or use of WPNIA, services or associated facilities are to be subject to a cost orientation obligation. ComReg has specified the detailed nature of the cost orientation obligation with regard to the various WPNIA services or associated facilities in a number of other published documents. In particular, Eircom shall continue to comply with ComReg Document No. 08/71 made in respect of ancillary charges in Eircom’s Access Reference Offer price list (ComReg Document No. 08/71); ComReg Decision No. D05/09 made in respect of Intra Migration Premium Charge (ComReg Document No. 09/77, Response to Consultation and Decision); ComReg Decision No. D04/09 made in respect of the Rental Price for Shared Access to the Unbundled Local Loop (ComReg Document No. 09/66, Response to Consultation and Decision); and shall comply with ComReg Decision No D01/10 made in respect of LLU Pricing (ComReg Document 10/10, Response to Consultation and Decision).

7.132 ComReg has decided to remove the proposed price control obligation not to unreasonably bundle. Although respondents did not object to the proposed obligation, ComReg has further considered its relevance in the WPNIA market and believes it is not appropriate to impose this obligation in this wholesale Market. For the avoidance of doubt, the obligation not to unreasonably bundle is maintained under the obligations relating to the Retail Narrowband Access market.220

7.133 Obligations regarding price controls are detailed in sections 12.3 and 12.4 of the Decision Instrument.

Cost accounting

Summary of position as set out in ComReg Document No. 08/104

7.134 In ComReg Document No. 08/104, it was proposed to maintain the existing cost accounting obligations on Eircom until further on-going detailed implementation consultations are completed.

Views of respondents

7.135 There were no specific comments on cost accounting in response to ComReg Document No. 08/104.

Conclusion

7.136 ComReg maintains that Eircom should continue to comply with all the cost accounting obligations currently in force until any amendment is made.

7.137 Obligations regarding cost accounting are detailed in sections 12.1 and 12.2 of the Decision Instrument.

Obligations applied in an NGN/NGA environment

Summary of position as set out in ComReg Document No. 08/104

7.138 ComReg’s view as expressed in ComReg Document No. 08/104 was that the advent of NGA should not be allowed to lead to a restoration of monopoly/bottleneck conditions over the access network, given that the conditions of competition are expected to be the same where Eircom overlays or replicates its existing access network with fibre and NGA equipment. Eircom’s SMP will prevail across both current generation networks and next generation network infrastructure. Failing to impose some form of remedial obligations over NGA infrastructure would, amongst other things, not be in line with ComReg’s statutory responsibility to promote competition and protect the interests of end users.

7.139 ComReg recognised the lack of certainty around the nature and the timing of any NGA investment, the continuing evolution of some services in the wholesale and retail markets, and the diverse views expressed by respondents. An approach was therefore proposed which would give the greatest flexibility to the market to determine what products and services should be offered and on what basis, and would offer the opportunity for NGA to be implemented following commercial negotiation in the first instance.

7.140 In considering NGA services, the approach was specific in terms of the principles of the obligations that would apply, but not specific in terms of the detail of their implementation.

7.141 In summary, ComReg proposed that the obligations to be imposed on Eircom for all WPNIA products and services in an NGN/NGA environment would include:

- an obligation to meet reasonable requests for access to, and use of, specific WPNIA network elements and associated facilities (Regulation 13 of the Access Regulations);
- an obligation to negotiate in good faith with OAOs requesting access (Regulation 13 of the Access Regulations);
- a transparency obligation (including the requirement to communicate quarterly with OAOs regarding the introduction of new technologies, products, services or processes) (Regulation 10 of the Access Regulations);
- a non-discrimination obligation (Regulation 11 of the Access Regulations);
- a price control obligation (Regulation 14 of the Access Regulations); and
- obligations concerning cost accounting and accounting separation (Regulation 14 of the Access Regulations);

7.142 While imposing the above remedies in principle, ComReg proposed to consult further on their detailed specification and further implementation.

Views of respondents

7.143 Five respondents commented on remedies to be applied to next generation WPNIA.

7.144 One respondent stated that, by including fibre within the WPNIA market, ComReg placed an automatic obligation on Eircom to offer fibre access on an unbundled basis when it offered fibre-based access to its own retail customers. The respondent proposed that it may be appropriate to conduct a new market analysis for NGA as and when plans for roll-out are put into practice.
Four respondents supported ComReg’s approach to the proposed regulation of WPNIA in an NGA environment. One noted the need to balance the requirement for appropriate regulation without inappropriately distorting investment incentives. Another emphasised the importance of obliging Eircom to provide timely and sufficient information on its planning for NGA in order to allow OAOs to efficiently plan their business. This respondent also believed that the provision of information on Eircom’s future plans will be a necessary input for ComReg to determine the optimal approach to the regulation of next generation products in the WPNIA market.

ComReg’s Analysis

In regard to one respondent’s assertion that the access remedy created an automatic obligation on Eircom to offer fibre access on an unbundled basis, ComReg has stated explicitly in ComReg Document No. 08/104 that, depending on the deployed next generation network topology, it may or may not be possible to unbundle fibre in the way that a copper loop can be un bundled. There is therefore no automatic assumption that access to NGA products, services and associated facilities in the WPNIA market would necessarily require unbundled fibre. ComReg’s approach was to consider wholesale access as a means of overcoming a bottleneck, and to ensure that monopoly conditions in the access network were not restored/replicated in the event of fibre infrastructure replacing copper infrastructure in the access network.

It was proposed that a range of remedies, for NGA products, services and associated facilities falling within the WPNIA market would be imposed in principle. The remedies were designed to ensure that, for example, reasonable requests for wholesale access would be met. In doing so, ComReg has not mandated any particular form of access at this point. ComReg has clearly signalled its intention to consult further on the detail of how the range of remedies would be further specified when there is, amongst other things, greater clarity in the market regarding eventual roll-out of NGA infrastructure. ComReg has not therefore predetermined how access to next generation WPNIA is to be provided.

ComReg notes comments from respondents regarding the need for timely and sufficient information on Eircom’s next generation network planning, and notes that it had already made specific provision for this under the proposed transparency obligation relating to current generation based WPNIA. For absolute clarity, ComReg has now placed this obligation in the Next Generation WPNIA Part of the Decision Instrument. The requirement now reads that Eircom shall make publicly available, on a quarterly basis, information regarding the introduction of new infrastructures, technologies, services or facilities. This wording of this particular obligation now reflects the fact that the purpose of transparency obligations are, in general, to make specified information publicly available.

Conclusion

The draft Decision Instrument in ComReg Document No. 08/104 proposed to impose high level remedies on Next Generation WPNIA and associated facilities, and

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221 Paragraphs 4.218, 4.219 of ComReg Document No. 08/104.
222 See section 12.6 of the Draft Decision Instrument set out in ComReg Document No. 08/104.
223 See section 13 to 18 of the Decision Instrument at Appendix C of this Decision Document.
addressing the need immediately to implement remedies concerned with the planning and introduction of Next Generation WPNIA. ComReg has considered all responses to its preliminary views and maintains its overall approach on remedies to be applied to Next Generation WPNIA.

7.150 The obligations to be imposed on Eircom’s provision of Next Generation WPNIA are detailed in sections 13 to 18 of the Decision Instrument.

7.151 For the avoidance of doubt, ComReg has clearly signalled in the Decision Instrument where it intends to engage in subsequent consultation to further specify the detail and further implementation of specific Next Generation WPNIA remedies.
A. Appendix A – Eircom DSL and Mobile Broadband: Price/Product Trends

Figure 3: Comparison of Eircom DSL and Mobile Broadband Operator Price and Product Trends
A.1 The following notes explain product and pricing changes identified above

1. Eircom Home starter - 24 Jan 2006: download allowance increased from 8GB to 10GB

2. Vodafone Ireland – Q2 2006: launch of mobile broadband

3. Three Ireland – 7 May 2007: Three’s original 3000 product (€39.99 for €3GB) was effectively replaced by the launch of a superior product offering 3.6 download speeds and 10GB download allowance.

4. Three Ireland- 1 April 2008: usage allowance increased to 15GB and, on 1 June 2008, download speed increased to 7.2Mbps.

5. Eircom Home professional - 25 Aug 2008: download speed increased from 3Mbps to 7.6Mbps. Download Limit also increased from 30GB to 50GB. In the second half of 2009 the download speed was increased to 8Mbps.

6. Eircom Home Plus - 25 Aug 2008: download speed increased from 2Mbps to 3Mbps. Download Limit also increased from 20GB to 30GB.

7. Vodafone Ireland – Q2 2009: Download speeds increased from 3.6Mbps to 7.2 Mbps. Download limit increased from 5GB to 10 GB in Q4 2009.

8. Meteor – 28 October 09: download limit increased from 5GB to 10GB/15GB and the price increased from €16.99 to €19.99/€24.99 for the respective aforementioned download allowances.

9. O2 – Q4 2009: download speed upgraded to 7.2 Mbps. However this applied to only those who signed up to an 18-month contract. The speeds for 12-month contracts remained at 3.6Mbps. Download limit decreased from 10GB to 7.5GB for those on 12 month contracts.


11. On 29 March 2010, Eircom announced that for all customers in NGB exchange areas (initially in Dublin with further expansion to areas including Cork, Limerick, Galway and Waterford by the end of the year) using its Eircom Home Starter, Home Plus, Home Advanced and Home Professional products would be upgraded to up to 8Mb download speeds. These upgraded products, called Next Generation Broadband (NGB) Basic, NGB Regular, and NGB Advanced, would have download allowances of 10GB, 30GB and an unlimited allowance respectively.

A.2 The following assumptions should also be noted with respect to the presentation of data.

- All prices inclusive of VAT, but excluding additional costs such as line rental or modem costs.
- To ensure consistency in comparing products ComReg has analysed only products available on 12 month contracts.
- Slight deviations in price may be evident as a result of changes to the VAT rate in Ireland during the measurement period. The VAT rate stood at 21% at Q2 2005. It was increased to 21.5% in December 2008 and was changed to 21% in January 2010.
- Download speed refers to maximum download speed. Other product or network characteristics may affect the actual download speed achieved.
Appendix B – Regulatory Impact Assessment

Introduction

B.1 Regulatory Impact Assessment (RIA) is an analysis of the likely effect of proposed new regulation or regulatory change. The RIA should help identify regulatory options, and should establish whether proposed regulation is likely to have the desired impact. The RIA is a structured approach to the development of policy, and analyses the impact of regulatory options on different stakeholders.

B.2 The proposed Regulatory Impact Assessment carried out by ComReg and presented in ComReg Document No. 08/41 and further developed in ComReg Document No. 08/104 followed ComReg’s Guidelines1 and took close account of the Government’s Better Regulation agenda, and of international best practice (by, for example, considering developments in thinking about RIA published by the European Commission and the OECD). This was also done having regard to Ministerial Policy Direction 62.

B.3 ComReg’s approach to RIA follows five steps:

Step 1: describe the policy issue and identify the objectives
Step 2: identify and describe the regulatory options
Step 3: determine the impacts on stakeholders
Step 4: determine the impacts on competition
Step 5: assess the impacts and choose the best option

B.4 In ComReg Document No. 08/41 and ComReg Document No. 08/104, ComReg followed each step above in identifying and discussing options, along with their likely impacts on stakeholders and on competition. In this final RIA, ComReg assesses the impact of the regulatory obligations which are being imposed in the WPNI A market.

Principles in Selecting Remedies

B.5 In imposing obligations ComReg is obliged, in accordance with Regulation 9(6) of the Access Regulations, to ensure that they are:

- based on the nature of the problem identified;

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

B.6 The relevant objectives, as set out in section 12 of the Communications Regulation Act, 2002 which must be taken into account when imposing 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.

B.7 ComReg’s principal objective in addressing the question of the regulation of the WPNIA market is to provide for the development of sustainable and effective competition in the retail broadband market. To this end, ComReg aims to ensure that, where an operator is found to be dominant in the WPNIA market, the potential exploitation of its market power in this market is prevented.

B.8 ComReg notes that this is a second review of the WPNIA market (formerly the WUA market), and that regulatory remedies have been imposed on Eircom since the last market review in 20043 (‘the 2004 Review’). While the market analysis has considered the definition of the WPNIA market 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. ComReg notes that the 2004 Review defined a market for Wholesale Unbundled Access, (WUA), while this current review defines a market for Wholesale Physical Network Infrastructure Access. The WPNIA market (as defined by the European Commission in its Recommendation) is more technology neutral in its scope and broader than the WUA market as it deals with network infrastructure access on a variety of platforms and not just access to copper based networks.

B.9 In undertaking the RIA, ComReg considers the application of regulation in the broader WPNIA market having regard to the fact that obligations already exist in relation to access to copper based networks.

B.10 ComReg also considers the RIA Guidelines adopted under the Government’s Better Regulation programme4. Where a market is already regulated, ComReg’s RIA approach is to address the following:
- Is regulation still necessary in this market?
- Does current regulation achieve objectives as simply as possible?
- Are changes to regulation required?

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3 See ComReg Document No. 04/70 (Decision No. 8/04) Market Analysis: Wholesale unbundled access (including shared access) to metallic loops and sub-loops, Designation of SMP and Decision on Obligations, June 2004.

4 Regulating Better, a Government white paper setting out six principles of better regulation, Department of the Taoiseach, January 2004.
B.11 In order to assess the efficacy of existing regulation, and to consider prospective regulation, ComReg included specific questions on this topic in its data directions to industry. Given that this level of consultation took place in the early and subsequent stages of the analysis of the WPNIA market, it has allowed ComReg to take account of industry views as part of the process of analysing regulation in the WPNIA market. Responses received have been considered in analysing regulatory options.

Is regulation required in the WPNIA market?

B.12 The 2004 Review of the WUA market resulted in a suite of obligations being imposed on Eircom, the SMP operator. The market analysis indicated that Eircom has SMP. A range of actual and potential competition problems were identified, and in order to address these, remedies were imposed.

B.13 In considering whether regulation is still required in the WPNIA market, ComReg notes, based on its competition and SMP assessment in Section 5 that the broad dynamic of the WPNIA market is relatively unchanged from that of the WUA market since the time of the last review. Eircom has a 100% share of the WPNIA market, and this is not likely to change within the lifetime of this review. Barriers to entry remain high and non-transitory. Other issues which may impact upon SMP have also been considered and ComReg’s view is that these do not mitigate the position of market power suggested by Eircom’s high market share in the WPNIA market. The Decision Document has concluded that Eircom has SMP, and ComReg is obliged to impose some regulation. The option of not imposing any obligations is not, therefore, appropriate.

B.14 ComReg’s analysis of the retail market in paragraphs 3.3 to 3.107 indicates that there is evidence of a growing broadband market. Retail broadband services are increasingly available on various platforms (for example, cable, DSL), however, DSL is still the predominant platform. There also remain significant geographical variances in the coverage of broadband networks.

B.15 This WPNIA market review is concerned with the wholesale inputs required to support the development of effective and sustainable competition in the upstream retail broadband market. The WPNIA market definition questioned whether operators wishing to address the retail broadband market could choose to build their own infrastructure. So, for example, FWA and cable operators have invested in infrastructure which allows them to offer a range of retail products, including retail broadband. However, these networks are still limited in terms of the geographic areas they cover, and this is reflected in the relatively low retail market

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5 Data directions issued in December 2007, September 2008 and on subsequent occasions between November 2009 and February 2010 in relation to consumer switching behaviour.

6 It can be noted that Eircom’s current legal obligations, arising from its position of SMP, imposed following the review of a broadly similar market of (Wholesale unbundled access (including shared access) to metallic loops and sub-loops (Document No. 04/70, Decision No. D8/04) include obligations of Transparency, Non-Discrimination, Access and relating to price controls and accounting separation.

7 Even in the circumstances where alternative fibre networks were to be included in the WPNIA product market definition Eircom’s market share would be 99.65%.
shares. The WPNIA market definition also noted that wholesale physical access products are not currently available on alternative networks such as cable, fibre, mobile or FWA, and operators do not have the option of purchasing such wholesale inputs from an operator other than Eircom. ComReg also noted that the demand for WPNIA products is likely to increase following the conclusion of a recent arrangement whereby BT Ireland, using WPNIA, intends to supply Vodafone with certain wholesale broadband services. Operators are therefore still dependent on wholesale inputs from Eircom to reach a mass market customer base.

B.16 ComReg therefore concludes that the need for a WPNIA product is established, and that it is an essential input to allow OAOs to compete in the retail broadband market. In ComReg’s view, it is very unlikely that WPNIA would be offered absent regulation. The direct benefit of having WPNIA is that OAOs are in a better position to compete in the retail broadband market through their ability to directly control retail product characteristics and pricing, and that this has a positive impact for consumers in terms of price, choice and quality.

Does current regulation achieve its objectives as simply as possible?

B.17 Where ComReg finds SMP, it is obliged to impose regulatory obligations and, in doing so, its approach is to consider an incremental approach to regulation such that it only imposes obligations necessary to address actual or potential competition problems. The lightest remedy that can be imposed is the obligation of transparency. Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation. If this is still not sufficient, ComReg may next consider the imposition of an access obligation, generally supported by accounting separation obligations. The final measure to be considered is the imposition of a price control and cost accounting obligation.

B.18 At present, the unbundled access element of the WPNIA market is regulated. In considering the extent to which current regulation achieves its objectives as simply as possible, ComReg has to balance the need to minimise the burden on Eircom against the requirement for fit-for-purpose WPNIA products to be made available as inputs to the retail broadband market.

B.19 ComReg begins by considering whether a transparency obligation would be sufficient to address competition problems. A transparency obligation ensures that all operators and ComReg can observe price and non-price terms in the market. It provides, for example, that Eircom can be obliged to publish a Reference Offer for the products offered in the WPNIA market, and can be obliged to publish supporting industry documentation. ComReg’s view is that a transparency obligation is necessary, but on its own is not sufficient.

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8 Pursuant to Regulation 10 of the Access Regulations.
9 Pursuant to Regulation 11 of the Access Regulations.
10 Pursuant to Regulation 13 of the Access Regulations.
11 Pursuant to Regulation 12 of the Access Regulations.
12 Pursuant to Regulation 14 of the Access Regulations.
B.20 ComReg then considers whether an obligation not to discriminate would be sufficient in the WPNIA market. A non-discrimination obligation would, would for example, oblige Eircom to ensure that services and information are provided to other undertakings under the same conditions and of the same quality as the services and information that Eircom provides to its own services or those of its subsidiaries or partner. ComReg concludes that this obligation is necessary but not sufficient together with transparency only, given the types and range competition problems that could occur in the market.

B.21 A non-discrimination obligation establishes a form of behaviour in the market, but does not address what type of product or service should be offered, or how it should be offered. ComReg’s review of competition problems indicated actual and potential issues which could be addressed by a non-discrimination obligation, but often there was an underlying problem at a more fundamental level, to do with the nature of the product being offered. While a non-discrimination obligation would be a necessary supporting obligation to address this, it would not be adequate on its own or with transparency only.

B.22 The obligation not to discriminate requires equivalent treatment of operators, and the transparency obligation allows the means of observing this. However, in considering the obligation not to discriminate and the transparency obligation together, ComReg’s view is that the operation of current regulation is not adequate in providing a means of ensuring that Eircom does not discriminate between OAOs and its internal operation, and is not adequate in ensuring that this can be demonstrated. ComReg believes that there is a need for better measures of performance in the products and processes which Eircom offers to OAOs and uses internally, and in the production of information about these measures. This requirement cannot be met solely by the lighter regulatory options.

B.23 As non-discrimination and transparency are considered necessary, but not sufficient on their own, the next level of regulation considered is the imposition of an access obligation. Taken together, access obligations ensure that operators have the right to access wholesale products on the basis of a reasonable request, and to implement them, and that access is provided in a manner which is fair, reasonable and timely, and to the same standard provided to Eircom's downstream operation or subsidiaries.

B.24 ComReg noted earlier that, in its view, it is unlikely that a WPNIA product would be offered absent regulation. An access obligation gives operators the right to request WPNIA products, and establishes the principles setting the terms on which such access should be made available. In ComReg’s view, an access obligation is a fundamental requirement in this market, and experience in the market confirms the need for an obligation of this kind.

B.25 Pursuant to Regulation 13(1) of the Access Regulations, ComReg may impose access obligations where it considers that the denial of such access or the imposition by operators of unreasonable terms and conditions having a similar effect:

- would hinder the emergence of a sustainable competitive market at the retail level,

- would not be in the interests of end-users, or
would otherwise hinder the achievement of the objectives set out in section 12 of the Communications Regulation Act 2002.

B.26 Additionally, when considering whether to impose access obligations referred to in paragraphs 13(1) and 13(2) of the Access Regulations, in particular, when assessing whether such obligations would be proportionate to the objectives set out in section 12 of the Communications Regulation Act 2002, ComReg has taken into account the following factors:

(a) the technical and economic viability of using or installing competing facilities, in the light of the rate of market development, taking into account the nature and type of interconnection and access involved;

(b) the feasibility of providing the access proposed, in relation to the capacity available;

(c) the initial investment by the facility owner, bearing in mind the risks involved in making the investment;

(d) the need to safeguard competition in the long-term;

(e) where appropriate, any relevant intellectual property rights; and

(f) the provision of pan-European services.

B.27 In reviewing the operation of current regulation, ComReg identified in ComReg Document No. 08/41 and ComReg Document No.08/104 elements of the existing access obligation which required development, particularly having regard to the need to reflect technological changes in the market. ComReg also identified the need to ensure that the access obligation more appropriately ensures that WPNIA products are provided in a verifiable and fit-for-purpose manner, particularly having regard to the need to ensure that there is no discrimination.

B.28 The most onerous form of regulation is the imposition of price controls. Currently, Eircom is obliged under its existing obligations to ensure that its prices for WPNIA access and associated facilities are cost-oriented. This is implemented at present by means of a price control obligation imposed pursuant to the 2004 Review. ComReg has considered whether it is still necessary to continue this approach and to ensure that prices for WPNIA products are cost-oriented, and whether this should be ensured via price controls. Given Eircom’s 100% market share, and ComReg’s view that there is limited constraint on its SMP offered by qualifying factors (such as potential competition and countervailing buyer power), there is no identifiable constraint on Eircom’s WPNIA pricing. As a vertically integrated operator, Eircom would have the ability and motive to increase prices absent regulation. This would be the case even if other obligations such as non-discrimination, transparency and access were in place.

13 Section 9 of the 2004 Review Decision Instrument imposes upon Eircom an obligation to offer cost oriented prices for LLU services, collocation, and associated facilities on the basis of forward looking long run incremental costs (‘FL-LRIC’) as provided for by Regulation 14 of the Access Regulations.

14 Eircom is the only operator offering WPNIA.
B.29 Having regard to Regulation 14(2) of the Access Regulations, where ComReg seeks to impose obligations relating to price control and cost accounting, it is obliged to consider any relevant investment made by the operator and to allow the operator earn a reasonable rate of return on adequate capital employed, taking into account the risks involved. The investments made by Eircom in its copper access network are largely sunk, although there is ongoing investment associated with the maintenance of the network. ComReg has already established\(^\text{15}\) what it considers to be an appropriate rate of return (known as the Weighted Average Cost of Capital or WACC) that can be earned by Eircom in providing its regulated services. In doing so, ComReg has taken into account the investment made by Eircom and has allowed a reasonable rate of return on adequate capital employed, taking into account the risks involved. In terms of next generation (fibre) WPNIA, ComReg has imposed obligations relating to price control and cost accounting at a high level, but not the detail of the obligations to be applied. The rationale for this approach is that ComReg is mindful of the need to provide clarity as to what will be regulated, but to be flexible as to how it is to be regulated in order that it can take account of what emerges. ComReg has also signalled in its recent discussion on Next Generation Broadband\(^\text{16}\) that ComReg is open to assessing whether the existing WACC is appropriate to reflect the level of any additional and identifiable systemic risk associated with NGB investment by Eircom. In this regard, ComReg has signalled that it is up to eircom to provide clear and compelling evidence of the existence of risk differentials between new and legacy investments, the latter of which have already been accounted for in the existing WACC. Any examination of the WACC would, of course, need to be mindful of the need to encourage investment while at the same time not distorting competition through inappropriate price signals.

B.30 Regulation 14(3) of the Access Regulations also requires that any cost recovery mechanism or pricing methodology that is imposed by ComReg serves to promote efficiency and sustainable competition and maximise consumer benefits. In ComReg’s view, its market analysis indicates that a lack of effective and sustainable competition means that Eircom might sustain prices at an excessively high level, or apply a margin squeeze to the detriment of end users. Through the use of WPNIA, operators are encouraged to invest in infrastructure and develop innovative and differentiated products that will result in improved retail offerings to end users. As evidence by the recently announced deal between BT Ireland and Vodafone\(^\text{17}\), there is also clearly evidence of pent up demand and ongoing investment in WPNIA based services.

B.31 ComReg’s view is that the imposition of cost-based price controls in the WPNIA market are essential to ensure that Eircom does not charge a monopoly price, which would have a negative effect on the WPNIA and associated retail markets, by


\(^{16}\) Next Generation Broadband in Ireland – promoting the timely and efficient development of high speed broadband infrastructure and services.

\(^{17}\) Details of agreement available on Competition Authority’s website at http://www.tca.ie/controls/getimage.ashx?image_id=2326

127 ComReg 10/39
impacting LLU operators’ ability to compete with Eircom and affecting the development of competition, resulting in end users having less choice, lower quality and higher priced services. ComReg has also reviewed experiences in more mature markets where WPNIA is longer established than it is in Ireland, and notes that, to its knowledge, in no case has the regulator been able to withdraw price control obligations.

B.32 ComReg has also considered the extent to which NGA based WPNIA prices should be subject to price control, given the uncertainty surrounding the cost base of such services, and given ComReg’s stated intention to support efficient investment in infrastructure. ComReg suggested in ComReg Document No. 08/41 that it may be appropriate in certain specified circumstances to forbear from imposing price controls on next generation WPNIA. In light of respondents’ comments to ComReg Document No. 08/41, ComReg further considered the application of remedies to NGA based products and services in the WPNIA market. ComReg’s competition and SMP assessment, including an analysis and assessment of competition problems, leads it to the view that regulatory intervention in the WPNIA market is required, irrespective of the underlying physical infrastructure used by Eircom in its access network. For this reason, ComReg considers that it is justified and appropriate to impose a remedy requiring Eircom to meet reasonable requests for access to NG WPNIA, and that this obligation is supported by requirements that Eircom behave in a manner which is transparent and non-discriminatory.

B.33 In considering the extent to which current regulation is effective, ComReg notes that separate detailed consultation processes have recently been concluded on the appropriate pricing methodologies for full unbundling and line share products. For the purposes of this market analysis, ComReg considers that there remains a requirement to ensure that WPNIA prices are cost-oriented.

B.34 Currently, Eircom is obliged to comply with requirements regarding separated accounts and cost accounting. These are considered necessary to ensure appropriate cost recovery mechanisms, and to monitor any 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.

18 Response to Consultations and Final Decision, Local Loop Unbundling ('LLU') and Sub-Loop Unbundling ('SLU'), Maximum Monthly Rental Charges, Decision No. D01/10, ComReg Document No. 10/10.


Are changes to regulation required?

B.35 Based on its review of competition problems and of the effectiveness of current regulation, ComReg proposed in ComReg Document No. 08/41\textsuperscript{21} that regulation is required in the WPNIA market, and that a full suite of remedies is justified. In ComReg Document No. 08/104\textsuperscript{22}, ComReg took full account of respondents’ comments, and further developed its proposed obligations. In the sections above, ComReg has indicated areas where it was proposed that current regulation needs to be developed. This may be because current regulation is not sufficiently effective, or to take account of changes in the market.

B.36 In Section 7 of this Decision Document, ComReg has already discussed why key changes to current regulation are necessary and has identified the changes to be imposed. These are again summarised below with the impact on stakeholders considered later, commencing at paragraph B.68.

Obligations applied in an NGN/NGA environment

B.37 Since the completion of the 2004 Review, the European Commission has, in its Recommendation, replaced the WUA market by the more technology neutral WPNIA market. The WPNIA market encompasses infrastructure access, and allows for the possibility of different technology platforms to be examined in the context of the market analysis process.

B.38 At the time of the 2004 review, the issue of next generation access was not particularly relevant. However since then, given market developments and the European Commission’s definition of the WPNIA market, ComReg’s approach to regulation has had to evolve. ComReg has sought, throughout the consultation process in arriving at the positions in this Decision Document, to differentiate its approach to remedies to be applied to WPNIA in a Next Generation Access (NGA) environment.

B.39 ComReg’s competition analysis and assessment of competition problems in Section 5 indicates the need for regulatory intervention in the WPNIA market, irrespective of the underlying technology being used to deliver services in the market. ComReg has presented its view that the advent of NGA should not be allowed to lead to a restoration of monopoly conditions over the access network, given that the conditions of competition are expected to be the same where Eircom overlays or replicates its existing access network with fibre and NGA equipment (Eircom’s SMP will prevail across current generation networks and next generation network infrastructure). Failing to impose some form of remedial obligations over NGA infrastructure would ultimately be contrary to ComReg’s statutory responsibility to promote competition and the interests of end users.

B.40 ComReg considers that it is justified and appropriate to impose a range of remedies on Eircom in relation to Next Generation (NG) WPNIA access\textsuperscript{23}, including obligations to meet reasonable requests for access to NG WPNIA, transparency and

\textsuperscript{21} See Section 8 of ComReg Document No 08/41.

\textsuperscript{22} See section 7 of ComReg Document No. 08/104.

\textsuperscript{23} See paragraphs 7.138 to 7.151 of this Decision Document for discussion on NG WPNIA remedies.
non-discrimination. However, while ComReg believes that it is appropriate to specify, in detail, the obligations relating to current generation WPNIA, it has decided to impose remedies on NG WPNIA at a higher level and to consult on the detail of the further implementation of such remedies. ComReg considers this incremental approach to be both balanced and proportionate. It clarifies that NG WPNIA is subject to regulation and provides certainty to stakeholders. However, cognisant of the need to promote the development of competition and encourage investment, ComReg has allowed for flexibility in the manner in which NG WPNIA remedies will be specified. ComReg recognises that the burden of meeting obligations relating to NG WPNIA will fall largely on Eircom. However, the precise nature of such obligations could be impacted by the manner within which Eircom itself seeks to address the provision of access in an open, non-discriminatory and transparent manner, particularly having regard to the need to address competition considerations.

B.41 As part of the future consultation to specify other details and further implementation of NG WPNIA remedies, ComReg will also include a further Regulatory Impact Assessment.

Obligations imposed in a Current Generation WPNIA environment

B.42 ComReg has identified and justified in Section 7\(^24\) of this Decision Document the need for the application of remedies to Current Generation WPNIA. While many of these obligations remain unchanged from the 2004 review, ComReg has clarified or expanded some specific elements. The regulatory impact assessment of these is discussed below.

Access obligations

Access to, and use of, specific network elements and associated facilities

B.43 ComReg has concluded\(^25\) in this Decision Document that Eircom’s obligation to meet reasonable requests for access to WPNIA and associated facilities includes the obligation to meet reasonable requests for backhaul. ComReg has not mandated any specific backhaul product to be provided by Eircom (which was considered in ComReg Document No. 08/104\(^26\)) and considers that obligations imposed pursuant to the Leased Line Decision\(^27\) should provide a basis for addressing many of the competition problems associated with the provision of backhaul to support WPNIA services.

B.44 In considering the regulatory impact of this measure, ComReg notes that the Leased Line Decision sets out the basis upon which Eircom is entitled to price and recover costs for wholesale services falling within that market. Insofar as recovering costs associated with the provision of other potential backhaul services

\(^{24}\) See paragraphs 7.15 to 7.137 of this Decision Document.
\(^{25}\) See paragraphs 7.28 to 7.43 of this Decision Document.
\(^{26}\) See section 6.2.IX of the draft Decision Instrument in ComReg Document No. 08/104 (page 161)
\(^{27}\) See Market Analysis - Leased Line Market Review, Response to Consultation and Decision, ComReg Document No. 08/103.
in the WPNIA market is concerned, ComReg notes that a cost-orientation obligation also arises and provides the basis upon which Eircom can recover associated costs with any alternative backhaul products that may be provided pursuant to a reasonable request to do so.

B.45 ComReg therefore concludes that, where the provision of backhaul falls within the leased line market, mechanisms are already in place to regulate all aspects of the requirement to provide backhaul, and so no additional burden is placed on Eircom in complying with its obligations in the WPNIA market. The regulatory impact of providing backhaul for WPNIA pursuant to the Leased Lines Decision has already been considered as part of market analysis associated with this market. The obligation imposed on Eircom to provide backhaul other than that which stems from the Leased Lines Decision would be considered by Eircom on the basis of whether or not any such request from an OAO was reasonable. Should it be deemed to be reasonable, Eircom would be in a position to recover its associated costs having regard to its cost orientation and other obligations. ComReg’s assessment is, therefore, by not mandating a specific backhaul product, any burden on Eircom arising from the imposition of the obligation to meet reasonable requests for backhaul in the WPNIA market is minimised and provides a means for Eircom to consider OAO requests on a case-by-case basis.

B.46 As to the impact of this measure on OAOs, where the provision of backhaul for WPNIA could be supplied by Eircom using a terminating segment of a leased line, then its provision would be governed by obligations set out in the separate leased line market.

B.47 The obligation that Eircom shall meet reasonable requests for access, including backhaul, provides a flexible basis upon which alternative potential backhaul requests can be formulated by OAOs for Eircom’s consideration.

B.48 ComReg has also explicitly included within the access obligation, the requirement that Eircom offers migration facilities. Such facilities are already offered by Eircom so any additional burden is minimal.

B.49 ComReg considers that the explicit inclusion of the requirement to meet reasonable requests for backhaul within Eircom’s Access obligation is necessary to address competition problems associated with OAOs’ inability to avail of LLU at Eircom exchanges due to the lack of or inability to reasonably obtain associated backhaul facilities. ComReg has framed the obligation to ensure flexibility for OAOs to formulate reasonable requests for backhaul, while at the same time ensuring that any potential burden on Eircom is minimised through an appropriate assessment as to whether such requests are reasonable. This approach serves to promote the development of effective competition to the benefit of end users.

Access to facilities already granted

B.50 In ComReg Document No. 08/104\(^{28}\), ComReg set out the principle that Eircom should be obliged not to withdraw access to facilities already granted, and consulted on the advantages and disadvantages associated with specifying fixed notice periods. No fixed prior notice periods were specified in the draft Decision

\(^{28}\) See paragraphs 7.43 to 7.59 of ComReg Document No. 08/104.
Instrument. In order to maintain flexibility on a case-by-case basis, ComReg has decided not to specify a fixed period for prior notification of proposed withdrawal of access to facilities already granted. However, ComReg has clarified its general view that a 5 year notice period would be reasonable, but has retained flexibility for a withdrawal to occur earlier, subject to its approval.

B.51 ComReg considers that the regulatory impact of this decision is to provide increased flexibility for Eircom to develop and invest in its network, while safeguarding OAO investment in WPNIA related infrastructure.

B.52 ComReg also notes that Eircom, pursuant to the 2004 Review, was already required to comply with an obligation not to withdraw access to facilities already granted.

B.53 Throughout the WPNIA consultation process, ComReg has considered options that both encourage efficient investment by Eircom in the development of its network and also for OAOs investing in LLU related infrastructure. In this regard, ComReg considers that its clarification in this Decision Document provides an appropriate balance between the interests of the various parties.

**Obligations to provide open access to technical interfaces, protocols and other key technologies, and to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services**

B.54 Eircom is already obliged to comply with these obligations pursuant to the 2004 Review. As noted earlier in this Decision Document, the obligations are to be maintained.

**Conditions attached to the Access Obligations**

B.55 At the time of the 2004 Review, Eircom was required to offer SLAs, and SLAs were introduced into the market on foot of this. Since then, experience in the market has led ComReg to describe, within this Decision Document, how the obligation is to be more specifically implemented.

B.56 In ComReg Document No. 08/104, ComReg discussed and justified the need to develop and publish Key Performance Indicators (KPIs) as part of an obligation to ensure that terms and conditions were provided on a fair, reasonable and timely basis. While the rationale for KPIs remains the same, ComReg has decided in this

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29 See Section 6 of ComReg Document No. 04/41, paragraphs 4.3 and 4.5.
30 See Section 6 of ComReg Document No. 04/41, paragraphs 4.2 VII and 4.2 VIII.
31 See paragraphs 7.57 to 7.67 of this Decision Document.
32 See discussion in paragraphs 7.68 to 7.99 of this Decision Document.
33 In ComReg Document No. 08/104, ComReg discussed the development and establishment of KPIs in terms of the access obligation (paragraphs 7.60-7.63, and 7.95-7.102 of 08/104); and in terms of the non-discrimination obligation (7.107-7.109 and 7.153-7.159). The potential publication of KPIs was addressed in terms of the transparency obligation (7.134-7.139).
34 See discussion in paragraphs 7.68 to 7.77 and 7.96 to 7.99 of this Decision Document.
Decision Document\textsuperscript{35} that this requirement is more appropriately addressed within the transparency obligations.

B.57 It was also proposed in ComReg Document No. 08/104 that Eircom should be obliged to develop and publish an Internal Reference Offer (IRO)\textsuperscript{36}. In this Decision Document, ComReg has further elaborated upon and justified its view that visibility is required of all differences between WPNIA inputs which Eircom supplies to itself, and those it supplies to OAOs, along with the objective justification for any such differences. However, ComReg has further considered how this requirement may best be met, and has decided that the obligation is better expressed as a transparency obligation which will ensure that Eircom identifies and justifies any differences between the services and facilities set out in the ARO and those it supplies to itself.

\textit{Non-discrimination}

B.58 At the time of the 2004 Review, Eircom was required\textsuperscript{37} to comply with non-discrimination obligations. While the justification for the non-discrimination obligation continues to exist for the WPNIA market, ComReg has taken the opportunity to clarify how it is to apply to two specific areas, having regard to issues which have arisen in the market.

B.59 Firstly, ComReg has clarified the application of the non-discrimination obligation with respect to access and interconnection. In order that Access Seekers may be in the same position as Eircom’s retail or downstream division, the WPNIA services and information shall be provided to Access Seekers in sufficient time, that is, the earlier of:

\begin{itemize}
  \item[a)] at the same time as the WPNIA service(s) or information is provided to Eircom’s retail or downstream division; or
  \item[b)] at least two months prior to any Eircom retail service or facility, which relies on the provision of the WPNIA service(s) or information, being made available on the retail or downstream market, unless otherwise agreed with ComReg.
\end{itemize}

B.60 Secondly, ComReg has clarified how the non-discrimination obligation is to be applied to Operational Support systems (OSS).

B.61 ComReg considers that the development of effective competition will be supported by ensuring that Eircom does not discriminate in the provision of WPNIA, either amongst OAOs or between OAOs and its own downstream operation. The non-discrimination obligations, therefore, support the objective of promoting the development of competition to the benefit of end users.

\textsuperscript{35} See discussion in paragraphs 7.68 to 7.99 of this Decision Document.

\textsuperscript{36} See paragraphs 7.90, 7.108 to 7.109, 7.154 and 7.137 to 7.138 of ComReg Document No. 08/104.

\textsuperscript{37} See Section 6 of ComReg Document No. 04/41, paragraphs 6.1 and 6.2.
Transparency obligations

B.62 The transparency obligations are being imposed as standalone obligations but typically support other obligations. ComReg notes that Eircom was required\(^{38}\), pursuant to the 2004 Review, to comply with a number of transparency obligations.

B.63 Apart from maintaining the former transparency obligations, ComReg has justified and introduced further obligations\(^{39}\) concerning, *inter alia*, publication and justification of any differences between the WPNIA services which Eircom self supplies and that supplied to OAOs; the publication of KPIs (following further consultation by ComReg); the publication of SLAs and associated Performance Metrics; and the publication of advance notification of the introduction of any new services and changes to the ARO.

B.64 The development of the transparency obligations will contribute to the promotion of competition by enabling Eircom, OAOs (and ComReg) to have clarity regarding the provision of WPNIA, particularly having regard to other requirements relating to, for example, access and non-discrimination.

Accounting separation

B.65 Eircom was required\(^{40}\), pursuant to the 2004 Review, to comply with a number of accounting separation obligations. No changes are made to the accounting separation obligation\(^{41}\). ComReg has cross referenced a separate consultative process\(^{42}\) concerning proposed amendments on the detailed implementation of the Accounting Separation obligations.

Price control and cost accounting

Price control

B.66 Eircom was required\(^{43}\), pursuant to the 2004 Review, to comply with a number of price control obligations. These obligations are to be maintained along with the addition of an obligation not to price/margin squeeze.

Cost accounting

B.67 Eircom was required\(^{44}\), pursuant to the 2004 Review, to comply with a number of price control obligations. Eircom’s cost accounting obligations are to be maintained.

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\(^{38}\) See Section 6 of ComReg Document No. 04/41, paragraphs 7.1 to 7.3.

\(^{39}\) See paragraphs 7.115 to 7.123 of this Decision Document.

\(^{40}\) See Section 6 of ComReg Document No. 04/41, paragraph 8.

\(^{41}\) See paragraphs 7.124 to 7.127 of this Decision Document.

\(^{42}\) See Consultation Document, Accounting Separation and Cost Accounting Review – Draft Accounting Direction to Eircom Limited, ComReg Document No.09/75

\(^{43}\) See Section 6 of ComReg Document No. 04/41, paragraph 9.

\(^{44}\) See Section 6 of ComReg Document No. 04/41, paragraph 10.
The impact of proposed changes

Impact on Stakeholders

B.68 ComReg recognises that the burden of the regulatory obligations will fall primarily on Eircom and ComReg. In ComReg’s view, it is not likely that Eircom would choose to develop and supply WPNIA products absent regulation. However, ComReg believes that WPNIA is necessary for the development of sustainable and effective competition in the retail broadband market. Experience in the WPNIA market to date indicates that regulatory involvement is necessary to ensure that fit-for-purpose WPNIA access is provided, and to ensure that operators can purchase WPNIA inputs which allow them to provide a retail service which is at least as good as those which are used by Eircom in support of the provision of its own retail services.

B.69 ComReg therefore considers that the suite of remedies proposed is necessary, proportionate and justified on the basis of its analysis of the WPNIA market, and having regard to the actual and potential competition problems to be addressed. The remedies to be implemented address the objectives of promoting competition, and are, ultimately, in the interests of end users.

Obligations applied in an NGN/NGA environment

B.70 ComReg has set out its rationale and approach for NGN remedies in paragraphs 7.138 to 7.151 of this Decision Document, along with a further explanation of required changes to such remedies in paragraphs B.37 to B.41 above.

B.71 ComReg considers that it is justified and appropriate to impose a range of remedies on Eircom in relation to Next Generation (NG) WPNIA access, including obligations to meet reasonable requests for access to NG WPNIA, transparency and non-discrimination. However, while ComReg believes that it is appropriate to specify, in detail, the obligations relating to current generation WPNIA, it has decided to impose remedies on NG WPNIA at a higher level and to consult on the detail of the further implementation of such remedies. ComReg considers this incremental approach to be both balanced and proportionate. It clarifies that NG WPNIA is subject to regulation and provides certainty to stakeholders. However, cognisant of the need to promote the development of competition and encourage investment, ComReg has allowed for flexibility in the manner within which NG WPNIA remedies will be specified. ComReg recognises that the burden of meeting obligations relating to NG WPNIA will fall largely on Eircom. However, the precise nature of such obligations could be impacted by the manner within which Eircom itself seeks to address the provision of access in an open, non-discriminatory and transparent manner, particularly having regard to the need to address competition considerations.

Obligations imposed in a Current Generation WPNIA environment

B.72 ComReg has set out its rationale and approach for remedies being imposed in a Current Generation environment in paragraphs 7.15 to 7.137 of this Decision Document, along with a further explanation of required changes to such remedies in paragraphs B.42 to B.67 above.

B.73 Many of the obligations being imposed are a continuation of existing obligations, in some cases with further specificity and improved clarification. For example, ComReg has clarified aspects of the application of the existing non-discrimination
obligation, in particular, the timeframes within which services and information should be provided to Access Seekers in order that they are in the same position as Eircom’s downstream arm.

B.74 There are a number of areas where ComReg has imposed additional remedies within existing obligations, in particular, requirements to:

- Publish Key Performance Indicators (KPIs), the detail of which will be subject to further consultation.
- Publish Performance Metrics, which relate to how Service Level Agreement commitments are being met.
- Publish and justify any differences between the WPNIA services which Eircom provides to itself and those it provides to OAOs.
- Publish advance notification (within specified timeframes) on its wholesale website regarding the supply of WPNIA to its downstream arm.

B.75 The additional remedies are primarily designed to demonstrate that WPNIA is being provided in a non-discriminatory manner. Absent these measures, ComReg considers there to be the potential for discriminatory behaviour to occur with resultant negative effects on competition, and ultimately, the welfare of end-consumers.

B.76 ComReg has considered the burden of these measures on Eircom. KPIs will require the collection, by Eircom, of data regarding its performance in the supply of WPNIA. The nature of the specific KPIs to be measured are to be determined via a separate consultation process and the burden of the proposed KPIs will be considered in this context. As for Performance Metrics, Eircom already collates this information for the purposes of managing its compliance with its SLA commitments. The additional burden arising from the Performance Metrics remedy is, therefore, to publish the performance results achieved on its website. ComReg considers this burden to be minimal.

B.77 In considering the obligation to justify and publish differences between the supply by Eircom of WPNIA inputs to itself and to OAOs, ComReg notes that Eircom has been (and will continue to be) subject to a non-discrimination obligation. Eircom should already have in place internal mechanisms to ensure that it is meeting this obligation. The burden now arising is to clearly express, in written form, the nature of any differences and the justification for them. While there may be some costs associated with this, ComReg does not consider them to be significant given the prior existence of a non-discrimination obligation.

B.78 On the requirement to publish information in a timely fashion regarding the introduction of new WPNIA inputs, ComReg considers the burden to be minimal, having regard to the need to ensure fair treatment in the supply of WPNIA to OAOs. While there may be some costs associated with this, ComReg does not consider them to be significant given the prior existence of a non-discrimination obligation.

B.79 It is ComReg’s view that the above mentioned measures would be positive for other stakeholders in the market, particularly for OAOs, as it will be used to clearly demonstrate whether WPNIA is being provided in a non-discriminatory manner and provide confidence to the market in this regard.
B.80 The proposed measures constitute an additional regulatory burden for ComReg, and this would entail both ComReg’s support for the development of measures, and the need to ensure implementation and compliance. However, ComReg believes that these measures are essential for the development of competition in the market, ultimately to the benefit of consumers in terms of increased choice and higher quality of services at competitive prices.

**Impact on Competition**

B.81 ComReg has already established in Section 5 of this Decision Document that Eircom has SMP in the WPNIA market and that ComReg does not expect there to be direct competition within the WPNIA market itself within the period of this review. Absent regulation, ComReg does not believe that there would be effective competition within the retail broadband market, and this would act to the detriment of end users. Regulation of the WPNIA market is clearly justified. Eircom is a vertically integrated operator, and regulation is required to ensure that it cannot leverage its market power between the WPNIA and other wholesale markets, or between the WPNIA market and retail broadband markets. Having regard to the analysis undertaken, ComReg considers that the remedies being applied are the minimum necessary to seek to allow effective competition to develop. In developing its approach, ComReg has been mindful of its objectives to promote competition and to safeguard the interests of users.

**Conclusion**

B.82 This Annex documents the culmination of a RIA process which has been carried out throughout the various stages of ComReg’s review of the WPNIA market. The initial RIA which was published in ComReg Document No. 08/41 outlined regulatory objectives, and identified options based on the consideration of the market and of actual and potential competition problems. Taking into account responses to ComReg Document No. 08/41, the RIA was further developed in ComReg Document No. 08/104, including a further explanation both of the methodological approach to, and substance of, the RIA.

B.83 In order to arrive at this Decision Document, ComReg has reviewed all changes proposed to current regulation and has, throughout the consultative process, carefully assessed the impact of these changes. It has determined that the proposed changes are proportionate and justified, and are designed to best meet ComReg’s regulatory objectives in addressing competition problems in the WPNIA market in a proportionate manner and that promoted the development of competition to the benefit of end users.

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45 See Section 8 of ComReg Document No 08/41.

46 See section 7 of ComReg Document No. 08/104.
C. Appendix C – Decision Instrument

1. STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

1.1. This Decision Instrument (“Decision Instrument”) is made by the Commission for Communications Regulation (“ComReg”) and relates to the market for wholesale physical network infrastructure access identified by the European Commission in its Recommendation of 17 December 2007 on relevant product and services markets within the electronic communications sector susceptible to ex ante regulation47 (“the Recommendation”) and as defined by ComReg in the document entitled Market Review: Wholesale (Physical) Network Infrastructure Access (Market 4) Decision No. D 05/10, Document No. 10/39:

i. Having had regard to sections 10 and 12 of the Communications Regulations Act 200248;

ii. Having taken account of its functions under Regulation 6(1) of the Access Regulations49;

iii. Having, where appropriate, complied with the Policy Directions made by the Minister further to section 13 of the Communications Regulation Act 200250;

iv. Having taken the utmost account of the European Commission’s Recommendation and the European Commission’s SMP Guidelines on market analysis and the assessment of significant market power51;


51 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, OJ C 165, 11 July 2002, p. 6 (“the SMP Guidelines”).


vii. Having taken account of the submissions received in relation to ComReg Document No. 08/41, ComReg Document No. 08/104 and ComReg Document No. 09/42;

viii. Having consulted with the Competition Authority further to Regulation 27 of the Framework Regulations

ix. 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 having taken the utmost account of the European Commission’s response and the European Commission having informed ComReg that ComReg could adopt the resulting measure pursuant to Article 7(5) of the Framework Directive

x. Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 9, 10, 11, 12, 13 and 14 of the Access Regulations.

1.2. The provisions of ComReg Document No. 08/41, ComReg Document No. 08/104, ComReg Document No. 09/42 and ComReg Document No. 10/39 (Decision No. D05/10) shall, where appropriate, be construed with this Decision Instrument.


PART I - GENERAL PROVISIONS (SECTIONS 2 TO 5 OF THE DECISION INSTRUMENT)

2. DEFINITIONS AND INTERPRETATION

2.1. In this Decision Instrument:

“Access” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time; for the purposes of this Decision Instrument access shall include Associated Facilities and Interconnection where appropriate;

“Access Reference Offer (ARO)” is the offer of contract by Eircom Limited to Other Authorised Operators in relation to Current Generation WPNIA (currently version 1.21 but which may from time to time be amended). To the extent that there is any conflict between the ARO and Eircom’s obligations now set out herein, it is the latter which shall prevail;

“Access Regulations” means the European Communities (Electronic Communications and Network Services) (Access) Regulations, 2003 (S.I. No. 305 of 2003) as amended by the European Communities (Electronic Communications Networks and Services) (Access) (Amendment) Regulations 2007 (S.I. No. 373 of 2007), as may be amended from time to time;

“Access Seeker” means an Other Authorised Operator that is party to the ARO or, although has not yet accepted the ARO, has entered into a Non-Disclosure Agreement with Eircom.

“Associated Facilities” shall have the same meaning as under the Framework Regulations, as may be amended from time to time, but shall also include, for the avoidance of doubt, Backhaul and Migrations;

“Authorisation Regulations” means the European Communities (Electronic Communications and Network Services) (Authorisation) Regulations, 2003 (S.I. No. 306 of 2003) as amended by the European Communities (Electronic Communications Networks and Services) (Authorisation) (Amendment) Regulations 2007 (S.I. No. 372 of 2007), as may be amended from time to time;

“Backhaul” means the provision of dedicated transmission capacity by Eircom at various bandwidths, between an Other Authorised Operator’s equipment at the co-location site and the Other Authorised Operator’s nominated Point of Handover;

“ComReg” means the Commission for Communications Regulation, established under section 6 of the Communications Regulation Act, 2002 as amended by the Communications Regulation (Amendment) Act 2007;

“Direct Access Wholesale Products” means a wholesale product supplied by Eircom which allows an Other Authorised Operator to use it as an input to the OAOs retail offering. The wholesale product is described as direct access as it allows the Other Authorised Operator to connect its network equipment, co-located in Eircom’s exchange, to the segment of the access network which connects the OAO customer to the exchange, such as a copper pair. This allows the Other Authorised Operator to create a retail offering by providing retail services directly from the Other Authorised Operator’s network equipment across the access
network segment to the customer. Direct Access Wholesale Products include ULMP and Line Share.

“Eircom” means Eircom Limited and its subsidiaries, and any undertaking which it owns or controls and any undertaking which owns or controls Eircom Limited, and its successors and assigns (“Eircom”);

“FL LRIC” means forward-looking long run incremental costs;

“Framework Regulations” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003, (S.I. No. 307 of 2003) as amended by the European Communities (Electronic Communications Networks and Services) (Framework) (Amendment) Regulations 2007 (S.I. No. 271 of 2007), as may be amended from time to time;

“Full Unbundled Access to the Local Loop” shall have the same meaning as in the Schedule to the Access Regulations, as may be amended from time to time;

“Geographic Number Portability (GNP)” means a facility that allows an end-user to retain his/her telephone number when changing or switching service provider and describes the process used for this when the number concerned is a geographic number;

“GLUMP” is the synchronised delivery of ULMP and GNP;

“Key Performance Indicators (KPIs)” means a measure(s) of the standard(s) of Current Generation WPNIA provided by Eircom to Other Authorised Operators and by Eircom to itself through self-supply;

“Indirect Access Wholesale Products” means a wholesale product supplied by Eircom which allows an OAO to use it as an input to the OAOs retail offering. The wholesale product consists of both access network components combined with other network services, in particular, interconnect services, provided by Eircom. The product is described as an indirect access product because it enables OAOs to create a retail offering in order to provide retail services to their customers based on wholesale services provided from Eircom’s equipment on Eircom’s network. Indirect Access Wholesale Products include single billing wholesale line rental.

“Interconnection” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

“Local Loop” shall have the same meaning as under Regulation 2 of the Access Regulations, as may be amended from time to time;

“Local Sub-Loop” shall have the same meaning as in the Schedule to the Access Regulations, as may be amended from time to time;

“the Market” means the market for wholesale physical network infrastructure access (including shared or fully unbundled access) (WPNIA) at a fixed location in Ireland, provided over Current Generation WPNIA and over Next Generation WPNIA and, including the self-supply of Current Generation WPNIA and Next Generation WPNIA by Eircom. The Market is more particularly described in section 4 of this Decision Instrument and section 4 of the Decision Document entitled Market Review: Wholesale (Physical) Network Infrastructure Access (Market 4) Decision No.D05/10, Document No. 10/39;
“Migrations” means Bulk Migrations; and/or Inter Operator Migrations; and/or Intra Operator Migrations. For the avoidance of doubt, both Intra Operator Migrations and Inter Operator Migrations include migrations between Current Generation WPNIA services and migrations from Current Generation WPNIA services to Next Generation WPNIA services.

“(Bulk) Migration” means the facility whereby an Other Authorised Operator can have multiple Inter Operator and/or Intra Operator Migrations through a single request. For the avoidance of doubt, Bulk Migrations includes Migrations from Current Generation to Next Generation WPNIA products.

“(Intra Operator) Migration” is the facility whereby an Other Authorised Operator can switch the wholesale input(s) it is currently using to support the provision of its retail service to its retail customer. As a result of the switch, the retail customer’s service continues to be provided by the same Other Authorised Operator. The wholesale inputs can be switched to or from any combination of Direct Access Wholesale Products and Indirect Access Wholesale Products.

“(Inter Operator) Migration” is the facility whereby the Other Authorised Operator gaining the retail customer can switch the wholesale input(s) currently being used by the losing Other Authorised Operator to support its retail service to the same retail customer. As a result of the switch, the retail customer’s service will now be provided by the gaining Other Authorised Operator. The wholesale inputs can be switched to or from any combination of Direct Access Wholesale Products and Indirect Access Wholesale Products.

“Non-Disclosure Agreement” means the non-disclosure agreement contained within the ARO.

“Other Authorised Operator(s) (OAO)” means an undertaking that is not Eircom, providing an electronic communications network or an electronic communications service authorised under Regulation 4 of the Authorisation Regulations;

“OSS” means operational support systems;

“Performance Metrics” means the aggregate performance levels achieved by Eircom within a specified period, as calculated in accordance with the methodology and service parameter definitions set out in its Service Level Agreements;

“Point of Handover” means the physical point at which two networks are interconnected;

“Service Level Agreements (SLAs)” are legally binding contracts between Eircom and OAOs in relation to the service levels which Eircom commits to from time to time, as more particularly set out in the ARO and appropriate Annexes. To the extent that there is any conflict between the ARO, the SLAs and Eircom’s obligations now set out herein, it is the latter which shall prevail;

“SB-WLR” means single billing wholesale line rental;

“Shared Access to the local loop (also known as Line Share)” means the product whereby the high frequency capacity of a line is provided to OAOs, as more fully
described in Annex C, Service Schedule 103 Appendix 1 to Eircom’s ARO, as may be amended from time to time;

“Sub-Loop Unbundling also known as SLU” is an implementation of unbundled access to the Local Sub-Loop;

“Significant Market Power (SMP) obligations” are those obligations set out in Regulation 9 to 14 of the Access Regulations, as may be amended from time to time;

“Unbundled Local Metallic Path (ULMP)” is the implementation of Full Unbundled Access to the local loop;

“WPNIA” means wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location. It includes Current Generation WPNIA and Next Generation WPNIA and is synonymous with the Market;

“(Current Generation) WPNIA” means WPNIA provided over current generation copper access network infrastructure and its Associated Facilities (including self-supply by Eircom for the purpose of serving its downstream markets) and includes but is not limited to those facilities and services and variants of those, which are specified in the current Version 1.21 of Eircom’s Access Reference Offer (ARO);

“(Next Generation) WPNIA” means WPNIA provided over next generation fibre access network infrastructure and its associated facilities (including self-supply by Eircom for the purpose of serving its downstream markets). It includes where the fibre access network infrastructure and copper access network infrastructure are combined within the Local Loop or Local Sub-Loop.

3. **SCOPE AND APPLICATION**

3.1. This Decision Instrument applies to Eircom in respect of activities falling within the scope of the Market defined in section 4 of this Decision Instrument.

3.2. This Decision Instrument is binding upon Eircom and Eircom shall comply with it in all respects.

4. **MARKET DEFINITION**

4.1. Pursuant to Regulation 26 of the Framework Regulations, in accordance with the European Commission’s Recommendation, taking utmost account of its SMP Guidelines and in accordance with the principles of competition law, the WPNIA product market in this Decision Instrument is defined as the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location provided over Current Generation WPNIA and over Next Generation WPNIA. It is more particularly described in section 4 of the Decision Document entitled Market Review: Wholesale (Physical) Network Infrastructure Access (Market 4) Decision No. D05/10, Document No 10/39;

4.2. Pursuant to Regulation 26 of the Framework Regulations, taking utmost account of the European Commission’s SMP Guidelines and the European Commission’s
Explanatory Note\textsuperscript{58} and in accordance with the principles of competition law, the relevant geographic market is defined as Ireland.

5. DESIGNATION OF UNDERTAKING WITH SIGNIFICANT MARKET POWER (“SMP”)

5.1. Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations and consistent with the European Commission’s SMP Guidelines on, having determined that the market is not effectively competitive, Eircom is designated as having SMP on the Market.

PART II - SMP OBLIGATIONS IN RELATION TO CURRENT GENERATION WPNIA (SECTIONS 6 TO 12 OF THE DECISION INSTRUMENT)

6. SMP OBLIGATIONS IN RELATION TO CURRENT GENERATION WPNIA

6.1. ComReg is imposing certain SMP obligations on Eircom in respect of Current Generation WPNIA in the Market in accordance with and pursuant to Regulations 9, 10, 11, 12, 13 and 14 of the Access Regulations, as detailed further in sections 7 to 12 below.

7. OBLIGATIONS TO PROVIDE ACCESS

7.1. Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall meet all reasonable requests from OAOs for the provision of Access, including Associated Facilities.

7.2. Without prejudice to the generality of section 7.1 and pursuant to Regulation 13(2) of the Access Regulations, Eircom shall provide and grant Access to OAOs to the following particular services and facilities:

(i) ULMP;
(ii) GLUMP;
(iii) Shared access to the local loop;
(iv) Full sub-loop unbundling, combined with GNP where required;
(v) Shared sub-loop unbundling;
(vi) Collocation including cabinet collocation;
(vii) Migrations.
(viii) Ducts; and
(ix) Access to building and cabinet space.

7.3. Eircom shall continue to offer Access to the services and facilities described in section 7 in accordance with the product descriptions and on the terms and conditions which are specified in the current version of the ARO, as may be

\textsuperscript{58} European Commission's Explanatory Note to the Recommendation, (SEC (2007) 1483/2) (the 'Explanatory Note').
amended from time to time and the related manuals currently published on its wholesale website, as may be amended from time to time. To the extent that there is any conflict between the ARO and Eircom’s obligations now set out in this Decision Instrument, it is the latter which shall prevail.

7.4. Without prejudice to the generality of sections 7.1 to 7.3, Eircom shall:

(i) Pursuant to Regulation 13 (2) (b) of the Access Regulations, negotiate in good faith with OAOs requesting Access;

(ii) Pursuant to Regulation 13 (2) (c) of the Access Regulations, not withdraw Access to services and facilities already granted without the prior approval of ComReg;

(iii) 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; and

(iv) Pursuant to Regulation 13 (2) (h) of the Access Regulations, provide Access to OSS or similar software systems necessary to ensure fair competition in the provision of services.

8. CONDITIONS ATTACHED TO THE ACCESS OBLIGATIONS

8.1. Pursuant to Regulation 13(3) of the Access Regulations, Eircom shall, in relation to the obligations set out under section 7, grant Access to Current Generation WPNIA, in a fair, reasonable and timely manner.

8.2. Without prejudice to the generality of section 8.1, Eircom shall:

(i) Conclude, maintain or update, as appropriate, legally binding SLAs which include provision for associated Performance Metrics with OAOs;

(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 an SLA. Agreed service credits shall be a matter for negotiation between Eircom and Access Seekers and recovery of service credits shall be in the first instance, a matter for the individual Access Seeker and Eircom;

(iv) SLAs should detail how service credits are calculated, to include the provision of an example calculation;

(v) Payment of service credits, where they occur, shall be made in a timely and efficient manner.

8.3. Where a request for provision of Access, or a request for provision of information is refused or met only in part, Eircom shall, provide the objective criteria for refusing same to the OAO which made the request.

9. OBLIGATION OF NON-DISCRIMINATION

9.1. Eircom shall have an obligation of non-discrimination as provided for by Regulation 11 of the Access Regulations in respect of Access.
9.2. Without prejudice to the generality of section 9.1, Eircom shall:
   (i) Apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
   (ii) Ensure that all services and information are provided to other undertakings under the same conditions and of the same quality as the services and information that Eircom provides to its own services or those of its subsidiaries or partners.

9.3. In order that Access Seekers may be in the same position as Eircom’s retail or downstream division, the WPNIA services and information shall be provided by Eircom to Access Seekers in sufficient time, that is, the earlier of:
   a) at the same time as the WPNIA service(s) or information is provided to Eircom’s retail or downstream division; or
   b) at least two months prior to any Eircom retail service or facility, which relies on the provision of the WPNIA service(s) or information, being made available on the retail or downstream market, unless otherwise agreed with ComReg.

9.4. Without prejudice to the generality of section 9.1, Access to OSS (including the ability to input data to OSS, the time taken by Eircom to process requests via OSS, the quality and completeness of output from OSS, and ease of OSS use) and information shall, in accordance with Eircom’s obligations of non-discrimination, be of the same standard and quality as that which Eircom provides to itself.

10. OBLIGATION OF TRANSPARENCY

10.1. Eircom shall have an obligation of transparency as provided for by Regulation 10 of the Access Regulations in relation to Access.

10.2. Without prejudice to the generality of the obligation in section 10.1, pursuant to Regulation 10(2) of the Access Regulations, Eircom shall make publicly available and keep updated on its wholesale website, an ARO. The ARO shall be sufficiently unbundled so as to ensure that OAOs availing of such services and facilities are not required to pay for services or facilities which are not necessary for the service or facility requested, and the ARO shall include:
   (i) A description of the relevant offerings broken down into components according to market needs;
   (ii) A description of the associated terms and conditions, including prices;
   (iii) At least the elements set out in the Schedule to the Access Regulations59.

10.3. Eircom shall, unless otherwise agreed by ComReg, make publicly available and publish on its website at least two months in advance, any proposed changes to the ARO and any proposed changes to wholesale prices (including prices for new services and facilities) coming into effect. Eircom shall notify ComReg at least one month in advance of any such publication taking place, that is, three months prior

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59 Schedule to the Access Regulations entitled: Minimum list of terms to be included in a reference offer for unbundled access to the twisted metallic pair local loop to be published by notified operators.
to any changes coming into effect. This period of one month may be varied with
the agreement of ComReg. Proposed changes to the ARO and proposed changes to
wholesale prices and the application of such prices shall not be implemented
without prior notification to ComReg and without prior notification to OAOs.

10.4. Pursuant to Regulation 10(5) of the Access Regulations, ComReg may issue
directions requiring Eircom to make changes to the ARO to give effect to
obligations imposed in this Decision Instrument and, pursuant to Regulation 10(4)
of the Access Regulations to publish the ARO with such changes. ComReg may
issue directions to Eircom from time to time requiring it to publish information,
such as accounting information, technical specifications, network characteristics,
terms and conditions for supply and use and prices, pursuant to Regulation 17 of
the Access Regulations.

10.5. Without prejudice to the generality of the obligation in section 10.1, Eircom shall
make public information on its wholesale website, 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 section 7,
as specified by ComReg from time to time and all other information which may be
reasonably required by OAOs. Eircom shall continue to publish the information
and prices specified in the current Version 1.21 of the ARO as may be from time to
time be amended and the related manuals published as Industry LLU
Documentation as may be amended from time to time and as currently published
on its wholesale website.

10.6. Where Eircom offers WPNIA to its retail or downstream division, it shall provide
information regarding such WPNIA on its wholesale website, in sufficient time
prior to the retail service or facility, which relies on that WPNIA, being made
available on the downstream market. For the purposes of this section, sufficient
time shall, unless otherwise agreed with ComReg, be a period of at least two
months prior to the retail service or facility being made available by its retail or
downstream division on the downstream market.

10.7. It shall be a condition of Eircom’s transparency obligations that Eircom publish
Key Performance Indicators (KPIs). The specification of the content of the KPIs
will be subject to further consultation by ComReg.

10.8. Eircom shall publish all SLAs (and any updates thereto) on its publicly available
website.

10.9. Eircom shall be obliged to publish on its publicly available website information
about Performance Metrics.

10.10. Pursuant to its obligation of transparency, Eircom shall, within four months of the
effective date, publish on its website sufficient information to identify and justify
any differences between the services and facilities set out in the ARO and the
comparable services and facilities which Eircom provides to itself. The information
shall include all material associated terms and conditions, including relevant
processes, and shall be kept updated by Eircom as new services or facilities are
developed and deployed or existing services or facilities are amended.
11. OBLIGATION OF ACCOUNTING SEPARATION

11.1. 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 in force immediately prior to the effective date of this Decision Instrument related to the Market, shall be maintained in their entirety. Eircom shall comply with all of those obligations, pending any further decision to be made by ComReg following further consultation in relation to the details of and implementation of accounting separation obligations and, in particular, as regards any decision made by ComReg in respect of Consultation Document Accounting Separation and Cost Accounting Review – Draft Accounting Direction to Eircom Limited Document No.09/75 and any other decision or directions which may be issued by ComReg from time to time.

12. OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

12.1. 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 any amendment by ComReg.

12.2. Pursuant to Regulation 14(1) of the Access Regulations, Eircom shall maintain appropriate cost accounting systems in respect of products, services or facilities referred to in section 7.

12.3. Pursuant to Regulation 14(1) of the Access Regulations, prices charged by Eircom to any other undertaking for Access to or use of those products, services or facilities referred to in section 7 shall be subject to a cost orientation obligation. In particular, Eircom shall continue to comply with ComReg Document No. 08/71 made in respect of ancillary charges in Eircom’s Access Reference Offer price list (ComReg Document No. 08/71); ComReg Decision No. D05/09 made in respect of Intra Migration Premium Charge (ComReg Document No. 09/77, Response to Consultation and Decision); ComReg Decision No. D04/09 made in respect of the Rental Price for Shared Access to the Unbundled Local Loop (ComReg Document No. 09/66, Response to Consultation and Decision); and shall comply with ComReg Decision No D01/10 made in respect of Local Loop Unbundling (‘LLU’) and Sub-Loop Unbundling (‘SLU’), Maximum Monthly Rental Charges (ComReg Document No, 10/10, Decision No. 01/10, Response to Consultations and Decision).

12.4. Eircom shall have an obligation not to cause a margin/price squeeze.

PART III - SMP OBLIGATIONS IN RELATION TO NEXT GENERATION WPNI A
(SECTIONS 13 TO 18 OF THE DECISION INSTRUMENT)

13. SMP OBLIGATIONS IN RELATION TO NEXT GENERATION WPNI A
13.1. ComReg is imposing certain SMP obligations on Eircom in respect of Next Generation WPNI A in the Market in accordance with and pursuant to Regulations 9, 10, 11, 12, 13 and 14 of the Access Regulations, as detailed further in sections 14 to 18 below.

14. OBLIGATIONS TO PROVIDE ACCESS
14.1. Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall have an obligation to meet all reasonable requests from OAOs for the provision of Access.
14.2. Pursuant to Regulation 13(2) (b) of the Access Regulations, Eircom shall have an obligation to negotiate in good faith with OAOs requesting Access.
14.3. ComReg shall engage in a consultation to further specify other details and further implementation of the Access obligations.

15. OBLIGATIONS OF NON-DISCRIMINATION
15.1. Eircom shall have an obligation of non-discrimination as provided for by Regulation 11 of the Access Regulations in respect of Access, including for the avoidance of doubt in relation to Access to OSS.
15.2. ComReg shall engage in a consultation to further specify other details and further implementation of the non-discrimination obligation.

16. OBLIGATION OF TRANSPARENCY
16.1. Eircom shall have an obligation of transparency as provided for by Regulation 10 of the Access Regulations in respect of Access.
16.2. Notwithstanding the provisions of section 16.3 and in order to meet its transparency obligation, Eircom shall make publicly available, on a quarterly basis or such other suitably regular basis as may be specified by ComReg, information regarding the introduction of new infrastructures, technologies, services or facilities which could reasonably be expected to support services or facilities in respect of Next Generation WPNI A.
16.3. ComReg shall engage in a consultation to further specify other details and further implementation of the transparency obligation.

17. OBLIGATION OF ACCOUNTING SEPARATION
17.1. 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. Eircom shall comply with all of those obligations, pending any further decision to be made by ComReg following further consultation in relation to the details of and implementation of accounting separation obligations and in particular as regards any decision made by ComReg in respect of Consultation Document Accounting Separation and Cost Accounting Review – Draft Accounting Direction to Eircom Limited Document No.09/75 and any other decision or directions which may be issued by ComReg from time to time.

17.2. ComReg shall engage in a consultation to further specify other details and further implementation of the accounting separation obligation.

18. OBLIGATIONS RELATING TO PRICE CONTROL AND COST ACCOUNTING

18.1. Pursuant to Regulation 14(1) of the Access Regulations, Eircom shall be subject to a price control obligation. The content and implementation of the price control for Next Generation WPNIA shall be subject to further consultation.

18.2. 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 any amendment by ComReg.

18.3. Pursuant to Regulation 14(1) of the Access Regulations, Eircom shall maintain appropriate cost accounting systems in respect of Next Generation WPNIA services and facilities.

PART IV - OBLIGATIONS AND EFFECTIVE DATE (SECTIONS 19 TO 22 OF THE DECISION INSTRUMENT)

19. STATUTORY POWERS NOT AFFECTED

19.1. 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.

20. MAINTENANCE OF OBLIGATIONS

20.1. Unless expressly stated otherwise in this Decision Instrument, 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 Instrument, are continued in force by this Decision Instrument and Eircom shall comply with same.

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20.2. If any section, clause or provision or portion thereof contained in this Decision Instrument 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 Instrument and rendered ineffective as far as possible without modifying the remaining section(s), clause(s) or provision(s) or portion thereof of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument.

21. WITHDRAWAL OF SMP OBLIGATIONS

21.1. Decision No. D8/04 Designation of SMP and Decision on Obligations, Market Analysis: Wholesale unbundled access (including shared access) to metallic loops and sub-loops; Document 04/70 dated 15 June 2004 is hereby withdrawn.

22. EFFECTIVE DATE

22.1. The effective date of this Decision Instrument shall be the date of its notification to Eircom and it shall remain in force until further notice by ComReg.

22.2. Sections 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 20 and 21 of this Decision Instrument shall take effect 28 days from the effective date or when all of those sections have full force and effect in their entirety, whichever is the later.

ALEX CHISHOLM
CHAIRPERSON
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE 20 DAY OF MAY 2010
## Appendix D – Glossary of Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>ADSL</td>
<td>Asymmetric Digital Subscriber Line</td>
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<td>ARO</td>
<td>Access Reference Offer</td>
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<tr>
<td>ComReg</td>
<td>Commission for Communications Regulation</td>
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<tr>
<td>DSL</td>
<td>Digital Subscriber Line</td>
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<td>FWA</td>
<td>Fixed Wireless Access</td>
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<td>FTTH</td>
<td>Fibre To The Home</td>
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<td>GB</td>
<td>Gigabit</td>
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<td>HSPA</td>
<td>High Speed Packet Access</td>
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<td>IRO</td>
<td>Internal Reference Offer</td>
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<td>ISP</td>
<td>Internet Service Provider</td>
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<td>KPI</td>
<td>Key Performance Indicator</td>
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<td>LLU</td>
<td>Local Loop Unbundling</td>
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<tr>
<td>MB</td>
<td>Megabit</td>
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<tr>
<td>Mbps</td>
<td>Megabits per second</td>
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<tr>
<td>NBS</td>
<td>National Broadband Scheme</td>
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<td>NGA</td>
<td>Next Generation Access</td>
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<td>NRA</td>
<td>National Regulatory Authority</td>
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<td>OAO</td>
<td>Other Authorised Operator</td>
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<td>OSS</td>
<td>Operational Support Systems</td>
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<td>SLA</td>
<td>Service Level Agreement</td>
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<tr>
<td>SME</td>
<td>Small and Medium Enterprise</td>
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<tr>
<td>SMP</td>
<td>Significant Market Power</td>
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<tr>
<td>SSNIP</td>
<td>Small but Significant Non-transitory Increase in Price</td>
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<tr>
<td>WBA</td>
<td>Wholesale Broadband Access</td>
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<td>WPNIA</td>
<td>Wholesale Physical Network Infrastructure Access</td>
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<td>WUA</td>
<td>Wholesale Unbundled Access</td>
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<tr>
<td>3G</td>
<td>Third Generation</td>
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