

Consultation and Draft Decision

Wholesale Broadband Access

Consultation and draft decision on the appropriate price control

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All responses to this consultation should be clearly marked:"Reference: Submission re ComReg 10/56" as indicated above,
and sent by post, facsimile, e-mail or on-line at www.comreg.ie
(current consultations), to arrive on or before 5pm, 10 September 2010 to:

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1 Executive Summary

- 1.1 The Commission for Communications Regulation ("ComReg") is the regulator for the electronic communications sector in Ireland. The European Commission has recommended a number of markets as being susceptible to *ex ante* regulation¹. These markets have been reviewed in an Irish context and obligations were imposed where operators were designated with significant market power ("SMP"). One such market is wholesale broadband access ("WBA"). WBA, or "bitstream", as it is commonly referred to, has been identified as a key requirement for operators to offer broadband and be in a position to replicate the fixed retail broadband offers of the SMP operator across Ireland.
- 1.2 Eircom Limited ("Eircom") was designated with SMP in the WBA market pursuant to a market analysis carried out in 2005². In 2006, a retail minus wholesale price control obligation was applied in relation to WBA³. A market analysis for WBA is currently ongoing. Until completion of this work, Eircom remains designated as an SMP operator pursuant to ComReg's 2005 market analysis (Decision No. 03/05).
- 1.3 As the ongoing WBA market analysis is not yet finalised, the revised WBA price control proposed in this consultation will be based on the existing designation of SMP in relation to WBA (Decision No. 03/05). In the event that it is decided that Eircom does not have SMP following the completion of the ongoing WBA market analysis, the existing or any new WBA price control obligation shall be removed accordingly.
- 1.4 This consultation reviews the existing price control obligation for the WBA market (as set out in Decision No. 01/06) and sets out ComReg's reasoning and preliminary views for recommending a change from the current retail minus price control to a method of regulating WBA prices which may be more practical and effective in the current commercial environment. It is proposed that the price control will be applied to both rental products and ancillary services/products in the WBA market to ensure prices are cost oriented. In the case of the bitstream rental products, it is proposed that the price control will require prices to be set within a maximum price and minimum price range based on a forward looking 'cost plus' model. For the ancillary services/products, the price control will require Eircom to demonstrate that individual prices that they propose are cost oriented and maximum prices will be set.
- 1.5 The proposed approach to set minimum prices for bitstream rentals is to ensure an appropriate economic space is maintained against the prices of Eircom's wholesale physical network infrastructure access ('WPNIA'), which includes Local Loop

¹ Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

² Decision No. 03/05 'Decision Notice - Designation of SMP and Related Remedies: Market Analysis – Wholesale Broadband Access' dated 24 February 2005

 $^{^3}$ Decision No. 01/06 'Decision Notice – Retail Minus wholesale price control for the WBA market' dated 13 January 2006

Unbundling ('LLU') products⁴ (hereinafter referred to as "WPNIA products"), so that the risk of possible anti-competitive effects, including price squeeze to the detriment of end users, are mitigated.

- 1.6 The purpose of the proposed amended price control is to seek to promote competition and innovation amongst operators to ensure that retail consumers derive the maximum benefit in terms of price, choice and quality and ComReg believes that the move to a cost oriented price control, with appropriate safeguards, should achieve this. ComReg is of the preliminary view that the current retail minus price control, while encouraging efficient price signals in the initial years of broadband rollout, may be less flexible in an environment where the need to provide diverse and innovative retail offers is increasingly important. The proposed amended price control should allow for further flexibility in the market. This should in turn allow greater flexibility to OAOs to offer more tailored retail broadband products, possibly at higher speeds, lower contention rates and lower retail prices than currently offered.
- 1.7 In summary this consultation proposes amended price controls to prevent margin (price) squeeze in the WBA market and to ensure that an appropriate economic space is maintained between WBA and WPNIA. Thus proposed obligations are:
 - 1.7.1 Setting maximum prices in the WBA market to guard against excessive pricing.
 - 1.7.2 Setting minimum prices in the WBA market to ensure the maintenance of an appropriate economic space between the relative pricing of the regulated markets of WBA and WPNIA.
 - 1.7.3 Not causing a margin (price) squeeze between the price of WBA products and the associated retail offerings. The proposed specification⁵ as to how such suspected margin (price) squeeze will be assessed is included in this consultation. The preliminary view is that it should be based on an Equally Efficient Operator test.
- 1.8 In addition it is proposed to have a cost oriented price control for ancillary services/products in the WBA market.
- 1.9 The price control includes that Eircom must notify ComReg of price changes to existing products and of new products in the WBA market. The same notification timeline is proposed but flexibility on reduced time for notification of price changes to existing products is recognised. All changes to existing and new products in the WBA market must be approved by ComReg.
- 1.10 ComReg believes that the proposed price control presents a practical and fair solution that takes into account the interests of Eircom, industry and consumers. It is intended to promote efficiency, sustainable competition and consumer welfare.

 $^{^4}$ The pricing of WPNIA products have been recently reduced – see ComReg Decision D01/10 in relation to the LLU and Sub Loop Unbundling ("SLU") maximum monthly rental charges and ComReg Decision D04/09 in relation to shared access rental to LLU ("Line Share")

⁵ This is without prejudice to any investigation that ComReg may also take in relation to abuse of a dominant position under section 31 of the Communications Regulation (Amendment) Act 2007

- 1.11 ComReg in making its final decision will consider all the views of respondents to this consultation and will take utmost account of any comments from the European Commission in deciding on the appropriate price control for the WBA market.
- 1.12 Responses to this consultation must arrive at ComReg by 5pm, Friday 10 September 2010.

2 Background

- 2.1 Fixed telecommunications customers are increasingly purchasing broadband internet access products along with narrowband voice access products. Eircom currently delivers broadband access technology using Digital Subscriber Line ('DSL') technology over the same lines as used by the Public Switched Telephone Network ('PSTN') technology used to deliver voice products. OAOs without their own access infrastructure who wish to use Eircom's access infrastructure to offer broadband access to end users have two choices:
 - 2.1.1 rent access to Eircom's underlying copper loop infrastructure, by purchasing WPNIA products, namely the unbundled access product (LLU) or through the shared access product, LLU line share⁶; or
 - 2.1.2 rent access to the non-physical network product on Eircom's DSL network by purchasing the WBA product known as bitstream.
- 2.2 These two choices allow OAOs to trade off the greater flexibility offered by using their own access equipment against the lower investment costs of using a wholesale broadband offer. However, ComReg believes that it is important that the relative pricing of wholesale products provides the correct incentives to OAOs to invest in their own access equipment and protects those that have already made significant investments from foreclosure. ComReg believes that pricing WBA too low relative to WPNIA products can discourage efficient investment in access infrastructure or lead to stranding of investments already made, while pricing WBA at too high a level could result in inefficient investment in access infrastructure.
- 2.3 WBA has been included as one of the seven recommended markets susceptible to *ex* ante regulation by the European Commission⁷. These markets are defined by the European Commission in accordance with the principles of competition law. National Regulatory Authorities ('NRAs'), must, as soon as possible after the adoption of the European Commission's recommendation, carry out an analysis of the relevant markets, taking utmost account of the European Commission's guidelines⁸. As mentioned above, the first-round assessment of the WBA market was completed in 2005/2006 and the second-round analysis of this market is currently ongoing.
- 2.4 ComReg believes that, pending the outcome of its updated WBA market analysis, it is appropriate to proceed with this consultation on a revised WBA price control on the basis of its first-round market analysis, as ComReg believes that there is an imminent need to amend the price control to signal the market about future regulation of WBA

 $^{^6}$ ComReg has recently completed pricing reviews in relation to full local loop unbundling (ComReg Decision No. D01/10) and line share (ComReg Decision No. D04/09)

⁷ Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

 $^{^{8}}$ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services" dated 11^{th} July 2002, Official Journal C165, 11/07/2002, p. 6 – 31.

following the recent WPNIA (LLU) decisions⁹. ComReg believes that the current retail minus price control supported efficient price signals in the initial years of broadband rollout. However, in ensuring an environment that allows for diverse and competitive offers by bitstream access seekers to their retail customers, the proposed amended price control should allow for even further flexibility in the market. The purpose of the proposed amended price controls is to seek to promote competition and innovation amongst operators to ensure that retail consumers derive the maximum benefit in terms of price, choice and quality and ComReg believes that the move to a cost oriented price control, with appropriate safeguards, should achieve this.

Technological evolution

- 2.5 As a relatively new product, DSL broadband has been subject to a rapid rate of technological evolution at all levels of the network:
 - 2.5.1 The initial technology for transmission over the copper network (Asymmetric digital subscriber line: 'ADSL') has been supplemented by technology offering higher bandwidth (ADSL2+) which can adapt the bandwidth depending on the characteristics of the individual local loop allowing broadband products on a greater proportion of local loops;
 - 2.5.2 The initial DSLAMs installed by Eircom used ATM transport over the existing Synchronous Digital Hierarchy ('SDH') network for the transport of traffic from the access node to the core network, while DSLAMs more recently installed use Internet Protocol ('IP') transport;
 - 2.5.3 A Next Generation Network ('NGN') based on Internet Protocol is being rolled out which will replace a wide range of existing network infrastructure, including elements of the network used for the WBA service.

Economies of scope with existing products

2.6 Broadband products are delivered by Eircom over the infrastructure that was initially installed for the purposes of narrowband products. Eircom recovers the standalone cost of the local loop required for narrowband products through the price of narrowband products and therefore ComReg believes that this needs to be considered in the WBA price control.

WBA products

2.7 WBA products enable OAOs to provide broadband connections to end users via the SMP operator's access network and broadband DSL network. As currently structured, the following are the groups of Eircom wholesale products required to provide this functionality:

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⁹ If, however, the updated market analysis shows that Eircom no longer has SMP in the WBA market, the proposed revision of the price control in this consultation (or any associated price control) will naturally no longer apply, subject to the provisions of the resulting decision.

- a set of 'bitstream' products which provide an OAO with a connection to a single end user using Eircom's access network and broadband DSL network;
- 2.7.2 a 'bitstream connection service' that carries the traffic generated by the OAO's bitstream network to the OAO's network; and
- 2.7.3 a set of ancillary services/products which facilitate the bitstream product between Eircom's network and an OAO's network.
- 2.8 A brief overview of each of these sets of products is provided below and it is these products, as products offered in the WBA market, that ComReg proposes to include in the price control.

Bitstream product

2.9 Eircom defines the bitstream service as 10:

'a broadband access product, which utilises ADSL/ADSL2plus in the local loop, and which is then transported across the eircom network to an eircom ADSL/ADSL2plus Regional POP.'

2.10 The bitstream service is available on all existing PSTN (analogue narrowband) lines where Eircom receives a line rental within those areas where ADSL products are available (i.e. exchange areas where broadband infrastructure (e.g. DSLAM) is installed). Not all lines within these areas will be suitable for ADSL products. OAOs which utilise the bitstream service pay a monthly rental per user to Eircom for this service and are called bitstream access seekers¹¹.

Network Components within bitstream service

- 2.11 For the bitstream service Eircom is responsible from the defined service termination point, which is the customer side of the Dual Network Termination Unit ('NTU')/splitter in the customer premises to the Regional Point Of Presence ('POP'). In terms of network components within the bitstream service, ComReg understands that this consists of:
 - 2.11.1 The local loop from the NTU to the exchange building;
 - 2.11.2 Splitters, jumper cables and secondary distribution frames in the exchange to separate the high frequency signals used for the ADSL products;
 - 2.11.3 The DSLAM, including line cards for individual subscribers;
 - 2.11.4 The transport network from the DSLAM to the regional POP. The hierarchical nature of the network means that this will consist of a number of transmission links from the DSLAM though intermediate nodes with an aggregation/routing function to the relevant POP; and
 - 2.11.5 A Broadband Remote Access Server ('BRAS') to authorise and manage the connection from the end user to the OAO.

http://www.eircomwholesale.ie/dynamic/pdf/adslbitstreamPD v26.pdf

¹⁰ 'Bitstream Service Product Description' at

¹¹ In this document, ComReg refers to these as OAOs.

2.12 ComReg understands that Eircom has responsibility for the provision, repair and maintenance of these elements with the exception of the installation of the dual NTU/splitter which is the responsibility of the OAO.

Current bitstream products

- 2.13 Currently, the bitstream service consists of a number of products distinguished by the bandwidth they offer to the end user. These products have a one-to-one correspondence with Eircom's retail offerings, i.e. for each of Eircom's retail offering in terms of end user bandwidth, there is an equivalent bitstream service. This one-to-one correspondence reflects the current retail minus price control which ComReg believes potentially limits the diversity of bitstream products on offer to OAOs and hence the retail products that the OAO can offer. The products also differ in the interface with the OAO. Each of the products is offered with one of the following interfaces:
 - 2.13.1 Asynchronous Transfer Mode ('ATM') interface;
 - 2.13.2 ATM interface on a Virtual Circuit ('VC') basis;
 - 2.13.3 Internet Protocol ('IP') interface.
- 2.14 ComReg understands that the ATM products are obsolete, with only a very small proportion of end users continuing to use products based on these bitstream products.
- 2.15 ComReg understands that the bitstream products with an IP interface or an ATM interface on a VC basis can be delivered at any of the regional POPs, independently of where the end user is located. The obsolete products with an ATM interface are only transported to the regional POP corresponding to the DSLAM to which the end user is connected.

Ancillary services/products in the WBA market

- 2.16 Ancillary services/products in the WBA market include the following which Eircom charges separate prices for:
 - 2.16.1 Service Establishment Charge: A one time charge for each OAO that wishes to use the bitstream service.
 - 2.16.2 Port Connection: A one time charge for each subscriber connected through the bitstream service. There are currently two levels of this charge according to the bitstream product.
 - 2.16.3 Cessation (per port): Wholesale customers can choose one of two contract options: a minimum term for each of their bitstream customers (ports); or no minimum term but with a cease fee per port.
 - 2.16.4 Transfer (per port): A one time charge for transfer of a customer from one OAO to another.
 - 2.16.5 Upgrade/Downgrade (per port): A one time charge for changing the bitstream product used by a subscriber.
 - 2.16.6 Bitstream (ethernet) connection service: A one time connection charge and a rental charge thereafter. The Bitstream Connection Service (BCS) and Bitstream Ethernet Connection Service (BECS) are products which provide a

connection between a Regional POP defined for the Bitstream Service and the OAO's own network.

Current WBA price control - Retail minus approach

- 2.17 When introduced in 2006, the current retail minus approach was deemed the most effective way to regulate WBA products¹². At the time, these products were still relatively new, and it was difficult to estimate the forward looking level of costs with any degree of certainty. As such, at that time, any other form of price control (in particular cost orientation) risked being either ineffective if the costs estimated were too high (or low) and/or acting as a disincentive to infrastructure investment if the costs estimated were below cost plus a reasonable return.
- 2.18 Given the lack of reliable cost data at that time, the retail margin was based on a discounted cash flow ('DCF') model for a hypothetical new entrant. The model, which applies pending a decision following this consultation, is based on assumptions about the retail costs which a "similarly efficient operator" would have to bear in order to compete with Eircom in the retail broadband access market. This model has over the past few years been regularly updated for the latest available information to ensure the control was reasonably consistent with developments in the market.
- 2.19 At the time the model was built, the retail broadband access market was nascent but was expected to grow rapidly. The existence of significant fixed costs, the high level of subscriber acquisition costs ('SACs') and the small but rapidly growing customer base meant that in the initial years of operation a hypothetical new entrant at that time could have negative cash flow and profitability, more so at that time as broadband was a new service. The DCF model was used to effectively smooth retail margins over time, allowing start up costs and SACs to be recovered over the full product lifecycle.

Retail Activities costed in 'retail minus' price control

- 2.20 An OAO using the bitstream service will need to carry out a number of activities and purchase a number of products in order to offer an end-to-end service:
 - 2.20.1 the installation of a splitter in the end user premises and provision of Customer Premises Equipment (CPE);
 - 2.20.2 transport from the Regional POP to the OAO's own Point of Presence (which may done through be a BCS or BECS product purchased from Eircom);
 - 2.20.3 peering and transit costs originating and terminating Internet traffic outside the network;
 - 2.20.4 the costs of establishing and operating Internet Service Provider (ISP) facilities such as servers; and
 - 2.20.5 retail costs including sales and marketing, customer care and billing and collection costs.

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 $^{^{12}}$ For detail on the current WBA price control please see ComReg Decision No. D01/06

2.21 The resulting price control sets a margin for each product expressed as a combination of a fixed element and an element proportional to the retail price. As new retail broadband products are introduced by Eircom, additional WBA products are introduced on a matching basis. The margins for these products are also derived from the model.

Drawbacks of current retail minus price control

- 2.22 However, there are some drawbacks to the current retail minus approach. Given the proliferation of different retail broadband packages combined with a variety of bundles and discounts currently on offer means that it is difficult to derive a unique set of prices. In addition, ComReg believes that the appropriate treatment of once-off retail costs such as sales and marketing costs, including SACs, which are treated as expenses in the accounts but are likely to provide benefits over a period of time, can make the consistent implementation of the retail minus price control complex, since under the current retail minus DCF approach the level of prices is dependent on the future evolution of the market.
- 2.23 Setting retail minus prices also requires that the effective retail price be determined for each of the corresponding wholesale products. As both retail and wholesale offers become more complex, with promotions and bundling of broadband and narrowband products in the retail market and the introduction of capacity-based charging in the wholesale market, there is an increased risk that the margins set under the retail minus price control do not adequately reflect the margins available to OAOs. Also, the retail minus price control requires a direct retail equivalent in order for a wholesale offer to be put in place, thereby limiting the potential to offer differentiated products at the wholesale level and in turn OAO flexibility in product development at the retail level.
- 2.24 The current retail minus approach which sets the maximum price for bitstream rental also provides no information or certainty on the appropriate 'economic space' between WBA products and WPNIA products (though minimum price(s) could be added to the current retail minus price control to provide an appropriate economic space between WPNIA and WBA). The purpose of an appropriate economic space between the respective pricing of wholesale products is to promote efficient infrastructure competition and sustainable competition and thus to ensure that there is consistent pricing between wholesale products and that there is no price squeeze to the detriment of end-users.
- 2.25 The potential for Eircom to pursue foreclosure of WPNIA investment by way of maintaining an insufficient 'economic space' has always been a concern of ComReg and ComReg has endeavoured to ensure that an appropriate 'economic space' was

¹³ Appropriate space between the prices of Eircom's wholesale products/services would be sufficient to promote sustainable infrastructure competition. It is a concept supported by the ERG in Common Position 09 (21) and is a remedy in Sweden (see European Commission case SE/2010/1062) and in France (see European Commission case FR/2008/0780-0781) where ARCEP (the French NRA) considered it "appropriate to prevent the application of eviction tariffs and guarantee the coherence between the prices applied for wholesale broadband access and for access to the local loop".

maintained.¹⁴ However, this was difficult for ComReg as the bitstream prices under the current retail minus price control are maximum prices¹⁵ and Eircom could price below those prices¹⁶. Over time, changes to WBA prices and WPNIA prices could impact on the economic space available. Therefore, ComReg believes that this increases uncertainty and could dissuade potential entrants from engaging in efficient infrastructural investments even where current bitstream prices offered sufficient economic space.

A revised WBA price control

2.26 ComReg believes that a revised price control would serve to promote efficiency and sustainable competition and maximise consumer benefits¹⁷.

Promote efficiency

- 2.27 Cost oriented price controls aim to maintain prices at an 'efficient' level of costs where there is a risk that competitive pressure alone will not achieve this outcome.
- 2.28 Efficiency can be expressed in a number of ways including:
 - 2.28.1 Allocative efficiency: Where prices of different products result in an optimum allocation of resources to consumers;
 - 2.28.2 Productive efficiency: The cost of producing the products is minimised; and
 - 2.28.3 Dynamic efficiency: The efficiency of investor and customer behaviour over time.
- 2.29 ComReg believes that any price control needs to strike a balance between these forms of efficiency as there is unlikely to be a single solution that maximises all forms of efficiency.
- 2.30 Productive and allocative efficiency are essentially static concepts taking into account the level of costs to deliver products at a single point in time.
- 2.31 In terms of productive efficiency, ComReg believes that the sequential nature of investment decisions, when assessing whether the level of costs reported is efficiently incurred, needs to be considered in the price control. Investment decisions are not made with perfect foresight and may be constrained by previous decisions (for example, the location siting of existing network equipment).
- 2.32 Furthermore, ComReg considers that a price control also needs to take account of dynamic effects. In particular that regulated operators have an expectation that they

¹⁴ The recent LLU Line Share price decision by ComReg has eased concerns in relation to the relative pricing by Eircom of its Bitstream products versus the relative pricing by Eircom of its LLU products

¹⁵ See footnote 18 of ComReg Decision No. 01/06

¹⁶ Subject to regulatory and competition law obligations and the need to recover its efficient costs

¹⁷ As noted under Regulation 14(3) of the Access Regulations

- can make a reasonable return on investments over time and that efficient entry and ongoing efficient investment are encouraged.
- 2.33 To conclude, the aim of a revised price control will be to maintain prices at an efficient level to the benefit of consumers and at a level which encourages ongoing efficient entry and investment decisions by other operators while also ensuring that the SMP operator makes a reasonable return on its efficient investment.

Promote sustainable competition

- 2.34 As discussed above, price controls have traditionally attempted to constrain prices to an efficient level as their primary aim, in order to prevent an SMP operator from setting prices at too high a level. However, it has been further noted above that price controls should also consider and prevent providers from setting prices at too low a level¹⁸, since such pricing may discourage the emergence of infrastructure-based competition and result in competition in downstream markets based solely on the SMP operator's network inputs such as bitstream. Clearly an SMP operator can not engage in both behaviours at the same time, however, there is still a need for both types of protection given the potential harm to consumers in terms of price, choice and quality of products deriving from both categories of behaviour.
- 2.35 Therefore, ComReg believes it is essential that the differential in pricing between the regulated service and an upstream wholesale service (e.g. between WBA products and WPNIA products) should provide sufficient and appropriate 'economic space' so that infrastructure-based competition is not discouraged.
- 2.36 Furthermore, in order to promote sustainable competition ComReg believes that the obligation not to margin (price) squeeze in the WBA market should continue.
- 2.37 Therefore, ComReg believes that a revised price control should set the maximum and minimum prices for the bitstream rental so that sustainable competition and consumer choice, in terms of product range, quality and affordability, is promoted.

Maximise consumer benefits

2.38 As discussed above, price controls have generally attempted to constrain prices to an efficient level as their primary aim, in order to prevent an SMP operator from setting prices at too high a level, therefore other operators availing of that wholesale input can offer retail broadband to consumers at a competitive price. Efficiency would continue to be a key aspect of the proposed price control. The price control should also encourage product differentiation; an aspect ComReg believes could be potentially limited by the current wholesale price control due to its inherent linkage to Eircom's retail offerings. Therefore, ComReg believes that a revised price control should ensure that it maximises consumer benefits in terms of permitting both efficient and innovative pricing behaviour.

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 $^{^{18}}$ See ERG 09 21 'ERG report on price consistency in upstream broadband markets'. As noted above, see also case FR/2008/0780-0781.

3 Potential forms of price control

- 3.1 ComReg believes that for the WBA market possible price control obligations consist of cost orientation and retail minus. In circumstances where a cost-orientation obligation is appropriate, ComReg considers that this can be specified as an appropriate specific price or to control as a maximum price with associated minimum prices if required.
- 3.2 Within all those price controls above, there could also be an ex-ante obligation not to margin/price squeeze in the wholesale markets and between wholesale and retail and currently such an ex-ante obligation not to squeeze between wholesale and retail exists within the existing retail minus price control.
- 3.3 An overview of each of possible price controls is given below.

Cost orientation

3.4 Cost orientation in regulatory price control intends to mimic competitive market prices. It is set by reference to efficiently incurred cost. Therefore, its use should encourage and protect efficient entry and investment which is ultimately to the benefit of end-users, that is retail consumers and which is consistent with ComReg's objectives under the Act.

Cost orientation at a specific price point

- 3.5 Cost orientation in its narrowest interpretation requires the operator to demonstrate on a regular basis, or at the time of introduction of new prices, that the prices are set in accordance with any "cost orientation" benchmark agreed, that is, are in accordance with a specific price point. Such a specific approach may be suitable where unit costs are expected to be broadly stable over time or for products which contribute a relatively small proportion of overall revenues.
- 3.6 A requirement on Eircom to demonstrate to ComReg that prices are cost oriented according to a specific price point could ensure that prices are not excessive or set at too low a level. Detail on how "cost orientation" should be applied would be required to ensure the "cost oriented" price is transparent.
- 3.7 ComReg believes that such an approach, if applied on an annual basis to one specific price point, may limit the incentives of Eircom to achieve efficiency savings. Also, such an approach may limit the flexibility of the SMP operator to offer differentiated wholesale products at differentiated prices. However, flexibility could be incorporated by identifying an acceptable cost-oriented price range within which the SMP operator could price subject to a wholesale maximum price/minimum price, rather than prescribing one specific regulated price point.

Preliminary view

3.8 Given the need to provide predictability to OAOs seeking to purchase bitstream, to protect the infrastructure investments of OAOs and to provide sufficient flexibility to Eircom, ComReg is of the preliminary view that a strict cost orientation requirement,

that is set at particular price point(s), may not be appropriate for the bitstream rental charges but may be more suited for the ancillary charges, such as connection/disconnection etc, in the WBA market. Such ancillary charges are currently set by reference to a cost orientation obligation and ComReg believes it is appropriate to continue this obligation. ComReg believes that setting "cost oriented" maximum price for such charges should be welcomed by industry as it provides comfort that such charges reflect the efficient cost of the ancillary service/product and are cannot be adversely influenced by differential charging for certain behaviour e.g. no charge for connection but significant charge for disconnection. Furthermore, as is currently the case and as specified later in this document, Eircom can submit data to revise these cost oriented ancillary charges to ensure that it recovers its efficiently incurred costs plus its required rate of return.

Cost oriented maximum price(s) with associated minimum price(s)

- 3.9 ComReg considers that in markets that are no longer in the early stages of development that the primary aim of any price control on an SMP operator has generally been to constrain prices for a service (or group of products) to an estimate of the efficient level of costs, a 'maximum price'. The estimate of the level of costs used to set such a maximum price includes typically the operating costs efficiently incurred by the operator plus an allowance for the (opportunity) cost of capital.
- 3.10 Assuming the SMP operator is profit maximising, the SMP operator is likely to choose to set prices at, or close to, the level of the maximum price, as setting prices below this level would be expected to result generally in lower profitability, absent certain strategic considerations. However, as discussed earlier, given the ability and incentives of the SMP operator to engage in strategic foreclosure of WPNIA based competition and in order to safeguard WPNIA infrastructure investment, appropriate safeguards such as associated minimum price(s) may be warranted to maintain an appropriate economic space between the pricing of WBA and WPNIA where a consequence of a particular bitstream pricing strategy of the SMP operator may be to hinder alternative infrastructure investment.
- 3.11 ComReg believes that setting a maximum price for bitstream rentals requires making a number of decisions on the form and implementation of the price control:
 - 3.11.1 duration and review of price control (e.g. multi-year or annual price setting);
 - 3.11.2 cost basis and cost estimation methodology to be used when setting the price control;
 - 3.11.3 flexibility.

Duration and review of price control

3.12 Forward-looking price controls can be set on a recurring basis (e.g. annually) or set for a number of years. Typically where maximum prices are set for a number of years in advance, the future level of the maximum price is set according to a CPI¹⁹-X formula that is based on a real price decrease of X percent annually. In this case CPI-X price

¹⁹ Consumer Price Index

- controls remove uncertainty regarding the future level of general inflation from the price control.
- 3.13 ComReg believes that setting a forward-looking price control where prices are determined for a number of years in advance requires the regulator to analyse the level of costs, which can include information in addition to that supplied by the SMP operator. The increased transparency of the process and predictability of future prices can also bring benefits in terms of competition. For example:
 - 3.13.1 it provides both the SMP operator and competitors increased certainty on the future level of prices and hence would be expected to encourage investment; and
 - 3.13.2 it provides the SMP operator with greater incentives to achieve efficiencies during the period of the price control, as any cost savings in excess of those anticipated will accrue to the benefit of the SMP operator.
- 3.14 However, these advantages have to be weighed against the potential disadvantages of setting prices at too high or too low a level in the future due to forecast errors. ComReg believes that if the level of uncertainty is greater or the potential incentive effects are more limited, then regular reviews of the pricing may be more appropriate.

Cost basis and cost estimation

- 3.15 ComReg believes that estimating the level of future costs will inevitably require making some assumptions, for example the estimated life of assets in order to calculate depreciation charges. Naturally, forward-looking forecasts of the efficient level of costs will be subject to a degree of uncertainty. For the revised price control, ComReg believes that decisions will need to be taken on a number of issues including:
 - 3.15.1 the recovery of capital costs over time;
 - 3.15.2 the recovery of fixed and common costs between products; and
 - 3.15.3 the extent of any differences between the levels of costs reported by the operator and efficiently incurred costs.

Flexibility

- 3.16 Most markets include a number of products and each of these products may give rise to a number of separate charges. At one extreme a price control can be set for each individual charge, while at the other extreme a maximum price can be set that constrains the overall revenue for a 'basket' of products but does not attempt to control individual prices. This approach may offer benefits when there is a large element of fixed and common costs across the products within the basket as it allows some flexibility in how these costs are to be recovered across products. It is therefore for the SMP operator to ensure that the obligation is being satisfied and this is monitored by the regulator on a periodic basis.
- 3.17 ComReg believes that any increased freedom for the regulated operator to set prices, however, also increases the scope for potentially anti-competitive behaviour. For example, if the mix of products self supplied by the SMP operator differs substantially from those purchased by external wholesale customers, then the SMP operator could

potentially use the freedom of a 'basket' maximum price to price discriminate against competitors. This discrimination could take a number of forms, for example by offering volume-based discounts or by reducing the prices of products predominantly used internally and increasing those used externally. ComReg believes that if this could be a significant risk then the price control must be structured to minimise that risk.

Preliminary view

3.18 ComReg is of the preliminary view that cost oriented maximum prices with associated minimum prices (to ensure appropriate 'economic space' is maintained to the relative prices of WPNIA products) may be an appropriate price control for bitstream rentals. These maximum and minimum prices will be based on efficiently incurred cost plus the required rate of return and there is further discussion of this proposed price control and the associated 'cost plus' model later in this document.

Retail minus

- 3.19 As discussed earlier in this document, the current price control obligation in effect under ComReg Decision D01/06 is retail minus. The retail minus price control set the prices of products within the WBA market by reference to the relevant retail price, minus a margin that is considered sufficient for a similarly efficient operator to compete profitably in the downstream market. As noted earlier in this document, there are some drawbacks to the use of retail minus in a market that is no longer in the early stages of development:
 - 3.19.1 Matching of wholesale bitstream offers to Eircom's retail broadband offers which limits the flexibility of OAOs to offer differentiated products in the retail market;
 - 3.19.2 Increasing retail pricing innovations in the retail broadband market (which is not subject to ex-ante regulation) create challenges for application of the retail minus.

Preliminary view

3.20 ComReg is of the preliminary view given the reasoning set out in this document that as the WBA market is no longer in the early stages of development that it may not be appropriate to continue with the current retail minus price control for the bitstream rentals.

Overall preliminary conclusion on the price control

3.21 Given the issues discussed above, ComReg is of the preliminary view that the retail minus price control is less appropriate since the market for WBA is no longer in the early stages of development. Given that efficient costs can now be determined with a reasonable level of confidence, ComReg is of the preliminary view that maximum prices and minimum prices (to maintain a sufficient economic space to the prices of WPNIA products) based on cost orientation is an appropriate basis for a price control

to be applied to bitstream rental charges and that the ancillary charges should also be cost oriented with maximum prices set. These preliminary views are discussed further in the next chapter.

4 Preliminary views on proposed price control

- 4.1 ComReg believes that as the WBA market is no longer in the early stages of development, the appropriate level of capital charges can be determined with greater certainty, consistent with maintaining investment incentives.
- 4.2 After considering the different price control options in the previous chapter, ComReg is of the preliminary view that the price control will:
 - 4.2.1 Establish a cost oriented wholesale price for bitstream rental products based on a 'cost plus' price control model in order to prevent Eircom from sustaining prices at an excessively high level in the market for WBA which could lead to a margin squeeze.
 - 4.2.2 Establish an appropriate economic space between the pricing of products in the WBA market and the WPNIA market in order to prevent Eircom from sustaining prices at an excessively low level in the market for WBA which could lead to a margin squeeze against the price of other regulated wholesale inputs e.g. WPNIA (LLU).
 - 4.2.3 Include an ex-ante obligation not to cause a margin (price) squeeze between the price of WBA products and the associated retail offerings and a test for assessing any such price squeeze is specified.
 - 4.2.4 Establish cost oriented prices for ancillary services/products offered in the market for WBA.
- 4.3 In the below, ComReg also sets out its preliminary proposals on the price control and ComReg welcomes all views that respondents may have on the proposed price control.

Proposed price control obligation: cost orientation for bitstream rentals by a set range of maximum and minimum prices

- 4.4 ComReg proposes that bitstream rentals would be cost oriented by a set range of maximum and minimum prices on the 'per port' and 'monthly per bandwidth mbps' respectively. ComReg believes that this cost oriented range should offer OAOs greater flexibility in creating their retail broadband products for example by controlling usage and hence average bandwidth through other means than the current basis of download speed and contention ratios.
- 4.5 The maximum price would be set by reference to the efficiently incurred costs and required regulated rate of return of Eircom whereas the minimum prices would be set by reference to a hypothetical operator availing of LLU line share, there is a further discussion of this later in the document.
- 4.6 The 'per port' element includes Line Share Rental, DSLAM costs, BRAS costs and repair costs that are incremental to the number of lines and are thus recovered on a per port basis. The remaining costs, while largely fixed for a given DSLAM roll out, are sensitive to the volume of traffic, in that above a certain level of traffic the network dimension and cost would need to be increased. Therefore, the total annual costs of these elements are converted to an annual cost per unit bandwidth (€/kbps/year) by dividing the total cost by an assumption of the average bandwidth per subscriber

- multiplied by the average number of subscribers during the year and this is used to set the 'monthly per bandwidth mbps'.
- 4.7 Furthermore, ComReg proposes to set sub maximum price and minimum prices based on the overall maximum and minimum prices on the individual legacy bitstream rental products to limit the scope for price discrimination at the wholesale level.
- 4.8 There is further discussion of the price control model to set the maximum prices and minimum prices later in Chapter 5.

Proposed price control obligation: minimum prices for bitstream rentals to ensure maintenance of an appropriate economic space to WPNIA

- 4.9 Cost orientation price controls generally aim to constrain prices to an efficient level, in order to prevent providers with market power from setting prices at too high a level.
- 4.10 However, ComReg believes that the impact that prices may have on encouraging greater long term competition also needs to be considered. ComReg believes that potential behaviour that could lead to undesirable outcomes in the longer term includes 'margin (price) squeeze'. For this consultation, ComReg regards that margin (price) squeeze to the detriment of end users could occur by Eircom setting the prices of WBA too low relative to WPNIA (due to the existence of alternative wholesale access products) thereby reducing the 'economic space' and affecting OAOs' build/buy decisions. Therefore, ComReg has set minimum prices for bitstream rentals in this price control by reference to the efficient costs of a hypothetical new entrant availing of LLU Line Share.
- 4.11 This proposal is consistent with the report of the ERG (now BEREC)²⁰. Furthermore, ComReg is of the view that Eircom should maintain consistent pricing between wholesale products from the WBA markets and other wholesale inputs used for the provision of broadband products to end users.

Proposed price control obligation: not causing a margin (price) squeeze between the price of WBA products and the associated retail offerings

4.12 ComReg is of the preliminary view that the *ex ante* obligation not to create a margin (price) squeeze between retail and wholesale prices in the WBA market should continue in order to promote entry and sustain competition. There is a risk that Eircom, when setting the margin between prices in the regulated market and a downstream market (e.g. the retail market), could do so at such a level that an equally efficient competitor cannot operate profitably in the market. Although ComReg has, through the maximum prices to be set for bitstream rental, sought to limit the potential for excessive pricing at the wholesale level, it is believed that there is still a risk that a vertically integrated SMP operator controlling wholesale inputs provided to downstream operators could, through a combination of setting WBA prices at the

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 $^{^{\}rm 20}$ ERG (09) 21: 'ERG Report on price consistency in upstream broadband markets' dated June 2009

upper limits of the cost oriented wholesale price control and pricing its retail broadband unprofitably low, engage in anti-competitive margin squeeze with a view to leveraging its dominant position from WBA to the retail market. This margin squeeze may result in foreclosure of OAOs from the market, which would be to the detriment of end users. Therefore, ComReg proposes the test set out in 4.16 below to assess such squeezes between WBA and retail broadband.

- 4.13 As the European Commission states in its Explanatory Note²¹ to the 2007 Recommendation on relevant product and service markets susceptible to ex ante regulation, "when there is regulation at wholesale and/or retail level, the possibility of price or margin squeezes can result from regulatory intervention and it should be assessed in that context... For the assessment of a margin squeeze it is irrelevant whether both wholesale and retail prices are regulated or only one of the two. The relevant questions in this context are (i) whether the spread between wholesale and retail prices cover the retail costs of the dominant firm and (ii) whether the dominant firm is free to avoid the margin squeeze on its own initiative." In this context, the vertically integrated SMP operator (Eircom) is free to avoid any margin squeeze of its own initiative as it can either raise its unregulated retail prices or reduce its bitstream prices to the minimum price or a combination of both and therefore it is proposed to continue the ex-ante price control obligation not to margin/price squeeze in this respect in accordance with Regulation 14(1). To be clear, as Eircom has the ability to set retail prices independently of the cost-orientation obligation, the onus is on Eircom to ensure that in doing so it meets the ex-ante obligation not to margin/price squeeze and does not act anti-competitively contrary to competition law. For the avoidance of doubt, the ex-ante obligation not to margin/price squeeze would in no way affect/limit any investigation by ComReg using its competition law powers.
- 4.14 As part of its analysis of the WBA market²², ComReg identified competition problems²³, in particular the possible leverage of market power by Eircom in the WBA market into the downstream retail market for broadband products, by way of a margin squeeze (also known as a price squeeze), therefore for this reason and the reasoning set out above, ComReg believes that Eircom's ex-ante regulatory obligation not to margin (price) squeeze should continue. As a proportionate measure, ComReg will consider the overall potential foreclosure effects of the margin squeeze in the marketplace so that compliance action may not be taken where ComReg considers that anti-competitive effects are not material.

²¹ Explanatory Note - Accompanying document to the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, SEC (2007) 1483 final

²² 'Decision Notice - Designation of SMP and Related Remedies: Market Analysis - Wholesale Broadband Access' dated 24 February 2005 (http://www.comreq.ie/ fileupload/publications/ComReq0511r.pdf)

²³ ComReg will consider the draft updated analysis of the WBA market before making a final decision in relation to revised WBA price control. If in the updated analysis of the WBA market, Eircom is found to no longer have SMP, the price control will be removed accordingly.

- 4.15 ComReg's preliminary views on the specification of the margin (price) squeeze test between wholesale and retail prices in the WBA market are as follows and ComReg would welcome respondents' views on each of these:
 - The current margin (price) squeeze test is based on a Similarly Efficient Operator ('SEO'). The SEO is set by reference to Eircom's costs but adjusted for economies of scale and scope differences. That current margin (price) squeeze test was set in the context of a nascent broadband market. As the market is now no longer in the early stages of development, ComReg would welcome views on changing the operator under review from SEO. It may be appropriate to take into account the time that has elapsed since the previous review and the fact that alternative operators have had access to regulated wholesale inputs for some time with the key aim of such regulated wholesale inputs being to reduce the impact of any differences in economies of scale between the SMP operator and alternative operators. ComReg is of the preliminary view that an Equally Efficient Operator ('EEO') may be the appropriate standard as it ensures that operators as efficient as the SMP operator are protected against possible margin (price) squeeze by the SMP operator. EEO is set by reference to an operator as efficient as Eircom. ComReg is of the preliminary view that an EEO test encourages efficient investment in infrastructure which is consistent with ComReg's objectives under section 12 of the Act.
 - ComReg is of the preliminary view that it is legitimate and appropriate to apply the test not to margin (price) squeeze to individual products and not only to the aggregation of bitstream products. ComReg believes that applying the obligation not to margin (price) squeeze only to bitstream products as a whole would give Eircom a large discretion in selectively discounting individual bitstream products according to the degree of competition in the various segments, that is, it would allow Eircom to selectively reduce the prices of individual retail broadband products, provided by an associated bitstream product, where competition is more intense. ComReg believes that this could negatively impact on those competitors, whose scope of retail broadband products is smaller and which would not be able to reduce the price of their retail broadband products without jeopardising the viability of their business case. ComReg believes that applying the obligation not to margin (price) squeeze as a whole in the WBA market could impair transparency/visibility of any exclusionary/price squeeze behaviour by the SMP operator in respect of discrete wholesale/retail broadband products, rendering it more difficult to monitor and safeguard against such behaviour. ComReg believes that the application of the obligation not to margin (price) squeeze on individual products in an ex-ante context allows sufficient transparency to safeguard against possible exclusionary behaviour, allowing the promotion of sustainable competition by OAOs/entrants which currently may have a smaller range of retail broadband products than Eircom.
 - 4.15.3 Given that the WBA market is no longer in the early stages of development and future growth is expected, ComReg is of the preliminary view that it is legitimate and appropriate for ComReg to use "Long Run Average Incremental Cost ('LRAIC') plus" as the appropriate basis of the retail costs of the

broadband product. 'LRAIC plus' is defined to include all of the variable and fixed costs that are directly attributable to the activity concerned plus an allocation of the joint and common costs. ComReg believes that using LRAIC plus includes appropriate amounts of variable, fixed and common costs, which is the calculus faced by any operator when deciding to enter or expand.

4.16 Therefore, it is proposed that the margin (price) squeeze test will be as follows:

Margin/price squeeze test between WBA and retail broadband:

A: Actual price charged in the WBA market for wholesale product²⁴

B: Add 'LRAIC plus' retail cost for the associated retail product

A+B=C: Equals minimum retail price to ensure no margin (price) squeeze occurs contrary to regulatory obligation in WBA market

D: Retail price of the associated retail broadband product (ex VAT)

If C>D: investigate. Investigation by ComReg of non-compliance by Eircom with its ex-ante obligation not to margin (price) squeeze - as a proportionate measure, ComReg will consider the materiality of the margin squeeze in the marketplace so that compliance action may not be taken by ComReg for every instance where C>D.

4.17 This proposed test can be further explained in the example below:

	WBA Product 1	WBA Product 2	WBA Product 3
Price of WBA product (ex VAT)	€6	€8	€10
Plus 'LRAIC plus' retail cost for the retail costs of the product under review	€10	€10	€10
Minimum retail price (ex VAT) to meet regulatory obligation	€16	€18	€20
Actual retail price (ex VAT)	€18	€18	€18
Meeting regulatory obligation not to margin (price) squeeze	YES	YES	NO – investigate further

4.18 Utilising the specification set out above, ComReg will assess compliance with the obligation not to margin (price) squeeze on a case by case basis. As noted earlier,

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²⁴ If Bitstream product is usage based bitstream product, ComReg will utilise usage as per actual average usage per Eircom retail customer on the retail broadband product in order to calculate the applicable bitstream price

- ComReg will consider the overall foreclosure effects of the margin squeeze in the marketplace so that compliance action may not be taken where ComReg considers that anti-competitive effects are not material. The above is without prejudice to any action ComReg may also take to investigate an abuse of a dominant position, inserted by section 31 of the Communications Regulation (Amendment) Act 2007.
- 4.19 Finally, for the avoidance of doubt, as it is proposed that there is no longer a retail minus price control, Eircom would not be required to notify ComReg of its proposed retail broadband offers in advance, for assessment of Eircom's meeting of its regulatory obligations. ComReg believes this respects Eircom's commercial freedom in an unregulated market.

Margin (price) squeeze complaints from other platform operators

4.20 ComReg recognises that there are other operators based on other platforms competing in the retail broadband market over their alternative platform e.g. the cable operator, UPC and the WiMax operator, Imagine. However, as these operators do not require the bitstream products offered by Eircom to offer their retail broadband service ComReg will consider any complaints made by those operators on alternative infrastructure platforms of claimed anti-competitive practice by Eircom under ComReg's competition law powers.

Proposed price control obligation: cost orientation for ancillary services/products with maximum prices set

- 4.21 ComReg proposes that the ancillary services/products in the WBA market, which may be amended from time to time, would be cost oriented and maximum prices will be set. There is further discussion on the proposed cost oriented maximum charges later in Chapter 5.
 - Q. 1. Do you agree with the detail of the proposed price control including the different specification of the ex-ante obligation not to margin (price) squeeze? Please state the reasons for your response.

Duration and future review of price control

- 4.22 ComReg believes that as the wholesale broadband market is no longer in the early stages of development it is possible to determine the current level of costs of the provision of WBA products with a reasonable level of certainty. However, ComReg believes that an implementation of a multi-year maximum price on the 'monthly per bandwidth mb/s' element is not suitable at this time for the following reasons.
- 4.23 This is the first period of transition from the retail minus methodology to a cost plus methodology, and of the introduction of a cost based minimum price. As this is still a growing market, ComReg considers that a multi-year maximum price would only be appropriate after there had been an opportunity to evaluate the implementation of the new approach.

- 4.24 ComReg has also commenced a review of the Leased Line market price control obligation which will include modelling network elements and common costs which are shared with WBA. Therefore, the results of this modelling exercise may impact on the costs to be recovered by Eircom through its charges in the WBA market so as to ensure that Eircom recovers its total efficiently incurred costs and that the risk of possible double count or under-recovery is minimised.
- 4.25 Thus, ComReg is of the preliminary view that the maximum prices be set for at least one year in the first instance and once the Leased Line modelling is complete, the maximum prices would be reviewed to see if a change is required. Following this review and depending on the outcome of the market analysis process and any future change to the maximum price, ComReg proposes that the maximum price would be set for a period of at least two years²⁵. In order to ensure predictability to OAOs in making their investment decisions, ComReg proposes that the maximum price and minimum price would be set on a forward looking basis using a projection of costs. ComReg is of the preliminary view that there would be no mechanism for setting forward looking prices to compensate for over/under recovery in the maximum price in previous periods. However, ComReg is of the preliminary view that this could be reassessed in exceptional circumstances.
- 4.26 ComReg believes that if Eircom sets the bitstream rental prices at the maximum price allowed under the maximum prices, Eircom should recover all its efficiently incurred costs and its regulated rate of return. Eircom would be free to price below the applicable maximum price to the matching minimum price. However, ComReg recognises that there is uncertainty, for example a significant migration from bitstream to WPNIA could occur in the period of the price control, which may result in Eircom facing a significant and unexpected reduction in the demand for at least some of its WBA products and hence lower utilisation of equipment. If this becomes a significant issue, ComReg is of the preliminary view that it would review the price control to assess whether they require amendment so that Eircom continues to have the ability to recover its efficiently incurred costs. However, it would be the responsibility of the SMP operator to bring this to ComReg's attention.
- 4.27 Furthermore, as the maximum and minimum prices are based on the regulated wholesale input of LLU line share, any change to the price of that regulated input would impact the maximum prices and minimum prices to the same effect and would therefore revise the pricing of these at the same timing when any revised LLU line share prices comes into effect.

²⁵ Subject to the results of any market review in the interim period which might necessitate a simultaneous review of the WBA price control.

Q. 2. Do you agree with the preliminary views in relation to the duration and future review of the price control? Please state the reasons for your response.

Notification to ComReg and approval to launch by ComReg

New products in the WBA market

- 4.28 ComReg does not wish to hinder the commercial freedom of Eircom to launch new WBA products²⁶ but recognises that any new products require sufficient notification, including adequate detail and adequate lead in time, to facilitate OAOs to understand the proposed product and to see if they wish to offer a new retail product and notify their retail customers of same. ComReg also requires sufficient time to understand the product to ensure that such a new product would be compliant with Eircom's regulatory obligations.
- 4.29 Therefore, ComReg proposes the following notification and approval obligations for new proposed products in the WBA market. ComReg proposes that Eircom would, unless otherwise determined by ComReg, make publicly available and publish on its website at least two months in advance of their coming into effect, proposed prices for new products and proposed price changes for existing products (including prices for rentals and ancillary services/products) in the market for WBA. ComReg proposes that Eircom would notify ComReg at least one month in advance of any such publication, i.e. three months prior to any changes coming into effect. ComReg proposes that this period of one month may be varied from time to time as determined by ComReg in order to ensure that there is flexibility if required. ComReg believes that these proposed notification timelines are proportionate and reasonable to ensure that OAOs and ComReg have sufficient time to understand the proposed new product or assess any proposed price change to an existing product and to assess its likely impacts. ComReg believes the proposed timeline offers ComReg the opportunity, if required, to engage with operators either bi-laterally or through the bitstream/WPNIA forum to understand any concerns or issues operators may have with the proposed new product.
- 4.30 ComReg is of the preliminary view that Eircom shall not introduce any new products or price changes for existing products without ComReg's prior approval. ComReg's approval is without prejudice to any subsequent action that may be required if ComReg subsequently forms the view that a new product launched by the SMP operator does not comply with its regulatory obligations or with competition law.

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²⁶ ComReg regards a new product in the WBA as any product which has different functional and /or technical characteristics and /or a different tariff structure to existing products

Existing products in the WBA market

- 4.31 ComReg is of the preliminary view that price amendments to existing products²⁷ in the WBA market should have the same notification timeline as new products but recognises that in some circumstances a shorter notification timeline for price changes to existing products may be appropriate. Therefore, ComReg proposes that the required notification to ComReg may be reduced on a case by case basis. ComReg considers that as it is only the price amendment itself that requires assessment, as opposed to the actual product, that this assessment may not require the time required to assess new products, since any price change would have to be within the maximum and minimum price range of the price control and set out within the pre agreed pricing model shared between ComReg and Eircom. However, ComReg will be cognisant of any minimum notification requirements that OAOs may be required to adhere to as a result of any required changes to their retail customers' contracts as a result of changes made by Eircom to the price of the existing WBA product.
 - Q. 3. Do you agree with the proposed notification and approval procedures? Please state the reasons for your response.

Promotions

4.32 ComReg is of the preliminary view that the proposed obligations would apply in full even if an offer in the WBA market is only planned to be offered for a limited promotional period. ComReg believes that it would not make sense for promotions to fall outside the normal regulatory controls. ComReg believes just because an offer in the WBA market is offered for a promotional period does not automatically imply that it may have no potential competitive harm. Therefore, ComReg believes that all products in the WBA market, whether promotional or not, must meet the price control obligations proposed.

Bundles

4.33 ComReg is of the preliminary view that the price control and all its facets still apply even if an offer in the WBA market is within a bundle. ComReg believes that it would not make sense for WBA products within a bundle to fall outside normal regulatory controls. Therefore, ComReg believes that all products in the WBA market, whether in a bundle or not, must meet the price control obligations proposed.

Where there is no change to the functional / technical / tariff structure, that is, a price amendment to an existing product is only a change in the price itself e.g. from €7 to €6

5 Preliminary views on the associated price control model

Common assumptions for price control model

- 5.1 Earlier this year ComReg engaged consultants to carry out a detailed modelling exercise of a cost based model of Eircom's bitstream network together with an assessment of the hypothetical new entrant. This engagement has lasted several months and has involved Eircom and OAOs where possible. As mentioned previously a related modelling exercise is currently underway on the Core model for delivering Leased Line products and ComReg will ensure that both projects are mutually consistent.
- 5.2 The draft model includes a number of assumptions used for the projection of costs including:
 - 5.2.1 the appropriate driver for the cost category;
 - 5.2.2 the relationship between the cost driver and the level of costs;
 - 5.2.3 assumptions of the appropriate inflation rate for the cost category; and
 - 5.2.4 assumptions about efficiency gains in the future.
- 5.3 The following are the preliminary common assumptions for the modelling of the proposed maximum and minimum prices based on engagement/data requests from Eircom, data replies from OAOs and where necessary assumptions based on common practice/other member states experience:
 - 5.3.1 A total addressable market of 800,000 potential DSL subscribers
 - 5.3.2 Churning customers assumed to be 20% of the subscriber base
 - 5.3.3 Cost of capital of 10.21% based on Eircom's weighted average cost of capital
 - 5.3.4 General inflation of 0% per annum
 - 5.3.5 Efficiency gains generally of 3% per annum
 - 5.3.6 Specific network hardware and software prices to decrease 5% per annum
 - 5.3.7 Cost volume elasticity for those capital costs not explicitly modelled of 50% i.e. a 100% increase in broadband traffic increases the costs of those capital items (based on Eircom's accounts) by 50%
- 5.4 ComReg would welcome views on these preliminary common assumptions in the draft price control model.

Maximum price for bitstream rental

- 5.5 It is proposed that the maximum price would be set by reference to the efficiently incurred costs and the required regulated rate of return of Eircom.
- 5.6 This section sets out the proposed cost methodology for the proposed maximum prices. As discussed earlier in this document, the future cost of a given service or group of products cannot generally be precisely and uniquely measured. The appropriate level of costs must be determined in the context of the regulatory environment. Estimating the level of future costs will inevitably require making some

assumptions, for example, regarding the estimated life of assets in order to calculate depreciation charges or the appropriate recovery of common costs across products. Forward looking forecasts of the efficient level of costs will be subject to a degree of uncertainty. Decisions will need to be taken on a number of issues including:

- 5.6.1 the relevant costs;
- 5.6.2 the extent of any differences between the level of costs reported by the operator and efficiently incurred costs;
- 5.6.3 the recovery of capital costs over time; and
- 5.6.4 the recovery of fixed and common costs between products.
- 5.7 Each issue will be discussed in more detail below and respondents' views are sought on these and the preliminary views expressed. To facilitate a meaningful response to this consultation, including the identification of the key determinants of costs, if a cost plus approach is to be adopted, ComReg has prepared a draft cost plus model and it is discussed below. However, ComReg wishes to make clear and for the avoidance of doubt that all preliminary views expressed are subject to respondents' views.

Relevant costs

5.8 Chapter 2 provided an overview of the WBA service, including the type of network components required to provide bitstream products (i.e., the local loop from the NTU to the exchange building, DSLAMs, transport network from the DSLAM to the regional POP, BRAS, splitters, jumper cables and secondary distribution frames in the exchange). The relevant cost base needs to take the cost associated with these network components into account. Furthermore, given that WBA is a wholesale service, any retail-specific costs needs to be excluded from the relevant cost base.

Summary of equipment and cost items for WBA

Cost category	Item	Description	
WBA / Broadband specific network	DSLAMs	DSLAM nodes that are currently deployed in different configurations and technologies	
cost	BRAS	Broadband Remote Access Servers	
	Access network	Copper access network (while other technologies are used for broadband access these are not relevant for the WBA products)	
Network cost shared among broadband and	Aggregation network transmission	Transmission between the DSLAMs and the aggregation nodes and between the aggregation nodes and BRAS	
other products	Broadband aggregation nodes	Nodes which aggregate traffic from DSLAMs. Configuration and technology dependent on the type of DSLAM and transmission technology and broadband remote access servers	

	Core network equipment and transmission	Equipment of the core network and the linking between BRAS and onward transmission to the Internet or other operators network
	Network management cost	Activities and equipment for managing core network transmission types
	Accommodation	The category combines costs of the buildings, network equipment is housed in as well as supplementary cost, such as power equipment and consumption
	Provisioning and repair costs	The costs of providing WBA products and maintaining the network
Broadband and others shared non-network cost	Wholesale customer support and billing	Billing and support cost for wholesale customers
	Other overhead/indirect costs	Costs such as head office, IT, HR

Source: Frontier Economics

- 5.9 The relevant wholesale costs underlying the bitstream service can be broadly divided into two groups:
 - 5.9.1 costs for those network components and activities for those components solely or largely used for the provision of broadband products; and
 - 5.9.2 costs for those network components shared with other [regulated] products.
- 5.10 The first group relates primarily to the costs of DSLAMs. In the second group are costs of the local loop, costs of the transmission network, the costs of aggregation and switching nodes used to transport the broadband traffic and shared infrastructure such as network buildings. The issues and hence the approach for these two groups of costs differ.

Costing of DSLAMs and other broadband specific network elements

- 5.11 For those network elements used exclusively or primarily for broadband products, Eircom's regulatory cost accounting system will include costs related to these components. ComReg believes however that the level of these costs will not have been critically assessed to ensure that they best reflect an efficient level of costs. Therefore, an appropriate method to estimate these costs was required. This estimation can be broken down into two linked questions:
 - 5.11.1 What volume of equipment is required to efficiently deliver service?
 - 5.11.2 What is the likely cost, on an annual basis, required to operate and maintain this equipment?

- 5.12 To address the first question, ComReg considered whether the efficient network dimension should be estimated on a top down basis, that is based on the network actually installed, or by using a bottom up engineering model to estimate the costs of an efficient network needed to serve the forecast level of demand.
- 5.13 The second question considered both the appropriate level of capital expenditure and operational expenditure to build and maintain the required network and also how to annualise estimated capital expenditure in order to calculate annual charges.
- 5.14 These issues are addressed in more detail below.

Network dimensioning

Top down or bottom up?

- 5.15 ComReg considers that deciding on the appropriate modelling approach needs to consider what will produce the most accurate estimate of the efficient level of costs, taking into account the uncertainty attached to the estimates.
- 5.16 The DSLAM network was rolled out in an environment of considerable uncertainty on future demand for broadband products, both wholesale and retail, and the pace and direction of technical developments. However, the nature of DSLAM dimensioning, where incremental demand can be met within a reasonable timescale by either expanding existing DSLAMs or adding additional DSLAM, should ensure that demand and supply are closely matched.
- 5.17 Analysis of Eircom's installed base of DSLAMs indicates that the current network dimension in terms of number of ports installed appears to be reasonable to ComReg given the current level of demand and expected future growth.
- 5.18 Given the uncertainty about future demand and technologies under which the broadband networks have developed the existing network is likely to differ from a hypothetical green field network that would be installed today, even if the sequence of decisions were at all times efficient in terms of minimising the costs. ComReg believes that a simple bottom up model based on such a hypothetical green field network would be likely to underestimate the efficient level of costs. However, implementing a model using past investment decisions based on the information available at the time would be complex and this in itself would limit the accuracy of the model.
- 5.19 Given the uncertainty that would be attached to any bottom up model and the lack of apparent inefficiencies in Eircom's installed base for WBA, ComReg proposes to use Eircom's current network dimension as the basis for costing these elements.

Implementation

- 5.20 While ComReg has information on the currently installed DSLAMs from Eircom, in order to set a forward looking price control ComReg needs to project both the future level of demand and the incremental network capacity needed to serve this demand.
- 5.21 The process for calculating the required incremental capacity is as follows and ComReg would welcome views on this process.

- 5.21.1 A forecast of total demand for DSL products is made on the basis of historic DSL penetration and the assumed long-run maximum number of DSL customers. This forecast is the same as that used to set the minimum prices. This forecast is then used to project the number of DSL subscribers at each site.
- 5.21.2 For each site where there are assumed to be OAOs using LLU to offer DSL products, the market share of Eircom is assumed to be less than 100%. For other DSL sites Eircom's market share is assumed to be 100%.
- 5.21.3 If the forecast number of subscribers is above the available DSLAM capacity, based on the installed capacity multiplied by an utilisation factor, then additional capacity is added to the installed base. In the case where the installed capacity is greater than that required to service the forecast the previous year's configuration is maintained.

Annualisation of capital costs

- 5.22 The network dimensioning function provides a forward looking estimate of the equipment needed to serve the forecast level of demand. In order to set prices we need to estimate the appropriate level of costs to include in each year in order to recover the costs of the corresponding investment and to allow for a reasonable return on the capital employed in the business.
- 5.23 The four main annualisation methods that have been used to set regulated prices in telecommunication networks are:
 - 5.23.1 Historic Cost Accounting (HCA);
 - 5.23.2 Current Cost Accounting (CCA);
 - 5.23.3 Annuities; or
 - 5.23.4 Economic depreciation.
- 5.24 These approaches are further discussed below.

HCA

- 5.25 HCA means that the assets are valued with respect to the cost of the asset when it is recognised (typically at the date it is acquired). Straight line depreciation means that the depreciation charge remains the same over the accounting life of the assets and hence the net book value of the assets declines in a straight line over its lifetime.
- 5.26 The chief advantages of an HCA approach for regulatory purposes are consistency with the statutory accounts and predictability. The relationship with the statutory accounts and in the case of Eircom with its regulatory accounts, means that cost information used in setting prices can be reconciled back to audited data.
- 5.27 In an accounting context, where the cost of capital is ignored, straight line depreciation provides a constant capital charge. When used in regulatory cost accounting, as the net asset value is falling in a straight line over time but the depreciation charge is fixed, the capital charges also fall linearly. This higher recovery of costs when the asset is recently purchased is likely to be a problem applied to assets for which demand is likely to increase significantly over time as it results in

higher unit costs initially for individual assets. For many asset classes where network elements are installed and replaced on a relatively continuous basis, the aggregate charge across all assets may be smooth over time, as the relatively high charges for recently installed assets are offset by lower capital charges for assets reaching the end of their assumed life. In addition, the zero capital charges for assets which remain in operation past their assumed asset life are offset by charges for retirements for assets which are removed from service before the end of the assumed life. However, for DSLAMs, where the majority of capacity has been installed over a relatively short space of time the resulting aggregate capital charges under straight line depreciation may move in a way which does not reflect changes in capacity.

5.28 The second failing of HCA is that being based on acquisition cost, rather than current or replacement cost, it does not provide the correct signals for entry or build and buy decisions for competitors who are considering forward looking investment.

CCA

- 5.29 CCA accounting has been widely implemented in regulatory cost accounting. Under a CCA approach, assets are re-valued each period to take account of unit cost changes such that the valuation of the asset reflects the current replacement cost of the asset. Typically the depreciation profile is assumed to be the same as in the statutory accounts (e.g. straight line depreciation). Depreciation charges are calculated on the basis of the replacement cost of the assets in each year and so move in line with price changes over time.
- 5.30 Under CCA, the difference between the opening and closing valuation of an asset differs from the depreciation charge in the year due to holding gains or losses from the revaluation. In order to ensure financial capital maintenance, this holding gain/loss also results in a capital charge (negative in the case of a holding gain).
- 5.31 The impact of CCA is to decrease capital charges compared to HCA in the early years of the asset life if prices are increasing (in nominal terms), with this being offset with higher capital charges in the final years of the asset life. If prices are decreasing (in nominal terms) capital charges are higher with CCA than HCA in early years, and lower at the end of the asset life.
- 5.32 CCA should result in better pricing signals to potential entrants than HCA. However, the accounting basis of straight line depreciation and the resulting higher costs at the beginning of the asset life once a charge related to the cost of capital is included. Thus, the profile of capital charges may not reflect available cash flows during the growth phase of the product life-cycle.

Annuity

- 5.33 An annuity approach sets the capital charges to be constant over the expected lifetime of the asset. Rather than setting separate depreciation charges and cost of capital, the annuity is simply set at a level such that the Net Present Value (NPV) of capital charges equals the asset acquisition cost. Where both demand and unit costs are likely to be relatively stable over the life of the asset, this may prove a reasonable profile of the capital charges.
- 5.34 If prices are assumed to be changing at a constant rate but demand is assumed to be relatively stable, a tilted annuity can be used. This sets the capital charges to increase

- in line with prices again such that the NPV of capital charges equals the asset acquisition cost.
- 5.35 Tilted annuities of this form have the useful property that the capital charge for an asset (within its economic lifetime) in each year can be assumed to be independent of the acquisition date of the asset. This makes calculation significantly easier in bottom up models as there is no need to estimate the date when assets are acquired.
- 5.36 If demand, and hence capital charges, is assumed to increase at a constant rate then the tilted annuity can be modified such that unit costs change in line with costs. In this formulation the charge for an asset is dependent on when it was purchased, which requires more extensive modelling when applied for a bottom up model.

Economic depreciation

- 5.37 Economic depreciation can be broadly used to mean non-accounting based forms of depreciation. This can include annuities and tilted annuities. Economic depreciation is usually understood to be any form of depreciation that attempts to set capital charges to reflect the cash flows generated by the asset.
- 5.38 In some models more complex annualisation rules have been used, particularly where the assumption that demand or prices change constantly over time may not be realistic. For example, for mobile networks, which also have this characteristic, as investment is concentrated in the period when each generation of network is being rolled out; Ofcom chose to use economic depreciation which attempted to ensure unit capital charge movements reflected underlying movements in the replacement cost of assets²⁸. As the utilisation of the assets varied over time an economic depreciation calculation was used to ensure that the profile of capital charges reflected both utilisation and movements in replacement costs in order to ensure a smooth profile of unit capital charges. In the case of DSLAM equipment, given that utilisation is relatively stable over the lifetime of an individual asset the benefits of using complex forms of economic depreciation may be more limited.
- 5.39 The disadvantage of complex economic depreciation calculations is that current capital charges become dependent on projections of demand and capital expenditure assumptions into the future.

Preliminary view on annualisation methods

- 5.40 There a number of linked criteria that can be used to assess potential annualisation (or depreciation) methods against, including whether:
 - 5.40.1 the method leads to a profile of end user prices that is consistent with efficiency;
 - 5.40.2 it is practical to implement, providing predictable results which are not overly sensitive to input assumptions;
 - 5.40.3 it gives Eircom the expectation that it can make a reasonable return on efficiently incurred costs; and

²⁸ Economic depreciation in the Long Run Incremental Cost Model, Oftel 2001 - http://www.ofcom.org.uk/static/archive/oftel/publications/mobile/depr0901.htm

- 5.40.4 it provides potential competitors with the appropriate price signals when making investment decisions.
- 5.41 ComReg is of the preliminary view that a tilted annuity approach appears to offer a balance between the various criteria.
- 5.42 As stated above, both HCA and CCA straight line depreciation result in overall capital charges that are higher when equipment is first installed than towards the end of their lives. As the utilisation of equipment tends to be low, this is likely to lead to Eircom being unable to generate sufficient revenues to cover these charges when assets are initially installed and hence unable to generate a reasonable return over the lifetime of the assets if prices are capped based on HCA or CCA.
- 5.43 While economic depreciation theoretically provides an ideal solution, in practice implementations are highly sensitive to assumptions about the future and generally require assumptions on the correct profile of unit costs over time. This could lead to increased regulatory uncertainty both when setting the annual level of costs initially and also when revising the annual level of costs as more information becomes available.

Implementation

- 5.44 Implementing the tilted annuity formulae requires four inputs which need to be estimated in way that is consistent between the inputs:
 - 5.44.1 the current replacement cost of the asset;
 - 5.44.2 the rate of price change in the asset;
 - 5.44.3 the assumed useful life of the assets; and
 - 5.44.4 the appropriate return or cost of capital.
- 5.45 The current replacement cost is generally estimated according to the Modern Equivalent Asset ('MEA') principle, that is, the replacement cost is based on the technology that a hypothetical entrant would use rather than the actual equipment in place. The MEA may be different from the existing assets for two reasons:
 - 5.45.1 the asset is no longer available for purchase from network equipment vendors; or
 - 5.45.2 the asset no longer represents the technology that would be used in network deployment by a new entrant.
- 5.46 When revaluing an asset that falls in either of these categories it is therefore necessary to estimate the value of the relevant modern equivalent asset.
- 5.47 ComReg understands that Eircom's network contains two types of DSLAM:
 - 5.47.1 ATM based DSLAMs ('ASAM'); and
 - 5.47.2 IP based DSLAMs ('ISAM').
- 5.48 ComReg understands that ASAMs are obsolete and are no longer being installed. Thus, ComReg considers that ISAMs are the modern equivalent asset for ASAMs and the price of ISAMs is used to value both ASAM and ISAM installed capacity.

- 5.49 The Gross Replacement Cost ('GRC') of the forecast installed capacity from the network dimensioning algorithm outlined above is calculated using the following two step approach:
 - 5.49.1 The ISAM configuration required for each DSLAM site, given the required capacity, is calculated based on a set of configuration rules.
 - 5.49.2 The replacement cost of this configuration is calculated based on price information supplied by Eircom on the capital expenditure required.
- 5.50 Using the MEA principle, the rate of price change should also reflect the price change in the MEA, in this case the ISAMs. Given that price changes are not continuous over time and there may be discontinuities in the level of prices, for example due to the introduction of a new generation of equipment, it may be preferable to use the long term trend in price changes, rather than actual price changes during in accounting period. Using the MEA principle, the price control model assumes an annual price reduction of the hardware and software of such equipment of 5%.
- 5.51 The asset life used for DSLAMs in the price control is 8 years as set out in ComReg Decision D03/09²⁹.
- 5.52 The cost of capital used in the model is 10.21%, as set out in ComReg's Decision D01/08³⁰.

Tilted Annuity

5.53 ComReg is of the preliminary view that to adjust for the fact that wholesale payments do not occur annually starting one year after the investments, which is the assumption in the standard tilted annuity formulae, but occur on a monthly basis the price control model needs to apply a timing adjustment. Assuming the wholesale revenues begin from the point that the cash payment for acquiring the equipment is made, this results in the effective cash flows being shifted forwards by six months. Thus the following adjusted tilted annuity formula is used in the price control model and this is consistent with the tilted annuity used for the recent decisions on LLU prices:

$$AN = \frac{1}{(1 + WACC)^{1/2}} \cdot \frac{WACC - PC}{1 - \left(\frac{1 + PC}{1 + WACC}\right)^{AL}}$$

5.54 ComReg would welcome respondents' views on these preliminary views.

²⁹ 'Response to Consultation Document and Final Decision: Review of the regulatory asset lives of Eircom Limited' dated 11 August 2009 (http://www.comreg.ie/_fileupload/publications/ComReg0965.pdf)

³⁰ 'Response to Consultation Decision Notice: Eircom's cost of capital' dated 22 May 2008 (http://www.comreg.ie/_fileupload/publications/ComReg0835.pdf)

Operating expenditure

- 5.55 ComReg proposes to include operating expenditure ('Opex') related to the broadband equipment and activities drawn from Eircom's regulatory accounts as the basis for these cost items (i.e. a top down approach). The information and the methodology is reviewed to ensure that the costs included are relevant to the provision of WBA products, but no explicit adjustments were made to take account of MEA issues as the operating costs of ASAMs and ISAMs should be similar.
- 5.56 In order to calculate forward looking costs for the price control year the following three calculation steps are carried out:
 - 5.56.1 An appropriate cost driver for each Opex element is identified.
 - 5.56.2 The level of costs is assumed to move in line with the identified driver.
 - 5.56.3 Adjustments are made to take account of forecast inflation and expected future efficiency gains.
- 5.57 For the majority of Opex elements the appropriate driver is assumed to be the GRC of the equipment. The two exceptions are accommodation costs which are assumed to move in line with the floor space occupied by the DSLAMs and 'power and air conditioning' costs which are assumed to move in line with the power requirements of the DSLAMs.
- 5.58 The methodology for calculating the GRCs is described above. The floor space requirements and power requirements are projected by combining the required (MEA) configuration of DSLAMs and information on the floor space and power requirements of each configuration.

Access network costs

- 5.59 Where OAOs have to make a choice between different forms of entry, consistency between wholesale prices should ensure that these decisions are based on correct price signals. To ensure efficiency, ComReg believes that the relative prices of WBA products should be consistent with that of other wholesale prices that are partial substitutes for the WBA service, in particular prices for WPNIA products. Consistency in this context requires the inclusion of costs for the local access network in the cost plus WBA price on the same basis as these costs are included in the LLU Line Share price.
- 5.60 In order to ensure consistency the contribution that WBA products make to the costs of the copper access network should be the same as the contribution made when another operator who provides DSL broadband products over the line. Thus the cost included in the calculation of the cost ceiling is the LLU Line Share charge of €0.77 per month³¹.

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 $^{^{31}}$ Decision No D04/09 'Rental Price for Shared Access to the Unbundled Local loop' dated 18 August 2009

Other relevant costs including common and joint costs

- 5.61 The majority of the remaining costs are joint costs with other products. For example, much of the per bandwidth network used for DSL products is also used for other non-DSL broadband products. Transmission infrastructure, such as duct and cables, is also used by narrowband products. For costs shared with other products, and in the absence of any evidence to suggest otherwise, an important principle is likely to be one of consistency with other regulated prices.
- 5.62 There are two aspects to consistency:
 - 5.62.1 ensuring that regulated prices do not unduly favour one form of competition over another; and
 - 5.62.2 to ensure consistent cost recovery across costs shared between WBA and other products, in particular products also price regulated by ComReg.
- 5.63 Consistent cost recovery across products, by ensuring consistency with the assumptions underlying previous decisions made about the appropriate recovery of these costs, should provide correct investment incentives as such an approach should ensure that Eircom can fully recover efficiently incurred costs.
- 5.64 Consistency can be achieved by using similar information sources to set the WBA prices as those used to set other regulated prices. In particular the costing system underlying Eircom's regulatory accounts should provide a common and consistent framework for the attribution of costs across a range of products. The appropriate costs to include will be reviewed in future in the light of further decisions by ComReg of the appropriate level of efficient costs as a whole and the recovery of these costs across regulated products.
- 5.65 ComReg proposes to include operating expenditure related to the broadband equipment and activities drawn from Eircom's audited regulatory accounts as the basis for these cost items (i.e. a top down approach). The information and the methodology will be reviewed to ensure that the costs included are relevant to the provision of WBA products.
- 5.66 It is recognised that certain aspects of telecommunications networks are characterised by costs that do not vary with respect to demand, at least in the short term. These costs are in many cases common across a range of products, i.e. costs are required for the provision of any one service but do not increase with the provision of additional products. These fixed and common costs give rise to economies of scope and scale. ComReg believes that the appropriate treatment of common and joint costs is one of the key areas where decisions must be reached when setting price controls. For this reason, ComReg is proposing that the price control will be subject to review after one year to ensure that the treatment of such costs is consistent with ComReg's leased lines price control model (under construction) and ComReg's WPNIA price control model.
- 5.67 In the case of WBA most of the network elements are shared with other products:
 - 5.67.1 The local loop is shared with narrowband products (it is currently a necessary condition for WBA service to be offered that the relevant subscriber loop is used for narrowband products);

- 5.67.2 The transport network shares transmission routes with other products. While some of the aggregation and switching/routing nodes may be predominantly used for broadband products, they will also support other products;
- 5.67.3 In addition for those elements of the network that are DSL specific, such as DSLAMs, there will be fixed and common costs between the different products and products using the DSL network, and these costs do not necessarily need to be recovered equally across products.
- 5.68 ComReg believes that any price control must be based on assumptions about the suitable recovery of fixed and common costs for these components between WBA products and other products.
- 5.69 Regulated prices are generally set at a level that includes a proportion of fixed and common costs in order to give the SMP operator the ability of recovering efficiently incurred costs. This raises the question as to what proportion of costs should be recovered from any given regulated service.
- 5.70 Recovery of common costs from regulated products has been carried out by attribution of fixed and common costs to products on the basis of convention, either fully allocated costs ('FAC') or long run average incremental costs ('LRAIC plus') with a mark up to allow recovery of fixed and common costs typically using an equiproportionate mark up ('EPMU').

Attribution of costs to products

One time provision costs

5.71 All one time costs associated with a line are allocated to a connection charge and are not included in the maximum price calculation.

Per port charge

5.72 Line Share Rental, DSLAM costs, BRAS costs and repair costs are incremental to the number of lines and are thus recovered on a per port basis. The annual per port charge is calculated by dividing the sum of these costs within the year by the average number of subscribers.

Per bandwidth charges

- 5.73 The remaining costs, while largely fixed for a given DSLAM roll out, are sensitive to the volume of traffic, in that above a certain level of traffic the network dimension and cost would need to be increased.
- 5.74 The total annual costs of these elements are converted to an annual cost per unit bandwidth (€/kbps/year) by dividing the total cost by an assumption of the average bandwidth per subscriber multiplied by the average number of subscribers during the year.
- 5.75 The traffic sensitive costs for each service are then calculated by multiplying the annual cost per unit bandwidth by the average bandwidth per user. ComReg would welcome views together with any supporting data on the average bandwidth per user to be utilised.

Q. 4. Do you agree with the costing methodology proposed to determine the maximum prices for bitstream rentals? Please set the reasons for your response and set out in detail any specific amendments, supported by detailed analysis where appropriate, to the costing methodology you believe are required.

Minimum price for bitstream rental

- 5.76 It is proposed that the minimum price(s) for bitstream rentals would be set by reference to a hypothetical operator availing of LLU Line Share.
- 5.77 As is the case for Eircom's costs, determining service cost estimates for a new entrant requires making several assumptions. Furthermore, forward looking forecasts of the efficient level of costs for a new entrant will be subject to a degree of uncertainty. ComReg believes that decisions need to be taken on a number of issues including:
 - 5.77.1 relevant costs;
 - 5.77.2 relevant demand and market share of the new entrant;
 - 5.77.3 resulting network dimensioning and roll out; and
 - 5.77.4 relevant (unit) costing assumptions.
- 5.78 Each issue is discussed in more detail below.

Relevant costs

5.79 The entrant model attempts to estimate the incremental cost of providing equivalent functionality to the WBA products provided by Eircom. This incremental cost depends to a degree on the network components that the OAO currently has deployed.

Relevant demand and market share

- 5.80 A demand forecast for the total number of DSL subscribers is used to project forwards the number of DSL subscribers in each exchange. A common forecast is used to set both the forward looking maximum price and the minimum prices, with a similar forecast also being used to set the previous 'retail minus' price control.
- 5.81 The number of DSL subscribers is estimated by assuming that the new entrant gains a reasonable proportion of the fixed broadband market and ComReg proposes that a 25% market share of the DSL market is a reasonable comparison when adjusting the costs of Eircom to reflect those of a hypothetical operator this is an estimation and ComReg would welcome views on it. For those exchanges not served by the entrant's network it is assumed that products will continue to be provided by bitstream. For those sites where the new entrant is forecast to have rolled out its own DSLAMs it is assumed that all customers use the new entrant's DSLAM and that, when a DSLAM is initially installed, all of the new entrant's customers using bitstream products will be

migrated to the DSL service. This implicitly assumes that an entrant can take advantage of economies of scale rapidly. ComReg is of the preliminary view that it may use the price control model utilised to set the LLU rental prices to inform any exchange based data. ComReg would welcome views on this and in particular on the entrant market share and whether another market share % would be more appropriate. Please support any views with data where available.

Network dimensioning and roll out

Footprint

- 5.82 The modelling assumption is that new entrants are not expected to match Eircom's footprint in terms of the number of DSLAM sites where DSLAMs are placed but to concentrate on particular geographic areas and the larger DSLAMs in those areas. This assumption will enable the entrant to try and minimise its unit costs and is also broadly consistent with the assumptions made in the modelling of the LLU rental price.
- 5.83 The OAO DSL roll out is assumed to be restricted to larger exchanges including those currently served by LLU operators and a selection of additional exchanges which may become viable as Eircom's wholesale prices become more aligned with costs.

Capital costs

- 5.84 Given the significant changes assumed in the roll out and penetration of services the model of the hypothetical operator uses a bottom up approach. For each MDF location, the number of OAO DSL subscribers is estimated. DSL capacity is added in 384 line card increments. An assumption is made of the maximum utilisation of the line card capacity and the 'build ahead' factor (with the DSLAM being dimensioned for the forecast demand in n years time) to give the required capacity.
- 5.85 In order to try and ensure that the an efficient new entrant is modelled, the entrant model shares a number of common assumptions and methodologies with the Eircom cost calculation used for setting the maximum price, with respect to the capital costs of DSLAMs.
 - 5.85.1 Equipment: The entrant is assumed to use the same ISAMs as Eircom.
 - 5.85.2 Equipment dimensioning: The available configurations are the same as used for the Eircom model with similar assumptions on the maximum level of utilisation before incremental capacity must be added.
 - 5.85.3 Equipment cost and annualisation: The same approach and assumptions are used to cost the DSLAM network and calculated annual capital charges.

Relevant costing assumptions:

Operational expenditure

5.86 Accommodation and power costs are calculated by estimating the power and floor space requirements of the DSLAM in each of the exchanges (based on the same assumptions used for setting the maximum price). These are then multiplied by the prices in Eircom's Access Reference Offer.

5.87 Direct operating expenses of DSLAMs (excluding power and accommodation) are assumed to equal 10% of acquisition cost. A further 10% mark up to cover indirect operating cost is added.

Access network costs

5.88 Costs of using Eircom's access network through Line Share, are taken from Eircom's Access Reference Offer ('ARO') wholesale price list.

DSLAM backhaul

5.89 The unit costs of DSLAM backhaul uses the rental price from Eircom's wholesale leased line offer for Regional Ethernet Aggregation Links, for a gigabit Ethernet circuit as this should proxy the incremental cost of a similar link being provided by an OAO.

Aggregation node and BRAS costs

- 5.90 Aggregation nodes are dimensioned on the basis of the number of backhaul links from the installed DSLAMs while BRAS are dimensioned based on the number of subscribers.
- 5.91 The annual costs for aggregation nodes and BRAS are calculated using a similar methodology to that for DSLAMs. The cost of accommodation and power are based on the co-location prices for an Eircom exchanges which ComReg believes should be a reasonable proxy for accommodation costs.

Repair costs

5.92 The estimated number of reported faults for broadband lines is calculated by applying an assumed fault rate of 5% to the average number of lines in the year. ComReg used a maximum % fault rate in the recent LLU pricing decision, however this was based on all copper lines, including those delivering voice. It would be assumed that line delivering broadband would be in less rural areas and it would be assumed that rural areas may have a higher instance of faults where overhead infrastructure is more prevalent. Repair costs are estimated per reported fault as the Line Share repair charge plus a mark up of 25% to cover internal costs for managing the repair process (note that these costs are assumed to be recovered from one time charges to customers rather than from recurring rental charges). The connection charge is based on the Eircom price list while the internal costs are estimated as a mark up of 25% on these costs – ComReg would welcome views on this estimation.

Provisioning costs

5.93 Provisioning costs are estimated per gross connection as the Line Share connection charge plus an assumption of internal costs for managing the provision process. These costs are assumed to be recovered from once off charges to customers rather than from recurring rental charges.

Request for data for entrant model to set minimum prices for bitstream rentals

5.94 ComReg would welcome any robust data, in particular in relation to backhaul costs that can be used in the entrant cost model to set appropriate minimum prices in order

to maintain sufficient economic space between the respective prices of Eircom products in the WBA market and the WPNIA market. If data is provided that is confidential and/or commercially sensitive, please mark this clearly.

- Q. 5. Do you agree that in setting a price control in the WBA market that an appropriate economic space to the relative prices of LLU should be maintained? Please state the reasons for your response.
- Q. 6. Do you agree with the proposed hypothetical entrant model to set the minimum prices for bitstream rentals in order to maintain an appropriate economic space? Please state the reasons for your response, providing worked examples and/or robust data to support your views.

6 Proposed cost oriented charges in WBA

6.1 The following sets out ComReg's preliminary views on the cost oriented charges in the WBA market.

Maximum prices and minimum prices on bitstream rentals

6.2 Based on the draft cost plus model as discussed earlier in this consultation, ComReg is of the preliminary view that the price control for the monthly rental bitstream products would be subject to maximum and minimum prices, which may be amended by ComReg from time to time³². The following are indicative ranges that will be finalised following consideration of respondents' views to this consultation. Therefore, the finalisation of the maximum and minimum prices at particular price points may be outside the indicative ranges below:

Price control ³³	Monthly maximum price ex VAT	Monthly minimum price ex VAT
Per Port	€4.16 - €4.22	€3.92 – €4.07
Monthly per Mbps	€72.59 – €79.15	€33.28 – €42.79
Legacy bitstream products ³⁴	Monthly maximum price ex VAT	Monthly minimum price ex VAT
Connect IP – "up to" 1024/128kb/s/48:1	€6.07 - €6.10	€4.81 - €5.07
Kronos IP -"up to" 1024/128kb/s/48:1	€6.07 - €6.10	€4.81 - €5.07
Expand IP – "up to" 3072/384kb/s/48:1	€8.63 - €8.78	€6.04 - €6.45
Rapid IP – "up to" 7168/684kb/s/48:1	€11.72 – €12.01	€7.52 - €8.12
Swift IP – "up to" 8192/800kb/s/12:1	€14.45 - €14.87	€8.83 - €9.60
Arrow IP – "up to" 12288/1024kb/s/12:1	€14.45 - €14.87	€8.83 - €9.60
Turbo Plus IP – "up to"	€14.45 - €14.87	€8.83 - €9.60

³² ComReg proposes that the minimum prices and maximum prices set out will remain in place for at least one year at which point they will be reviewed to see if they require revision and following this review, the minimum prices and maximum prices (whether revised or not) will remain in place for at least two further years but will be subject to any further market review taking place in the intervening period

³³ Also applies to legacy ATM Bitstream product where continued to be sold

³⁴ As set out in Eircom's Bitstream Service Price List at the effective date of the price control decision when made

12288/2048/12:1		
Sprint IP – "up to" 24576/1024kb/s/12:1	€14.45 - €14.87	€8.83 - €9.60
Zoom IP – "up to" 24576/768kb/s/48:1	€14.45 - €14.87	€8.83 - €9.60
Bitstream Managed Backhaul	As per port and monthly mb/s ³⁵ set out above	As per port and monthly mb/s set out above

Cost oriented ancillary services/products

6.3 ComReg proposes that the ancillary services/products in the WBA market, which may be amended from time to time, would be cost oriented. The current charges levied by Eircom and the proposed maximum charges are as follows (all prices are Euro ex VAT):

Ancillary services/products ³⁶	Current charge	Proposed Maximum Charge	Reason
Service Establishment per Access Seeker ³⁷	€8,035	€8,035	Cost oriented - no alternative cost proposed
Connection charge	€30	€37	Cost oriented
Cessation charge – when without minimum term	€60	€4	Cost oriented
Port Transfer charge	€30	€41	Cost oriented
Upgrade	€0	€4	Cost oriented
Downgrade	€15	€4	Cost oriented
Bitstream (Ethernet) Connection Service	Connection: €7,000 Annual Rental: €65,000	Connection: €7,000 Annual Rental: €65,000	Cost oriented - no alternative cost proposed

6.4 ComReg welcomes all views/submissions by respondents, together with any supporting data, in relation what are appropriate cost oriented charges for ancillary

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³⁵ However, Bitstream Managed Backhaul ('BMB') charges monthly mb/s based on 95th Percentile Billing and is aggregated across all ports attached to BMB product per Access Seeker.

³⁶ See EircomWholesale.ie for further details

³⁷ Levied once for each Access Seeker to recover Eircom's costs in providing authorisation and training to Access Seeker staff in Bitstream IT systems to support order processing

services/products and will consider all material submitted in setting final maximum cost oriented prices.

7 Conclusion

Any issues not considered in this consultation?

- 7.1 ComReg would also welcome any views respondents may have on issues that ComReg has not considered in relation to an appropriate price control in the WBA market.
 - Q. 7. Are there any issues in relation to the appropriate price control for the WBA market that ComReg has not considered in this consultation? If so, please document and explain those issues fully and provide examples where appropriate.

Duration of the proposed price control

7.2 The proposed price control outlined in the draft decision in this consultation will apply as long as Eircom has SMP in the WBA market or until otherwise amended by ComReg.

Preliminary views expressed

- 7.3 All of the above are preliminary views expressed by ComReg. ComReg, in this consultation, is seeking views on these preliminary views and conclusions and therefore ComReg in forming its final decision will consider respondents' views to this consultation and will take utmost account of comments, if any, from the European Commission and as such the final decision adopted may be different than the draft decision included in this consultation.
 - Q. 8. Do you agree with the preliminary views expressed by ComReg? Please state the reasons for your response and please explain which preliminary view(s) you do not agree with and detail what specific amendments you believe are required.

8 Legal basis

- 8.1 As the ongoing (second-round) WBA market analysis is not yet finalised, the revised WBA price control proposed in this consultation will be based on the existing (first-round) designation of Significant Market Power ('SMP') in relation to WBA³⁸. In the event it is decided that Eircom does not to have SMP following the completion of ComReg's updated (second-round) WBA market analysis, the existing or any new WBA price control which may follow from the current WBA price control consultation shall be removed accordingly.
- 8.2 It is therefore proposed that any decision which may follow as a result of this consultation would replace the existing price control set out under ComReg Decision D01/06.
- 8.3 Regulation 9, 10, 14 and 17 of the Access Regulations, along with the market analysis culminating in 2005 in a finding of SMP on the part of Eircom in the market for WBA (ComReg Decision D03/05) is the applicable legal basis for the proposed price controls. It is ComReg's view that the price control will also serve "to promote efficiency and sustainable competition and maximise customer benefits" in accordance with Regulation 14(3).
- 8.4 The first two parts of the proposed price control obligation is the cost orientation of the bitstream rentals with flexibility between maximum prices and minimum prices. The maximum prices will ensure that the SMP operator does not "sustain prices at an excessively high level" in accordance with Regulation 14(1). The minimum prices ensure that an appropriate economic space is maintained between the pricing of WBA and WPNIA products and avoids a price squeeze to the detriment of competition and ultimately end consumers. The proposed obligation is in accordance with Regulation 14(3) which requires that any pricing methodology serves to "promote efficiency and sustainable competition and maximise consumer benefits".
- 8.5 The second part of the proposed price control obligation is the *ex ante* requirement not to cause a margin/price squeeze between WBA products and the associated retail offerings. The proposed test to be applied to assess this is set out in the body of the consultation document.
- 8.6 The final part of the proposed price control obligation is the cost orientation of the ancillary services/products in the WBA market with maximum prices set. This is to ensure that prices are not sustained "at an excessively high level".
- 8.7 As a further specification of its transparency requirements, Eircom will be required to publish on its website proposed changes to prices and products, in advance of such changes. These changes will be subject to approval by ComReg.

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³⁸ Decision No. 03/05 'Decision Notice - Designation of SMP and Related Remedies: Market Analysis – Wholesale Broadband Access'

9 Draft decision

- 9.1 ComReg would appreciate respondents' views on this draft decision.
 - Q. 9. Do you believe that the draft text of the proposed decision is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

DECISION INSTRUMENT

1. STATUTORY AND LEGAL POWERS

- 1.1 This Decision and Direction (together the "Decision Instrument") is made by the Commission for Communications Regulation ("ComReg"):
 - 1.1.1 Pursuant to Regulations 9, 10, 14 and 17 of the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003³⁹;
 - 1.1.2 Pursuant to and having regard to the Significant Market Power (SMP) designation on Eircom Limited contained in Document No. 05/11r⁴⁰ which imposed SMP obligations on Eircom relating to transparency, non-discrimination, access, cost accounting and price control;
 - 1.1.3 Having, where appropriate, complied with Policy Directions made by the Minister⁴¹:
 - 1.1.4 Having taken account of the submissions received in relation to Document No. 10/56;
 - 1.1.5 Having had regard to the analysis and reasoning set out in Document No. 05/11r which shall, where necessary, be construed together with this Decision and Direction;
 - 1.1.6 Having regard to its functions and objectives under sections 10 and 12 respectively of the Communications Regulation Act 2002, as amended by the Communications Regulation (Amendment) Act 2007;

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³⁹ European Communities (Electronic Communications Networks and Services) (Access) Regulations 2003 (S.I. No. 305 of 2003), amended by the European Communities (Electronic Communications Networks and Services) (Access) (Amendment) Regulations 2007 (S.I. NO. 373 of 2007).

Decision No: D 03/05 Decision Notice – Designation of SMP and Related Remedies, Market Analysis – Wholesale Broadband Access, Document No: 05/11r dated 24th February 2005.

⁴¹ Policy Directions made by the Minister for Communications, Marine and Natural Resources on 21st February, 2003 and 26th March, 2004.

- 1.1.7 Having notified the draft measure 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
- 1.2 The reasoning and analysis set out in Consultation Doc 10/56 and Response to Consultation Doc 10/XX shall, where appropriate, be construed with this Decision Instrument.

2. DEFINITIONS

- 2.1 In this Decision Instrument, unless the context otherwise suggests:
 - "Access Regulations" means the European Communities (Electronic Communications Networks and 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 amended;
 - "amendment" means, in respect of a tariff for any existing product, a change, adjustment, modification and any other cognate word or expression;
 - "ancillary services/products" means all products, services and associated facilities, other than bitstream, on offer by Eircom in the WBA market or which may be offered by Eircom in the WBA market. For the avoidance of doubt this includes all connection, disconnection, transfer, migration and backhaul products offered by Eircom in the WBA market;
 - "bitstream" means a wholesale rental product provided in the wholesale broadband access market;
 - **"bundle"** means a package, consisting of both a product and one or more other offering from Eircom, which is on offer or on sale to end users;
 - "discount" means an offer or sale of a product at less than its standard price. Examples shall include: a price reduction (including a volume related price reduction), a rebate, a reimbursement, a refund, a set-off and any other cognate word or expression;
 - **"economic space"** means an appropriate space between the prices of Eircom's wholesale products/services sufficient to promote sustainable infrastructure competition;
 - "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;
 - **"product"** means any offering in the WBA market from Eircom's price list. Products are subsets of services;
 - **"promotion"** means an offer in respect of a product which is available for a finite period of time with a defined commencement and termination date;

"service" means a group of offerings in the WBA market from Eircom's price list

"WBA market" means wholesale broadband access market as defined in Document No. 05/11r;

"WPNIA market" means wholesale physical network infrastructure access market as defined in Document No. 10/39.

3. SCOPE AND APPLICATION

- 3.1 This Decision Instrument, comprising a Decision and Direction, applies to Eircom. The Decision is taken pursuant to Regulation 14 of the Access Regulations and replaces the Decision of ComReg in D1/06⁴². The Direction is taken pursuant to Regulation 17 of the Access Regulations in conjunction with Regulation 10 and is a further specification of the transparency obligation imposed in Document No. 05/11r.
- 3.2 This Decision Instrument is binding upon Eircom and Eircom shall comply with it in all respects.

4. PRICE CONTROL OBLIGATIONS: GENERAL

- 4.1 Eircom shall, pursuant to Regulation 14 of the Access Regulations, have the following price control obligations in the market for WBA:
 - 4.1.1 Setting a cost oriented wholesale price for products to prevent Eircom from sustaining prices at an excessively high level in the market for WBA.
 - 4.1.2 Setting minimum prices for products in the WBA market to ensure the maintenance of an appropriate economic space between the pricing of products in the WBA market and the WPNIA market.
 - 4.1.3 Not causing a margin (price) squeeze between the price for WBA products and associated retail offerings.
 - 4.1.4 Setting cost oriented prices for ancillary services/products offered in the market for WBA.

5. PRICE CONTROL OBLIGATION: SPECIFIC

Cost oriented maximum prices & minimum prices for bitstream rentals

5.1 Eircom shall set cost oriented prices for bitstream rental products offered for sale in the WBA market within the following range of maximum prices and minimum prices which may be changed by ComReg from time to time following a review:

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 $^{^{\}rm 42}$ Decision No: D01/06 Retail Minus Wholesale Price Control for the WBA Market, Document No. 06/01 dated 13th January 2006.

Price control ⁴³	Maximum price ex Vat	Minimum price ex Vat
Per Port		
Conveyance kb/s		
Legacy bitstream products ⁴⁴	Maximum price ex Vat	Minimum price ex Vat
Connect IP – "up to" 1024/128kb/s/48:1		
Kronos IP -"up to" 1024/128kb/s/48:1		
Expand IP – "up to" 3072/384kb/s/48:1		
Rapid IP – "up to" 7168/684kb/s/48:1		
Swift IP – "up to" 8192/800kb/s/12:1		
Arrow IP – "up to" 12288/1024kb/s/12:1		
Turbo Plus IP – "up to" 12288/2048/12:1		
Sprint IP – "up to" 24576/1024kb/s/12:1		
Zoom IP – "up to" 24576/768kb/s/48:1		
Bitstream Managed Backhaul		

- 5.2 These cost oriented maximum prices and minimum prices can be amended at any stage following further review by ComReg, or if Eircom provides robust supporting evidence that the minimum prices can be set lower and still maintain an appropriate economic space vis-à-vis WPNIA (LLU) products and/or that the maximum prices need to be set higher to enable Eircom to recover its efficiently incurred costs and its required rate of return.
- 5.3 The maximum prices and minimum prices which are based on the pricing of the regulated wholesale input, LLU line share, will be amended in line with any change of the price of LLU line share.
- 5.4 Any amendments to the maximum prices and minimum prices will follow the notification procedure as set out in section 6 below.

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⁴³ Also applies to legacy ATM Bitstream product where continued to be sold

⁴⁴ As set out in Eircom's Bitstream Service Price List at the effective date of this decision

Margin (price) squeeze

5.5 Eircom shall not cause a margin (price) squeeze between the price for WBA products and services and associated retail offerings. The assessment of same shall be based on the test set out in the consultation document at section 4.16.

Cost oriented maximum charges for ancillary services/products

5.6 Eircom shall be subject to an obligation of cost orientation in respect of ancillary services/products in the WBA market. Those prices include the following which are considered to be cost oriented and may be amended at any stage following further review by ComReg or if Eircom provides robust supporting evidence that the prices need to be amended to enable Eircom to recover its efficiently incurred costs and its required rate of return.

Maximum Charge	€ ex Vat
Service	
Establishment per	
Access Seeker ⁴⁵	
Connection charge	
Cessation charge –	
when without	
minimum term	
Port Transfer	
charge	
Upgrade	
Downgrade	
Bitstream Ethernet	
Connection Service	

5.7 Any amendments to the prices above shall follow the notification procedure as set out below in section 6. Any cost oriented prices for new ancillary services/products shall also follow the notification procedure as set out below.

6. PUBLICATION AND APPROVAL OF PRICES AND PRODUCTS

6.1 As a further specification of its obligation of transparency imposed in Document No. 05/11r, Eircom is directed, pursuant to Regulation 17 of the Access Regulations in conjunction with Regulation 10, to publish on its website at least

⁴⁵ Levied once for each Access Seeker to recover Eircom's costs in providing authorisation and training to Access Seeker staff in Bitstream IT systems to support order processing

two months in advance of their coming into effect, or such other period as may be determined by ComReg, any proposed product changes or price changes (including prices for new products). Eircom shall, unless otherwise determined by ComReg, notify ComReg at least one month in advance of any such publication, i.e. three months prior to any proposed changes coming into effect. Eircom shall not introduce any price changes for existing products without ComReg's prior approval of such prices. Eircom shall not introduce any new products without ComReg's prior approval.

7. PROMOTIONS

7.1 The requirements in this Decision Instrument shall apply in like manner to promotions.

8. DISCOUNTS AND BUNDLES

8.1 The requirements in this Decision Instrument shall apply in like manner to discounts and bundles.

9. STATUTORY POWERS NOT AFFECTED

9.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory functions, powers and duties under any primary or secondary legislation (in force prior to or after the effective date of this decision instrument) from time to time as the occasion may require.

10. MAINTENANCE OF OBLIGATIONS

- 10.1 Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements on Eircom including those set out in Document No. 05/11r, are continued in force by this Decision Instrument and Eircom shall comply with same.
- 10.2 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.

11. WITHDRAWAL OF DECISION

11.1 Decision D1/06 "Retail Minus Wholesale Price Control for the WBA Market", Document No. 06/01 dated 13th January 2006, is hereby withdrawn.

12. EFFECTIVE DATE

12.1 This decision instrument shall be effective from [date of decision] until further notice by ComReg.

[]
CHAIRPERSON
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE [] DAY OF []

10 Submitting comments

- 10.1 All comments are welcome; however it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this consultation document.
- 10.2 The consultation period will run from 15, July 2010 to 10, September 2010 during which the Commission welcomes written comments on any of the issues raised in this consultation.
- 10.3 Having analysed and considered the comments received, ComReg will finalise the appropriate price control for the WBA price control and publish a decision and response to consultation which will, *inter alia* summarise the responses to the consultation.
- 10.4 In order to promote further openness and transparency ComReg will publish all respondents' submissions to this consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information ComReg 05/24.

Please note

- 10.5 ComReg appreciates that many of the issues raised in this consultation may require respondents to provide confidential information if their comments are to be meaningful.
- 10.6 As it is ComReg's policy to make all responses available on its web-site and for inspection generally, respondents to consultations are requested to clearly identify confidential material and place confidential material in a separate annex to their response.
- 10.7 Such information will be treated subject to the provisions of ComReg's guidelines on the treatment of confidential information ComReg 05/24.

Appendix A - Regulatory Impact Assessment

Role of the Regulatory Impact Assessment

- A1. 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.
- A2. ComReg's approach to the RIA is set out in the Guidelines published in August 2007 in ComReg Document Nos. 07/56 & 07/56a. In conducting the RIA, ComReg takes into account the RIA Guidelines⁴⁶, adopted under the Government's Better Regulation programme. Section 13(1) of the Communications Regulation Act 2002, as amended requires ComReg to comply with Ministerial directions issued. Policy Direction 6 of February 2003⁴⁷ requires that, before deciding to impose regulatory obligations on undertakings, ComReg shall conduct a RIA 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.
- A3. In conducting the RIA, ComReg has regard to the RIA Guidelines, while recognising that regulation by way of issuing decisions, e.g. revising obligations or specifying requirements in addition to promulgating secondary legislation, may be different to regulation exclusively by way of enacting primary or secondary legislation. ComReg's ultimate aim in conducting a RIA is to ensure that all proposed measures are appropriate, proportionate and justified. To ensure that a RIA is proportionate and does not become overly burdensome, a common sense approach will be taken towards a RIA. As decisions are likely to vary in terms of their impact, if after initial investigation, a decision appears to have relatively low impact; ComReg may carry out a lighter RIA in respect of those decisions.

Steps Involved

A4. ComReg wishes to point out that since it is not imposing a new regulatory obligation on an undertaking, it is not mandatory for it to conduct a RIA. In relation to the current draft decision, ComReg has nonetheless decided to carry out a RIA in order to demonstrate that it has considered and evaluated the regulatory options available, with due regard to ensuring that they are appropriate, proportionate and justified. However, ComReg will consider all respondents' views to this consultation and therefore in finalising the decision, the draft decision as set out in this document may

⁴⁶ See 'REVISED RIA GUIDELINES: How to conduct a Regulatory Impact Analysis' dated June 2009 @ http://www.betterregulation.ie/eng/Publications/Revised_RIA_Guidelines.pdf

 $^{^{}m 47}$ Ministerial Policy Direction made by the Minister of Communications, Marine and Natural Resources on 21 February 2003.

- change and if so, ComReg will assess whether a further RIA should be conducted, though it is not mandatory for ComReg to do so.
- A5. In assessing the available regulatory options, ComReg's approach to RIA follows five steps as follows:
 - 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

Describe the policy issue and identify the objectives

- A6. Taking account that since Decision No. 01/06 the WBA is no longer in the early stages of development and that efficient costs can now be determined with a reasonable level of confidence, the purpose of the consultation is to seek respondents' views on whether specifications or amendments to the prevailing price control in the Wholesale Broadband Access ('WBA') market are appropriate.
- A7. The regulatory objective of any price control for the WBA market is to prevent or mitigate the possibility of anti-competitive behaviour such as excessive wholesale pricing, margin (price) squeeze and/or foreclosure by way of an insufficient economic space vis-à-vis the prices for Eircom's other wholesale products. In consulting on the further specification of the appropriate price control in the WBA market, ComReg will also be minded to relevant objectives as set out in section 12 of the Communications Regulation Act, 2002 as amended by the Communications Regulation (Amendment) Act 2007⁴⁸ ("the Act"), which include, in particular, the following:
 - Ensure that there is no distortion or restriction of competition;
 - Encourage efficient investment in infrastructure and promoting innovation;
 - Promote the interests of users within the Community;
 - Encourage access to the internet at a reasonable cost to end-users.

Identify and describe the regulatory options

- A8. The regulatory options for the appropriate price control will depend on their ability to address the objectives highlighted in the above section.
- A9. Possible regulatory options for the appropriate price control include the following:
 - 1. Retail minus (as per current regulation)

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⁴⁸ No. 22 of 2007

- 2. Cost orientation at a specified price point
- 3. Cost orientation with associated maximum prices/minimum prices
- A10. All of the above options may differ in their effectiveness when, for example, addressing the appropriate 'economic space' between WBA prices and the prices of the WPNIA (LLU) products offered by Eircom as well as in encouraging efficient investment and innovation in a WBA market that is no longer in the early stages of development.
- A11. The present consultation process is inviting input on the details of the above. ComReg's preliminary views on the respective merits of each of these regulatory options are as follows:
 - 1. **Retail minus (as per current regulation)** The retail minus price control sets the prices of products within the WBA market by reference to the relevant retail price, minus a margin that is considered sufficient for a similarly efficient operator to compete profitably in the downstream market. The current retail minus price control, while encouraging efficient price signals in the initial years of broadband rollout, may be less flexible in an environment where the need to provide diverse and innovative retail offers is increasingly important. In a WBA environment that is no longer in the early stages of development, key considerations associated with the operation of the retail minus obligation include the following:
 - i. A retail-minus access price can be effective in addressing potential margin squeeze behaviour, as it links wholesale and retail prices such that an independent retail undertaking as efficient as the incumbent is able to compete. However, in the presence of economies of scope or scale on the retail market, difficulties may arise in setting the appropriate margin.
 - ii. Currently, the WBA products offered by Eircom have a one-to-one correspondence with Eircom's retail offerings, i.e. for each of Eircom's retail offering in terms of end user bandwidth, there is an equivalent bitstream service. This one-to-one correspondence potentially limits the diversity of bitstream products on offer to OAOs and hence the retail products that the OAO can offer.
 - The proposed amended price control should allow for further flexibility in the market for capacity-based wholesale prices supported by 'per port' and 'monthly per bandwidth mb/s' maximum prices and minimum prices. This should in turn allow greater flexibility to OAOs to offer more tailored retail broadband products, possibly at higher speeds, lower contention rates and lower retail prices than currently offered.
 - iii. The increasing availability of complex broadband packages and pricing innovations in the retail broadband market (which is not subject to ex-ante regulation) may create challenges for the application of the retail minus obligation going forward, given that it requires the effective retail price to be determined for each of the corresponding wholesale products.

- iv. The proliferation of different retail broadband packages combined with a variety of bundles and discounts and the associated complexities in allocating retail costs to specific products contained within such bundles, e.g. allocating the marketing spend of a bundle to specific broadband products, can make the consistent implementation of the retail minus price control complex.
- v. The current retail minus approach which sets the maximum price for bitstream rental also provides no information or certainty on the appropriate 'economic space' between WBA products and WPNIA products (though minimum price(s) could be added to the current retail minus price control to provide an appropriate economic space between WPNIA and WBA).
- 2. Cost orientation at a specified price point Cost orientation in its narrowest interpretation requires the operator to demonstrate on a regular basis, or at the time of introduction of new prices, that the prices are set in accordance with any "cost orientation" benchmark. Key considerations associated with the operation of a cost orientation obligation at a specified price point would include the following:
 - i. A requirement on Eircom to demonstrate to ComReg that prices are cost oriented according to a specific price point could ensure that prices are not excessive or set at too low a level.
 - ii. Cost orientation aims to approximate the costs that would arise in a competitive marketplace, i.e. it is set by reference to efficiently incurred cost. Therefore, its use should encourage and protect efficient entry and investment to the ultimate benefit of end users.
 - iii. Such a specific approach may be suitable where unit costs are expected to be broadly stable over time or for products which contribute a relatively small proportion of overall revenues. However, if applied on an annual basis to one specific price point, such an approach may limit the incentives of the SMP operator to achieve efficiency savings.
 - iv. Also, such an approach may limit the flexibility of the SMP operator to offer differentiated wholesale products at differentiated prices.
- 3. Cost-oriented price range with associated maximum prices/minimum prices This costing approach is directly related to the above option, albeit with additional flexibility incorporated by identifying an acceptable cost-oriented price range within which the SMP operator could price subject to a wholesale maximum price/minimum price, rather than prescribing one specific regulated price point. Key considerations associated with the operation of a cost-oriented price range with associated maximum prices/minimum prices would include the following:
 - i. A maximum price/minimum price combination could ensure that prices are not excessive or set at too low a level.

- ii. In approximating efficiently incurred costs that would arise in a competitive marketplace, this approach should encourage and protect efficient entry and investment to the ultimate benefit of end users.
- iii. In providing the SMP operator with the ability to set differentiated wholesale prices, this may enhance its flexibility to supply innovative wholesale offerings such as capacity-based wholesale prices.
- iv. In an environment of differentiated wholesale offers, some transparency issues may arise although this can be addressed through an appropriately specified transparency obligation where updated reference offers are mandated.
- A12. In addressing the risk of margin (price) squeeze between WBA and retail broadband, the regulatory options would include setting either as an *ex-ante* obligation (as per current regulation) or to assess margin (price) squeeze ex post by reference to ComReg's competition law powers⁴⁹. In specifying the margin (price) squeeze, the options include:
 - i. Should the test be an Equally Efficient Operator ('EEO') or Reasonably Efficient Operator ('REO') test or Similarly Efficient Operator test ('SEO')?
 - ii. Should the test be conducted on a product by product basis or on the aggregate of the products?
 - iii. Is Long Run Average Incremental Cost ('LRAIC plus') the appropriate measure of cost?

A13. As regards the above options, the following key considerations arise:

- i. In its assessment of competition problems in the WBA market, ComReg identified the possible leverage of market power by Eircom from the WBA market into adjacent markets by way of a margin (price) squeeze. Given this potential risk of anti-competitive behaviour an *ex-ante* regulatory obligation not to margin (price) squeeze was therefore considered more appropriate.
- ii. Margin squeeze can be demonstrated by showing that the SMP operator's own downstream operations could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the SMP operator ("equally efficient competitor" test). Alternatively, a margin squeeze can also be demonstrated by showing that the margin between the price charged to competitors on the upstream market for access and the price which the downstream arm of the SMP operator charges in the downstream market is insufficient to allow a reasonably efficient service provider in the downstream market to obtain a normal profit ("reasonably efficient competitor test"). Or a similarly efficient operator ("SEO") could

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⁴⁹ Powers to investigate an abuse of a dominant position, inserted by section 31 of the Communications Regulation (Amendment) Act 2007.

be utilised which is set by reference to the SMP operator's costs but adjusted for economies of scale and scope differences.

The SEO/REO approach recognises that even in the long-run alternative operators may not be able to compete with the SMP operator due to structural diseconomies of scale and scope, and the nature of the market. The EEO approach recognises, however, that in a competitive situation an effective alternative operator will be able to compete if it is as efficient as the SMP operator in the market and thus encourages efficient investment in infrastructure. In a broadband market that is no longer in the early stages of development, the EEO may be more consistent with the above-mentioned objectives of promoting efficient investment in infrastructure. However, to the extent that operators do not benefit from the same economies of scale and scope and having different unit network costs, a test based on SEO/REO may be more appropriate.

- iii. Applying the obligation not to margin (price) squeeze only to bitstream products on an aggregated basis would give Eircom a large discretion and flexibility in selectively discounting individual bitstream products. It may however limit transparency and confidence in the effectiveness of the margin squeeze obligation with consequent implications for competition and investment. The application of the ex-ante margin (price) squeeze test on a product-by-product basis would allow for enhanced transparency and confidence in the effective operation of the obligation, ensuring that there is no distortion or restriction of competition and supporting investment.
- iv. The appropriate cost standard for the calculation of retail costs can be between the lower threshold of average variable cost ("AVC") and average avoidable cost ("AAC") toward the respectively higher thresholds of, Long Run Average Incremental Cost ("LRAIC plus") and Average Total Cost ("ATC"). 'LRAIC plus' is defined to include all of the variable and fixed costs that are directly attributable to the activity concerned, plus an apportionment of joint and common costs. Using 'LRAIC plus' includes appropriate amounts of variable, fixed and common costs, which is the calculus faced by any operator when deciding to enter or expand.

Determine the impacts on stakeholders and competition

A14. In assessing the merits of each of the individual options explored above and taking account of the impacts of the proposed price control for stakeholders and for competition, there are a number of reasons why the proposed price control, namely a cost-oriented price range with associated maximum prices and minimum prices combined with an *ex-ante* obligation not to margin (price) squeeze, would be considered consistent with ComReg's statutory objectives under Section 12 of the Act. These are summarised in the below table as follows.

Summary of Impacts on Stakeholders and on Competition

Option – That bitstream rental products are subject to cost-oriented price ranges with individual maximum prices and minimum prices		
Impact on incumbent	Impact on OAOs	Impact on consumer
•	-	
Move from current retail minus price control offers more flexibility to incumbent to set appropriate bitstream prices within the maximum prices and minimum prices modelled based on Eircom's network and costs. The incumbent should recover its efficiently incurred costs and required rate of return by setting rentals at	With the move from the current retail minus price control to a 'cost plus' maximum prices with minimum prices offers greater flexibility to OAOs to tailor and customise their own retail broadband products. The minimum prices should also ensure that those OAOs who have made infrastructure investments in WPNIA are protected.	The cost oriented price range control should lead to a diverse range and more tailored retail broadband product offerings possibly at lower retail prices.
the maximum price.		
	. , ,	
Option – That once-off ancillary services/charges are cost oriented at a specific maximum price points		
Impact on incumbent	Impact on OAOs	Impact on consumer
Ensures that the incumbent recovers the efficiently incurred costs of providing such ancillary services/products in the WBA market.	Ensures that OAOs pay the efficient cost of such products. Ensures OAO possible choices are not adversely influenced by differential charging for certain behaviour e.g. no charge for connection but significant charge for disconnection.	No impact on customers.
Option – That the test to a broadband is based on an I	ssess margin (price) squeeze b Equally Efficient Operator	oetween WBA and retail
Impact on incumbent	Impact on OAOs	Impact on consumer
Current test under D01/06 is based on Similarly Efficient Operator. Basing the test on an Equally Efficient Operator will give incumbent greater scope to offer competitive retail broadband offers as it is a	Facilitates competition from as efficient operators - ensures operators as efficient as the incumbent are protected against possible margin (price) squeeze by the incumbent to the detriment of competition.	Facilitates competition from as efficient operators to the benefit of consumers.

_	ssess margin (price) squeeze to a product by product basis Impact on OAOs Allows the promotion of competition by OAOs/entrants which currently have a smaller range of retail broadband products than the incumbent. The application of the exante margin (price) squeeze test on a product-by-product basis would allow for enhanced transparency and confidence in the effective operation of the obligation, ensuring that there is no distortion or restriction of competition and supporting investment by OAOs.	Impact on consumer Allows the promotion of competition by OAOs/entrants which currently have a smaller range of retail broadband products than the incumbent to the benefit of consumers.
-	ssess margin (price) squeeze b lus' as the appropriate measu	
Impact on incumbent	Impact on OAOs	Impact on consumer
Ensures that Eircom can	Allows the promotion of	Allows the promotion of
offer competitive retail	sustainable competition by	sustainable competition by
broadband offers.	OAOs as 'LRAIC plus'	OAOs to the benefit of
	includes appropriate amounts of variable, fixed	consumers.
	and common costs, which is	
	the calculus faced by any	
	operator when deciding to enter or expand.	

Assess the impacts and choose the best option

A15. ComReg is of the view that the preferred approach, cost orientation with maximum and minimum prices and with an *ex-ante* obligation not to margin (price) squeeze, is for the reasons set out in this consultation justified and should foster OAO and entrant competition while also ensuring that consumers derive maximum benefits in terms of price, choice and quality of service. In particular, it is considered consistent with ComReg's statutory objectives under section 12 of the Act, as follows:

- a. Promoting the interests of users within the Community
 Setting cost oriented maximum prices and minimum prices for bitstream rentals and cost orientation for the ancillary services/products in the WBA market together with the *ex-ante* obligation not to margin (price) squeeze should facilitate greater regulatory certainty for longer-term competitive entry and expansion and greater flexibility for the development of innovative offerings, with positive implications for the price, choice and quality of products ultimately delivered to end-users.
- b. Ensuring that there is no distortion or restriction of competition

 By seeking to pre-empt the possibility for anti-competitive practices by the SMP operator to induce strategic barriers to entry in markets, the proposed price control would thus ensure that competitors can enter and sustain competition in the broadband market and in adjacent markets.
- c. <u>Encouraging efficient investment in infrastructure and promoting innovation</u>

The proposed amended price control should allow for greater flexibility to OAOs to offer more innovative retail broadband products. As the price control includes minimum prices so that an appropriate 'economic space' is maintained to the prices of the WPNIA products offered by the SMP operator, this should encourage entry and expansion by competitors wishing to invest in their own infrastructure over time⁵⁰. At the same time, the *exante* obligation not to margin (price) squeeze should facilitate entry and sustain competition by OAOs as efficient as the SMP operator which is consistent with encouraging efficient investment.

- A16. ComReg is moreover of the view that the further specification set out in this consultation is appropriate, proportionate and justified as follows:
 - i. ComReg has clearly outlined why it is **appropriate** to undertake this review. ComReg considers that as the WBA market is no longer in the early stages of development moving from the current retail minus price control to cost oriented maximum prices and minimum prices should offer operators and the SMP operator greater flexibility in offering diverse, innovative and possibly cheaper retail broadband products. ComReg also believes that the safeguards of the minimum prices and the *ex-ante* margin (price) squeeze test between

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 $^{^{50}}$ Subject to fit for purpose processes and prices related to infrastructure investment being in place

the pricing of bitstream rental and retail broadband are necessary for the reasons as set out in this consultation, namely to safeguard alternative operators from potential anti-competitive behaviour by the SMP operator;

- ii. ComReg considers that it has been **proportionate** in its review. ComReg believes the revised price control should not be overly burdensome or onerous on Eircom as the SMP operator in the market for WBA. In an environment of increasingly complex retail offers, it will also ensure that the incumbent should recover its efficiently incurred costs while also providing it with added flexibility for developing further differentiated retail and wholesale offers;
- iii. ComReg considers that the proposed regulatory option has been shown to be **justified** in its review and that it has provided all of the detail, reasoning and information necessary to demonstrate how it reached the preliminary view that that the appropriate price control for WBA cost oriented maximum prices with associated minimum prices and an *ex-ante* obligation not to margin (price) squeeze. As shown above, having considered the respective merits of a range of different regulatory options, ComReg believes that its preliminary option is consistent with its statutory objectives under section 12 of the Act. However, ComReg will review and consider responses to this consultation and, based on those responses, ComReg may make decision(s) different to the preliminary views expressed in this consultation.
 - Q. 10. Do you have any views on this Regulatory Impact Assessment and is there other factors (if any) ComReg should consider in completing its Regulatory Impact Assessment? Please explain your response and provide details of any factors that should be considered by ComReg.

Appendix B – Consultation Questions

List of Questions

Q. 1. Do you agree with the detail of the proposed price control including the different specification of the ex-ante obligation not to margin (price) squeeze? Please state the reasons for your response
Q. 2. Do you agree with the preliminary views in relation to the duration and future review of the price control? Please state the reasons for your response. 25
Q. 3. Do you agree with the proposed notification and approval procedures? Please state the reasons for your response
Q. 4. Do you agree with the costing methodology proposed to determine the maximum prices for bitstream rentals? Please set the reasons for your response and set out in detail any specific amendments, supported by detailed analysis where appropriate, to the costing methodology you believe are required39
Q. 5. Do you agree that in setting a price control in the WBA market that an appropriate economic space to the relative prices of LLU should be maintained? Please state the reasons for your response
Q. 6. Do you agree with the proposed hypothetical entrant model to set the minimum prices for bitstream rentals in order to maintain an appropriate economic space? Please state the reasons for your response, providing worked examples and/or robust data to support your views
Q. 7. Are there any issues in relation to the appropriate price control for the WBA market that ComReg has not considered in this consultation? If so, please document and explain those issues fully and provide examples where appropriate
Q. 8. Do you agree with the preliminary views expressed by ComReg? Please state the reasons for your response and please explain which preliminary view(s) you do not agree with and detail what specific amendments you believe are required
Q. 9. Do you believe that the draft text of the proposed decision is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required
Q. 10. Do you have any views on this Regulatory Impact Assessment and is there other factors (if any) ComReg should consider in completing its Regulatory Impact Assessment? Please explain your response and provide details of any factors that should be considered by ComReg.