



An Coimisiún um  
**Rialáil Cumarsáide**  
Commission for  
**Communications Regulation**

## Market Reviews

Wholesale Local Access (WLA) provided at a fixed location

Wholesale Central Access (WCA) provided at a fixed location for mass-market products

Consultation and Draft Decision

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## Additional Information



## Approval



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## Redacted Information

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# 1 Executive Summary

- 1.1 Broadband services continue to play an increasing role for consumers and businesses, enabling access to the internet, remote working and the use of services such as online banking, shopping, entertainment and remote health.
- 1.2 A number of Service Providers ('**SP(s)**') are investing in the rollout of fibre networks, in one case on a State Aided basis, although fibre network rollout is not uniform throughout the State. ComReg considers that the regulatory proposals set out in this Consultation will continue to provide regulatory certainty to all SPs thereby providing predictability and certainty needed to support further fibre network rollout.
- 1.3 In this Consultation, ComReg examines competition in two wholesale broadband markets, to decide whether regulation is warranted and, if so, in what form. Where necessary, in regulating these markets, ComReg's aim is to promote long term sustainable competition by enabling efficient investment in fibre networks, with vibrant competition amongst networks the best way to ensure that consumers and business reap the maximum benefits in terms of choice of high-quality services at competitive prices.
- 1.4 The two wholesale markets in which ComReg assesses competition are the markets for the provision of Wholesale Local Access ('**WLA**') and Wholesale Central Access ('**WCA**'), both of which ultimately support the supply of retail broadband and related services to end users. WLA and WCA inputs are purchased by Access Seekers which do not operate their own broadband networks at all, or where their own networks have only partial geographic coverage, with the use of WLA and WCA enabling them to extend their service footprints.
- 1.5 WLA relates to the rental of a connection or access path<sup>1</sup> between the end user's premises and a local serving exchange/node equivalent. In buying WLA services, an SP must arrange its own provision of the backhaul elements between its network and the local serving exchange/node.
- 1.6 WCA lies downstream from WLA, but upstream of the retail broadband market and involves the rental of an active broadband connection between an end user's premises and an aggregation point higher up in a network, including the backhaul component. WCA therefore encompasses WLA along with backhaul connectivity across the WCA SP's network. Relative to WLA, WCA only

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<sup>1</sup> The Access Path connects the Network Termination Unit ('**NTU**') or Network Termination Point ('**NTP**') in the customer's premises to the Point of Handover ('**PoH**'). The PoH for WLA is typically the Main Distribution Frame ('**MDF**') (for copper) and the Optical Distribution Frame ('**ODF**') (for fibre) in the exchange/MPoP. The PoH for WUA is the Wholesale Ethernet Interconnect Link ('**WEIL**') at the serving Aggregation Node within local serving exchange.

requires an Access Seeker to build connectivity to a few aggregation points on the WCA supplier's network.

- 1.7 While WLA is deemed by the European Commission ('**EC**') to be a market susceptible to *ex ante* regulation, pursuant to the 2020 Recommendation<sup>2</sup> WCA no longer is. As such, National Regulatory Authorities ('**NRA(s)**') such as ComReg must, in considering the appropriateness of regulation in the WCA market(s) in Ireland, also carry out the so-called Three Criteria Test ('**3CT**') which is described in further detail below.
- 1.8 Where ComReg identifies that any SP operating in the WLA or WCA markets has Significant Market Power ('**SMP**'), this can give rise to competition problems, whereby, in the absence of regulation, these (and related) markets would not function effectively, to the detriment of end users. Where ComReg identifies SMP, it must impose at least one of a range of *ex ante* regulatory obligations on the SP or SPs designated with SMP. At the wholesale level, these obligations may include requirements to provide specified products and services at regulated wholesale prices, and are designed to enable Access Seekers (that is, SPs without networks of their own (or insufficient network coverage of their own)) to compete in providing retail services to end users. Where SMP is not identified, existing regulation is withdrawn.
- 1.9 In parallel with this Consultation, ComReg has issued a separate consultation regarding its analysis of a physical infrastructure access ('**PIA**') market which generally concerns access to telecom-specific duct and pole infrastructure ('**PIA Consultation**').<sup>3</sup> In that consultation, Comreg has proposed to find Eircom with SMP and to impose upon it a range of obligations, including to provide access to its duct and poles at regulated prices. ComReg's review of the WLA and WCA markets in this Consultation takes into account the proposed regulation of the PIA markets, in particular, WLA and WCA supplied by SPs that use Eircom's PIA in doing so.
- 1.10 ComReg proposes to define the following three separate Relevant WLA Markets (the '**Relevant WLA Markets**') which can differ by product/technology type and/or geographic scope:
  - (a) A national Current Generation WLA ('**CG WLA**') Market consisting of WLA delivered over copper-only networks, including Local Loop Unbundling ('**LLU**'), Sub-loop Unbundling ('**SLU**'), and Line Share ('**LS**');

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<sup>2</sup> European Commission Recommendation of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (the '**2020 Recommendation**').

<sup>3</sup> Physical Infrastructure Access (PIA) Market Review, Consultation, ComReg Document 23/04.

- (b) An Intervention Area Next Generation WLA ('**IA NG WLA**') Market including Next Generation ('**NG**') WLA delivered fibre optic cable networks, including Virtual Unbundled Access ('**VUA**'), with the geographic scope of this market corresponding to that part of the State falling within the National Broadband Plan Intervention Area ('**NBP IA**'); and
- (c) A Commercial Next Generation WLA ('**Commercial NG WLA**') Market including NG<sup>4</sup> VUA delivered over full or partial fibre optic cable networks in that part of the State falling outside the IA.

- 1.11 ComReg considers it appropriate to distinguish two separate WLA product markets, including on the basis that, due to its lower-quality product and usage characteristics, and the declining numbers of CG WLA lines, NG WLA is likely to be a substitute for CG WLA, but CG WLA is unlikely to be a substitute for NG WLA – a phenomenon known as “asymmetric substitution”.
- 1.12 ComReg considers that the CG WLA market is likely to be national in scope, given the absence of clear differences in competitive conditions across the State in the provision of CG WLA. In contrast, ComReg considers that the provision of NG WLA is likely, on a forward-looking basis, to be characterised by differences in competitive conditions across the State, whereby NG WLA is provided on a commercial basis in some parts of the State, and on a non-commercial, State Aid basis in the footprint of the NBP IA.
- 1.13 The CG WLA Market and the IA NG WLA Market are, over the five-year time horizon of this review, likely to be characterised by a tendency towards effective competition and/or low barriers to entry, arising from widespread rollout of NG broadband and prospective market conditions which suggest no SP has SMP.
- 1.14 Accordingly, ComReg proposes to remove SMP regulatory obligations on Eircom on the CG WLA Market and the IA NG WLA Market, subject to an appropriate sunset period which is designed to afford Access Seekers a reasonable period of time to migrate away from Eircom CG WLA and NG WLA, to purchase other wholesale inputs capable of delivering retail broadband (and other retail services), should they so wish.
- 1.15 In contrast, ComReg considers that the Commercial NG WLA Market is characterised by the absence - or the insufficient presence - of sufficiently effective competitive constraints on Eircom. Accordingly, having carried out a competition assessment, ComReg considers that it is appropriate to designate Eircom with SMP on the Commercial NG WLA Market. To address identified

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<sup>4</sup> NG broadband includes technologies with partial or full optical components, namely Fibre to the Cabinet ('**FTTC**') and Fibre to the Premises ('**FTTP**').

competition concerns, ComReg proposes to impose a full suite of regulatory obligations on Eircom in the Commercial NG WLA Market. These include:

- (a) Access obligations;
- (b) Transparency obligations;
- (c) Non-discrimination obligations;
- (d) Statement of Compliance obligations;
- (e) Price Control and Cost Accounting obligations; and
- (f) Accounting Separation obligations.

1.16 ComReg proposes to continue to impose the following access obligations upon Eircom:

- (a) to provide access to VUA (including FTTP-based VUA and FTTC-based VUA) and VUA combined with GNP where required;
- (b) to provide access to co-location, co-location resource sharing and co-location rack interconnection;
- (c) to provide access to interconnection services;
- (d) to provide access to migrations;
- (e) to provide access to Associated Facilities, including Multicast, traffic-based and circuit-based Class of Service ('**CoS**'); and
- (f) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services.

1.17 New access obligations proposed in this Consultation require Eircom to provide access to:

- (a) an interconnection sharing service; and
- (b) a 1:1 Virtual Local Area Network ('**VLAN**') tagging on FTTH-based VUA services.

1.18 ComReg proposes that Eircom be required to provide access in a fair, reasonable and timely manner, including in relation to:

- (a) Requests for access;
- (b) Changes to the rules or technical standards for the deployment of telecommunications equipment in the access network, including changes to the access network's design, topology and the Copper Loop Frequency Management Plan ('**CLFMP**'); and
- (c) Product development timelines; and,



## (d) Service Level Agreements.

- 1.19 Eircom supply WLA services, such as VUA and NG migrations to undertakings, and self-supply, such as NG broadband and migrations, to itself. ComReg proposes to maintain Eircom's non-discrimination obligation to provide access and information to all undertakings including itself, its subsidiaries, affiliates or partners, on the same timescales, terms and conditions, including those related to prices and service levels, using the same systems and processes.
- 1.20 ComReg proposes to continue to impose the following transparency obligations, subject to some amendments:
- (a) to publish an Access Reference Offer, setting out contractual terms and conditions, and the technical basis upon which Access Seekers can obtain access to WLA and associated facilities, along with requirements to publish WLA prices and provide advance notification of changes;
  - (b) the making available of NGA rollout plans; and
  - (c) the publication of Key Performance Indicators and information with respect to performance with Service Level Agreements.
- 1.21 The price control obligations which ComReg proposes to impose on Eircom in the Commercial NG WLA Market are summarised at Table 1. In Table 1 the proposed price control obligations are compared to the existing price control obligations imposed in 2018.

**Table 1: Summary of price control obligations (existing and proposed)**

Product, service or facility	Price control obligation	
	Existing	Proposed
<b>FTTH VUA rental</b>	Pricing flexibility	Pricing flexibility
<b>FTTC VUA rental</b>	Cost orientation	Pricing continuity <sup>5</sup>
<b>Emulated FTTC-like service on the FTTH network (in the event of FTTC withdrawal)</b>	N/A	Pricing parity with FTTC VUA
<b>Ancillary services and facilities</b>	Cost orientation	Cost orientation

<sup>5</sup> 'Pricing continuity' is a pricing approach whereby the proposed price is set by reference to an existing modelled price. For FTTC VUA rental ComReg propose a price cap of 'CPI-0' annually to the currently cost oriented FTTC VUA prices post 30 June 2024.

- 1.22 Further to the summary above, ComReg is also proposing, consistent with the 2018 Decision, to impose price floors for FTTC and FTTH VUA rental with (as in 2018) provision for Eircom to lower these price floors, but only in exceptional circumstances subject to ComReg approval. The precise basis for these floors is varied from that of 2018 as described below.
- 1.23 Under the 2018 Pricing Decision,<sup>6</sup> Eircom is not permitted to offer wholesale promotions and discounts. ComReg proposes to relax the ban for FTTH VUA so that such offers are subject to case-by-case approval by ComReg and to be permitted only where ComReg is satisfied that the promotion or discount is consistent with the promotion of network competition and encouraging investment, including in particular that existing and prospective investment by alternative operators is not jeopardised.
- 1.24 Eircom is also subject under the 2018 WLA/WCA Market Review Decision to an obligation not to margin squeeze. The 2018 Pricing Decision and the 2018 Bundles Decision<sup>7</sup> further specified this obligation into three Margin Squeeze Tests, namely the Wholesale FTTH Bitstream to Wholesale FTTH VUA MST, the bundles MST, and the standalone FTTH MST. ComReg proposes to alter the bundles MST to focus on just FTTH, to include standalone FTTH in the proposed MST, and to remove the existing wholesale FTTH Bitstream to wholesale FTTH VUA MST.
- 1.25 ComReg also propose to maintain Cost Accounting and Accounting Separation obligations on Eircom.
- 1.26 ComReg considers that, having assessed the WCA market in the context of the 3CT,<sup>8</sup> continued *ex ante* regulation of WCA is not warranted, as there is insufficient evidence that retail broadband competition would be harmed by the absence of WCA regulation. The evidence available to ComReg suggests that, even in the absence of WCA regulation (but in the presence of WLA regulation on the Commercial NG WLA Market), the provision of retail broadband would

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<sup>6</sup> ComReg Document No. 18/95, ComReg Decision D11/18: Pricing of wholesale broadband services, Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets, Response to Consultation Document 17/26 and Final Decision, dated 19 November 2018 (**'2018 Pricing Decision'**).

<sup>7</sup> ComReg Document No. 18/96, ComReg Decision D12/18: Response to Consultation and Decision on price control obligations relating to retail bundles: Further specification of the wholesale price control obligation not to cause a margin squeeze in the WLA, and WCA Markets - Response to Consultation and Decision, dated 19 November 2018 (**'2018 Bundles Decision'**).

<sup>8</sup> The 3CT set out at Article 67(1) of the European Electronic Communications Code (Directive (EU) 2018/1972), which does not yet have legal effect in the State, as of December 2022) sets out the criteria that must be cumulatively satisfied in order to determine that a relevant market should be - or continue to be - subject to *ex ante* regulation. The three criteria are

- a. the presence of high and non-transitory barriers to entry;
- b. a market structure which does not tend towards effective competition within the relevant time horizon; and
- c. the insufficiency of competition law alone to adequately address the market failure(s) concerned.

likely be effectively competitive over time. In this respect, there is evidence of existing retail broadband competition, particularly having regard to SP market shares, and ongoing rollout of FTTP broadband networks by Eircom, SIRO, NBI, and (on a forward-looking basis) Virgin Media capable of providing WLA and WCA to Access Seekers, and retail broadband to end users.

- 1.27 Downstream retail competition is, in particular, likely to be safeguarded in the footprint of the Commercial NG WLA Market through upstream regulation of WLA. ComReg also notes that, even in the absence of Eircom merchant market WCA, other SPs offer WCA based on their own networks (e.g., NBI and, on a forward-looking basis, potentially Virgin Media), or based on the use of upstream WLA purchases (such as BT). ComReg notes that Access Seekers have the possibility of moving up the ladder of investment by procuring their own backhaul to give them the opportunity to purchase WLA, rather than WCA.

## 1.1 Next Steps

- 1.28 ComReg invites views from interested parties on the issues analysed in this Consultation, with the procedure and deadline for the submission of responses set out in paragraphs 2.58 to 2.64 below. Responses to the Consultation are due by 1700 on **Friday, March 3<sup>rd</sup>, 2023**.

## 2 Introduction

### 2.1 Overview

- 2.1 The Commission for Communications Regulation (**'ComReg'**) is the National Regulatory Authority (**'NRA'**) responsible for the regulation of the electronic communications sector (telecommunications, radio communications and broadcasting transmission) and the postal sector in the State.
- 2.2 This consultation paper (**'Consultation'**) presents ComReg's preliminary conclusions on its analysis of the market(s) for:
- (a) Wholesale local access provided at a fixed location (**'WLA'**); and
  - (b) Wholesale central access for mass-market products provided at a fixed location (**'WCA'**).
- 2.3 WLA and WCA are wholesale inputs that are used by Service Providers (**'SP(s)'**) in the supply of:
- (a) Retail broadband and/or other services (including but not limited to fixed telephony and television services)<sup>9</sup> to end users; and
  - (b) Wholesale services to other SPs.
- 2.4 The objective of this review is to examine the extent of competition within the above **Relevant WLA Market(s)** and **Relevant WCA Market(s)** (collectively, the **'Relevant Wholesale Markets'**). In circumstances where such markets are not found to be effectively competitive due to one or more SP(s) having Significant Market Power (**'SMP'**), ComReg is obliged to impose appropriate regulatory obligations on such SP(s) as would be necessary to address identified competition problems that could arise in the Relevant Wholesale Markets or related markets, absent regulatory intervention. Similarly, if any of the Relevant Wholesale Markets are found to be effectively competitive, then regulatory intervention would not be warranted.
- 2.5 This introduction describes the following:
- (a) A general overview of the WLA and WCA markets (paragraphs 2.7 to 2.13);
  - (b) The legal basis and the regulatory framework under which this review and Consultation is being undertaken (paragraphs 2.14 to 2.36);

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<sup>9</sup> WLA and WCA inputs can be used by SPs to deliver a broad range of services and hence, the services identified here are non-exhaustive.

- (c) An overview of previous reviews of the Relevant Wholesale Markets and why the current review is being undertaken (paragraphs 2.37 to 2.52);
  - (d) An outline of the information sources relied upon for the analysis set out in this Consultation (paragraphs 2.53 to 2.57);
  - (e) The procedure for the consultation process, including timeframes within which respondents should submit views, and ComReg's liaison with the Competition and Consumer Protection Commission ('**CCPC**'), the European Commission ('**EC**') and BEREC<sup>10</sup> (paragraphs 2.58 to 2.64); and
  - (f) An overview of the structure of the Consultation (paragraph 2.65).
- 2.6 Section 1 above contains an executive summary of the overall preliminary conclusions set out in this Consultation.

## 2.2 What are WLA and WCA?

- 2.7 WLA and WCA services are wholesale inputs used directly and indirectly by SPs to supply a range of downstream wholesale and retail services, including (but not limited to) fixed telephone, broadband connectivity, and television ('**TV**') services, to residential and business end users. WLA inputs can also be used by SPs to supply downstream WCA or other wholesale services.
- 2.8 In general, WLA relates to the connection/access path<sup>11</sup> between the local serving exchange/access node Metropolitan Point of Presence ('**MPoP**') and the end user's premises, with this connection being either provided by an SP itself or purchased/rented from another SP. In buying WLA services, an SP must arrange its own provision of the backhaul elements between its network and the local exchange/node that serves the end user's premises.

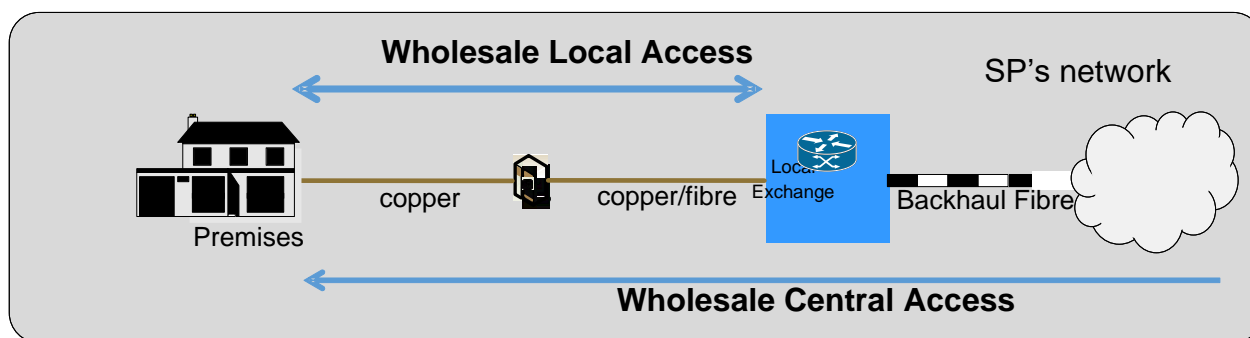
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<sup>10</sup> Body of European Regulators for Electronic Communications.

<sup>11</sup> The Access Path is, in general, the connection from the Network Termination Unit ('**NTU**')/Network Termination Point ('**NTP**') in the customer's premises to the Point-of-Handover ('**PoH**'). The PoH for WLA services is typically the Main Distribution Frame ('**MDF**') (for copper) and the Optical Distribution Frame ('**ODF**') (for fibre) in the exchange/MPoP, and the PoH for non-physical WLA-based unbundling (virtual access) is the Wholesale Ethernet Interconnect Link ('**WEIL**') at the serving Aggregation Node within local serving exchange.

- 2.9 The WCA market lies downstream from the WLA market but upstream from the retail broadband (and other retail) markets and encompasses the rental of an active broadband connection between an end user's premises and an aggregation point higher up in a network, including the backhaul component. As discussed later in this Consultation, a number of other features also distinguish WLA and WCA services. WCA can be thought of as encompassing WLA along with backhaul connectivity across the WCA SP's network. Relative to WLA, WCA requires that an Access Seeker only needs to build connectivity to a few aggregation points on the WCA supplier's network.
- 2.10 WCA is used by SPs both directly and indirectly in the supply of a range of downstream wholesale and retail services, including (but not limited to) fixed telephone, broadband internet/connectivity, and TV to residential and business consumers ('end users'). Figure 1 below describes the WLA and WCA markets and how they are related.

Figure 1: Example of Typical WLA and WCA Provision (stylised)<sup>12</sup>



- 2.11 At the wholesale level, SPs purchase WLA, such as Next Generation ('NG') Virtual Unbundled Access ('VUA'), Current Generation ('CG') Local Loop Unbundling ('LLU'), and WCA inputs such as CG and NG Bitstream, to provide retail services to end users (or wholesale services to other SPs). Using LLU, an Access Seeker takes control (full control or partial control) of the copper loop from the local exchange to the end user's premises. Similarly, with VUA, a SP gains control of the fibre or fibre/copper path, typically from the local exchange (or equivalent) to the end user's premises. The SP can then supply retail services to the end user, or sell wholesale services, such as WCA, to Access Seekers.

<sup>12</sup> This figure shows provision of FTTC WLA and WCA, whereby the path from the local exchange to the end user premises includes a copper component. Where WLA or WCA are delivered over FTTP, no copper is present on the access path, which consists of full fibre.

- 2.12 Typically, the point of handover for access in the WLA market is provided locally (i.e., when the traffic is handed over at a level closer to the end user). The point of handover for access in the WCA market is typically at the national or regional level, at a higher aggregation point in the network. Furthermore, products in the WLA market give the Access Seeker a greater degree of flexibility in network control (e.g., VUA products can be offered at various profiles (download speeds etc.)), allowing the Access Seeker to differentiate its retail offerings. Products in the WCA market typically have network elements and ancillary inputs (e.g., customer premises equipment ('CPE')) that an Access Seeker has little control over.
- 2.13 The WLA market therefore encompasses access products that afford Access Seekers more flexible control over the access path, while the WCA market encompasses access products that provide Access Seekers with less direct and more standardised control over the access path.

### 2.3 Legal basis and regulatory framework

- 2.14 Regulation 26 of the Framework Regulations (Regulation 46 of the ECC Regulations) requires that ComReg, taking the utmost account of the markets listed in the 2020 Recommendation<sup>13</sup> as being susceptible to *ex ante* regulation and of the SMP Guidelines,<sup>14</sup> defines relevant markets appropriate to national circumstances, in accordance with the principles of competition law. The 2020 Recommendation retained WLA as a market susceptible to *ex ante* regulation but removed WCA from the list of markets susceptible to *ex ante* regulation. Accordingly, in respect of WCA only, ComReg is required to carry out the Three Criteria Text ('3CT') as set out in Article 67(1) of the EECC and discussed further below.
- 2.15 The EC refers in the 2020 Recommendation to WLA as follows:

*"Wholesale local access provided at a fixed location"*<sup>15</sup>

The 2020 Explanatory Note notes:

*"At present, the Wholesale Local Access (WLA) market primarily consists of physical access products as well as those virtual access products that mimic the capabilities of physical access (VULA) enabling transmission of internet and related data services. Copper*

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<sup>13</sup> European Commission Recommendation of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (the '**2020 Recommendation**').

<sup>14</sup> European Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic networks and services, OJ 2002 C 165/3 (the '**SMP Guidelines**').

<sup>15</sup> Annex to the 2020 Recommendation, Market 1, page 2.

*local loop unbundling (LLU) and copper sub-loop unbundling (SLU) – although to a decreasing extent – are still applicable access products used throughout the Union.”<sup>16</sup>*

2.16 Given that the 2020 Recommendation no longer identifies the WCA market as being susceptible to *ex ante* regulation, there is no longer any presumption in favour of WCA regulation at EU level, and NRAs must justify any proposal to continue to regulate WCA by reference to national market conditions, having carried out a 3CT.

2.17 The 2014 Recommendation, which at the time included WCA, defined it as follows:

*“Wholesale central access provided at a fixed location for mass-market products”<sup>17</sup>*

2.18 The 2020 Explanatory Note notes:

*“Compared to WLA, Wholesale Central Access (WCA) products are typically provided to the access seekers at a higher and more central layer in the network architecture. As regards WCA services, it remains likely that there is a chain of substitution between copper DSL-based bitstream services and fibre-based bitstream services provided over FttH and FttC/VDSL networks in the near future.”<sup>18</sup>*

2.19 The 3CT sets out the criteria that must be cumulatively satisfied to determine whether a relevant market should be, or should continue to be, subject to *ex ante* regulation. The three criteria are:

- (a) The presence of high and non-transitory barriers to entry;
- (b) A market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry; and
- (c) The insufficiency of competition law alone to adequately address the identified market failure(s).

2.20 Where at least one of the 3CT criteria is not satisfied, *ex ante* regulation is deemed to be no longer required, and obligations arising from an SMP designation are required to be removed (subject to a notice period where necessary and appropriate). Where, on the other hand, all three criteria are

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<sup>16</sup> At p.48 thereof.

<sup>17</sup> Annex to the 2014 Recommendation, Market 3b, page 45 onwards.

<sup>18</sup> 2020 Explanatory Note, at p.52.



satisfied, *ex ante* regulation may be warranted. In particular, Regulation 27(4) of the Framework Regulations<sup>19</sup> (Regulation 49(8) of the ECC Regulations) requires that where ComReg determines, following of a market analysis, that a relevant market, defined in accordance with Regulation 26<sup>20</sup> (Regulation 46 of the ECC Regulations) is not effectively competitive, and that the imposition of regulatory obligations is justified, that ComReg designate the SP or SPs which individually or jointly have SMP in that market and impose appropriate specific obligations on such operators, or maintain or amend such obligations where they already exist.

- 2.21 According to Regulation 25(1) of the Framework Regulations (Regulation 45(1) of the ECC Regulations) SMP is equivalent to dominance on a market, that is to say a position of economic strength affording the operator concerned the power to behave, to an appreciable extent, independently of competitors, customers and ultimately, consumers, in a relevant market.
- 2.22 In carrying out its assessment ComReg applies the Modified Greenfield Approach ('**MGA**') as set out in the 2020 Explanatory Note.<sup>21</sup> ComReg's market assessment starts from the assumption that SMP regulation is not present in the specific markets under consideration but takes into account regulation present in other related markets, or through the general regulatory framework (such as under the Delegated Regulation). This approach avoids erroneously drawing conclusions regarding the competitive structure of a particular market that may be influenced by, or indeed premised on, existing regulation on that market. Considering how markets may function absent regulation helps to ensure that SMP-based regulation is only applied (or withdrawn) in circumstances where it is justified and proportionate to do so.
- 2.23 Given that ComReg is analysing both the WLA market(s) and the WCA market(s) in this Consultation, it adopts the following approach with respect to the application of the MGA. In analysing the WLA market and applying the MGA, ComReg first examines the WLA market assuming regulation is absent in this and downstream markets (and related retail markets). In doing so ComReg assumes that regulation is in place in the upstream Physical Infrastructure Access ('**PIA**') market, having regard to the proposals which are being consulted upon in the separate PIA Consultation. Similarly, when assessing the WCA market, the MGA requires that ComReg takes account of any regulation present in the upstream, PIA and WLA markets.

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<sup>19</sup> This provision reflects Article 63 of the EECC.

<sup>20</sup> This provision reflects Article 64 of the EECC.

<sup>21</sup> See also Point 17 of the SMP Guidelines.

- 2.24 In the PIA Consultation,<sup>22</sup> ComReg considered the transaction entered into between Eircom and InfraVia whereby a dedicated fibre company, Fibre Networks Ireland Limited ('FNI'), was created with plans to pass over 1.9m homes with FTTP by 2026 (the 'Transaction'). InfraVia owns a 49.99% interest in FNI, and Eircom the remaining 50.01%. As part of the transaction Eircom transferred to FNI, certain assets (including ducts, poles and fibre but excluding exchanges and cabinets) that are principally located outside the Government's NBP IA, where NBI is currently rolling out its FTTH network.
- 2.25 The associated assets are expressed to include the Access Network, the Fibre Rights<sup>23</sup> and other assets and property used exclusively in respect of the Business<sup>24</sup> but excluding certain Excluded Assets. The Excluded Assets are listed in the Business Transfer Agreement<sup>25</sup> and include (amongst other things) [§< [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] §>].<sup>26</sup>
- 2.26 In the PIA Consultation ComReg's view is that it is appropriate to treat the physical infrastructure owned by FNI and Eircom as one PI network, the operation and management of which is effectively under Eircom's control.
- 2.27 As regards WLA and WCA supply by Eircom, having regard to the reasons as set out in the PIA Consultation and also noting that Excluded Assets remain under the ownership of Eircom, ComReg considers that the operation and management of WLA and WCA services is under Eircom's control.
- 2.28 Where an SP is designated as having SMP in a market, ComReg is obliged, under Regulation 8(1) of the Access Regulations,<sup>27</sup> (Regulation 50(1) of the ECC Regulations) to impose on that SP, or maintain or amend where they

<sup>22</sup> See section 3.3.2 and elsewhere in the PIA Consultation.

<sup>23</sup> Defined in the Business Transfer Agreement as "all statutory, prescriptive, contractual and common law title and property rights and all easements, rights, powers, privileges and interests which are held by the Company at Completion and which are necessary to operate the Access Network".

<sup>24</sup> Clause 2.1.

<sup>25</sup> Clause 1.1 (Definition of Excluded Assets).

<sup>26</sup> Clauses 1 and 2.

<sup>27</sup> European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the 'Access Regulations'). This provision reflects Article 68 of the EECC.

already exist, such as the obligations set out in Regulations 9 to 13 of the Access Regulations (Regulations 51 to 56, 58 and 62 of the ECC Regulations) as it considers appropriate. Pursuant to Regulation 8(6) of the Access Regulations (Regulation 50(5) of the ECC Regulations), any obligations imposed must be:

- (a) Based on the nature of the problem identified;
- (b) Proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002 (as amended),<sup>28</sup> and Regulation 16 of the Framework Regulations;<sup>29</sup> (Regulation 4 of the ECC Regulations) and
- (c) Only be imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations (Regulations 17 and 101 of the ECC Regulations).

2.29 Section 12(1)(a) of the 2002 Act sets out ComReg's objectives in exercising its functions in relation to the provision of electronic communications networks, electronic communications services, and associated facilities, namely to:

- (a) Promote competition;
- (b) Contribute to the development of the internal market; and
- (c) Promote the interests of users within the European Union.

2.30 Regulation 16(2) (Regulation 4(5) of the ECC Regulations) requires that, in pursuit of its objectives under that regulation and under section 12 of the 2002 Act, ComReg shall apply objective, transparent, non-discriminatory, and proportionate regulatory principles by, *inter alia*:

- (a) Promoting regulatory predictability;
- (b) Ensuring there is no discrimination in the treatment of undertakings;
- (c) Safeguarding competition and promoting, where appropriate, infrastructure-based competition, (Regulation 4(5)(c) of the ECC Regulations requires the application of EU law in a technologically neutral fashion);
- (d) Promoting efficient investment and innovation in new and enhanced infrastructures;

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<sup>28</sup> Communications Regulation Act 2002 (No. 20 of 2002), as amended (the '2002 Act').

<sup>29</sup> The general objectives of the EECC are laid out at Article 3 thereof.

- (e) Taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State; and
  - (f) Imposing *ex ante* regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled.
- 2.31 In addition to conducting a public consultation in accordance with Regulation 12 of the Framework Regulations, (Regulation 17 of the ECC Regulations 2022), ComReg is required by Regulation 27(1) of the Framework Regulations (Regulation 49(1) of the ECC Regulations) to carry out an analysis of relevant markets, consulting, where appropriate, with the Competition and Consumer Protection Commission (the '**CCPC**').
- 2.32 ComReg is also obliged to make certain draft measures accessible to the EC, BEREC, and NRAs in other Member States, pursuant to Regulation 13(3) of the Framework Regulations (Regulation 17(4) of the ECC Regulations) ('**European Notification Requirements**').
- 2.33 ComReg will consult with the CCPC and carry out the European Consultations prior to the adoption of a decision on foot of this Consultation.

## 2.4 Previous Reviews of the Relevant Markets

- 2.34 On 19 November 2018 ComReg published its WLA/WCA market analysis (the '**2018 Decision**'),<sup>30</sup> in which it set out its then position regarding its review of competition within the WLA and WCA markets. This followed the publication of a consultation in November 2016 (the '**2016 Consultation**').<sup>31</sup>
- 2.35 On the same day, ComReg also issued two pricing decisions (the '**2018 Pricing Decision**'<sup>32</sup> and the '**2018 Bundles Decision**')<sup>33</sup> which further specified the price control obligations ComReg imposed in the 2018 Decision.

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<sup>30</sup> Market Review: Wholesale Local Access (WLA) provided at a Fixed Location, Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products - Response to Consultation and Decision. ComReg 18/94, D10/18 (the '**2018 Decision**').

<sup>31</sup> Market Reviews: Wholesale Local Access (WLA) provided at a Fixed Location, Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products - Consultation and Draft Decision. ComReg 16/96 (the '**2016 Consultation**').

<sup>32</sup> Pricing of wholesale broadband services: Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets - Response to Consultation Document 17/26 and Final Decision. ComReg 18/95, D11/18 (the '**2018 Bundles Decision**').

<sup>33</sup> Response to Consultation and Decision on price control obligations relating to retail bundles: Further specification of the wholesale price control obligation not to cause a margin squeeze in the WLA, and WCA Markets. ComReg 18/96, D12/18 (the '**2018 Pricing Decision**').

2.36 The 2021 Mid-term Assessment ('MTA') Decision,<sup>34</sup> which issued in November 2021, reassessed competition in the provision of WCA, arising from a commitment in the 2018 Decision to reappraise competition during the lifetime of the market review period.

#### 2.4.1 Previous Review of the WLA Market

2.37 The 2018 Decision identified a national WLA Market consisting of:

- (a) CG WLA products (being LLU and Line Share products over copper networks);
- (b) NG WLA products (being VULA products offered over FTTx networks); and
- (c) Eircom self-supply of the above products.

2.38 ComReg assessed competition within the then WLA market and concluded that this (national) WLA market was not effectively competitive and was unlikely to become competitive over the lifetime of the market review. ComReg thus designated Eircom with SMP in that WLA market.

2.39 ComReg accordingly imposed remedies on Eircom in relation to NG WLA (fibre infrastructure and associated facilities) and CG WLA (copper infrastructure and associated facilities). In this respect, ComReg imposed detailed remedies with respect to CG WLA and NG WLA. ComReg imposed differentiated price control remedies in respect of CG WLA, FTTC-based NG WLA, and FTTP-based NG WLA, with further WLA pricing remedies specified in the 2018 Pricing Decision and the 2018 Bundles Decision.

#### 2.4.2 Previous Review of the WCA Market

2.40 The 2018 Decision defined two sub-national WCA markets – the Urban WCA Market, and the Regional WCA Market consisting of WCA products provided over CG and NG infrastructure. ComReg also concluded that the WCA market included WCA supplied by a purchaser of WLA.<sup>35</sup> The WCA market included the following products:

- (a) WCA-based Bitstream products provided over copper and FTTx networks, including wholesale Bitstream provided using upstream WLA inputs;
- (b) Self-supply of WCA-based Bitstream by Eircom and BT Ireland;

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<sup>34</sup> Mid-term Assessment: Regional Wholesale Central Access (WCA) Market - Re-application of geographic assessment criteria set out in ComReg Decision D10/18. Response to Consultation and Final Decision. ComReg 21/120, D10/21 (the '2021 MTA Decision').

<sup>35</sup> At the time of the 2018 Decision, BT Ireland was the only purchaser of WLA to supply downstream WCA services.

- (c) WCA-based Bitstream that may hypothetically be offered by SIRO;
  - (d) Self-supply of CATV retail broadband products offered by Virgin Media in areas where its network is present; and
  - (e) Self-supply of retail broadband products offered by SPs using WLA upstream inputs and having widespread coverage (such as Vodafone).
- 2.41 Having applied a set of objective criteria to define two sub-national geographic markets. On the basis of a competition assessment, ComReg deregulated the Urban WCA Market, but designated Eircom with SMP on the Regional WCA Market. As with the WLA market, ComReg imposed remedies on Eircom in relation to NG WCA and CG WCA. ComReg imposed differentiated price control remedies in respect of CG WCA, FTTC-based NG WCA, and FTTP-based NG WCA, with further pricing remedies specified in the 2018 Pricing Decision and the 2018 Bundles Decision.
- 2.42 Additionally, the 2018 Decision undertook to reassess the WCA markets by means of a Mid-term Assessment ('MTA'), which revisited the geographic scope of the relevant markets and the associated findings of SMP. The 2021 MTA Decision accordingly led to additional deregulation in the footprint of the Revised Urban WCA Market.<sup>36</sup>

## 2.5 Current Review of the WLA and WCA Markets

- 2.43 Given the time that has elapsed since the previous analyses of these markets and, having regard to market developments, including the publication of the 2020 Recommendation, it is now appropriate to review these markets.
- 2.44 To inform these market reviews, ComReg has obtained qualitative and quantitative information from SPs through information requests, as well as follow-up clarifications through meetings or correspondence.
- 2.45 The above information supplements information which is provided to ComReg in the performance of its regular operations (e.g., for the Irish Communications Market Quarterly Key Data Report ('Quarterly Key Data Report' or 'QKDR') or its ongoing regulatory activities.
- 2.46 ComReg has also reviewed in detail, the experience of regulating wholesale broadband markets in other European jurisdictions, and has carefully analysed guidance available from the EC, BEREC, and other relevant commentators before arriving at its preliminary views in this Consultation.
- 2.47 ComReg has also commissioned market research to inform its understanding of end user behaviours in the retail broadband (and related) markets. Two

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<sup>36</sup> The Revised Urban WCA Market is that part of the WCA market deregulated by means of the 2021 Mid-term Assessment Decision and consists of the 235 Exchange Areas listed at Annex 3 of the 2021 MTA Decision.

surveys were undertaken, of residential end users (the '**2022 Residential Market Research**') and of SME end users (the '**2022 SME Market Research**'). These surveys are published alongside this Consultation at Annex 2 and Annex 3 respectively. These surveys are referred to collectively throughout this Consultation as the '**WLA/WCA Market Research**'.

- 2.48 The 2022 WLA/WCA Market Research was undertaken on behalf of ComReg by RedC Market Research and examined residential and SME end user attitudes to various issues related to the provision of broadband (and other) services. The fieldwork supporting the WLA/WCA Market Research took place in the period February to April 2022 with the results finalised and provided to ComReg in June 2022. As part of the 2022 WLA/WCA Market Research, 2,010 residential end users were surveyed through face-to face interviews, and 300 SME end users were surveyed via computer aided telephone interview ('**CATI**'), with the person interviewed being the individual responsible for selecting the relevant business's telecommunications providers. The survey examined, *inter alia*:
- (a) Importance placed by end users on ownership and usage of particular technologies;
  - (b) The impact of high-speed broadband and the roll out of next generation broadband;
  - (c) Willingness of end users to switch between communications providers and technologies;
  - (d) Attitudes to, and actual reactions to, hypothetical changes in the price of telecommunications services; and
  - (e) The importance of bundled services offers for residential customers and the value that different services may hold within a bundle and in the purchasing decision of residential customers (e.g., TV services).
- 2.49 ComReg refers to the outputs from the WLA/WCA Market Research, along with the other data sources referred to above, throughout the remainder of the analysis in this Consultation.
- 2.50 It should be noted that, rather than being definitive, the WLA/WCA Market Research informs the analysis throughout this Consultation, and its outputs are considered alongside empirical data/evidence, where available, in particular, alongside data presented in the QKDR and in response to information requests.
- 2.51 ComReg is mindful that such surveys, while a useful practical means of gathering information on end user preferences/behaviours, need to be

interpreted with care and that stated preferences of survey respondents can overestimate what they will actually do in practice ('stated preference bias').

- 2.52 Therefore, ComReg does not solely rely on the WLA/WCA Market Research in forming the conclusions set out in this Consultation. ComReg considers all information available to it at the time of publishing this Consultation.

## 2.6 Information Sources

- 2.53 In drafting this Consultation, ComReg draws upon the following information and data sources:

- (a) The 2022 WLA/WCA Market Research. This included attitudinal surveys of retail users of broadband and other services. This research is published alongside this Consultation in Annex 2 and Annex 3;
- (b) Information provided by SPs in response to detailed information requests<sup>37</sup> issued by ComReg in which both quantitative and qualitative information on the retail broadband market, other markets and the relevant wholesale markets was sought;
- (c) The experience of NRAs in regulating WLA and WCA markets in other jurisdictions;
- (d) Guidance from the EC, BEREC and other relevant commentators;
- (e) Information set out in the 2018 Decision and the 2021 MTA Decision;
- (f) Information provided to ComReg by SPs for the purpose of ComReg's Quarterly Key Data Reports ('**QKDR(s)**'); and
- (g) Other information in the public domain.

- 2.54 As highlighted later in this Consultation, ComReg intends to refresh some of the data sources identified above in parallel with this consultation process, and will take such updated data, including respondents' views, into account when issuing its final decision.

## 2.7 Liaison with other Bodies

- 2.55 Pursuant to Regulation 27(1) of the Framework Regulations, (Regulation 49(1) of the ECC Regulations) ComReg is required, where appropriate, to consult with the Competition and Consumer Protection Commission ('**CCPC**') under section 34 or 47G of the **Competition Act 2002** (as amended)<sup>38</sup> on the relevant markets to be set out in the final decision which will issue following ComReg's consideration of the responses received to the issues raised in this

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<sup>37</sup> ComReg issued a series of information requests to SPs in January 2022.

<sup>38</sup> Competition Act 2002 (No. 14 of 2002), as amended, ('**Competition Act 2002**').



Consultation. ComReg will continue to keep the CCPC informed throughout the conduct of this market analysis process.

- 2.56 ComReg is also required to make its draft measures accessible to the EC, BEREC, and NRAs in other Member States (collectively referred to as the '**European Notification Requirements**') pursuant to Regulation 13(3) of the Framework Regulations (Regulation 17(4) of the EECC Regulations) and to take utmost account of any comments received.
- 2.57 ComReg will, as appropriate, conduct the CCPC Consultation and the European Notification Requirements prior to the adoption of any decision arising from this Consultation.

## 2.8 Consultation Process

- 2.58 ComReg invites all interested parties to respond to the questions set out in this Consultation. The consultation period will run to 1700 on **Friday, 3 March, 2023**, providing an 8-week consultation period and respondents must ensure that any submissions are provided within this period.
- 2.59 The task of analysing responses received will be made easier if all comments are referenced to the specific question numbers set out in this Consultation. In so doing, respondents are requested to:
- (a) Clearly explain the reasoning for their response, indicating the specific relevant paragraph numbers within the Consultation to which their response refers, along with all relevant factual or other evidence supporting views presented. **Respondents should ensure that their responses contain paragraph numbers to facilitate cross referencing to them;**
  - (b) Ensure that a non-confidential version of their response is provided by the closing date set out above at paragraph 2.58 and also be aware that all non-confidential responses to this Consultation will be published;<sup>39</sup>
  - (c) Ensure that confidential elements of responses are clearly marked using the following format: [~~relevant text deemed to be confidential~~] and identify why they consider that the relevant text is confidential. Respondents should provide both a confidential and non-confidential version of any submissions by the closing date set out above; and
  - (d) Provide a copy of their submissions in an unprotected electronic format in order to facilitate publication by ComReg.

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<sup>39</sup> Subject to the provisions of ComReg's published guidelines on the treatment of confidential information as set out in [ComReg Document 05/24](#).

- 2.60 Having analysed and considered the comments received, ComReg will review the proposals set out in this Consultation and having conducted the CCPC Consultation and the European Notification Requirements will consider whether to maintain or amend its proposals, as appropriate.<sup>40</sup>
- 2.61 ComReg will then seek to adopt and publish the final decision in its subsequent Response to Consultation and Decision.
- 2.62 All responses should be sent by post or email to the address below to arrive on or before **1700 on Friday, 3 March 2023**. Responses received after this date will not be considered. Responses should be marked for the attention of:

**Dave O’Connell**  
**Commission for Communications Regulation**  
**1 Dockland Central**  
**Guild Street**  
**Dublin 1**  
**D01 E4X0**  
**Ph: +353 1 804 9687**  
**Email: [dave.oconnell@comreg.ie](mailto:dave.oconnell@comreg.ie)**

- 2.63 Respondents should also be aware that all non-confidential responses to this Consultation will be published, subject to the provisions of ComReg’s guidelines on the treatment of confidential information.<sup>41</sup> Similarly, any correspondence received by ComReg from SPs in the course of the consultation process will also be published. **Respondents should ensure that a non-confidential version of their response is also provided by the closing date set out below. Confidential elements of responses must be clearly marked as such and be set out in a separate document which must also be provided to ComReg by the closing date set out below.**
- 2.64 This is a non-confidential version of the Consultation. Certain information within the Consultation has been redacted for reasons of confidentiality, with such redactions indicated by the symbol ✕. Should an individual SP wish to review its own redacted information, it should make a request for such in writing to ComReg (to the person identified in paragraph 2.62 above) and indicate, where possible, the specific paragraph numbers within which the redacted information being requested is contained. ComReg will consider requests for redacted information and will, subject to the protection of confidential information, respond accordingly.

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<sup>40</sup> See Annex 1 of this Consultation for the Draft Decision Instrument to give effect to the proposals (which may be amended having considered respondents’ views on the Consultation proposals).

<sup>41</sup> See ComReg [Document 05/24](#), “Guidelines on the treatment of confidential information”, March 2005.

## 2.9 Structure of the Consultation

- 2.65 The remainder of this Consultation is structured as follows:
- (a) **Section 3** gives an overview of trends and developments in the retail markets, including changes in usage and consumption;
  - (b) **Section 4** presents an assessment of the retail market, including defining the retail product market and the geographic scope of the retail market;
  - (c) **Section 5** assesses the Wholesale Local Access (WLA) market(s) by defining the WLA market(s) from both a product and geographic perspective;
  - (d) **Section 6** presents an assessment of competition in the WLA market(s) and examines whether any operator in the WLA market(s) has Significant Market Power (SMP);
  - (e) **Section 7** gives an assessment of the retail broadband market in the presence of regulation in the upstream WLA market(s), but absent regulation in the upstream WCA market(s);
  - (f) **Section 8** outlines the competition problems that can arise in the Commercial NG WLA Market absent regulation, when there is an operator with SMP, including exploitative, leveraging and exclusionary practices;
  - (g) **Section 9** presents the proposed remedies for the Commercial NG WLA Market;
  - (h) **Section 10** describes the withdrawal of remedies in the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market;
  - (i) **Section 11** presents a Regulatory Impact Assessment ('**RIA**') of the proposed regulation of the Commercial NG WLA Market; and
  - (j) **Section 12** outlines the next steps involved in bringing the findings of this Consultation to a Decision stage following the responses from stakeholders, and the dates for when these responses are due.
- 2.66 There are also a number of Annexes to the Consultation document, which give additional supporting analysis and, in some cases, outline the approach and findings in more detail, where they have been condensed for reasons of brevity in the main text.
- (a) **Annex 1** sets out the draft decision instrument for the WLA and WCA markets;
  - (b) **Annex 2** contains the 2022 Residential WLA/WCA Market Research, undertaken by Red C Research on behalf of ComReg;

- (c) **Annex 3** contains the 2022 SME WLA/WCA Market Research, undertaken by Red C Research on behalf of ComReg;
- (d) **Annex 4** outlines the pricing of retail broadband products that use LLU/VUA inputs, which is the basis for the Assessment of Indirect Constraints in Section 5;
- (e) **Annex 5** describes the approach to the assessment of potential substitutes in a market definition exercise;
- (f) **Annex 6** outlines the computation of the Critical Loss Test (discussed in Section 5);
- (g) **Annex 7** outlines the remaining SMP criteria, which ComReg considers are not relevant to the current assessment of SMP;
- (h) **Annex 8** presents the WLA geographic market assessment (as discussed in Section 5);
- (i) **Annex 9** describes the boundaries of the Relevant NG WLA Markets;
- (j) **Annex 10** contains the reference to the Optical Distribution Network (ODN) Sharing: Report for ComReg by Analysys Mason;
- (k) **Annex 11** contains the reference to the price control reports carried out for ComReg by Oxera;
- (l) **Annex 12** sets out a glossary of relevant terms used in this Consultation; and
- (m) **Annex 13** contains the questions set out in this Consultation.

# 3 Retail Market Trends and Developments

## 3.1 Introduction

- 3.1 In this section, ComReg sets out its views on trends and developments in the supply of, and demand for, retail broadband and other related retail services. This is accompanied by an assessment of the dynamics of the retail market and how these dynamics can materially impact at an upstream wholesale level, to inform ComReg's analysis of the Relevant Wholesale Markets.
- 3.2 ComReg examines both demand-side and supply-side trends on the retail market. This approach stems from the fact that demand for WLA and WCA is derived from downstream end user<sup>42</sup> demand for a range of retail services, including broadband, which can be provided using both WLA and WCA inputs.
- 3.3 The most notable current and foreseeable trends and developments in the supply of, and demand for, broadband and other related retail services include:
- (a) Increases in download and upload speeds on broadband subscriptions;
  - (b) Increases in download and upload traffic on broadband subscriptions;
  - (c) Movement away from copper, towards fibre-based broadband (net migration of end users from copper and FTTC towards full-fibre FTTP);
  - (d) Continued prevalence of bundling of broadband with other retail services, however, comparatively stronger growth in standalone subscriptions versus bundled plans;
  - (e) Behavioural changes as a result of the Covid-19 pandemic increasing the importance of broadband, i.e., the advent of homeworking, remote education and increased use and expectations of broadband; and
  - (f) Continued rollout and network upgrades by several Network Operators, including Eircom, SIRO, NBI and (on a forward-looking basis) Virgin Media, together with increased uptake of NG broadband services.

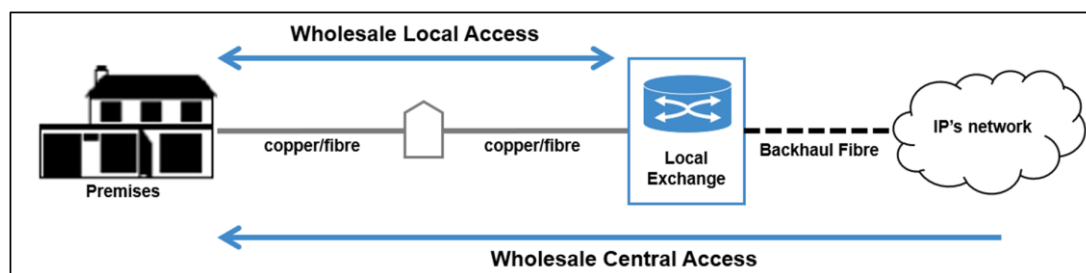
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<sup>42</sup> The term 'end user' generally refers to both residential and non-residential (business) customers throughout, unless otherwise specified.

## 3.2 Relationship between WLA, WCA, and retail broadband markets

- 3.4 WLA and WCA are wholesale broadband products which Access Seekers<sup>43</sup> can purchase to offer wholesale services to other operators, or, more commonly, to offer retail broadband and other services to their own end users. The WLA and WCA markets are vertically related. The WCA market lies downstream of the WLA market, but upstream of the retail broadband (and related) market. Thus, WLA is an upstream input into the provision of WCA.
- 3.5 Figure 2 below illustrates the WLA and WCA markets, and how they are related. The WLA market typically comprises the connection between the local exchange/aggregation node and the end user's premises, while WCA relates to the full connection from a SP's network to the end user's premises, including the backhaul element. WCA typically aggregates traffic across local exchanges/aggregation points to carry it to a higher point in the network.

**Figure 2: Example of Typical WLA and WCA Provision**



- 3.6 WLA includes access over what is colloquially known as the 'last mile', typically between the local exchange or access node(s) (the 'Point of Presence' or 'PoP') and the end user.<sup>44</sup> WLA is acquired upstream and, according to the EC definition, consists of both "*physical access products*" and "*virtual access products that mimic the capabilities of physical access (VULA) enabling transmission of internet and related data services*".<sup>45</sup>
- 3.7 In purchasing WLA, an Access Seeker must arrange for the provision of the backhaul elements between its network and the local exchange (or equivalent aggregation node). This can include either self-build or the purchase of backhaul from another wholesale supplier. Access Seekers purchasing WLA products do so to enable the provision to their own customers of a range of downstream (wholesale and retail) services. At the retail level these include,

<sup>43</sup> An Access Seeker is a Service Provider ('SP') that seeks to purchase upstream inputs (in this case, WLA and/or WCA services) from another SP.

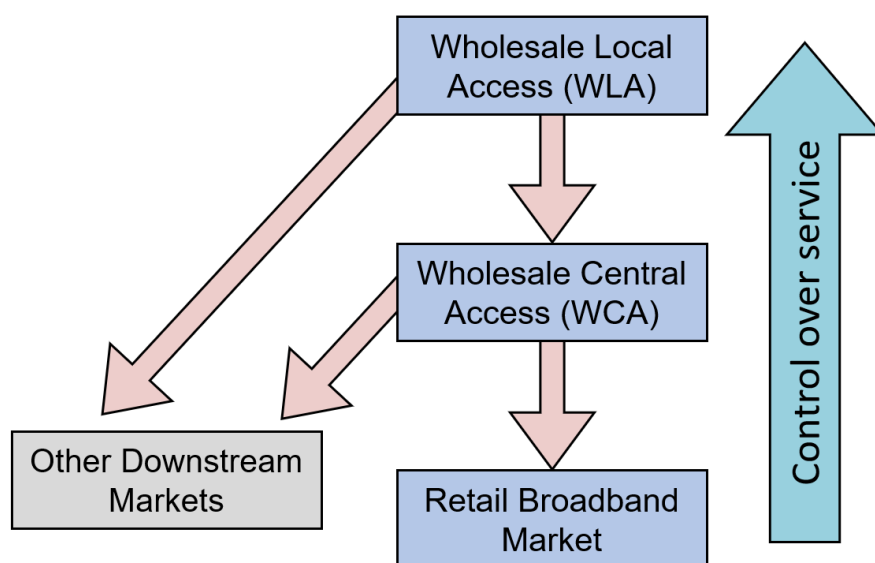
<sup>44</sup> This does not preclude other forms of access between these points.

<sup>45</sup> 2020 Explanatory Note, p.48.

but are not limited to, broadband, leased lines ('LL'), television ('TV') and retail fixed telephony services ('RFTS'). At the wholesale level, an Access Seeker can also purchase WLA to facilitate its delivery of WCA services (downstream from the WLA market) to other Access Seekers who, in turn, use these inputs to provide retail services to end users. The WLA and WCA markets are therefore vertically integrated.

3.8 WCA is a wholesale input used both directly and indirectly in the provision of a range of downstream wholesale and retail services, which are typically used by end users to access broadband, TV, and RFTS. Compared to WLA, WCA products are typically provided to Access Seekers at a higher and more central layer in the network architecture.<sup>46</sup> Generally, WCA involves the rental of a broadband connection between an end user's premises and an aggregation point in a network, and therefore includes backhaul connectivity from the PoP to the WCA SP's network. Compared to WLA, WCA products give Access Seekers a "less direct and more standardized control over the access line".<sup>47</sup>

**Figure 3: Relationship between WLA, WCA and Retail Market for Broadband**



3.9 This market review focuses on the provision of WLA and WCA services and on WLA and WCA as upstream inputs into the provision of retail broadband and other retail services. Competition in retail markets depends on SPs offering services either via their own infrastructure, or by purchasing wholesale inputs provided by another SP in the WCA or WLA markets.

<sup>46</sup> 2020 Explanatory Note p. 52.

<sup>47</sup> 2020 Explanatory Note, p.42.

- 3.10 WLA and WCA are provided over CG technology, which consists of legacy copper-only paths, or NG technology, which consists of technologies offered over access paths having a full or partial fibre component.
- 3.11 CG WLA products include Local Loop Unbundling ('**LLU**'), Line Share and Sub-loop Unbundling ('**SLU**'), whereas the NG WLA product is Virtual Unbundled Local Access ('**VULA**') (\*also known as VUA). On the WCA side, the CG product is CG Bitstream, and the NG product is NG Bitstream, or Bitstream Plus.
- 3.12 The WLA market is described by the EC as "Wholesale local access at a fixed location" being Market 1 in its 2020 Recommendation.<sup>48</sup> This recommendation replaces and supersedes the 2014 Recommendation,<sup>49</sup> which designated the WLA market as Market 3a, although the market description is unchanged. The inclusion of the WLA market in the 2020 Recommendation means that the EU considers that the WLA market is susceptible to *ex ante* regulation at EU level.
- 3.13 The WCA market is described by the EC as "*Wholesale central access at a fixed location*". The EC 2014 Recommendation designated the WCA market as Market 3b. However, the 2020 Recommendation has removed the WCA market from the list of markets deemed susceptible to *ex ante* regulation. Accordingly, there is no longer any presumption at EU level that WCA markets are susceptible to *ex ante* regulation. A National Regulatory Authority ('**NRA**') must demonstrate that, in light of the structure of the market and after an assessment of the national conditions impacting the likelihood of competition in the market, whether certain conditions exist that warrant the regulation of the WCA market.
- 3.14 The Three Criteria Test ('**3CT**') is the assessment carried out by an NRA to determine whether a market not identified in an EC recommendation should be subject to regulation.<sup>50</sup> The 3CT seeks to determine whether, in light of national market circumstances, a market is characterised by;
- (a) The presence of high and non-transitory structural, legal, or regulatory barriers to entry;

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<sup>48</sup> European Commission Recommendation of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (the '**2020 Recommendation**').

<sup>49</sup> European Commission Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation (the '**2014 Recommendation**').

<sup>50</sup> As outlined in Article 67 of the Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (the '**EECC**').



- (b) A market structure which does not tend toward effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry; and
- (c) Competition law alone is insufficient to adequately address the identified market failure(s).

3.15 NRAs can identify and regulate markets not listed in the 2020 Recommendation provided it can be demonstrated that each of the three criteria listed above are cumulatively met such that the 3CT is deemed to pass. However, meeting the 3CT does not automatically mean that regulation is warranted. It is then necessary to carry out a further assessment on that market to determine whether SMP is present.

### 3.2.1 Retail Service Providers using WLA, WCA and own network inputs

3.16 A number of Access Seekers are currently active in the provision of retail services using WLA and/or WCA inputs.<sup>51</sup> These Access Seekers differ in terms of the product(s) they supply, the underlying access technology or platform, their relative size, and their geographic coverage and thus their service availability. For the purposes of ComReg's analysis, SPs can be divided into three broad categories, in terms of the extent of their own network coverage and the degree to which they depend on the use of wholesale services purchased from other SPs. ComReg collects data on a quarterly basis<sup>52</sup> from these operators, based on the following delineations:

- (a) **Network Operators:** These SPs operate and maintain their own local access network and associated infrastructure. Eircom, SIRO, NBI and – on a forward-looking basis - Virgin Media are all examples of Network Operators. Such providers can operate as wholesale only providers, whereby they provide wholesale services to other SPs entirely over their own network and associated infrastructure, on a merchant market basis (SIRO and NBI); or they can be active directly in the provision of retail broadband to end users (Eircom and Virgin Media), on a self-supply basis, instead of or in addition to offering wholesale services.

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<sup>51</sup> The Service Providers listed in this section do not serve as an exhaustive list of all suppliers currently active in the Irish market, but rather as examples of some of the principal suppliers.

<sup>52</sup> The ComReg Quarterly Key Data Report ('QKDR') is published on a quarterly basis at the following: <https://www.comreg.ie/industry/electronic-communications/market-information/quarterly-key-data-report/>. Reference to data from these reports is referenced throughout.

- (b) **Retail Operators:** These SPs purchase upstream inputs in the WCA and WLA markets to provide products in the downstream retail market(s). Typically, such operators have limited network infrastructure of their own and rely on access to wholesale services provided by Network Operators to provide downstream wholesale and/or retail service to end users. Examples of WLA and/or WCA purchasers in the Irish market include Vodafone, BT Ireland, and Digiweb.
- (c) **Resellers:** These SPs purchase products from a third-party SP (a Network Operator) and resell services in the retail market, under their own brand, for example, Sky. Some such providers only have regional coverage, for example, Westnet and Rocket Broadband.

3.17 Although most operators and SPs fall under the above delineations, in some instances certain operators fall between or across categories. For instance, BT does not fit into simply one of the above, since it operates its own network but also purchases wholesale services from other operators and uses these inputs to compete at the wholesale and retail level. In addition, BT also acts as an aggregator in selling to other SPs, purchasing from Network Operators and selling these services to other SPs.

3.18 These SPs (in addition to those not mentioned above, but active in the provision of retail broadband) offer a range of retail services, using inputs from the WLA and WCA market, in addition to their own network inputs.

### 3.2.2 Network upgrade and rollout plans

3.19 A number of SPs are currently engaged in the rollout of FTTP networks. Several of these rollouts had commenced or were planned at the time of the 2018 Decision. Since then, rollout of FTTP broadband networks has continued, with additional announcements of further phases of rollout, or, in the case of Virgin Media, plans for a complete network overbuild. During Q4 2021, several operators (namely Eircom, Virgin Media and SIRO) announced either network expansion plans to areas previously unserved or plans for network upgrades in areas already served. Additionally, in Q4 2022, Virgin Media announced plans to enter the wholesale market, having reached an agreement with Vodafone for the provision of wholesale services over its FTTP network.<sup>53</sup> These market developments, if and when they come to fruition, are likely to have an impact on the broadband market, at both retail and wholesale level.

3.20 The number of premises in the State capable of receiving FTTP (i.e., which are passed by an FTTP network) is constantly evolving and growing, through a combination of rollout from Eircom, NBI, SIRO and, on a forward-looking

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<sup>53</sup> <https://www.irishtimes.com/business/2022/10/27/virgin-media-opens-up-its-fast-fibre-broadband-network-to-vodafone/>

basis, Virgin Media.<sup>54</sup> In Q2 2022 1,192,036 unique premises in the State were passed by an FTTP network,<sup>55</sup> of which 425,531 (36%) were active lines.<sup>56</sup>

## Eircom

- 3.21 In 2014 Eircom announced the rollout of an FTTP network with download speeds of up to 1 Gbps. This rollout commenced in 2016 and as of Q2 2022 is ongoing. Eircom's broadband network is still predominantly based on FTTC, however, as its FTTP rollout continues to progress, and it deploys fibre deeper into its local access network and closer to the end user premises, this will shift (eventually completely) to a FTTP-based network (excluding premises where the NBP is serving). As of Q2 2022 Eircom passes [X< ██████████ ██████████<sup>57</sup> ██████████ ██████████<sup>58</sup> X] premises in the State.
- 3.22 Eircom's initial FTTx network rollout plans included 300,000 rural premises, which were originally part of the National Broadband Plan ('NBP') Intervention Area ('IA') and which, in April 2017 were removed from the IA following commitments made by Eircom to the Department of Environment, Climate and Communications ('DECC')<sup>59</sup> to provide premises in rural Ireland with access to high speed broadband.<sup>60</sup> Subsequently, Eircom added another 40,000 premises to this figure (the 'Rural 340k')<sup>61</sup> which it agreed to roll FTTP out to on a commercial basis.

<sup>54</sup> Throughout, ComReg includes references to the potential FTTP rollout of Virgin Media, when taking a forward-looking perspective. The proposed overbuild of their existing DOCSIS3.1 network to FTTP was announced in November 2021 (for more detail and discussion of the Virgin Media announcement and plan see paragraphs 3.29 to 3.30). However, there is a significant degree of uncertainty around this rollout and is subject to internal approvals, budgetary constraints, timeline changes and ComReg therefore employs caution in taking said rollout into account.

<sup>55</sup> 'Premises passed' refers to the total number of active, passed and in-situ lines i.e., the total number of lines with an active subscription, have been passed by operators but are not currently active and lines which were previously but are not currently active (these lines are easily 'switched' back on). The 'unique premises' metric accounts for the fact that some Eircodes/premises are passed by more than one FTTP network. There is FTTP overlap at approximately 238,476 Eircodes. Accounting for only unique premises passed by an FTTP network allows for a better picture of actual coverage, as including Eircodes passed by multiple FTTP networks more than once would artificially inflate coverage figures and infer a greater degree of FTTP coverage than is reality.

<sup>56</sup> 'Active' refers to lines which have an active subscription associated with the line i.e., a retail operator has purchased these from the Network Operator or is used by a Network Operator's retail arm to sell to an end user.

<sup>57</sup> According to QKDR data.

<sup>58</sup> Accounting for Eircom FTTP and FTTC overlaps

<sup>59</sup> As set out in the Commitment Agreement between Eircom and the Department of Communications, Climate Action, and Energy ('DECC')

<sup>60</sup> <https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/frequently-asked-questions/Pages/Light-Blue.aspx> The underlying Commitment Agreement is available at <https://www.dccae.gov.ie/documents/Commitment%20Agreement.pdf>.

<sup>61</sup> <https://www.independent.ie/business/farming/rural-life/eir-says-plan-to-provide-30000-farms-with-highspeed-fibre-broadband-will-be-complete-in-june-37824246.html>.

- 3.23 In October 2021 Eircom announced plans to speed up its fibre rollout via investment from an infrastructure investment partner, InfraVia.<sup>62</sup> In January 2022, Eircom announced that a deal had been reached with InfraVia to establish a Joint Venture ('JV') partnership for its wholesale FTTP network, with the goal of reducing the time required for the completion of the next phase of its FTTP over-build.<sup>63</sup> This transaction was completed in June 2022, resulting in InfraVia taking a 49.9% stake in a new Eircom subsidiary, Fibre Networks Ireland Limited ('FNI'), which will provide passive broadband services exclusively to Open Eir (the wholesale arm of Eircom) while Eircom continues to manage and provide maintenance and services across its network.<sup>64</sup> Eircom indicated that 200,000 homes will be passed by FTTP in 2022, increasing to 250,000 homes in 2023 and per year thereafter, resulting in 1.9m premises served by Eircom FTTP.
- 3.24 In the PIA Consultation,<sup>65</sup> ComReg has considered the transaction entered into between Eircom and InfraVia whereby a dedicated fibre company, Fibre Networks Ireland Limited ('FNI'), was created with plans to pass over 1.9m homes with FTTP by 2026 (the 'Transaction'). InfraVia owns a 49.99% interest in FNI, and Eircom the remaining 50.01%. As part of the transaction Eircom transferred to FNI, certain assets (including ducts, poles and fibre but excluding exchanges and cabinets) that are principally located outside the Government's NBP IA, where NBI is currently rolling out its FTTH network.
- 3.25 The associated assets are expressed to include the Access Network, the Fibre Rights<sup>66</sup> and other assets and property used exclusively in respect of the Business<sup>67</sup> but excluding certain Excluded Assets. The Excluded Assets are listed in the Business Transfer Agreement<sup>68</sup> and include (amongst other things) [REDACTED]

<sup>62</sup> <http://home.eir.ie/pressroom/eir-and-InfraVia-Form-Partnership-to-Accelerate-eirs-Fibre-Broadband-Roll-Out/>.

<sup>63</sup> According to Eircom, this transaction will allow for fibre rollout to accelerate by 25% to pass an additional 250,000 homes by the end of 2023.

<sup>64</sup> Details of the transaction are available at [https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/news/eir\\_Fibre\\_Partnership\\_Press\\_Release\\_2201\\_28.pdf](https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/news/eir_Fibre_Partnership_Press_Release_2201_28.pdf) and <https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/news/220701-eir-Fibre-Partnership-Completes-Press-Release.pdf>.

<sup>65</sup> See section 3.3.2 and elsewhere in the PIA Consultation.

<sup>66</sup> Defined in the Business Transfer Agreement as "all statutory, prescriptive, contractual and common law title and property rights and all easements, rights, powers, privileges and interests which are held by the Company at Completion and which are necessary to operate the Access Network".

<sup>67</sup> Clause 2.1.

<sup>68</sup> Clause 1.1 (Definition of Excluded Assets).

[REDACTED]

3.26 In the PIA Consultation ComReg’s view is that it is appropriate to treat the physical infrastructure owned by FNI and Eircom as one PI network, the operation and management of which is effectively under Eircom’s control.

3.27 As regards WLA and WCA supply by Eircom, having regard to the reasons as set out in the PIA Consultation and also noting that Excluded Assets remain under the ownership of Eircom, ComReg considers that the operation and management of WLA and WCA services is under Eircom’s control.

### Virgin Media

3.28 In 2005, Virgin Media (then operating as UPC Ireland) began providing broadband services over its CATV network, offering download speeds up to 30 Mbps. In 2010, UPC began upgrading its CATV network to the DOCSIS 3.0 standard and as of August 2020 Virgin Media had completed the upgrade of its network to the DOCSIS 3.1 standard - enabling it to provide faster gigabit capable broadband to over 97.5% of its network.<sup>70</sup>

3.29 In November 2021, Virgin Media announced its intention to replace its CATV network with a FTTP network. This rollout has now commenced, and Virgin Media has piloted a fibre upgrade of 500 premises, delivering speeds of up to 10 Gbps – exceeding its current offering of up to 1 Gbps on its DOCSIS 3.1 cable network.<sup>71</sup> Virgin Media has indicated to ComReg that [REDACTED]

[REDACTED]

<sup>69</sup> Clauses 1 and 2.

<sup>70</sup> The DOCSIS 3.1 specification for coaxial-based (cable) networks was released in 2013, providing for 10 Gbps downstream and 1-2 Gbps upstream and allowing for a smooth migration from DOCSIS 2.x and 3.0. See page 42 of the 2020 Explanatory Note.

<sup>71</sup> <http://www.techcentral.ie/virgin-media-ireland-announces-national-fibre-network-upgrade/>.

<sup>72</sup> These plans are subject to internal planning activities.

- 3.30 In August 2022, Virgin Media announced that it had entered into a wholesale agreement with SIRO, allowing it to expand its reach across the State.<sup>73</sup> Virgin Media subsequently announced in October 2022 that it had agreed a wholesale network access deal with Vodafone, whereby Vodafone will access Virgin Media FTTP network assets on a merchant market basis.<sup>74</sup> While Virgin Media has announced planned rollout of fibre, it has not, as of November 2022, provided ComReg with detailed forward-looking deployment plans.

## SIRO

- 3.31 In July 2014, ESB and Vodafone Ireland announced a 50:50 Joint Venture ('SIRO'), to build an FTTP network across 50 towns in Ireland, with the target of reaching 500,000 customers (a figure later revised to 450,000), with download speeds up to 1 Gbps. This has now been largely completed, with SIRO commencing Phase 2 rollout across a further 79 towns, with plans to add an additional 320,000 premises to its existing footprint. The network is deployed on ESB's existing overhead and underground infrastructure. Although SIRO operates at the wholesale level only, it is relevant to the retail market assessment as its product offering directly impacts the products its retail partners can offer to end users. As of Q2 2022 SIRO has 20 retail partners, including Vodafone and Sky, and the SIRO network passed [X ██████████ X].<sup>75</sup> On completion, the SIRO network is planned to span 21 counties with coverage of 154 towns, encompassing c.770,000 premises.<sup>76</sup>

## NBI

- 3.32 The NBP contract was signed between the Government and NBI in November 2019. Pursuant to the contract, over a seven-year rollout period, NBI is scheduled to pass approximately 560,000 premises in the IA. The IA focuses on areas where there is no existing or planned commercial NG network, which amounts to approximately 23% of all premises in the State. Although predominantly rural, the IA covers areas in all 26 counties, and all but four metropolitan Dublin constituencies. NBI rollout commenced in late 2020, passing its first premises in January 2021 and as of September 2022 passes 80,324 premises in the State.<sup>77</sup> NBI has forecasted that, by the end of 2022, it will have passed approximately 102,000 premises.<sup>78</sup>

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<sup>73</sup> <https://www.virginmedia.ie/about-us/press/2022/virgin-media-expands-market-reach/>.

<sup>74</sup> [Virgin Media opens up its fast fibre broadband network to Vodafone – The Irish Times](#)

<sup>75</sup> QKDR Q2 2022.

<sup>76</sup> SIRO reports passing over 460,000 premises as of October 2022: <http://siro.ie/>, accessed on 1 November 2022.

<sup>77</sup> <https://nbi.ie/> accessed 26 September 2022.

<sup>78</sup> <https://nbi.ie/nbp-project-progress/> NBI measures 'premises passed' as premises which are typically available for connection within a 10-day time period.

## Imagine

3.33 Imagine provides predominantly Fixed Wireless Access ('**FWA**')-based broadband to end users, typically located in rural areas. In February 2019 Imagine announced plans<sup>79</sup> to cover 1.1 million premises in regional and rural areas with 150 Mbps connectivity using 5G 3.6GHz spectrum fixed infrastructure. Under the announced plan Imagine aimed to build 325 sites to do so within 18 months, with additional sites to be added to meet demand as it arose. As of September 2022, this service is live and available in 24 counties, 52 exchanges and currently passes 74% of rural premises in the State.<sup>80</sup>

### 3.3 Broadband subscriptions by network platform, type and speed

3.34 The following sub-section analyses trends and patterns in the demand for retail broadband since the publication of the 2018 Decision. ComReg examines trends in broadband subscriptions, by platform, type and download speed, in addition to behavioural changes and market dynamics which are likely to drive these trends.

#### 3.3.1 Broadband subscriptions by platform

3.35 Figure 4 below illustrates the breakdown of broadband subscriptions<sup>81</sup> in Ireland by type since Q4 2018. In contrast to the breakdown at the time of the 2018 Decision,<sup>82</sup> retail subscriptions delivered over Next Generation broadband ('**NG broadband**')<sup>83</sup> now account for the largest share of total broadband subscriptions (91%), highlighting the migration of end users away from broadband delivered over legacy copper networks towards higher speed broadband provided over (full or partial) fibre networks. Alongside the migration away from copper-only broadband services, there is also ongoing migration within the 'umbrella' of NG broadband, from partial fibre, FTTC-

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<sup>79</sup> <https://www.siliconrepublic.com/comms/imagine-5g-broadband-rural-ireland>.

<sup>80</sup> <https://www.imagine.ie/#check-coverage>. ComReg notes that this does not necessarily mean that Imagine can serve every premises in its coverage footprint, as this will be conditional on its network capabilities, including, for example, backhaul.

<sup>81</sup> Total broadband subscriptions represent the sum of copper, FTTC, FTTP, Cable, FWA, Satellite and Mobile broadband Subscriber Lines, as described in the QKDR.

<sup>82</sup> The 2018 WLA/WCA Decision (D10/18) was published on 30 November 2018, comparisons made from this time period will therefore rely on figures from Q4 2018, where available. Due to some changes in data collection methodologies and storage, certain data points are only available, on a comparative basis from Q1 2019 onwards.

<sup>83</sup> Next Generation ('**NG**') broadband includes technologies which include a partial or full optical component, including Fibre to the Cabinet ('**FTTC**'), Fibre to the Premises ('**FTTP**'), and DOCSIS 3.1 which is used to deliver broadband over cable. Under the provisions of the European Electronic Communications Code, a Very High Capacity Network ('**VHCN**') is defined as an electronic communications network which consists wholly of optical fibre elements at least up to the distribution point at the serving location, or an electronic communications network capable of delivering, under usual peak-time conditions, similar network performance in terms of available downlink and uplink bandwidth, resilience, error-related parameters, and latency and its variation.

based broadband, towards full fibre FTTP – driven in large part by the increased availability of FTTP networks. Copper-only broadband subscriptions have declined 55% since Q4 2018 and FTTC subscriptions have declined 8% over this same period, whereas FTTP subscriptions have risen by 376% (although from a low base initially).

- 3.36 According to the QKDR, as of Q2 2022, there were a total of 1.9 million (fixed and mobile) broadband subscriber lines in the State. Of this, 7% of subscriptions were delivered over a CG copper network.<sup>84</sup> In terms of subscriptions delivered over NGA platforms,<sup>85</sup> 29% of total broadband subscriptions were delivered over FTTC (VDSL),<sup>86</sup> 22% over FTTP, and 19% of subscribers received broadband over Virgin Media's CATV DOCSIS 3.1 network.<sup>87</sup> An additional 18% of subscribers made use of mobile broadband ('**MBB**')<sup>88</sup> and the remaining subscribers accessed services using satellite or FWA networks,<sup>89</sup> accounting for less than 5% of subscription volumes.
- 3.37 By comparison, in Q4 2018, there were a total of 1.7 million broadband subscriptions, of which 17% were delivered over a CG copper network, 36% were delivered over FTTC, 5% over FTTP and 22% over Virgin Media's cable network. The remaining subscribers accessed broadband via MBB (17%), FWA (3%) and satellite (0.3%).

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<sup>84</sup> A copper network or a copper-only network refers to a network that does not include any fibre in the access path. A copper network is typically used to supply ADSL and ADSL+ based broadband services.

<sup>85</sup> Next Generation Access ('**NGA**'), provided over a fibre or fibre/copper hybrid network. Fibre is typically described as being provided 'to the ...'. 'FTTx' refers to the provision of broadband by means of fibre optic cable, either as Fibre to the Home ('**FTTH**'), Fibre to the Premises ('**FTTP**'), Fibre to the Cabinet ('**FTTC**') or DOCSIS 3.1 CATV.

<sup>86</sup> Very high-speed Digital Subscriber Line ('**VDSL**').

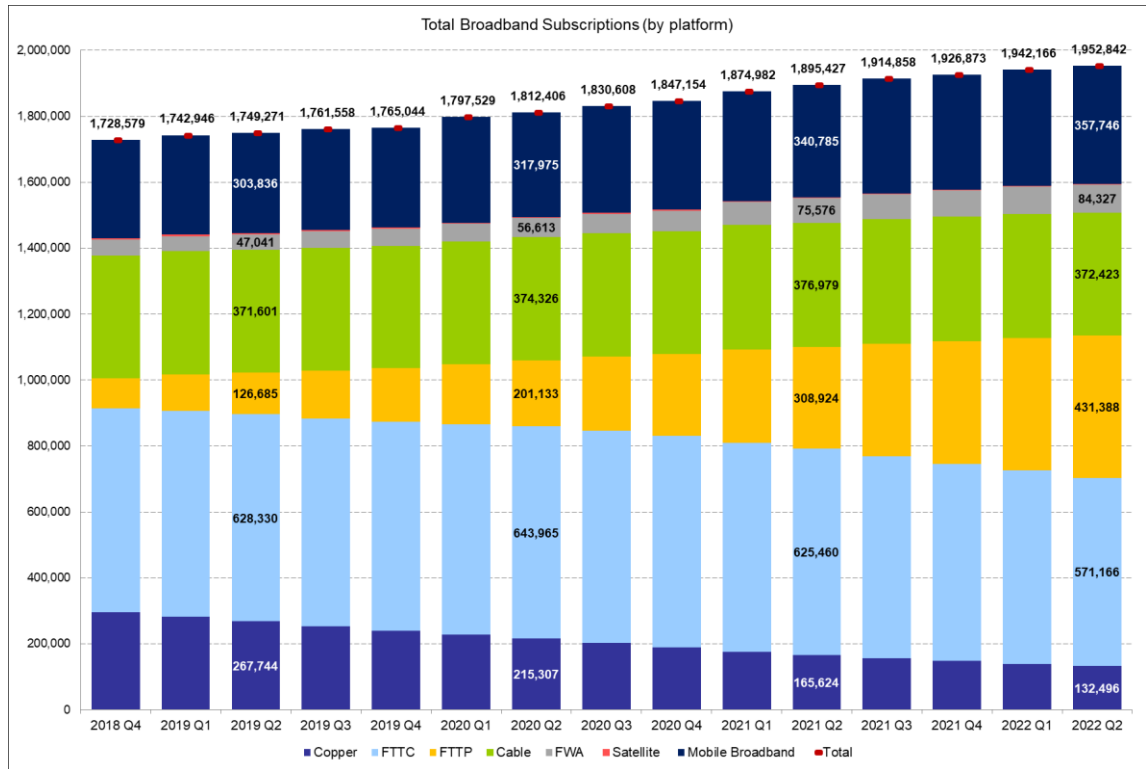
<sup>87</sup> Cable Access Television ('**CATV**') Data Over Cable Service Interface Specification ('**DOCSIS**').

<sup>88</sup> Broadband services delivered over a mobile network using a dongle or MiFi device. Such services are currently available from SPs including Three Ireland, Eircom, Vodafone and Magnet. ComReg QKDR data do not split MBB subscriptions by underlying (4G/5G) technology.

<sup>89</sup> FWA subscriptions accounted for a 4.3% share and satellite subscriptions for 0.2%.

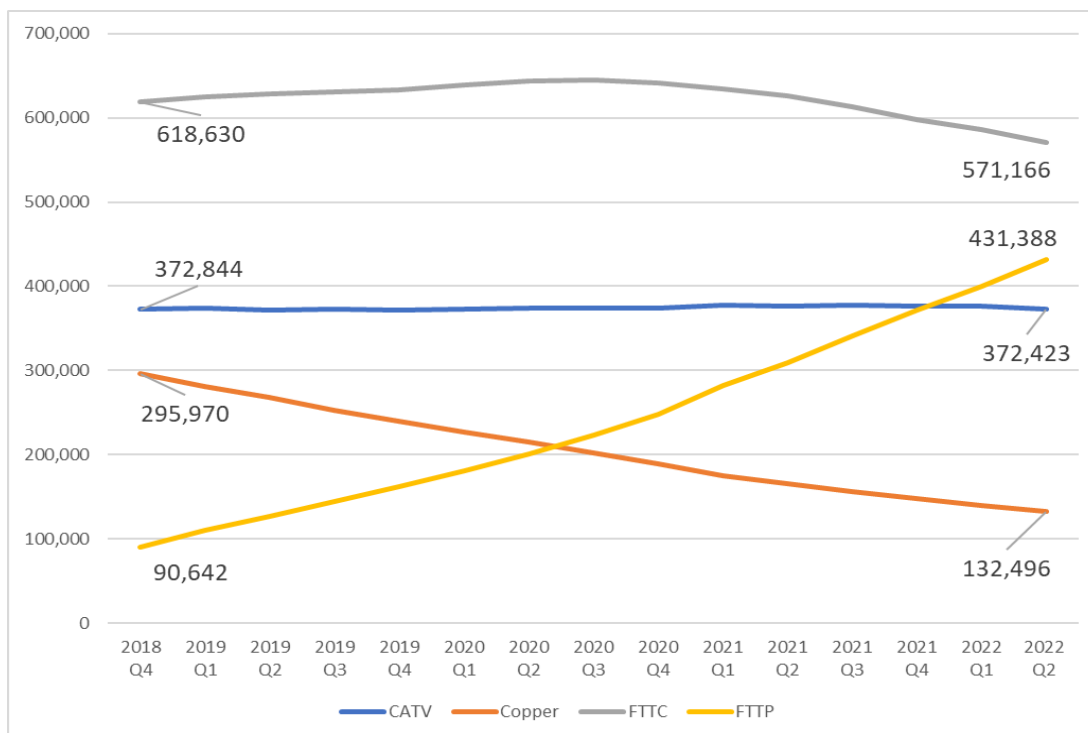


Figure 4: Retail Broadband Subscriptions by Platform, Q4 2018 – Q2 2022<sup>90</sup>



<sup>90</sup> QKDR data.

**Figure 5: Retail Fixed Broadband Subscriptions, Q4 2018 – Q2 2022<sup>91</sup>**



3.38 During this period, the platform which experienced the highest growth was FTTP, increasing by 376% from 90,642 subscriptions in Q4 2018 to 431,388 in Q2 2022. This increase in FTTP subscriptions resulted in its share of total subscriptions rising from 5% in Q4 2018 to 22% by Q2 2022, outstripping the growth of every other broadband platform over the same period. Notably, in Q1 2022 FTTP-based subscriptions surpassed the number of CATV-based subscriptions in the State for the first time, highlighting the continued growth in this segment of the market. FTTP subscriptions (aided by ongoing FTTP network rollout and increased availability) have increased consistently in every quarter since the publication of the 2018 Decision, a trend which, as of Q2 2022, sees FTTP account for the second largest proportion of the retail broadband market.

3.39 During this period the other major identifiable trend is the decline in copper-based subscriptions.<sup>92</sup> Copper-based subscriptions have fallen 55%, from 295,970 subscriptions in Q4 2018 to 132,496 in Q2 2022, and now account for just 7% of total broadband subscriptions (in comparison to 17% in Q4 2018). This ongoing decline continues a trend first identified in the 2018 Decision.

<sup>91</sup> QKDR data.

<sup>92</sup> “Copper/copper only network” refers to a network that does not include fibre in the access path (i.e., which has exclusively copper in the access path). A copper network is typically used to supply, amongst other things, ADSL and ADSL2+ based broadband services, for example Eircom’s legacy copper-based network.

- 3.40 The rise of FTTP and simultaneous decline in copper subscriptions is clearly illustrated in Figure 5 above. There are likely to be several underlying migration dynamics driving these figures:
- (a) Migration from Copper to FTTC;
  - (b) Migration from Copper to FTTP; and
  - (c) Migration from FTTC to FTTP.
- 3.41 As illustrated in Figure 5, since Q4 2018, FTTC subscriptions have declined by 8%, from 618,630 to 571,166. For the first seven of these 13 quarters FTTC subscriptions were in fact growing, reaching a peak of 645,125 subscriptions in Q3 2020. However, after this point, the trend reversed and FTTC subscriptions have now been in decline for the seven consecutive quarters, falling 11% over the period Q3 2020 to Q2 2022.
- 3.42 Over the same period, CATV subscriptions (delivered via DOCSIS 3.1) fluctuated within a narrow band, its share of subscriptions declining from 22% to 19% and absolute subscription numbers remaining relatively unchanged, from 372,844 in Q4 2018 to 372,423 in Q2 2022 (although we note a fall in subscriptions for the last three quarters to Q2 2022).
- 3.43 MBB subscriptions have increased 20% over the period, by 59,327 from 298,419 to 357,746. Although the absolute number of broadband subscriptions has risen, MBB subscriptions as a share of total broadband subscriptions have remained largely unchanged over the period, fluctuating in a narrow band, in a similar fashion to cable subscriptions. Overall, MBB subscriptions account for the fourth largest portion of total broadband subscriptions, at 18%.
- 3.44 In Q2 2022 there were 3,296 satellite subscriptions and 84,327 FWA subscriptions. Since the 2018 Decision, FWA subscriptions in Ireland have increased from 47,552 to 84,327, an increase of 77%. However, relative to its peak in Q1 2008, where FWA subscriptions numbered 123,456, the current figure remains below this level. In Q2 2022 4.3% of broadband subscriptions were delivered over FWA. Accordingly, although the share of total broadband subscriptions attributable to FWA has remained relatively consistent (fluctuating between 3% and 4%), in absolute terms FWA subscriptions since Q4 2018 have increased by 77%. This upward trend commenced in Q2 2019 and FWA subscriptions have increased, for each of the twelve quarters since.
- 3.45 Satellite broadband had been decreasing each quarter from the 2018 Decision, from 4,522 in Q4 2018 to 1,665 in Q1 2022. However, from Q2 2022, Starlink started submitting data to ComReg and its subscriber figures have been included, raising satellite subscriptions to 3,296. This is still a 27% decline in subscribers since the 2018 Decision.

- 3.46 Typically, FWA services are more prevalent in rural areas, where fixed NG broadband is, in general, less prevalent than in more densely populated urban areas. Imagine is the largest retail provider of FWA services, with a 55% share of all FWA subscriptions. Such services are also provided by a number of smaller, mostly regional-based, providers, often described as Wireless Internet Service Providers ('**WISP(s)**'). Despite the increase in the incidence of FWA since the 2018 Decision, there is some evidence to suggest that the increase in demand for these services may be transitory in nature.
- 3.47 When engaging with discussions with operators, [X [REDACTED] X] were of the view that FWA is being used as a temporary solution by end users in less densely populated areas of the State where FTTP is not (yet) available and that it is likely that end users have turned to FWA whilst awaiting FTTP rollout in their area as a means to securing a higher speed broadband connection than that available over e.g., copper. The phenomenon may have been amplified by the Covid-19 pandemic and the increased need of many end users for access to higher speed, more reliable broadband (at short notice) to facilitate remote work and education.<sup>93</sup>
- 3.48 Despite increases in FWA subscription numbers, NBI noted in discussions with ComReg that, [X [REDACTED] X].
- 3.49 ComReg data on the geographic distribution of FWA subscriptions suggest that the large majority of FWA subscription premises are likely to fall within the IA.<sup>94</sup> Overall, ComReg recognises the upwards trend in FWA but considers that it does not represent a significant change in the underlying dynamics of the retail market or have any substantial identifiable impact at wholesale level. In addition, despite the fact subscriptions have grown by 77% since Q4 2018, this needs to be considered in the context of FWA having a low overall base.
- 3.50 Overall, the most significant identifiable trend at retail broadband level is the growth in broadband subscriptions provided by means of FTTP and the decline in subscriptions provided over copper. Since Q4 2018, broadband subscriptions over copper have fallen by 55%, while FTTP subscriptions have grown by 376%. As discussed in paragraph 3.35, copper-based broadband appears to be in decline, as end users migrate towards NG-based broadband, primarily over fibre, where available. In contrast, FTTP has experienced the

<sup>93</sup> As set out in meetings with [X [REDACTED] X] on 17 January 2022 and [X [REDACTED] X] on 10 January 2022.

<sup>94</sup> ComReg Q1 2022 data indicate that, of those premises served by FWA for which there is geo-location data (approximately 65K of 83K FWA subscriptions), c.78% of such premises are located within the NBP footprint.

greatest growth in subscriptions, both in absolute and relative terms, illustrating the active migration of end users towards NG technologies. Over the 5-year period of this market review, on the assumption that SPs FTTP roll-out plans materialise, FTTP will be the predominant broadband platform, and we would expect FTTC, copper and FWA broadband subscriptions to have a relatively lower share of overall broadband subscriptions, with FTTP broadband subscriptions dominating.

### 3.3.2 Market shares of SPs providing broadband services

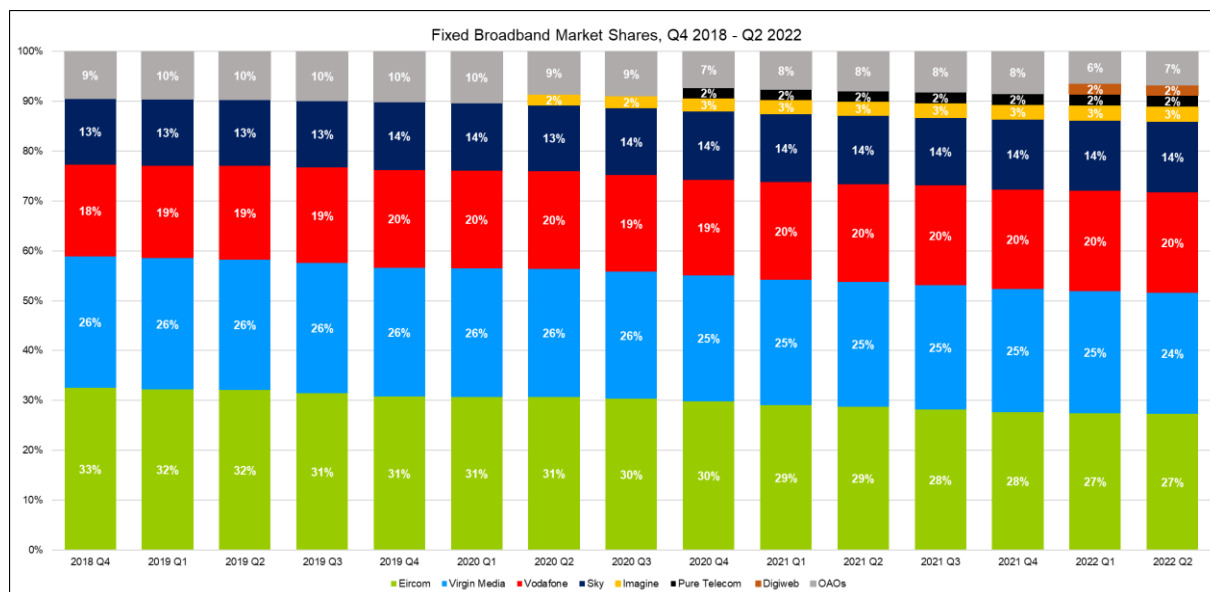
3.51 Figure 6 below shows the market shares of fixed broadband<sup>95</sup> operators by subscription numbers – including operators that offer services on the basis of purchased wholesale broadband services. ComReg’s QKDR groups together operators which individually account for less than 2% of total fixed broadband subscriptions under the heading Other Authorised Operator(s) (**‘OAO(s)’**).<sup>96</sup>

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<sup>95</sup> Fixed broadband referring cumulatively to broadband provided over Copper (DSL), FTTC, FTTP, DOCSIS 3.0 CATV, FWA and Satellite. Equivalent to total retail broadband, minus mobile broadband figures.

<sup>96</sup> Examples of operators in the Other Authorised Operator (**‘OAO’**) category include Digiweb, Magnet and Whizzy.

Figure 6: Fixed Retail Broadband market shares, Q4 2018-Q2 2022<sup>97</sup>



3.52 Eircom, which is vertically integrated, remains the largest provider of WLA and WCA services in the State. It owns and controls a ubiquitous CG network and also operates a NG network, which as noted earlier it is upgrading and rolling out on an ongoing basis – ultimately it is likely to have the largest FTTP network in the State. In particular, Eircom is currently focussed on overlaying its FTTC network with FTTP. This FTTP network will eventually replace Eircom’s copper network (mainly in areas outside the IA) and will be capable of facilitating end user migrations away from both legacy, copper-based broadband and FTTC-based broadband (which includes a copper component) towards full fibre, such that the sole technology in Eircom’s network will ultimately be FTTP.<sup>98</sup> Currently Eircom provides a range of services over its CG and NG networks, including RFTS, broadband, TV and Leased Line (‘LL’) services to both residential and non-residential customers. However, there is an ongoing and persistent decline in services demanded and supplied over its CGA network.

3.53 As evidenced by Figure 6, in the presence of regulation Eircom remains the single largest retail provider of broadband services, and as of Q2 2022, holds a market share of 27% of fixed broadband subscriptions, compared to a market share of 33% in Q4 2018.<sup>99</sup> In Q2 2022 Eircom had 551,000 retail broadband subscriptions - 432,000 residential and 120,000 non-residential end users.

<sup>97</sup> QKDR data. ‘Fixed’ retail market refers to broadband provided over copper (DSL), FTTC, FTTP, DOCSIS 3.1 CATV, FWA and Satellite.

<sup>98</sup> Eircom’s ongoing and rollout to date is discussed in greater detail in paragraphs 3.21 to 3.23 above.

<sup>99</sup> Based on operator share of the number of retail subscriber lines for DSL, VDSL, FTTP and cable plus subscriber lines for satellite and FWA.

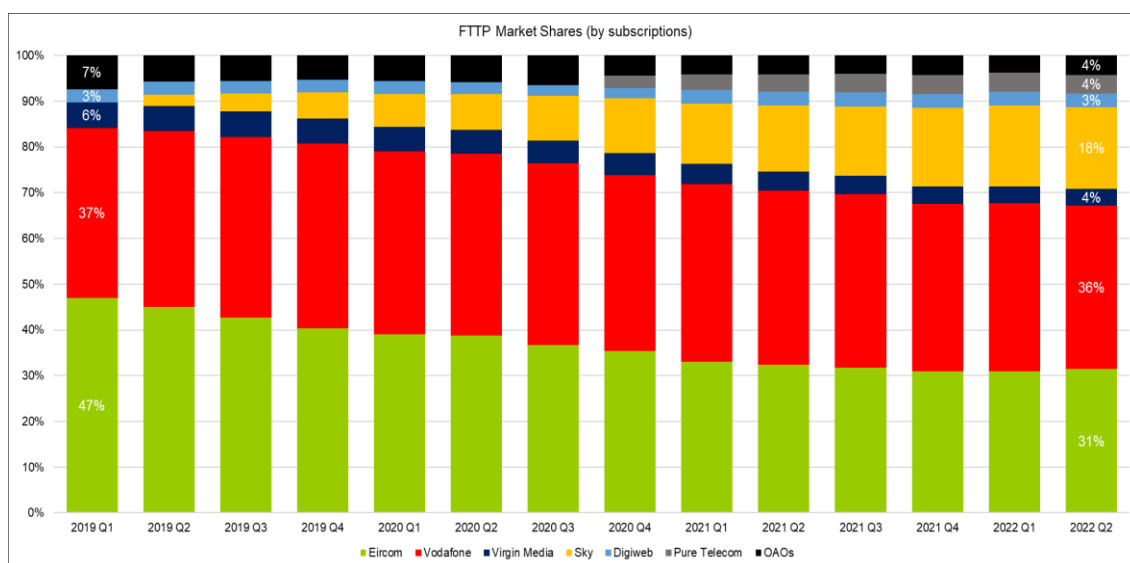
- 3.54 Virgin Media holds the next largest share of fixed broadband subscriptions, at 24%. As of Q2 2022 Virgin Media serves 372,426 (predominantly residential) retail broadband customers over its CATV network. In November 2021 Virgin Media announced its intention to upgrade its current network to full fibre i.e., the replacement of its existing DOCSIS 3.1 CATV network with a FTTP network. As of Q2 2022 Virgin Media's CATV network passed 869,102 homes in addition to [REDACTED] [REDACTED]. It had a total of 386,430 subscribers, just 15,378 (4%) of which were FTTP customers, the remainder being served by its CATV network. 95% of Virgin Media customers are residential customers.
- 3.55 There have been some changes in market shares since the publication of the 2018 Decision. Eircom's retail broadband market share has declined the most (by 5.2%). Virgin Media's market share has also declined (by 2.2%) but to a lesser degree, whereas Vodafone's share has increased by 2% and Sky's share has remained largely unchanged. In terms of smaller-scale operators, while the collective OAO market share looks as if it declined, this is likely due to Imagine and Pure Telecom exceeding the 2% share standalone reporting criterion which means they were removed from the total of the OAO category and identified on an individual standalone basis instead. Cumulatively, the top four providers of fixed broadband services account for 86% of the market, as of Q2 2022, a decline of 5 % from the Q4 2018 figure of 91%.
- 3.56 In the overall fixed broadband market,<sup>100</sup> there has been some change over the last three years, namely the 6% decline in Eircom's market share, the 2% decline in Virgin Media's share and the growth in market shares of the remaining operators (including Sky, Pure Telecom and OAOs). However, there has been a greater degree of change within the (growing) FTTP segment of the overall retail broadband market. As of Q2 2022, FTTP accounts for a total of 27% of total fixed retail broadband subscriptions (a figure which sat at 6% in Q4 2018). The largest single retail provider of FTTP is Vodafone (36%), followed by Eircom (31%) and then Sky (18%). This picture contrasts with the overall retail broadband market, with Vodafone holding a much larger proportion of FTTP subscriptions than its share in the overall fixed retail broadband market and Virgin Media having very limited market presence (due to its relative lack of FTTP rollout and current preferred use of DOCSIS 3.1). ComReg also notes that Vodafone's FTTP share has declined by 2.3% in the year to Q2 2022, with Eircom's share declining by 1% and Sky's increasing by 3.4% over this period.

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<sup>100</sup> Made up of retail subscriptions to DSL, VDSL, FTTP, cable, satellite and FWA.

3.57 Since the 2018 Decision, the provision of FTTx has changed significantly, particularly in terms of FTTP services, with FTTP now offered by at least seven of the main retail SPs<sup>101</sup> along with a wide range of smaller retail SPs, on the basis of Eircom, NBI or SIRO wholesale inputs. The increasing (in line with network rollout progress) presence of Eircom, SIRO and NBI in upstream wholesale markets<sup>102</sup> (and in the retail market via their respective retail partners) has resulted in a greater number of end users having the option to purchase FTTP broadband and access the greater speeds capable of delivering. Although operating as wholesale only operators, at the retail level, SIRO and NBI have 20 and 40 retail partners respectively.<sup>103</sup>

Figure 7: FTTP Retail Market Share by Subscription, Q4 2018 – Q2 2022<sup>104</sup>



3.58 Eircom's share of FTTP subscriptions has declined over the period, falling from 47% in Q4 2018 to 31% as of Q2 2022.<sup>105</sup> Vodafone's share has remained constant, however Eircom's relative decline, and the growth in the total size of the market has resulted in Vodafone now holding the largest overall percentage of FTTP subscriptions. Vodafone purchases wholesale FTTP services from SIRO, Eircom and NBI (and has signed an agreement with Virgin Media to do so [X ██████████

<sup>101</sup> Namely Vodafone, Eircom, Sky, Pure Telecom, Virgin Media, Digiweb and Magnet. FTTP services are also offered by a number of smaller, more localised operators such as Fastcom and Airspeed.

<sup>102</sup> While Virgin Media has announced plans to commence provision of wholesale services over FTTP to Vodafone, as of November 2022, ComReg understands that service provision has not actually commenced.

<sup>103</sup> See <http://siro.ie/> and <http://nbi.ie/where-can-i-buy/>.

<sup>104</sup> QKDR data.

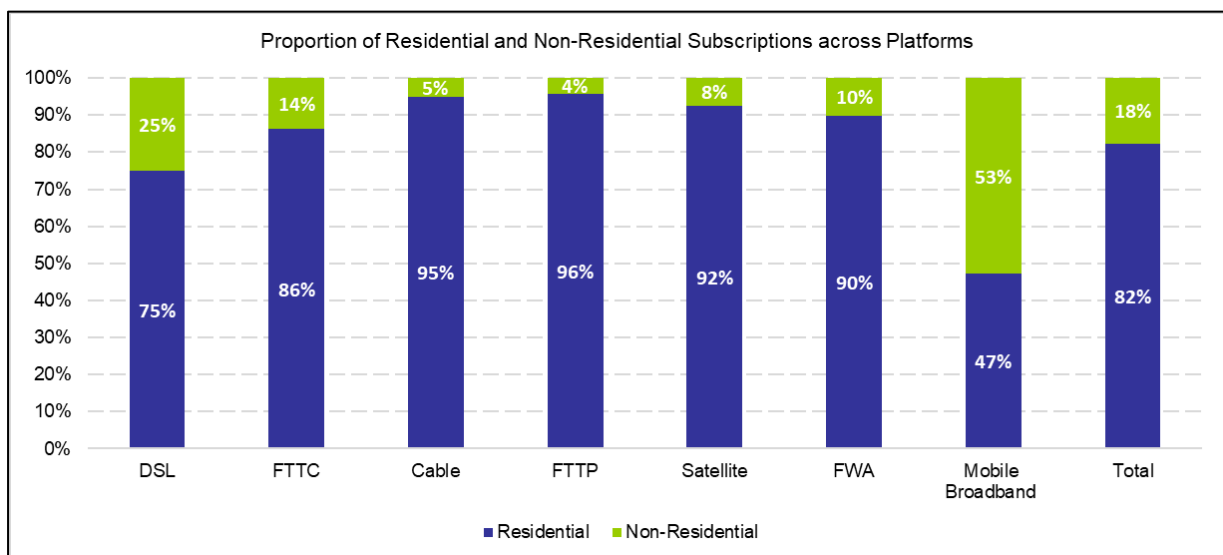
<sup>105</sup> Note percentage need to be considered in the context of the overall number of FTTP Subscriber Lines. In Q4 2018 there were 90,642 FTTP subscriptions, with this rising to 431,388 FTTP subscriptions in Q2 2022.



██████████ <math>\times</math>],<sup>106</sup> whereas Eircom does not purchase from SIRO and purchases a small amount from NBI. From only being present in the OAO figure in Q1 2019 (i.e., holding a share <math><2\%</math>) Sky now holds 18% of FTTP subscriptions, the strongest growth of any FTTP SP over the period.<sup>107</sup>

3.59 Figure 8 shows the proportion of each broadband subscription type attributable to residential and non-residential customers. For all fixed broadband types, residential subscriptions dominate, whereas when it comes to MBB, non-residential consumers make up the larger portion for such subscribers, at 53% (although the residential/non-residential split is much less pronounced than in other fixed categories). The platform with the highest proportion of residential subscriptions is FTTP (96%) broadband (with only 4% business subscribers), closely followed by CATV (at 95%).

**Figure 8: Broadband Subscriptions by Type, Q2 2022<sup>108</sup>**



<sup>106</sup> VMI response to ComReg IIR, 4 November 2022.

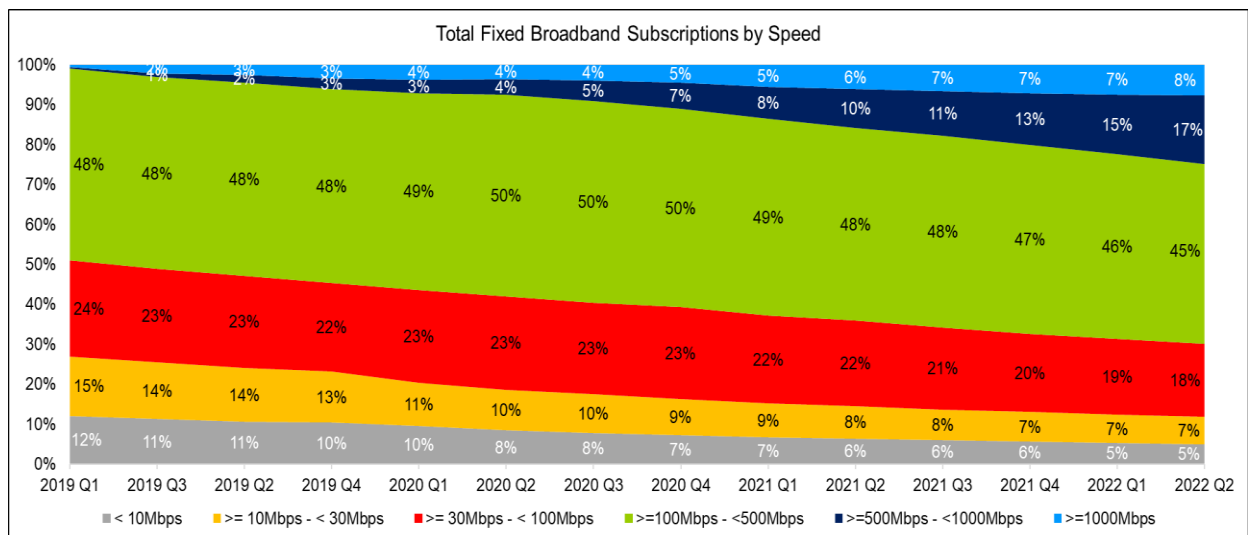
<sup>107</sup> In the Q3 2019 ComReg QKDR, the methodology applied in compiling FTTP subscription data was amended to include additional FTTP subscription data available via other reporting sources. This was retrospectively implemented from Q1 2019 and FTTP subscription market share, as a standalone figure was published, for the first time in Q3 2019 reflecting salient market developments.

<sup>108</sup> QKDR data.

### 3.3.3 Broadband Subscriptions by Speed<sup>109</sup>

3.60 Since the 2018 Decision, advertised broadband download speeds have increased (although this remains subject to geographical availability). Figure 9 shows the evolution of fixed broadband subscriptions by contracted download speed between Q1 2019 and Q2 2022. Over the period, growth in broadband subscriptions has been concentrated in the higher speed bands, in particular the two bands in excess of 500 Mbps. As of Q2 2022, 8% of subscriptions had sold download speeds of 1 Gbps or above, 25% of subscriptions exceeded 500 Mbps and 70% have speeds in excess of 100 Mbps, with just 12% falling below speeds of 30 Mbps, compared to 27% in Q1 2019. Since Q1 2019, the number of subscriptions with speeds of between 500 Mbps and 1 Gbps has increased markedly, from 0% to 17%, and plans with speeds of at least 1 Gbps have risen from just 1% to 8%.

Figure 9: Fixed Broadband Subscriptions by Sold Speed, Q1 2019 – Q2 2022<sup>110</sup>



<sup>109</sup> Sold speed: The maximum transmission rate for download of data from an internet service provider which is contractually agreed with the broadband purchasing operator for the specific broadband product type sold. Actual speed: the maximum transmission rate for download of data from an internet service provider which an end user could expect to achieve most of the time when accessing the service. Contracted speed refers to the ‘up to x Mbps’ advertised download speed under which the broadband product/bundle is advertised and contracted as to the end user. It does not typically match the ‘actual speeds’ experienced by the end user but instead an absolute maximum which they can expect.

<sup>110</sup> QKDR data.

- 3.61 Since Q1 2019 ComReg has collected data on speeds at a more granular level for higher speed categories, driven by the significant rise in broadband subscriptions falling in the  $\geq 100$  Mbps band. Since Q4 2021, the majority of fixed broadband subscriptions have fallen into the  $\geq 100$  Mbps category (i.e., Q4 2021 was the first period in which subscriptions of speeds  $\geq 100$  Mbps exceeded 50% of overall subscriptions), a development which is consistent with indications given to ComReg by SPs that many of their customers are increasingly starting on plans with speeds of at least 500 Mbps.<sup>111</sup>
- 3.62 Since the 2018 Decision, in absolute terms, copper-based CG broadband subscriptions have declined by 55%, while NG broadband subscriptions have increased by 27%.<sup>112</sup> In relative terms, the split between CG and NG fixed broadband subscriptions has shifted from 21% CG and 79% NG in Q4 2018, to 9% CG and 91% NG in Q2 2022. Again, this ties in with the breakdown of subscriptions by speed. As end users have been migrating away from the legacy copper product (which typically offers a maximum download speed of 24 Mbps)<sup>113</sup> and towards FTTx services capable of delivering much higher download speeds, there has been a marked increase in uptake of subscriptions with download speeds in excess of 100 Mbps.
- 3.63 Taking a forward-looking approach there has also been limited rollout, as of Q2 2022, of 2 Gbps broadband products, primarily over SIRO's wholesale network.<sup>114</sup> 2 Gbps products are currently offered at retail level by a small number of SPs (namely Blacknight and Vodafone), within a limited number of geographic areas.<sup>115</sup>

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<sup>111</sup> For instance, in discussion with ComReg, Vodafone noted that [redacted]

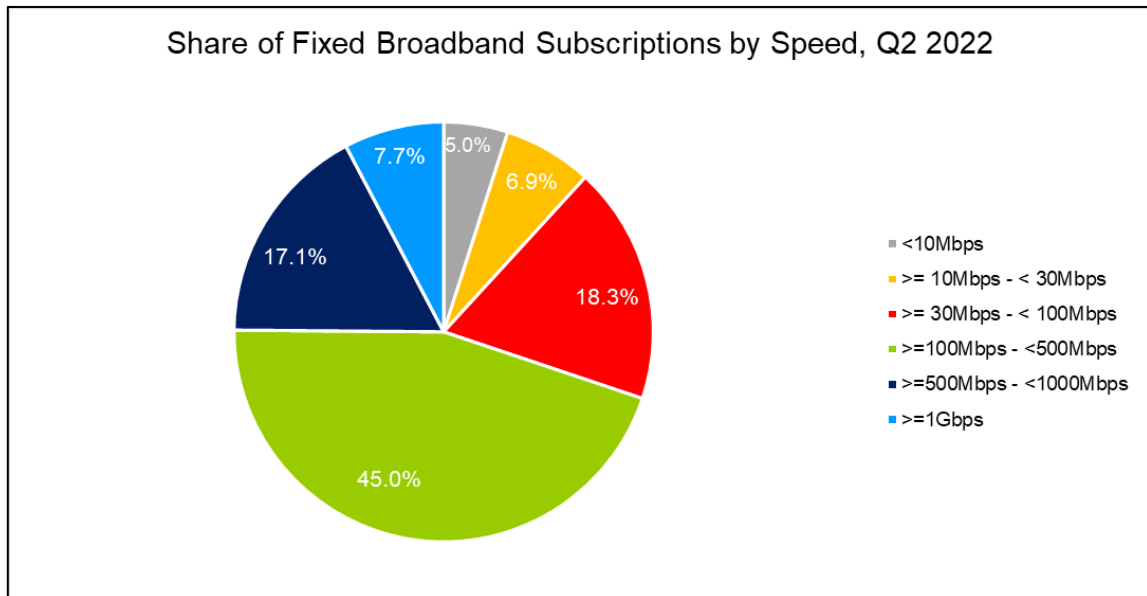
<sup>112</sup> CG refers to copper-based subscriptions and NG collectively refers to FTTC (VDSL), FTTP and cable-based subscriptions.

<sup>113</sup> <https://selectra.ie/broadband/market/ads/>

<sup>114</sup> <http://siro.ie/news-and-insights/why-2-gigabit-broadband-will-become-the-norm-sooner-than-you-expect/>.

<sup>115</sup> NBI also announced the launch in January 2022 of a 2 Gbps service in partnership with 34 retail SPs: <https://nbi.ie/news/events/2022/01/26/national-broadband-ireland-launches-new-2-gigabit-per-second-high-speed-fibre-broadband-offering/>

**Figure 10: Share of Fixed Broadband Subscriptions by Speed, Q2 2022<sup>116</sup>**



- 3.64 As noted in the 2022 Market Research, 41% of residential respondents identified download speed as the most important characteristic of their broadband service and, of those who have switched their broadband plan during the past three years, 50% did so in order to secure a higher speed plan, the second most common motive, behind only cost.<sup>117</sup>
- 3.65 The 2022 Market Research also suggested that, in comparison to 2017,<sup>118</sup> end user awareness of the download speed of their broadband plan has increased by around 10%, with those in Region 1 being the most likely to have an awareness, versus those in Region 5 being the least likely to.<sup>119</sup> However, despite this increase, overall awareness remains low, at 32%, with relatively little variation across providers or regions, although across technologies, those with FTTx-based broadband were marginally more likely to be aware of the maximum download speed, at 36%.<sup>120</sup>

<sup>116</sup> QKDR data.

<sup>117</sup> See Slides 23 and 78 of the 2022 Residential Market Research.

<sup>118</sup> ComReg carried out Retail Broadband Market Research for the purposes of a WLA/WCA market review in 2017.

<sup>119</sup> See Slide 81 of the 2022 Residential Market Research.

<sup>120</sup> See Slide 81 of the 2022 Residential Market Research.

Figure 11: Knowledge of Maximum Claimed Download Speed<sup>121</sup>

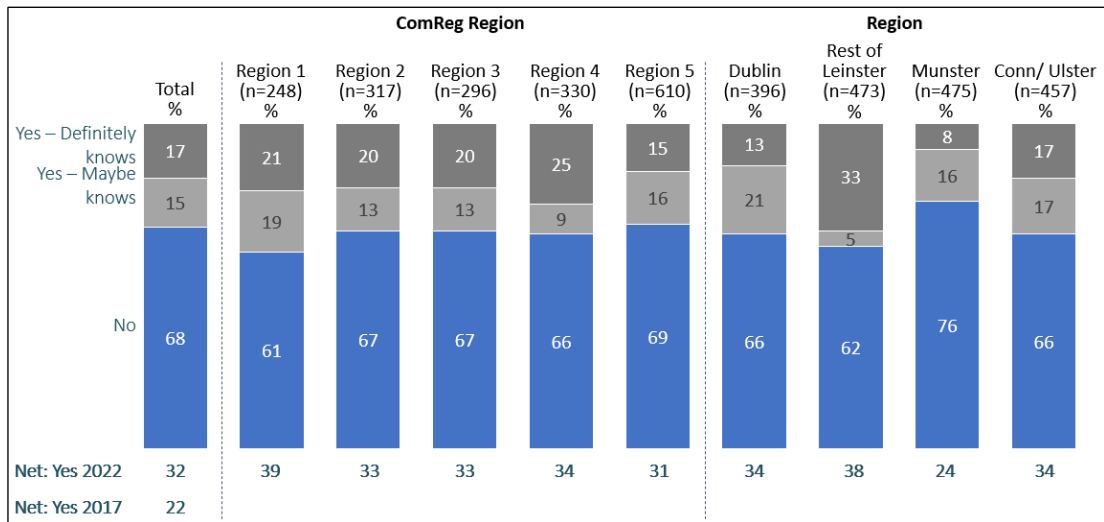
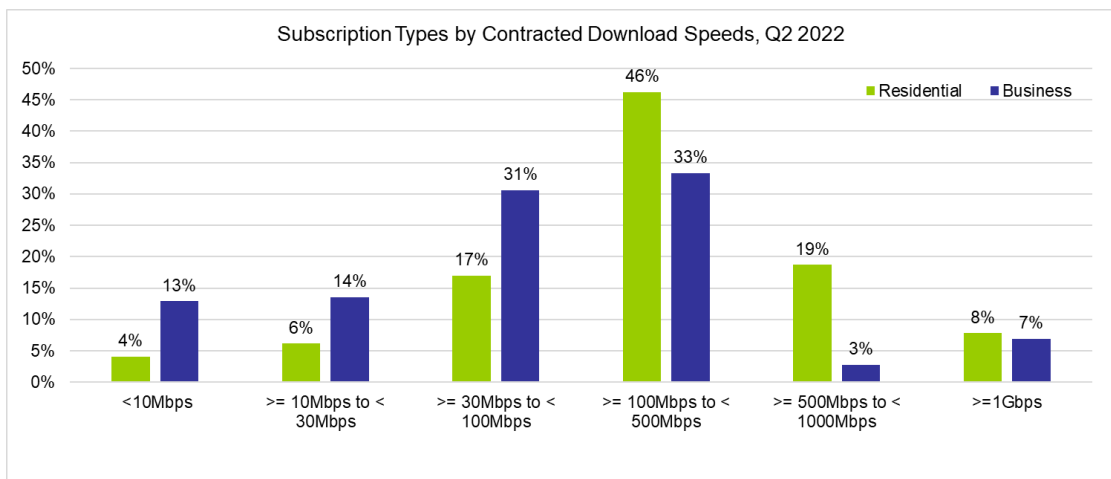


Figure 12: Fixed Broadband Subscriptions by Contracted Download Speeds and Subscription Type<sup>122</sup>

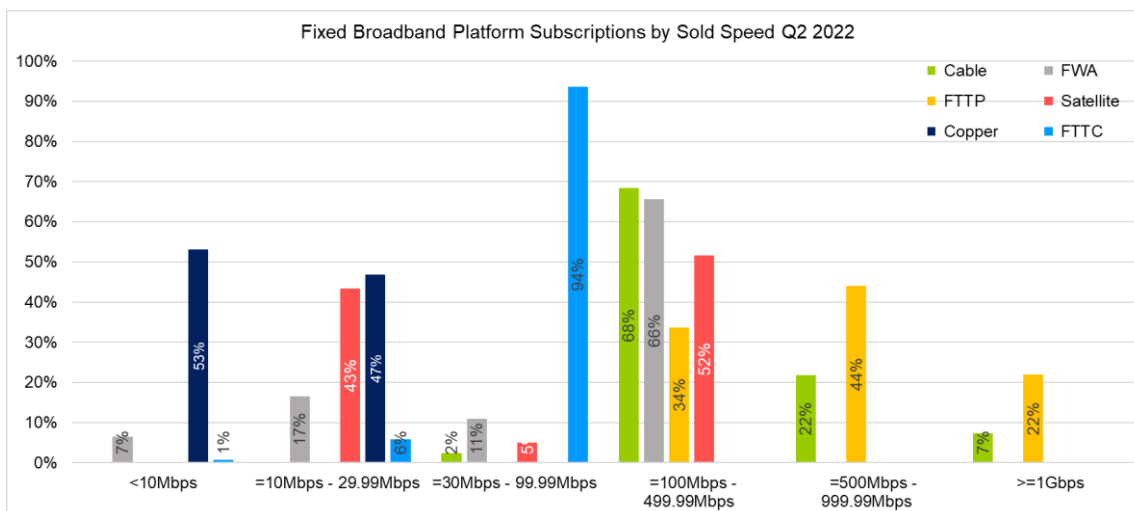


3.66 Figure 12 above shows the breakdown of fixed broadband subscription speeds by type of end user. 90% of residential and 73% of non-residential subscriptions fall into the greater than 30 Mbps category, again illustrating the marked upward trend in uptake of higher speed broadband connections, as also discussed in paragraphs 3.60 to 3.62. At the faster end of the spectrum, residential subscribers dominate, with the majority (72%) of residential end users falling within the  $\geq 100$  Mbps region, whereas at the lower download speeds, business end users make up a larger proportion.

<sup>121</sup> 2022 Market Research.

<sup>122</sup> QKDR data.

**Figure 13: Fixed Broadband Subscriptions by Sold Speed and Technology, Q2 2022<sup>123</sup>**



3.67 Figure 13 shows that in the three highest speed bands ( $\geq 100$  Mbps,  $\geq 500$  Mbps and  $\geq 1$  Gbps), end users predominantly receive service over CATV or FTTP, once again showing that the increase in download speeds and use of broadband has been aided by the rollout and increased availability of such NG technologies. Also, of note from Figure 13 is that the majority of FWA subscriptions (66%) are in the 100-500 Mbps range. The ability of FWA to deliver speeds comparable to those over FTTx is a potential explanation for the rise in absolute subscription numbers in recent years, whilst end users have been awaiting FTTP rollout (see paragraphs 3.44 to 3.46 for more discussion of this trend).

### 3.3.4 Bundling of broadband with other retail services

3.68 In the 2018 Decision, ComReg identified a strong tendency for end users to purchase multiple retail services as part of a bundle delivered over NG from a single retail SP. This trend has continued, and a large proportion of the market (79% as of Q2 2022) consists of bundles of broadband sold with at least one other related retail service.

3.69 Various bundles delivered over NG broadband are available to retail end users, with most SPs offering both bundled and standalone broadband offers to end users.<sup>124</sup> A bundle can comprise of any combination of broadband, RFTS, TV and mobile phone services. It can sometimes be the case that end users split their purchases and have standalone contracts with multiple

<sup>123</sup> ComReg QKDR Data.

<sup>124</sup> Although it is notable that Eircom no longer advertises a standalone broadband product, instead only offering broadband in a bundle with RFTS as a 'baseline product'.

providers for different retail services, for instance, broadband with one provider and TV with another. Such end users are referred to as 'split purchasers'.<sup>125</sup>

- 3.70 A single-play subscription (also referred to as a 'standalone' subscription), is where the end user pays for a single service from their SP. A dual-play bundle typically consists of broadband and RFTS or broadband and TV, however, it can technically encompass any combination of two retail services. A triple-play bundle refers to a retail bundle of any combination of three services, from TV, broadband, RFTS and/or mobile services and a quadruple-play bundle consists of TV, broadband, RFTS, and mobile phone services. Examples of the bundles and standalone products available can be found in Annex 4.
- 3.71 Over the period Q4 2018 to Q2 2022, overall single play subscriptions<sup>126</sup> fell by 4%, a decline largely driven by the significant fall in standalone RFTS subscriptions, from 275,137 to 190,0466 (-31%). Contrary to the trend in single play subscriptions as a whole, standalone broadband subscriptions rose by 110,508 (55%) from 201,739 to 312,247.<sup>127</sup> There has also been a decline in double and triple play bundles, both falling by 1%, while quad play bundles increased by 10%. A large proportion of overall single play subscriptions are accounted for by standalone TV subscriptions (44% as of Q2 2022).

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<sup>125</sup> According to the market research just 16% of respondents reported receiving separate bills for broadband and other services from different providers (a decline on the 19% reported in 2017).

<sup>126</sup> Under the QKDR methodology 'Single Play Subscriptions' can consist of RFTS, Broadband, Mobile or TV.

<sup>127</sup> This constitutes a relatively small percentage of total subscriptions with a broadband component (at 21%).

Figure 14: Broadband Subscriptions by Bundle Type, Q4 2018 – Q2 2022<sup>128</sup>

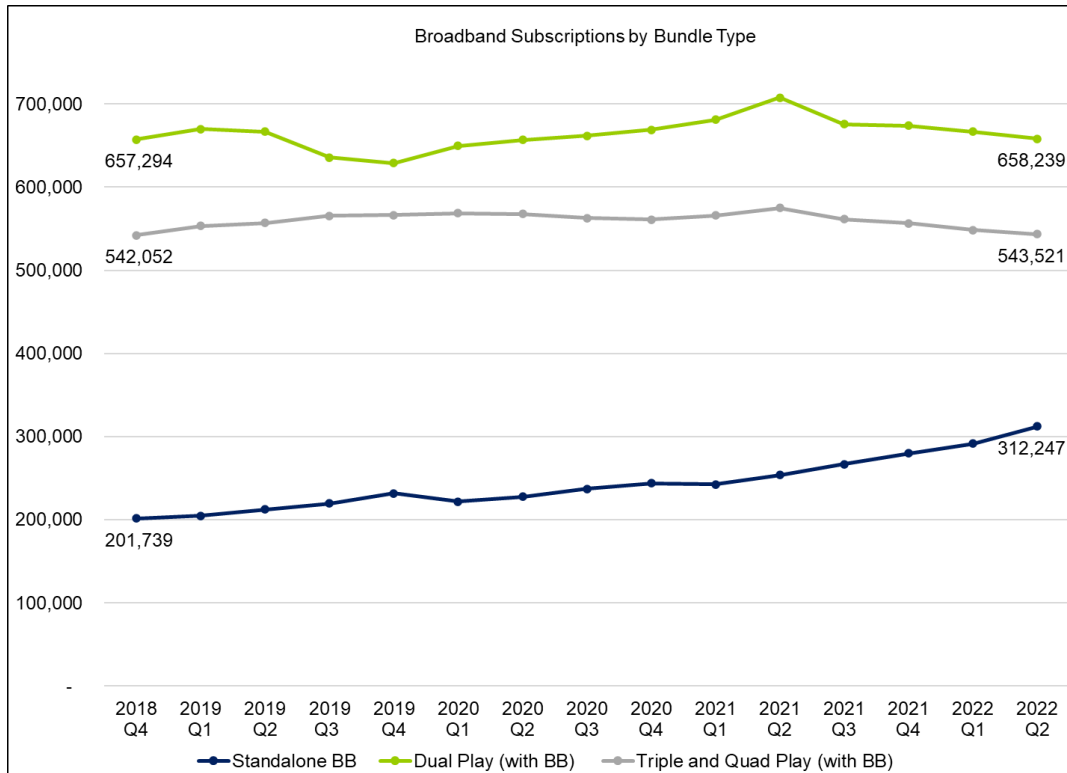


Table 2: Subscriptions by Bundle Type, Q4 2018 and Q2 2022<sup>130</sup>

Subscription Type	Q4 2018	Q2 2022	% change
Single Play	1,049,977	1,011,134	-3.7%
Dual Play	672,842	668,513	-0.6%
Triple Play	483,372	479,915	-0.7%
Quad Play	58,774	63,692	8.4%
<b>Total Bundled Subscriptions<sup>129</sup></b>	<b>1,214,988</b>	<b>1,212,120</b>	<b>-0.2%</b>

3.72 The trend in standalone broadband subscriptions is notable as it indicates that, despite the incidence of bundling, a growing proportion of end users demand broadband sold on a standalone basis, a fact reiterated by several SPs in discussion with ComReg. Since the 2018 Decision, the rate of overall growth in bundled subscriptions has slowed, and in the case of double and triple play, has fallen compared to the period preceding the 2018 Decision.

<sup>128</sup> ComReg QKDR Data.

<sup>129</sup> Referring to the total of double, triple and quad play subscriptions.

<sup>130</sup> ComReg QKDR Data.



- 3.73 As of Q2 2022, of the 1.5 million subscriptions with a broadband component, 21% were standalone, 43% were purchased in a double-play bundle and the remaining 36% were made up of triple and quad-play bundle subscriptions. The most common product bundled with broadband in Q2 2022 was RFTS, with 515,579 subscriptions – also the most commonly purchased bundle.

**Table 3: Subscriptions by Bundle Type, Q4 2018 and Q2 2022<sup>131</sup>**

Subscription Type	Bundle format	Number of subscriptions		% change
		Q4 2018	Q2 2022	
<b>Single Play</b>	RFTS	275,137	190,046	-31%
	Broadband	201,739	312,247	55%
	Mobile	17,590	63,692	262%
	TV	555,511	445,149	-20%
<b>Dual Play</b>	Broadband + RFTS	622,581	515,921	-17%
	RFTS + Mobile	6,227	5,496	-12%
	RFTS + TV	8,324	3,691	-56%
	Broadband + TV	29,259	134,373	359%
	Broadband + Mobile	5,454	8,287	52%
	Mobile + TV	997	1,087	11%
	<b>Triple Play</b>	Broadband + RFTS + TV	402,838	363,615
	Broadband + RFTS + Mobile	78,424	111,696	42%
	RFTS + Mobile + TV	94	86	-9%
	Broadband + TV + Mobile	2,016	4,518	124%
<b>Quadruple Play</b>		58,774	63,692	8%
<b>Total Broadband Subscriptions</b>		1,401,085	1,514,968	8%
<b>Total Bundled Subscriptions with a Broadband Component</b>		1,199,346	1,202,721	0%

- 3.74 SPs offer bundles (including bundles with a broadband component) to benefit from economies of scope in the supply of those services. Bundling products allows SPs to achieve savings in production, distribution and transaction costs and may offer SPs the opportunity to reduce churn - in a market which is typically characterised by high customer acquisition costs and may allow them to increase their revenue per customer, even when the price of individual services is decreasing. The incremental cost to the end user of adding additional services to a broadband package, as opposed to opting for a standalone product (most typically broadband or RFTS) is often low,

<sup>131</sup> ComReg QKDR Data.

particularly compared to the cost of acquiring the chosen additional service as a standalone service in itself.<sup>132</sup>

- 3.75 Despite the apparent and significant demand for bundled packages, many SPs continue to offer standalone services, especially in their core businesses.<sup>133</sup> This suggests that there is an inherent demand for standalone services (standalone broadband in particular, reflected in subscription numbers and as discussed at paragraph 3.71) and SPs deem it sufficient to make it commercially worthwhile to continue offering standalone broadband products to end users.
- 3.76 Since the 2018 Decision there has been increased usage of certain Over the Top ('OTT')<sup>134</sup> services. Market research data suggest, for example, that, the expected growth of OTT video services is likely to be 9.1% CAGR<sup>135</sup> per annum.<sup>136</sup> Users relying on OTT services may not have strong incentives to subscribe to a (likely more expensive) bundled plan, encompassing additional services such as TV, as broadband access alone may suffice, and allow them to subscribe to additional services on a more ad hoc basis. In the Irish market, all the main operators currently offer a range of retail broadband bundles. The majority offer a range of standalone and double-play bundles, with Eircom, Vodafone, Virgin Media and Sky offering triple-play subscriptions and all but the latter of these (Sky) also have the ability to offer quad-play bundles, due to their status as MNOs/MVNOs. Currently and at various points in the past, SPs have also advertised bundles which include subscriptions to OTT platforms, such as Amazon Prime and Netflix.<sup>137</sup>
- 3.77 Of those surveyed in the 2022 Market Research 62% of residential and 71% of business end users with a broadband plan purchase broadband bundled

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<sup>132</sup> For instance (as of June 2022), for all of the broadband packages offered by Vodafone, end users have the option to add on RFTS at no additional cost. Magnet customers can add various phone packages to their plan which vary in cost from €10 to €20 per month.

<sup>133</sup> Virgin Media, Sky and Vodafone all continue to offer a standalone retail broadband product, as part of their 'core' set of advertised and offered products.

<sup>134</sup> Over the Top ('OTT') services refers to streaming services or content delivered via an internet connection, for instance, video streaming services such as Netflix, Disney+ and Prime Video. Such services are described as 'over the top' as they are delivered 'on top' of an internet connection.

<sup>135</sup> Compound Annual Growth Rate (CAGR).

<sup>136</sup> <https://www.pwc.ie/media-centre/press-releases/2022/irish-entertainment-media-industry-outlook-2022-2026.html>

<sup>137</sup> Eircom currently offer free access to Amazon Prime Video for new or existing customers of Eir TV <http://www.eir.ie/primevideo/>. Until January 2022 this offer also applied to broadband customers, however, as of June 2022 is not currently offered to broadband customers.

Sky currently offers a broadband and TV package deal with a Netflix component 'at no extra cost' <http://www.sky.com/ie/deals/tvandbroadband>.

with at least one other service.<sup>138</sup> The incidence of bundling is highest amongst Eircom and Sky customers. While Sky only currently offers dual and triple play subscriptions, it has publicly announced it will enter the Irish mobile market in 2023,<sup>139</sup> after which it will be able to offer quadruple play subscriptions. Eircom no longer offers standalone broadband or standalone RFTS as part of its core product offering, as advertised on its website,<sup>140</sup> which is likely a contributing factor to its customers having a greater tendency to have a bundled plan.

### 3.4 Other changes in broadband supply and consumption patterns

- 3.78 Since the 2018 Decision there have been several other developments in both the WLA and WCA markets, with the number of rollout and upgrade related announcements in recent months from operators being indicative of the dynamic nature of retail broadband, and by association WLA and WCA market(s). The announced, planned and ongoing rollouts of the respective SPs are outlined comprehensively at paragraphs 3.19 to 3.33.
- 3.79 Arguably one of the largest changes in the market has been on the demand side, as a result of the Covid-19 pandemic. As reported in the ComReg market research series on the impact of Covid-19 on consumer use and perception of telecommunications services in Ireland,<sup>141</sup> following the onset of public health restrictions, 81% of respondents believed their household usage of home broadband had increased. Furthermore, adequate home broadband services continue to be crucial for remote working, with reported usage of video conferencing software, virtual desktop and intranet services, and online collaboration platforms having all increased amongst those working from home, since the pandemic. The rise in remote working and subsequent requirement of many end users for higher speed, more reliable broadband connections, may have affected the demand substitution dynamics in the retail broadband market for domestic broadband, due to the requirement of such activities for higher bandwidth, more reliable broadband connections and the technological capabilities to support video calling (particularly where multiple users are relying on the same broadband connection). Despite the return of many to offices, university campuses and schools, there remains a persistent degree of hybrid and online working. These 'pandemic induced' trends and

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<sup>138</sup> See Slide 29 of the 2022 Residential Market Research.

<sup>139</sup> <https://www.skygroup.sky/article/sky-to-enter-mobile-market-in-ireland>

<sup>140</sup> Accurate as of September 2022.

<sup>141</sup> [http://www.comreg.ie/?dlim\\_download=impact-of-covid-19-on-consumer-use-and-perception-of-telecommunications-services-survey-q1-2021](http://www.comreg.ie/?dlim_download=impact-of-covid-19-on-consumer-use-and-perception-of-telecommunications-services-survey-q1-2021). This research was conducted by ComReg three times during 2020, with the September 2020 iteration being the most recent, and last in the series.

behavioural changes continue to have an impact on the uses of broadband and related services, however the longer-term impact and the degree to which these trends will be permanent or transitory in nature remains to be seen.

- 3.80 In terms of the primary use of broadband, in comparison to the 2017 Market Research, the 2022 results show that there has been a marked increase in the use of broadband for studying and working from home (increasing from 14% to 24% and 20% to 35% respectively) and in the use of broadband for purchasing goods and services and downloading/streaming video services and TV (increasing from 45% to 62% and from 35% to 58% respectively).<sup>142</sup>
- 3.81 In terms of the frequency with which households access the internet, according to the 2022 Market Research, the average household accesses the internet for 5 hours per day (up from the 4.6 hours reported in 2017),<sup>143</sup> a figure which is relatively consistent across regions, but varies by technology. End users accessing broadband via fibre (5.5 hours) and cable (5 hours) tend to spend more time online in comparison to those on other platforms.<sup>144</sup>

### 3.4.1 Changes in Broadband Subscriptions

- 3.82 The absolute number of total broadband subscriptions<sup>145</sup> in Ireland has increased by 13%, from 1.73 million in Q4 2018 to 1.95 million in Q2 2022 (split between 357,746 mobile subscriber lines and 1.595 million fixed subscriber lines). This pace of growth is somewhat more subdued compared to previous periods, but broadband subscriptions nevertheless continue to grow and follow an upward trend. The tapering off of the growth rate in broadband subscriptions (compared to that experienced between 2010 and 2018, for instance) is reflective of significant growth in previous time periods having already resulted in a large number of broadband subscriptions in Ireland and the fact that, relative to elsewhere in the EU, there is already a high level of broadband penetration.<sup>146</sup>
- 3.83 The 2022 Market Research found that, across a nationally representative sample, 90% of households had broadband access<sup>147</sup> while the Central Statistics Office ('CSO') reports that 93% of all households in the State have

<sup>142</sup> See Slide 20 of the 2022 Residential Market Research.

<sup>143</sup> See Slide 21 of the 2022 Residential Market Research.

<sup>144</sup> See Slide 22 of the 2022 Residential Market Research.

<sup>145</sup> Both fixed and mobile based broadband subscriptions.

<sup>146</sup> As identified in the 2021 DESI Report, Ireland ranks overall 5<sup>th</sup> of the EU27 and Ireland's performance for connectivity improved substantially in 2020, with VHCN coverage jumping from 35% to 83% (ranking 7<sup>th</sup> for connectivity). According to Eurostat, 97% of households in Ireland have internet access, EU27 average is 92%. Only the Netherlands, Luxembourg, Iceland, Switzerland and Norway are higher. See <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>.

<sup>147</sup> See Slide 11 of the 2022 Residential Market Research.

internet access.<sup>148</sup> According to Eurostat, Ireland's household broadband penetration rate (including fixed and mobile broadband) in 2021 was 97%, above the EU average of 92%.<sup>149</sup>

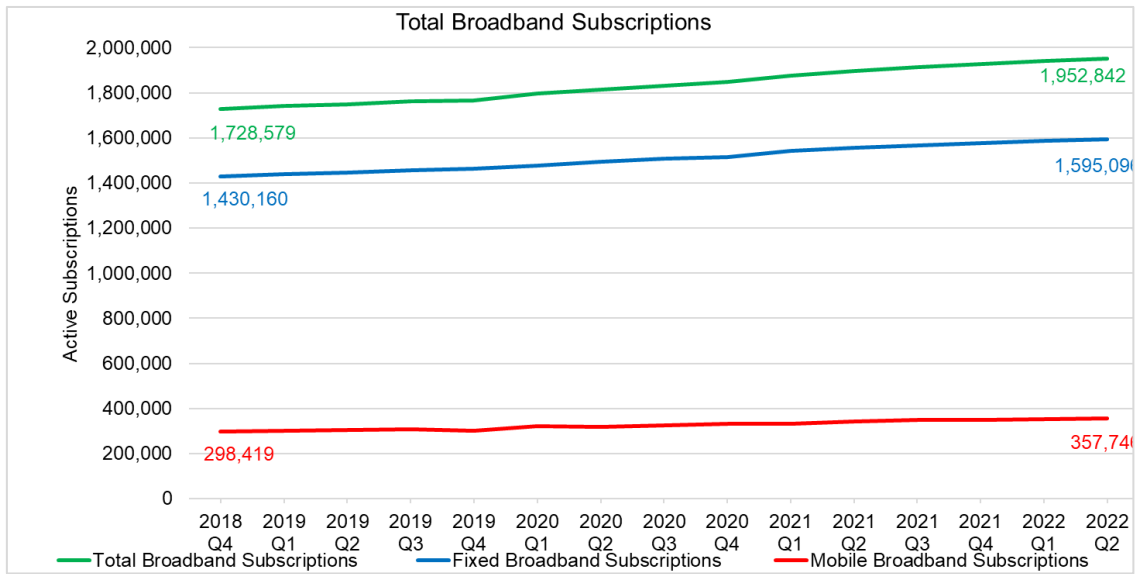
- 3.84 Despite variations in the figure for broadband penetration from each of the sources listed here, stemming from variations in methodologies (as outlined in the relevant footnotes), all three sources put broadband penetration in Ireland at, or above 90%. These figures are indicative of a high rate of broadband take up, availability and usage in the State, relative to elsewhere in the EU.
- 3.85 According to QKDR data and as illustrated in Figure 14 and Figure 15 below, over the period Q4 2018 to Q2 2022 total broadband penetration has grown by 4%, with FTTP penetration growing by 16%, the highest across any platform, and one of three platforms (the others being FWA and Mobile Broadband) across which penetration rates have increased. The most significant decline was in copper.
- 3.86 Overall, during the period Q4 2018 to Q2 2022, total broadband subscriptions rose by 13% to 1.95 million, with fixed and mobile subscriptions growing by 12% and 20% respectively. Beyond the headline figure for growth in broadband subscriptions, a key parameter is the breakdown of broadband subscriptions by platform. The headline growth figure has been driven by strong growth in FTTP subscriptions, whilst FTTC is in decline, CATV subscriptions have remained largely unchanged and copper subscriptions have been in continued decline.

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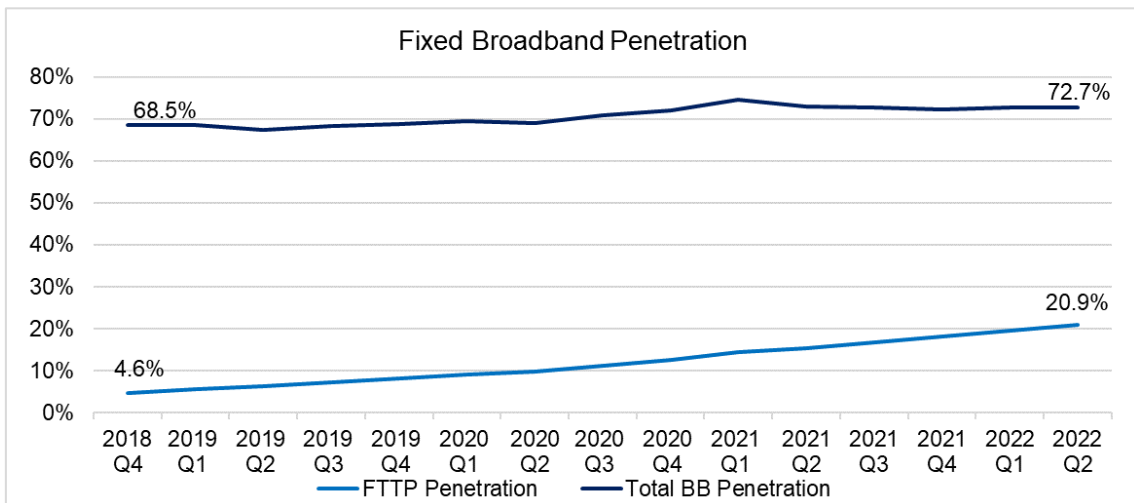
<sup>148</sup> See CSO 'Internet Coverage and Usage in Ireland 2021' survey at; <http://www.cso.ie/en/releasesandpublications/ep/p-issnict/internetcoverageandusageinireland2021/>. In this dataset 'households' refers to 'all private households with at least one occupant aged 16 years and over'; fixed broadband refers to that delivered over DSL, ADSL, VDSL, cable, optical fibre and satellite; mobile refers to a connection via mobile phone network with minimum 3G and narrowband refers to dial-up access over PSTN or ISDN.

<sup>149</sup> <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>.

**Figure 14: Total Broadband Subscriptions, Q4 2018 – Q2 2022<sup>150</sup>**



**Figure 15: Broadband Penetration, Q4 2018 – Q2 2022<sup>151</sup>**



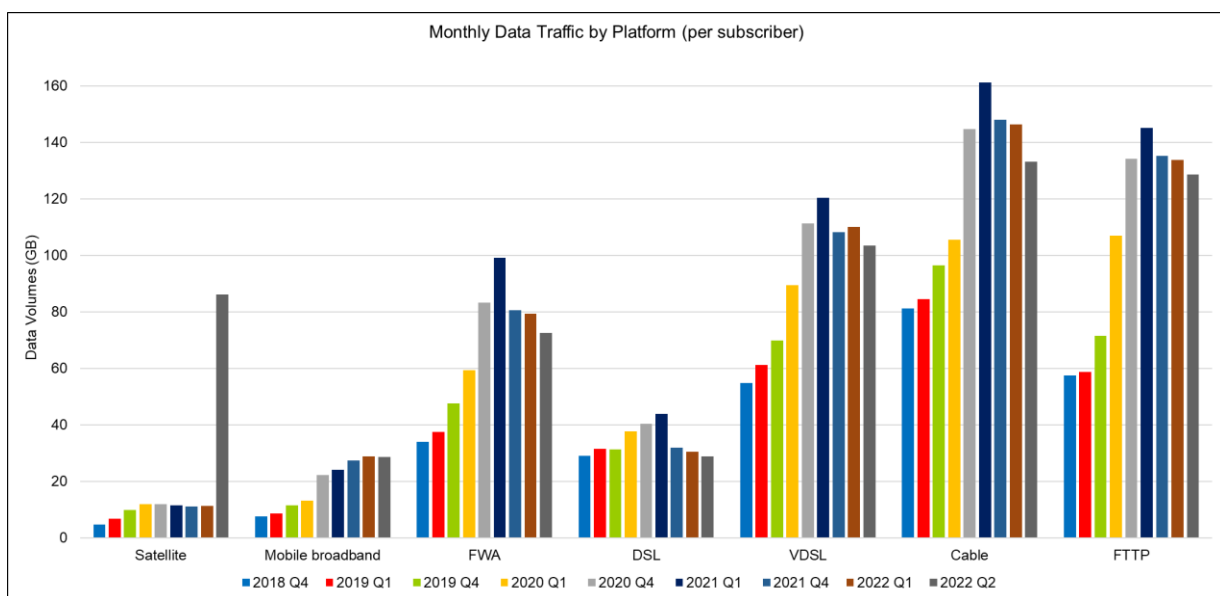
<sup>150</sup> ComReg QKDR Data.

<sup>151</sup> ComReg QKDR Data.

### 3.4.2 Changes in Broadband Traffic

3.87 The greater availability of higher speed broadband has been reflected in the volumes of data consumed by end users, evidence of the fact that higher speeds are able to facilitate higher traffic volumes and more intensive broadband usage. In Q2 2022 1,568PB of data were downloaded, compared to 716PB in Q4 2018.<sup>152</sup> Figure 16 below illustrates average data traffic per subscriber, per month by platform since the publication of the 2018 Decision. This time-period allows for comparisons between pre-pandemic, pandemic and ‘post-pandemic’ periods.

**Figure 16: Average Monthly Data Traffic per Subscriber by Platform<sup>153</sup>**



3.88 There is a marked rise in traffic after the onset of the Covid-19 pandemic between Q1 2020 and Q4 2020, following the introduction of remote working, education, and generally more extensive use of broadband services for many aspects of day-to-day life. Broadband traffic peaked in Q1 2021 and has been in decline since - potentially due to the lifting of many social distancing and health related restrictions and many areas of life returning to being ‘in person’ rather than virtually - requiring less intensive use of broadband services.

3.89 The increase in data usage over the course of 2020 and 2021 is fairly uniform across platforms but is particularly strong for broadband delivered over FTTP, CATV and FWA. Between Q4 2018 and Q2 2022, monthly data traffic over CATV, FTTC and FTTP increased by 64%, 75% and 96% respectively. Across the board, there is a clear pattern in that the average volume of data used

<sup>152</sup> Total Fixed Broadband Data Traffic (GB).

<sup>153</sup> ComReg QKDR Data.

increased significantly more on platforms capable of offering higher speeds (CATV and FTTx). The only platform to see a decrease in data traffic over the three-year period was CGA copper, and while Satellite was in decline up to Q1 2022, since Q2 2022 the data provided by Starlink has seen data traffic for Satellite increase substantially. Despite increased uptake of FTTP services capable of delivering speeds of up to 1 Gbps and beyond, the highest level of data usage continues to be over Virgin Media's DOCSIS 3.1 CATV platform.

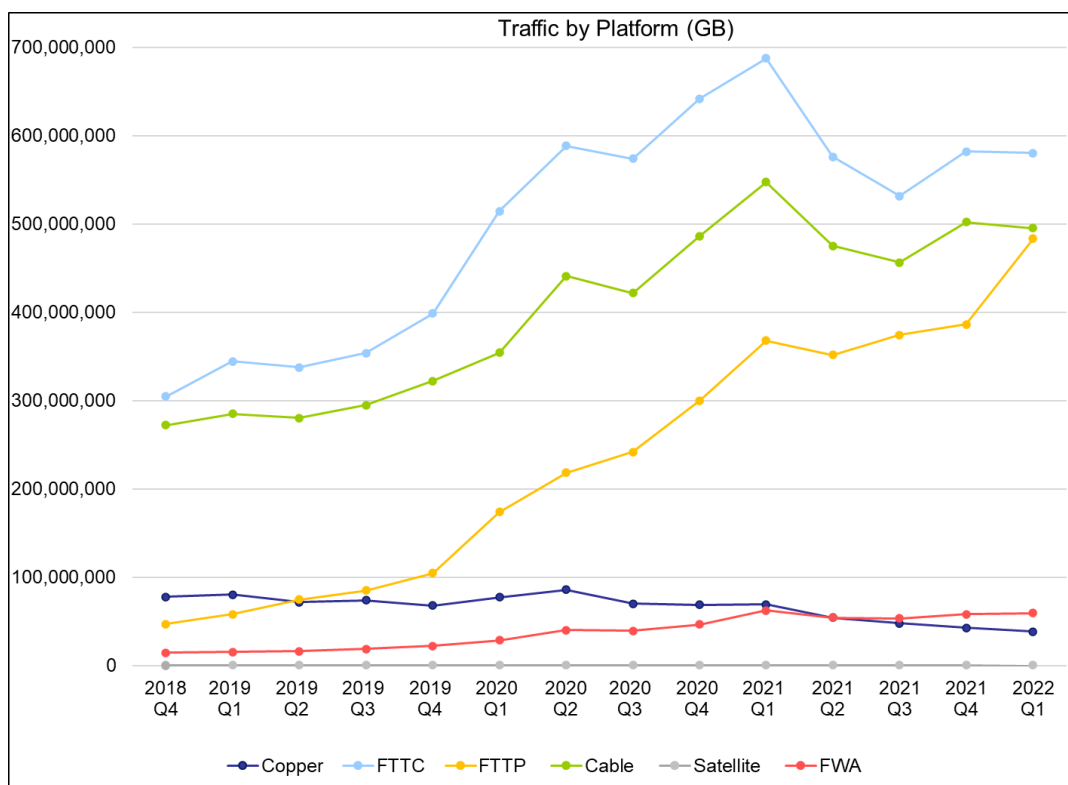
- 3.90 Data traffic volumes across all platforms increased most steeply between Q4 2019 and Q1 2021, after which they went into decline. Whether this decline will continue or eventually reverse remains to be seen. The current period of drop off is likely attributable to the reduction in Covid-19 public health restrictions and, since Q3 2021, figures have been moving back towards the pre-pandemic on-trend growth rate observable prior to Q2 2020. Although still within a period of market disruption and uncertainty, looking at the consistently upward trend in data traffic since Q1 2019 (and in the quarters preceding the onset of Covid-19), alongside complementary patterns of demand for broadband services over higher speed platforms (as discussed in previous sections), there is little reason to predict that the upward trend in data consumption will cease.
- 3.91 Since the 2018 Decision, total fixed broadband traffic has grown by 119%, strongly driven by growth in data consumption over FTTP, which grew by 96% by FWA at 279% and CATV at 75%. Satellite data traffic over the period increased by 1,213%, but this was driven by the submission of data from Starlink to ComReg as of Q2 2022. As outlined in Figure 17 below, while the increase in data traffic for Satellite is substantial, in absolute terms, Satellite data traffic is still the lowest. From Q1 2020 to Q2 2022,<sup>154</sup> traffic over FTTP increased by 123%, however, CATV and FTTC still lead in terms of absolute data consumption.

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<sup>154</sup> A time period which captures the duration of the Covid-19 pandemic and associated restrictions and changes in broadband usage patterns.



Figure 17: Broadband Traffic by Platform (GB), Q4 2018 – Q2 2022<sup>155</sup>



### 3.5 Supply Side Considerations: NGA rollout

3.92 Since the 2018 Decision, rollout of FTTx broadband networks (in particular, FTTP) has continued. The number of premises in the State capable of receiving FTTP services is constantly evolving and growing, through a combination of rollout from Eircom, NBI, SIRO and on a forward-looking basis, Virgin Media. In Q1 2019 560,000 premises in the State were passed by an FTTP network, as of Q2 2022, this figure now stands at 1,192,036.

3.93 During Q4 2021, several operators (namely Eircom, Virgin Media and SIRO) announced both network expansion plans to areas previously unserved, and network upgrades in areas already served. These market developments (with the caveat that several are in the early stages of planning and are subject to revision) if and when they come to fruition, are likely to have an impact on the broadband market, at both retail and wholesale level. For discussion of ongoing network rollouts, upgrades and announcements see paragraphs 3.19 to 3.33 above.

<sup>155</sup> ComReg QKDR Data.

### 3.6 Overall Preliminary Conclusion on Retail Trends and Developments

3.94 Having regard to the discussion in paragraphs 3.34 to 3.93 above, ComReg is of the view that the most notable and relevant trends within the retail broadband market are:

- (a) **Increases in download speeds on broadband subscriptions.** In the 3-year period to Q2 2022, growth in broadband subscriptions was concentrated primarily in the  $\geq 100$  Mbps category, which increased from 49% to 70% as a share of total fixed broadband subscriptions.
- (b) **Increases in download traffic on broadband subscriptions.** The availability of increased broadband speeds has allowed end users to download greater volumes of data. In Q2 2022 an average of 133GB of data per month was consumed by cable subscribers and 129GB by FTTP subscribers. Average data volumes have increased across the board, but particularly across platforms offering higher download speed products.
- (c) **Movements away from copper and towards fibre-based broadband** (namely the net migration of end users from copper and more recently FTTC towards full-fibre FTTP). Broadband provided over full copper is no longer the most popular platform and now constitutes just 7% of total broadband subscriptions, with the largest shares accounted for by FTTC (29%), FTTP (22%) and CATV (19%). There has been a significant increase in the number of FTTP subscriptions, which grew from just 5% of subscriptions in Q4 2018 to 22% in Q2 2022.
- (d) **Standalone and bundled packages.** There remains a strong tendency for broadband services to be purchased alongside other related services (such as RFTS and TV) from a single retail SP, through a double, triple or quad-play subscription. In Q2 2022 there were an estimated 1.5 million broadband subscriptions, of which 21% were standalone, 43% were double-play and the remaining 36% were made up of triple and quad-play subscriptions. However, there also appears to be strengthening demand for standalone broadband. Contrary to the trend in single play subscriptions as a whole, standalone broadband subscriptions rose by 110,508 (55%) from 201,739 to 312,247 between Q4 2018 and Q2 2022. This contrasts with the relatively subdued growth in bundled subscriptions, which grew just 0.2% over the same period, however, bundled plans continue to constitute the large majority (79%) of broadband subscriptions.
- (e) **Behavioural changes as a result of the Covid-19 pandemic.** The advent of home working, remote education, and use of broadband

services for social activities during the Covid-19 pandemic resulted in an increased reliance on broadband services, increased data traffic and correlated with a rise in demand for higher speed broadband over NGA technologies.

- (f) **Continued rollout and network upgrades by SPs and uptake of high-speed broadband services.** The continuing rollout by Eircom of its FTTP network, alongside ongoing rollout by other wholesale operators, SIRO and NBI, has and will result in greater availability of high-speed FTTP services, in both urban and rural areas of the State. Virgin Media has also announced plans to upgrade its existing retail offering from CATV-based broadband to FTTP broadband, to be completed and offered to end users on a national basis, over a five-year horizon, and also to provide wholesale services over its FTTP network.

**Q. 1. Do you agree that the main developments identified in the provision of retail broadband are those which are most relevant in informing the assessment of the Relevant Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual/empirical evidence supporting your views.**

## 4 Retail Market Assessment

### 4.1 Overview

- 4.1 In this section, ComReg outlines some of the main structural and behavioural characteristics associated with the provision of retail services supplied using upstream WLA and WCA inputs.
- 4.2 The European Commission defines relevant product markets as comprising of, *“all those products and/or services which are regarded as interchangeable or substitutable by the end user, by reason of the products’ characteristics, their prices and their intended use”*.<sup>156</sup>
- 4.3 ComReg is not required to conclude on a precise definition of the retail market(s) in this market review. Rather, the purpose of the retail market assessment is to inform the subsequent assessment of the WLA and WCA markets in respect of both market definition and the strength of any indirect retail constraints from the related downstream retail broadband market(s).
- 4.4 Given that Access Seeker demand for WLA and WCA is a derived demand driven by end user demand for retail broadband, it is necessary to consider the dynamics of the retail market and whether these dynamics materially impact competition at a wholesale level. The derived demand for WLA and WCA services stems from end user demand for:
- (a) Access to broadband; and
  - (b) Access to other services that can be offered over or alongside the broadband service (including RFTS and/or TV services).
- 4.5 The 2020 Explanatory Note explains that *“...the starting point for the identification of wholesale markets susceptible to ex ante regulation is the analysis of the corresponding retail markets”*,<sup>157</sup> indicating that any analysis of a wholesale market must be preceded by an assessment of the competitive conditions in the related retail market, absent regulation, following the MGA.
- 4.6 In considering the relevant upstream wholesale markets, ComReg must consider whether any effective direct demand-side substitutes, direct supply-side substitutes or indirect retail constraints exist, such that they would effectively constrain the price setting behaviour of a hypothetical monopolist (**‘HM’**) supplier of WLA and/or WCA services.

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<sup>156</sup> Notice on Market Definition, paragraph 7.

<sup>157</sup> At pp.8-9 of the 2020 Explanatory Note.

- 4.7 For the purposes of examining the retail market(s), as per the MGA, ComReg's assessment is conducted absent regulation in the WLA and WCA markets, as appropriate.<sup>158</sup> ComReg notes here that it assumes the presence of upstream regulation of the PIA Market, on the basis of the preliminary views and analysis set out in the PIA Consultation, which is has been published at the same time as this Consultation.
- 4.8 In this section ComReg considers the impact of price changes on retail market behaviour, in particular, the likelihood of a change in wholesale pricing impacting retail prices and the extent, if any, to which the pass-through of changes in wholesale prices into retail prices may cause end users to change their behaviour or switch to an alternative platform.
- 4.9 As part of its analytical process, ComReg commissioned the market research firm Red C Research and Marketing ('**Red C**') to carry out quantitative market research of residential and non-residential/SME end users to inform its understanding of end user attitudes and behaviours in the retail broadband (and related) market(s). Some of the issues covered in the survey include:
- (a) Broadband usage and prevalence;
  - (b) Pricing and knowledge of cost;
  - (c) Prevalence and patterns of bundling;
  - (d) Switching behaviours and criteria for choosing providers; and
  - (e) Price sensitivities and reactions to hypothetical changes in pricing (used as the basis for the Small but Significant Non-transitory Increase in Price ('**SSNIP**') test for bundled and non-bundled packages).
- 4.10 Throughout this document, the findings of this research will be referred to as the '**2022 Residential Market Research**' and '**2022 SME Market Research**' (collectively, the '**2022 Market Research**').
- 4.11 ComReg carried out similar market research for the 2018 Decision. Where it is instructive to draw comparisons between these results and the 2022 results, ComReg does so below. This previous research is referred to as the '**2017 Market Research**' throughout.
- 4.12 The 2022 Market Research in itself is not definitive, and whilst its results inform the analysis presented throughout this Consultation, the output of the market research is considered alongside other empirical data and evidence, where available, and as appropriate. The 2022 Market Research is set out at Annex 2 and Annex 3.

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<sup>158</sup> When considering the WCA market, in accordance with the MGA, ComReg takes into account any regulation present on the WLA market(s), which lies upstream of the WCA market.

- 4.13 In addition, there are certain limitations to the 2022 Market Research, particularly where responses resulted in small sample sizes and where the results are indicative of gaps in end user knowledge (particularly around the technology over which their broadband is delivered, the speed of their connection and the alternative platforms to which they could switch at their address). ComReg therefore treats the results of the market research with the appropriate degree of caution throughout and will note occasions in which the results may not be reliable/representative in what they infer and/or where the sample size is too small such that definitive conclusions cannot be drawn.

## 4.2 Relevant Product Market Assessment

### 4.2.1 Summary of Product Market Assessment

- 4.14 In carrying out its retail broadband product market assessment below, ComReg considers that it is appropriate to designate retail broadband delivered over FTTx as the focal product against which an assessment of potential substitutes should be carried out. A bare majority (51%) of retail broadband subscriptions in the State are delivered over FTTx, with the next most prevalent technology – CATV – accounting for 19% of subscriptions. Additionally, FTTx broadband is delivered by a wide range of retail SPs making use of wholesale inputs provide by three Network Operators (Eircom, SIRO, and NBI). FTTx broadband is also capable of meeting the expectations of retail broadband end users in respect of usage cases, speed, download capabilities, and reliability. ComReg also considers that the pricing and product characteristics of retail broadband delivered over FTTx suggest that it is the appropriate focal product.
- 4.15 Having designated retail broadband delivered over FTTx as the appropriate focal product, ComReg then assesses whether the market should be expanded to include any demand-side or supply-side substitutes. ComReg considers that there are no sufficiently effective supply-side substitutes for retail broadband delivered over FTTx. However, ComReg considers that retail broadband delivered by Virgin Media on a self-supply basis over its CATV network is likely to amount to a sufficiently effective demand-side substitute for the focal product. ComReg considers that this is the case, having regard in particular to similarities between both products, measured by intended usage, product characteristics, and pricing.
- 4.16 The inclusion of retail broadband delivered over CATV is subject to two caveats. First, it is only capable of acting as a substitute to the focal product in those areas of the State where Virgin Media has rolled out its CATV network, amounting to c.42% of premises in the State. Second, Virgin Media has

announced its intention to overlay its CATV network with FTTP, such that, over time, demand-side substitution possibilities arising from CATV will decline.

- 4.17 ComReg additionally allows for the possibility of defining a separate product market for retail broadband delivered over copper, arising from the fact that retail broadband delivered over copper does not match the product or intended usage characteristics of the FTTx focal product due to the lower speeds achievable over copper. Additionally, ComReg notes that end user demand for retail broadband delivered over copper appears to be in persistent decline. For these reasons, ComReg considers that retail broadband delivered over FTTx and copper may be characterised by asymmetric substitution, whereby end users deem FTTx retail broadband to be a sufficiently effective substitute for copper, but they do not deem copper retail broadband to be a sufficiently effective substitute for FTTx.

## 4.2.2 Overview of Products

- 4.18 Broadband products are typically advertised and sold by download speeds ranging from 'up to' 100 Mbps to 'up to' 1 Gbps, as outlined in Annex 4. Broadband over FTTC is typically offered with a download speed of 'up to' 100 Mbps. However, the actual speed received by the end user will vary, *inter alia*, depending on factors such as the distance of their premises from the cabinet or the quality of the copper component of the access path.<sup>159</sup> Broadband over FTTP is typically offered with download speeds of up to 500 Mbps or 1 Gbps, with 2 Gbps becoming increasingly available.<sup>160</sup> Virgin Media offer CATV-based broadband three speed points, up to 250 Mbps, 500 Mbps and 1 Gbps.
- 4.19 Mobile broadband ('**MBB**') relates to broadband provided over a mobile network, making use of a 3G, 4G or 5G signal delivered over a dongle or MiFi device. MBB is currently offered by a number of SPs active in the Irish market, including Eircom, Three, Vodafone and Magnet.
- 4.20 FWA refers to the delivery of broadband access to a fixed location over a wireless network, and some SPs offer advertised broadband speeds of up to 150 Mbps.<sup>161</sup> Whether a user can obtain such speeds is dependent on the number of users in a wireless cell, the backhaul capacity and weather conditions. FWA is more prevalent amongst more rural end users, where there are typically fewer wired broadband options, and in particular more limited

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<sup>159</sup> <https://www.thinkbroadband.com/guides/fibre-fttc-ftth-broadband-guide>  
<http://www.increasebroadbandspeed.co.uk/chart-of-bt-fttc-vdsl2-speed-against-distance-from-the-cabinet>

<sup>160</sup> FTTP has previously been offered at lower download speeds but in more recent times advertised packages have been concentrated in the ≥500 Mbps bands.

<sup>161</sup> The maximum download speeds on FWA is advertised as 150 Mbps (by Imagine at <https://www.imagine.ie/broadband/>). ComReg QKDR data indicate that >65% of FWA subscribers are sold advertised speeds of >100 Mbps.

higher speed, fixed broadband solutions. Satellite broadband offers download speeds of up to 22 Mbps for both residential and business end users.<sup>162</sup>

- 4.21 Table 4 outlines the key characteristics of broadband services provided over each of the above listed platforms, for the purposes of comparison.

**Table 4: Overview of Broadband Product Characteristics**

	Copper	FTTC	FOTP	Cable	MBB	Satellite	FWA
<b>Technology</b>	ADSL, ADSL2+	VDSL	GPON & XGS-PON	DOCSIS 3.1	3G/4G/5G	Satellite	4G/5G/WiMax
<b>Subscriptions</b>							
<b>Q4 2018</b>	295,970	618,630	90,642	372,844	298,419	4,552	47,552
<b>Q2 2022</b>	132,496	571,166	431,388	372,423	357,746	3,296	84,327
<b>Download Speeds – Up to</b>	24Mbps	100Mbps	2Gbps	1Gbps	150Mbps	100Mbps	150Mbps
<b>Monthly Cost (inc. VAT)</b>	€50-€60	€30-€50	€35 - €65	€39 - €64	€20 - €45	€48 - €99	€35 - €70
<b>Download Allowance</b>	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited <sup>163</sup>	75-150GB	1TB – Unlimited

### 4.2.3 Designation of the appropriate retail broadband focal product

- 4.22 As set out above (at paragraphs 3.36 to 3.50), as of Q2 2022, FTTC accounts for the largest proportion of retail broadband subscriptions, at 571,166,<sup>164</sup> or 29% of total broadband subscriptions.<sup>165</sup> The next largest portion of broadband subscriptions is delivered over FOTP, with 431,388 (22%). FOTP subscriptions in the State have been on a consistent upwards trend and in Q1 2022 overtook the number of end users served by broadband delivered over Virgin Media’s CATV network which itself accounted for 372,423 subscriptions (18%). NG networks therefore collectively account for 70% of all retail broadband subscriptions in the State, and 91% of all fixed subscriptions in the State (that is, excluding MBB).

- 4.23 Since the 2018 Decision, the retail broadband market in Ireland has changed to a significant degree, arising *inter alia* from the persistent decline in copper and rise in full-fibre FOTP networks and the associated changes in retail demand. Although FTTC is currently the most common form of broadband

<sup>162</sup> Starlink satellite broadband offers higher download speeds than traditional satellite broadband, however there is a degree of ambiguity around the exact maximum download speeds on offer. The maximum download speed quoted here is 200 Mbps <https://www.starlink.com/orders/?processorToken=0fb57f4a-0623-4235-b0a5-461b67410a88>

<sup>163</sup> MBB is increasingly offered on an unlimited basis. Where download allowances do apply they tend to range from 75GB to 150GB.

<sup>164</sup> ComReg QKDR Data.

<sup>165</sup> Total broadband is inclusive of both fixed and mobile, Satellite and FWA broadband subscriptions.



connection, given FTTC subscriptions are in decline, the current trajectory of FTTP subscriptions and ongoing FTTP rollout by several operators, (including Eircom, SIRO, NBI and Virgin Media),<sup>166</sup> it is likely that FTTP will overtake FTTC in terms of both network type and subscription numbers during the lifetime of this market review, ultimately to become the most common form of retail broadband subscription in the State. Further to this, in the case of Eircom's FTTP rollout, a significant portion of this will take the form of an upgrade of FTTC to FTTP, such that eventually the only broadband product offered by Eircom will be FTTP.

- 4.24 The figures discussed above illustrate the significant shift in the retail broadband market away from legacy CG copper broadband, towards NG (in particular FTTP) broadband capable of delivering much higher download speeds and supporting more intensive use of broadband-dependent services. In Q4 2018, 21% of broadband was delivered over CG technology, whereas as of Q2 2022, this figure now stands at 9%.<sup>167</sup>
- 4.25 Unlike the existing copper network, which is owned and operated by a single SP (Eircom), several SPs are active (at the wholesale and/or retail level) in the provision of fibre-based broadband services. In addition, given the network rollouts and upgrade plans of these SPs (Eircom, SIRO, NBI and Virgin Media), more than one SP providing FTTP may be present in some geographic areas.<sup>168</sup> The number of premises passed by overlapping FTTP networks is discussed at paragraph 4.230 and outlined in Table 10.
- 4.26 As set out in detail below, ComReg considers that the product characteristics, pricing and intended use of FTTC-based retail broadband are still sufficiently similar to those of FTTP-based retail broadband and, therefore, the focal product at the retail level should be defined as FTTx, to encompass both FTTC and FTTP technologies. In any event, ComReg considers that FTTC will be replaced, in time, by Eircom given its publicly announced network upgrade plans, so this does not impact the conclusions arising in this Consultation. FTTC and FTTP differ in how they deliver services over the 'last mile', between the cabinet and the end user premises, a fact which has consequences for the download speeds attainable for end users. Together, as of Q2 2022 FTTx subscriptions constitute 51% of the retail broadband market (an increase from the Q4 2018 figure of 41%).

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<sup>166</sup> <https://www.virginmedia.ie/about-us/press/2021/virgin-media-ireland-announces-national-fibre-network-upgrade>

<sup>167</sup> ComReg QKDR Data. As a total of fixed broadband subscriptions.

<sup>168</sup> ComReg will examine these FTTP overlaps as part of its analysis.

### **Product Characteristics of broadband provided over FTTx**

4.27 Table 5 sets out the main characteristics of broadband provided over FTTx.

**Table 5: Product characteristics of broadband provided over FTTx networks**

	FTTC	FTTP
<b>Technology</b>	VDSL	GPON/XGS-PON
<b>Subscribers (Q2 2022)</b> <sup>169</sup>	571,166	431,388
<b>Download Speeds</b> <sup>170</sup>	Up to 100Mbps <sup>171</sup>	Up to 2Gbps <sup>172</sup>
<b>Upload Speeds</b>	Up to 10Mbps	Up to 100Mbps
<b>Price Range (inc. VAT)</b>	€30 - €50	€35 - €65
<b>Download Allowance</b>	Typically unlimited	
<b>Bundles</b>	Commonly bundled with retail products including RFTS and/or TV	
<b>Typical Contract Length</b>	12/24 months	

4.28 Broadband over FTTC offers advertised download speeds of up to 100 Mbps and upload speeds usually around 10% of the download speed, i.e., 10 Mbps. Broadband provided over FTTP offers advertised download speeds of ‘up to’ 500 Mbps, ‘up to’ 1 Gbps and ‘up to’ 2 Gbps<sup>173</sup> and, similar to FTTC, upload speeds typically amount to around 10-20% of the download speed. Download allowances for FTTx-based broadband packages are typically unlimited.<sup>174</sup>

4.29 FTTx broadband is offered on a standalone basis by several SPs but is also commonly bundled with one or more related retail services, including RFTS – which is increasingly delivered via Voice over Internet Protocol (**VoIP**), rather than over a traditional copper phone line – TV services and mobile packages.

### **Pricing**

4.30 Annex 4 outlines a range of broadband services and bundles available to end users in Ireland, including details on prices, speeds and the bundle

<sup>169</sup> ComReg QKDR Data.

<sup>170</sup> CATV broadband is offered at advertised download speeds of up to 250 Mbps, 500 Mbps and 1 Gbps. FTTP based broadband is typically offered under the advertised download speeds of up to 500 Mbps and 1 Gbps.

<sup>171</sup> Attainable download speeds over FTTC attenuate with distance from the cabinet. Therefore, although the plan may be advertised as delivering ‘up to 100 Mbps’ the reality for some end users may be much lower speeds. According to QKDR data, as of Q2 2022, 6% of FTTC subscriptions are at sold speeds of 30 – 100 Mbps and 94% are 100 – 500 Mbps.

<sup>172</sup> The majority of FTTP packages are advertised at maximum download speeds of 1 Gbps. However, 2 Gbps FTTP services are available in a small number of areas as of September 2022, primarily over SIRO’s network (available to retail end users through Vodafone). Speeds of ‘up to 1 Gbps’ are more widely available and advertised.

<sup>173</sup> FTTx speeds are advertised as 500 Mbps, 1 Gbps and 2 Gbps, for example by Eircom, Sky and Vodafone. ComReg also discerned from its engagement with SPs that there is a movement towards, at minimum ‘starting’ customers on 500 Mbps plans.

<sup>174</sup> Typically, ‘unlimited’ plans are still subject to fair usage policies. The Eircom fair usage policy sits at 1TB per month for fibre customers, after which usage is subject to a charge of €2.50 for every additional 10GB of data, up to a maximum of €100 per month, as detailed at <https://www.eir.ie/support/billing/usage-allowance/>

components. It includes both fixed and mobile offerings in addition to a breakdown of services available to residential and business customers. The plans outlined in Annex 4 are accurate as of the date of publication, however, are subject to continual change and promotional offers.

- 4.31 For residential subscribers the cost of FTTC broadband typically varies from €30 to €50 and for business subscribers the cost varies from €45 to €55 per month.<sup>175</sup> For residential end users the price of broadband provided over a FTTP network typically varies from €35 to €65 and for business customers, the price can vary from €55 to €85 per month.<sup>176</sup>
- 4.32 The 2022 Market Research found that, on average, residential customers were paying €43 for standalone broadband and €75 for broadband in a bundle, per month.<sup>177</sup> Business customers were paying an average of €107 for standalone broadband and €152 for broadband in a bundle, per month.<sup>178</sup>
- 4.33 Minimum contract lengths for broadband provided over FTTC are typically 12 months for residential and business users. Minimum contract lengths for broadband provided over FTTP are, typically, 12 months for residential and business end users (although some plans extend to 24-month terms).

### **Intended Use**

- 4.34 In terms of derived demand for broadband and the underlying usage intentions of broadband purchasers, the 2022 Residential Market Research revealed that the main uses of broadband amongst end users with fibre were browsing the internet (87%), using email (82%), online shopping (69%) and downloading/streaming TV content (66%).<sup>179</sup>
- 4.35 As illustrated in Figure 18, compared to the 2017 Market Research, the uses which have increased to the greatest degree are using email, remote working and streaming/downloading TV content. The results around the use of broadband for remote work and streaming/downloading TV content fit with the behavioural change over the period of the Covid-19 pandemic and also align with increased download speeds attainable over broadband, which facilitates these uses.

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<sup>175</sup> A range which encompasses both standalone and bundled plans

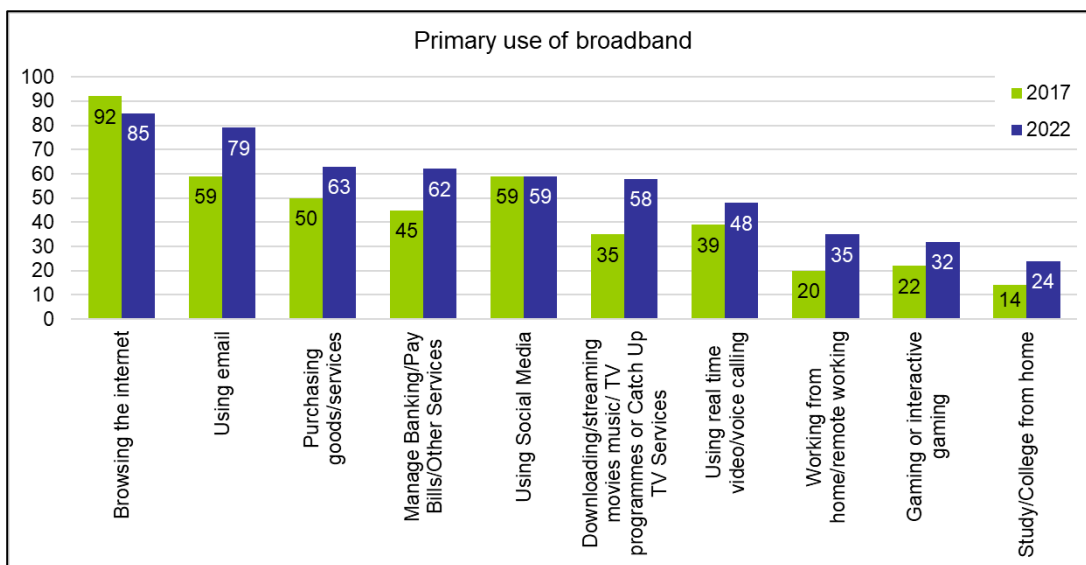
<sup>176</sup> These figures stem from desk-based research by ComReg on advertised broadband plans from a variety of SP websites, accurate as of September 2022.

<sup>177</sup> See Slide 38 and Slide 51 of the 2022 Residential Market Research. Overall average, across all platforms.

<sup>178</sup> See Slide 37 and Slide 33 of the 2022 SME Market Research. The modal and median monthly cost for bundled broadband was €100, a figure which may be more reflective of the true average monthly cost, as it is immune to outlier effects.

<sup>179</sup> See Slide 19 of the 2022 Residential Market Research. Here and throughout, where the 2022 Market Research is referenced, 'fibre broadband' refers to broadband delivered over FTTx. There was no delineation within the research or results between FTTC and FTTP.

Figure 18: Primary Uses of Broadband 2017 versus 2022<sup>180</sup>



- 4.36 The market research suggests that broadband is used differently depending on the underlying technology, particularly for fibre-based broadband, which amongst respondents, was typically associated with the use of higher bandwidth activities, such as remote working, video calling and gaming.<sup>181</sup> For instance, respondents with fibre broadband were significantly more likely to stream movies, watch TV and remote work than end users on other platforms, even in comparison to those with CATV broadband, which is technically capable of delivering a similar service in terms of bandwidth and download speed, to FTTx connections.
- 4.37 For fibre-based (FTTx) residential end users, the average time spent online per day is 5.5 hours, with 68% of fibre-based end users accessing broadband on an ongoing basis throughout the day. The overall average time spent online per day, across all platforms was 5 hours, the same as the 2017 result.
- 4.38 In terms of what end users deem the most important characteristics of their broadband plan, the most valued aspect is reliability (83% of residential respondents ranked this the single most important factor), followed by download speed (41%) and customer service (30%).<sup>182</sup>
- 4.39 In comparison to broadband delivered over other platforms, those with fibre broadband were more likely to use broadband for high bandwidth activities such as downloading/streaming content, watching live TV, remote work/study

<sup>180</sup> 2022 Residential Market Research.

<sup>181</sup> See Slide 20 of the 2022 Residential Market Research.

<sup>182</sup> See Slide 23 of the 2022 Residential Market Research.

and gaming,<sup>183</sup> highlighting the differences between FTTx and other platforms, including CATV, copper and MBB.

- 4.40 Average data consumption<sup>184</sup> by broadband users on a FTTP network is 129GB per month and on a FTTC network is 103GB per month, as of Q2 2022.

### Conclusion on Focal Product

- 4.41 In light of the above evidence and analysis, ComReg's view is that retail broadband provided over an FTTx network is the most appropriate focal product against which an assessment of substitute products should be carried out. Where alternatives are found to act as an effective substitute for the focal product, they will be included in the relevant retail product market.
- 4.42 In the following section ComReg assesses the various alternative networks used to provide broadband services in order to determine whether broadband provided over those networks is likely to be an effective demand and/or supply-side substitute for the focal product. Where this is found to be the case, the network under analysis will be included in the relevant retail product market.

#### 4.2.4 Direct Constraints

- 4.43 ComReg examines the following platforms and their suitability as demand or supply side substitutes for the retail focal product;
- (a) Broadband provided over a copper-only network;
  - (b) Broadband provided over a CATV network;
  - (c) Broadband provided over 3G/4G/5G mobile network;
  - (d) Satellite broadband;
  - (e) Broadband provided over a FWA network; and
  - (f) Broadband provided over a leased line.
- 4.44 These potential substitutes are then considered across a range of relevant substitutability criteria, as set out in the EC's Notice on Market Definition, according to which a relevant product market is defined.
- 4.45 Although a comparison of technologies/characteristics can indicate the degree to which different technical solutions may be functionally equivalent at the service level, other factors, ranging from intended use, ease of switching and geographic availability must also be considered in determining whether products are substitutes in practice.

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<sup>183</sup> See Slide 20 of the 2022 Residential Market Research

<sup>184</sup> ComReg QKDR Data for 'Average Traffic per subscriber per month'.

## Demand Side Substitution

- 4.46 ComReg's starting point is to examine whether the above technologies are likely to be considered by end users to be effective demand-side substitutes for the focal product (defined at paragraph 4.41 above).
- 4.47 The retail assessment of potential demand side substitutes analyses product characteristics, price, and any available data regarding end user behaviour and usage. It also takes into consideration whether a sufficient number of end users would likely switch to any candidate substitutes in response to a hypothetical 5-10% SSNIP in the retail price of the identified relevant broadband products.
- 4.48 The 2022 Market Research found that, in response to a SSNIP, the majority of end users (across all broadband platforms) would 'do nothing' in response to a €4 increase in the price of broadband,<sup>185</sup> a common behavioural response whether the broadband is purchased on a standalone or bundled basis, and whether end users fell into the category of residential or business, suggesting a lack of price sensitivity amongst a large proportion of broadband customers.
- 4.49 More precisely, if the price of standalone broadband hypothetically increased by €4 per month, 57% of residential respondents responded that they would 'do nothing', 8% would stay with their current provider, but downgrade to a 'lesser plan', 6% would cancel their current plan and 11% would shop around for an alternative plan (with the remainder indicating that they were unsure of what they would do in response).<sup>186</sup>
- 4.50 For respondents who purchased their broadband as part of a bundle, if the price of bundled broadband hypothetically increased by €4 per month, 53% of residential respondents responded that they would 'do nothing', 6% would stay with their current provider, but downgrade to a 'lesser plan', 7% would cancel their current plan and 16% would shop around for an alternative plan (with the remainder indicating that they were unsure of what they would do).<sup>187</sup>
- 4.51 These results vary across regions and by technology, with respondents located in Dublin and users of FTTx-based broadband being the most likely to make a change in response to the SSNIP.

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<sup>185</sup> 57% of residential respondents with broadband in a bundle and 53% of respondents with standalone broadband.

<sup>186</sup> See Slide 55 of the 2022 Residential Market Research.

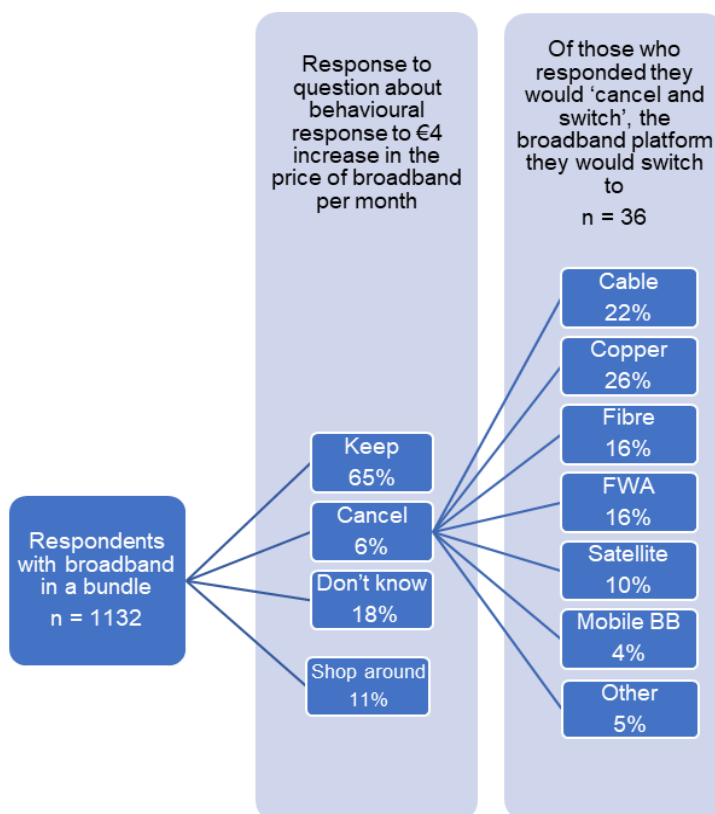
<sup>187</sup> See Slide 55 of the 2022 Residential Market Research.

4.52 For business end users, for those who purchase broadband on a standalone basis, 62% would 'do nothing' in response to a SSNIP and amongst bundle customers, 58% would 'do nothing'. In both cases, businesses currently making use of FTTx are more likely to 'do nothing' in response to the SSNIP.

4.53 Figure 19 and Figure 20 below provide a summary of residential survey respondents' likely behavioural responses to a hypothetical price increase. Respondents were asked:

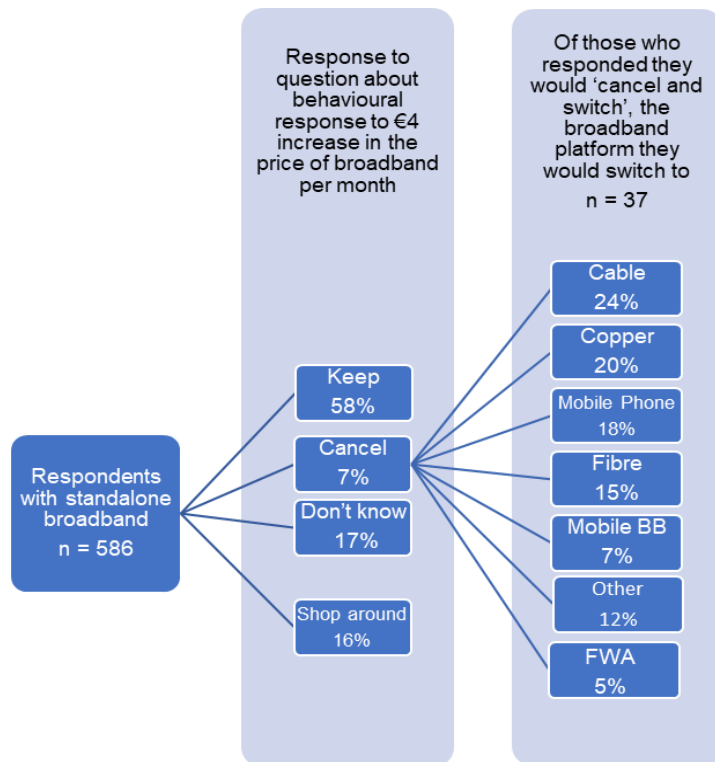
- (a) If they would change their purchasing behaviour in response to a SSNIP (hypothetical price increase of €4);
- (b) What they would do (cancel or switch) if they would change their purchasing behaviour;
- (c) How likely they are to actually change their purchasing behaviour; and
- (d) Which broadband platform they would switch to if they were likely to actually change their behaviour.

**Figure 19: SSNIP summary for residential respondents purchasing bundled broadband<sup>188</sup>**



<sup>188</sup> Caution: note small sample size.

**Figure 20: SSNIP summary for residential respondents purchasing standalone NG broadband<sup>189</sup>**



### Assessing the impact of retail end user behaviour on the relevant wholesale markets

4.54 ComReg first considers whether, from an end user demand-side perspective, there are any products which might act as an effective substitute for the focal product - broadband provided over a FTTx network.<sup>190</sup> ComReg examines this from two perspectives;

- (a) Whether the characteristics, prices and intended use of potential substitute products are sufficiently interchangeable with those associated with the focal product; and
- (b) The likelihood that a sufficient number of end users may switch to these potential substitutes in circumstances in response to a SSNIP of the focal product to render that SSNIP unprofitable.

4.55 The analytical framework for defining a relevant product market involves conducting an examination of end user behaviour in response to a SSNIP of a focal product supplied by a HM above the competitive level, typically taken to be in the range of 5-10%. In this regard, ComReg notes that a notional €4

<sup>189</sup> Caution: note small sample size.

<sup>190</sup> FTTx is used throughout to refer collectively to FTTC and FTTP.



increase at retail level would likely overestimate the true level of pass-through of a SSNIP of WLA to retail level.

- 4.56 Under the SSNIP test, where the hypothetical price increase induces a switching response by end users to an alternative product, such that the SSNIP is unprofitable for the HM, the alternative product is deemed to be a substitute for the focal product and is included in the relevant product market. The SSNIP test is conducted for any number of alternative products which, depending on their characteristics, prices and intended use, may or may not constitute an effective demand-side substitute for the focal product. If switching to any of these alternative products is sufficient to render the SSNIP of the focal product unprofitable, these alternatives are included in the relevant product market.

### Broadband provided over CG copper

- 4.57 It is ComReg's view that, from a demand-side perspective, there is likely to be some degree of substitution between copper and FTTx-based broadband, but that this substitution is asymmetric in nature.
- 4.58 As defined in the 2018 SMP Guidelines, asymmetric substitution occurs where there is substitution between two products, but in one direction only.<sup>191</sup> In the case of CG copper and FTTx-based broadband, ComReg is of the preliminary view that end users would likely, in response to a SSNIP, substitute from copper-based broadband to FTTx-based broadband (assuming it is available), but not necessarily from FTTx to copper i.e., there is substitution from the alternative product to the focal product but not vice versa.
- 4.59 In this instance ComReg is of the view that end users will switch from copper to FTTx, that is, 'trade up', but will be less likely to 'trade down' from FTTx to copper based on end users' expectations of the two platforms<sup>192</sup> (assuming this option is available) and their contrasting technological capabilities and performance. Asymmetric substitution between copper and FTTx is further discussed in Section 5, at paragraphs 5.35 to 5.42.
- 4.60 In correspondence with ComReg, [X ■■■ X] noted that, based on its experience in the market to date, when presented with the choice, broadband customers are actively migrating from copper to fibre rather than vice versa. ComReg data also point to a decline in copper-based subscriptions and an increase in FTTx subscriptions. Between Q4 2018 and Q2 2022, copper

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<sup>191</sup> 2018 SMP Guidelines.

<sup>192</sup> In *France Télécom v Commission* (Case C-202/07 P), the EC stated that the user expectations from low-speed internet and high-speed internet are extremely different. Although the high-speed internet can perform everything that the low-speed internet can, the users do not shift to high-speed internet for the same kind of activities. Therefore, the relevant market, in this case, was not enlarged to encompass both the services citing the "extremely asymmetric" nature of substitution.

subscriptions fell from 295,970 to 132,496 (55%), whereas over the same timeframe FTTx subscriptions rose from 709,272 to 1,002,554 (41%).<sup>193</sup>

4.61 In such instances NRAs then must decide whether or not the alternative product (in this case, CG copper) belongs in the market. Following BEREC guidance,<sup>194</sup> there are two ways of considering instances of asymmetric substitution when carrying out market analysis, as set out in greater detail at paragraphs 5.83 to 5.86 above.

4.62 As of Q2 2022, there were a total of 132,496 copper-based broadband subscribers in the State, amounting to 7% of overall subscriptions. This figure has declined in by 55% since the publication of the 2018 Decision.

### **Product Characteristics of broadband provided over CG copper**

4.63 Eircom owns and operates a ubiquitous copper network in Ireland.<sup>195</sup> Broadband provided over copper is typically sold under an advertised maximum download speed of 24 Mbps,<sup>196</sup> with unlimited download allowance. However, copper-based broadband services and packages from SPs are dwindling, and availability to new customers is limited, with only three SPs offering a copper-based broadband product, as of September 2022.<sup>197</sup>

4.64 According to the 2022 Market Research, residential end users accessing broadband over a copper network experience an average download speed of 133 Mbps.<sup>198</sup> As noted at paragraph 4.13, the market research here point to a gap in the knowledge of end users. The average claimed download speed of those with copper broadband is 133 Mbps, however this is technologically not feasible, as copper can only deliver a maximum speed of around 24 Mbps. This result could be due to end users over-estimating their speed in instances where they have a copper (DSL) connection, or it could be indicative that they do not in fact have a copper connection, but rather some form of NG connection, as such speeds are only attainable over NG broadband networks.

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<sup>193</sup> ComReg QKDR data

<sup>194</sup> See BEREC report on impact of fixed-mobile substitution in market definition pp. 12-15; [https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/download/0/118-berec-draft-report-on-the-impact-of-fixed-mobile-substitution-in-market-definition\\_0.pdf](https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/118-berec-draft-report-on-the-impact-of-fixed-mobile-substitution-in-market-definition_0.pdf)

<sup>195</sup> Taking a forward looking perspective this copper network will eventually cease to operate under Eircom's Copper Switch-off programme and plans.

<sup>196</sup> An example of a copper-based broadband product advertised at a maximum download speed of 24 Mbps is Digiweb's DSL Unlimited plan; <https://digiweb.ie/dsl-broadband/>.

<sup>197</sup> As of June 2022, Digiweb, Pure Telecom and Magnet are the only large SPs to offer copper-based retail broadband to residential subscribers. Other SPs continue to offer such services on a legacy basis, including Eircom.

<sup>198</sup> See Slide 85 of the 2022 Residential Market Research.

- 4.65 For business end users (who have a greater tendency to have a copper-based connection, in comparison to residential subscribers), the average download speed was 73 Mbps.<sup>199</sup>

### **Pricing**

- 4.66 A detailed examination of broadband prices, including those for copper-based services is included in Annex 4. Copper-based broadband ranges from €50 to €60 per month for residential customers. Copper-based broadband is most frequently bundled with RFTS, at a low additional cost to the end user. In comparison to the number of plans and packages available over other platforms, there are very few copper-based options available, in particular to new customers, as the majority of copper-based customers are served on a legacy basis - making a thorough analysis of pricing more challenging.
- 4.67 The 2022 Market Research revealed that residential respondents on a copper network whose broadband is part of a bundle paid an average of €70 per month, with those who purchase copper broadband as a standalone product paying an average of €43 per month.
- 4.68 Contract lengths for broadband provided over copper are typically a minimum of 12 months for both residential and business end users.
- 4.69 In response to a SSNIP, 54% of residential respondents who purchase FTTx broadband as part of a bundle said that they would not change their behaviour,<sup>200</sup> however, 4% would be induced to cancel their plan (to at least some extent). 92% of these respondents reported that they would be very likely or fairly likely to follow through on this change. Of those residential respondents who purchase standalone FTTx-based broadband, 42% indicated that they would not change their behaviour in response to the SSNIP, a figure which is lower than other platforms,<sup>201</sup> suggesting that end users who have migrated to NG platforms are more price sensitive than end users who remain on the legacy copper product.

### **Intended Use**

- 4.70 The 2022 Residential Market Research revealed that the main uses among end users using broadband on a copper network were browsing the internet (86%), using email (86%) and online shopping (66%). Respondents with

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<sup>199</sup> See Slide 23 of the 2022 SME Market Research. ComReg QKDR data indicate that, as of Q2 2022, 47% of business broadband subscriptions were in the 30-100 Mbps range.

<sup>200</sup> See Slide 56 of the 2022 Residential Market Research.

<sup>201</sup> See Slide 65 of the 2022 Residential Market Research.

copper-based broadband were notably less likely to use gaming (29%) or remote work (22%) than respondents with a NG based broadband service.<sup>202</sup>

- 4.71 For end users on a copper network, the average time spent online was 4.5 hours per day, marginally lower than the overall average of 5 hours per day. In general, in terms of time spent online, end users with a copper connection spend a roughly equivalent time online as other platforms.<sup>203</sup>
- 4.72 As set out in the QKDR, average data consumption by copper broadband users is 29GB per month, as of Q2 2022. This is one of the lowest data usage figures across platforms, with data consumption over cable, FTTC and FTTP networks at substantially higher levels, in excess of 100GB per month. This potentially illustrates that those who need high speed broadband connections and use broadband intensively, do not opt for a CG copper product but rather, a NG product capable of delivering much higher download speeds and reliability of service. However, another underlying dynamic at play here is availability. Where an end user hypothetically demands a high speed broadband connection to support their intended use of broadband, but they are located in an area not currently covered by any NG network(s) they will have no choice but to opt for copper – despite a likely preference for a higher speed product. In such instances demand is constrained by availability.

### **Substitution**

- 4.73 ComReg notes the clear, observable decline in broadband delivered over copper, and rise in FTTx broadband. As noted above, substitution between copper and FTTx is likely asymmetric in nature, i.e., users of copper-based services may switch to FTTx services in response to an increase in the price of copper-based services, but the opposite may not be the case.
- 4.74 There are potentially a number of drivers underlying this asymmetry, including consumer preferences, the introduction of new technologies (in particular, FTTP) and the convergence of prices for copper and FTTx. However, the main driver of demand for NG versus CG based retail broadband appears to stem from end user demand for high-speed broadband with the capability of supporting broadband and bandwidth-intensive purposes, including streaming, video calling, gaming and remote work.
- 4.75 ComReg is of the preliminary view that a HM supplier of FTTx broadband is likely to be able to sustain a profitable SSNIP in the range of 5-10% above the competitive level without a sufficient number of customers switching to broadband provided over a copper only network.

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<sup>202</sup> See Slide 20 of the 2022 Residential Market Research.

<sup>203</sup> See Slide 22 of the 2022 Residential Market Research.

- 4.76 ComReg also acknowledges that, although the average retail price of FTTx broadband falls within the minimum/maximum range of copper-based broadband, given the superior functionality and download speeds offered by broadband provided over FTTx, where available, end users are likely to opt for FTTx rather than copper (with the potential exception of the previously discussed portion of the market who are price insensitive and reluctant to migrate to NG technology).
- 4.77 In addition, copper-based broadband is only available on a relatively limited basis to 'new customers' and from a smaller number of operators than FTTx broadband<sup>204</sup> as a consequence of the ongoing rollout of NG FTTP networks over which numerous retail SPs offer retail broadband. This has consequences for substitution dynamics as end users can only switch to copper where it is available, irrespective of their demand for such services.
- 4.78 The ability of copper-based end users to migrate to FTTx is dependent on the geographic availability of those services. With the progressive rollout of FTTP by a number of Network Operators, this obstacle will decline on a forward-looking basis, even for end users located in rural Ireland in areas previously deemed 'commercially unviable'. On a forward-looking basis, NBI rollout in the Intervention Area ('IA') will facilitate switching opportunities for end users currently reliant on CG copper retail broadband over coming years and allow them to migrate across to FTTP, where end users actively want to upgrade to fibre. Over the lifetime of this market review, having regard to commercial FTTP network rollout and rollout by NBI, ComReg expects the number of CG-based broadband users to decline significantly as they migrate to FTTP.
- 4.79 ComReg considers that, while end users can migrate from copper to FTTP when it becomes available in their area, it is unlikely end users will migrate back from FTTP to copper once they have taken up an FTTP subscription.

### **Broadband provided over CATV**

- 4.80 Having regard to the analysis set out in paragraphs 4.81 to 4.95 below, ComReg considers that broadband access provided over a CATV network is likely to be an effective demand side substitute for the focal product.

#### **Product Characteristics of CATV-based broadband**

- 4.81 As of Q2 2022, there were 372,423 CATV broadband subscribers in Ireland, amounting to 18% of all broadband subscriptions. Virgin Media is the only CATV network operator in the State and offers CATV broadband in primarily

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<sup>204</sup> From desk-based research ComReg has found only two SPs which are active in the provision of copper broadband on a 'non-legacy' basis (Digiweb and Magnet).

urban areas extending to 869,102 premises.<sup>205</sup> Virgin Media's customer base is primarily residential, constituting 95% of its subscribers.

- 4.82 Virgin Media offers products with download speeds of (up to) 250 Mbps, 500 Mbps and 1 Gbps. This broadly resembles the download speeds offered by SPs who offer FTTx-based packages. Similar to FTTx, Virgin Media's offerings come with an unlimited download allowance. A detailed examination of the speeds and packages offered by Virgin Media is outlined in Annex 4.
- 4.83 For residential end users with CATV-based broadband, the average download speed cited by respondents to the 2022 Market Research was 215 Mbps,<sup>206</sup> the highest across any platform, including fibre and above the overall average (claimed) download speed of 164 Mbps. For business end users of CATV broadband (which constitute only a small portion of Virgin Media's overall customer base) the average reported download speed was 298 Mbps, again the highest speed of any platform, with the exception of leased lines.
- 4.84 Since the 2018 Decision, Virgin Media has upgraded its network from DOCSIS 3.0 to DOCSIS 3.1. allowing it to offer higher speed products to its customers, moving from a previous maximum download speed of 360 Mbps, to 1 Gbps – directly comparable to speeds available over FTTP.
- 4.85 Despite the ability of CATV to technically deliver higher speeds, it is important to note the potential for disparity between the maximum advertised speed and actual speed experienced by end users. The 2022 Market Research found that the average (claimed) download speed amongst cable subscribers was 215 Mbps, which was the highest across any platform, including fibre, which sat at 176 Mbps (although as noted earlier at paragraph 4.36, the 2022 Market Research did not distinguish between FTTC and FTTP).

### **Pricing**

- 4.86 A synopsis of CATV broadband pricing is contained in Annex 4. CATV bundles vary from €45 to €74 per month, depending on the product speed and the bundle of products included in the plan, for residential customers. For business end users, CATV broadband ranges from €55 to €85 per month.
- 4.87 The 2022 Market Research showed that residential respondents whose CATV broadband is purchased as part of a bundle paid an average of €75 per month for their bundle. For residential respondents who purchase standalone CATV broadband, the average spend was €53 per month.

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<sup>205</sup> According to ComReg QKDR data, Virgin Media also has an FTTP presence, with (as of Q2 2022), 74,650 premises passed, primarily in counties Clare, Louth, Wexford and Wicklow.

<sup>206</sup> See Slide 85 of the 2022 Residential Market Research.

- 4.88 Contract lengths for broadband provided over CATV are typically for a period of 12 months, although Virgin Media also offers a fixed broadband product on a 30-day rolling basis (via its 'Freedom Broadband' product).
- 4.89 According to the 2022 Market Research, amongst those with a CATV-based broadband connection, 55% of bundle and 40% of standalone residential end users would do nothing in response to a hypothetical €4 price increase.<sup>207</sup>

### **Intended Use**

- 4.90 The 2022 Market Research revealed that the main uses among CATV end users were browsing the internet (79%), using email (73%) and video calling (58%). Respondents with CATV-based broadband were more likely to use their broadband service for real-time video than other platforms, including those end users with fibre broadband.<sup>208</sup>
- 4.91 For end users with CATV broadband, the average time spent online per day was 5 hours, exactly equivalent to the overall average across all platforms, and marginally below the 5.5 hours per day reported by fibre-based end users.
- 4.92 As set out in the QKDR, average data consumption by CATV broadband users is 146GB per month, the highest across any platform, highlighting that CATV is capable of supporting the requirements of even the most intensive broadband users. The data consumption figure is broadly comparable to that of FTTP, which sits at 134GB per subscriber, per month.

### **Substitution**

- 4.93 As of Q2 2022 CATV-based broadband subscriptions numbered 372,423, behind FTTC subscriptions at 571,166, and also behind FTTP subscriptions, at 431,388, which for the first time, in Q1 2022 overtook CATV subscriptions in the State. Q2 2022 saw the largest drop off in CATV subscriptions to date, of 3,815 subscriptions, quarter on quarter. This decline potentially signals an end to the relatively static CATV subscription figures (a trend which corresponds with the lack of growth in Virgin Media's CATV geographic footprint) over the last number of years, although more data will be required to confirm this.
- 4.94 Given the results of the market research and subsequent analysis outlined above, ComReg is of the preliminary view that a HM supplier of the focal product is unlikely to be able to profitably sustain a SSNIP in the range of 5-10% above the competitive level without a sufficient number of customers switching to CATV broadband (in those geographic areas where it is available).

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<sup>207</sup> See Slide 56 and Slide 65 of the 2022 Residential Market Research \*Small Base Size.

<sup>208</sup> See Slide 20 of the 2022 Residential Market Research.

- 4.95 Accordingly, it is ComReg’s preliminary view that CATV is likely to be an effective demand-side substitute to the focal product, with the caveat of geographic availability in the longer run (given Virgin Media’s plans to overbuild its CATV network with FTTP). Virgin Media’s plans to overbuild its existing CATV network with FTTP will likely have ramifications for the availability of CATV-based broadband in the long term.<sup>209</sup> In discussion with ComReg [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]. As Virgin Media is the sole operator of CATV, if it completes the upgrade to FTTP, CATV will ultimately no longer be available to end users in the State [REDACTED]  
[REDACTED]  
[REDACTED], removing it (in the long term) as a possible substitute for other broadband platforms. Taking a forward-looking perspective, the above analysis rests on the fact that CATV can only act as a demand side substitute for as long as it is available to end users. However, given the lack of certainty around Virgin Media’s plans and likely timelines for FTTP rollout ComReg expects at least some degree of CATV to remain and persist during the lifetime of this market review.

### Mobile broadband (‘MBB’) provided over 3G/4G/5G

#### **Product Characteristics of MBB**

- 4.96 ComReg set out the key characteristics of MBB in Table 4 above. Mobile networks can be used to supply broadband access in either of two ways, via a mobile phone (either on the device itself or through another device via hotspot/tethering) or a dongle or MiFi device. In the analysis below, ComReg considers whether the product characteristics and functionality of MBB provided via a dongle/MiFi device are sufficiently similar to retail broadband access provided over FTTx and CATV networks, particularly in terms of throughput capacity, reliability, latency, issues relating to topography and contention. ComReg excludes MBB accessed via a mobile phone from the analysis as the functionality of broadband access over a mobile phone is limited by screen size, resolution and the availability of applications.
- 4.97 MBB in Ireland is currently sold over three technologies; 3G, 4G and 5G. Taking a forward-looking approach, 3G is set to be decommissioned by several operators over the period of this review. Vodafone recently announced that it will commence the switch-off of its 3G network by the end of 2023, as

<sup>209</sup> For more discussion on Virgin Media’s rollout plans see paragraphs 3.28 to 3.30.



part of plans to improve its 4G and 5G services for customers.<sup>210</sup> Similarly, Three has announced its intention to phase out its 3G network by the end of 2024, again to focus investment on 4G and 5G infrastructure.<sup>211</sup> The analysis below will therefore focus on 4G and 5G-based MBB.

- 4.98 Research conducted by Ookla found that 5G availability across Ireland was 12% in Q3-Q4 2021 (the most recent period for which data are available).<sup>212</sup> The same research found that Eircom had the highest availability of 5G (26.6%), followed, at distance by Three (8.2%) and then Vodafone (6.4%).
- 4.99 ComReg considers that, based on the evidence available to it, attainable download speeds over MBB are likely to be highly variable. Although MBB has a hypothetical and advertised maximum network download capability of up to 150 Mbps,<sup>213</sup> actual achievable download speeds are often lower. This is largely due to the fact that the access network layer<sup>214</sup> within the mobile broadband network is shared across multiple end users utilising the broadband services within that area, which has consequences for the download speeds experienced by the individual end users. This is exacerbated by the mobile nature of the broadband service and the ability for end users to move across the mobile network, which means the number of users within the footprint of a specific coverage area of a mobile base station can be variable.
- 4.100 In some Member States, MBB is regarded as a substitute to fixed broadband (e.g. Austria), in particular, in areas where fixed networks have not been upgraded, and achievable speeds over mobile networks are similar (or even superior) to the speeds achievable over fixed networks and operators market MBB with generous or unlimited data volumes.<sup>215</sup> However, in most EU Member States fixed and mobile broadband are deemed to be complements.
- 4.101 ComReg assesses 3G/4G/5G download speeds as part of the assessment of Mobile Network Operators' ('MNO(s)') compliance with spectrum license obligations. The results of ComReg's latest assessment of 3G/4G download

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<sup>210</sup> <https://www.irishnews.com/magazine/technology/2022/01/25/news/vodafone-to-begin-switching-off-its-3g-network-in-2023-to-improve-4g-and-5g-2569946/>

<sup>211</sup> <https://www.irishnews.com/magazine/technology/2022/05/10/news/three-to-switch-off-3g-network-by-end-of-2024-2707311/>

<sup>212</sup> [Ireland Puts 5G in the Fast Lane | Ookla®](https://www.eir.ie/ourmobilenetwork/) Eir mobile broadband network coverage; <https://www.eir.ie/ourmobilenetwork/> "Availability" is measured by Ookla as the percentage of users on 5G-capable devices that spend most of the time with access to 5G networks.

<sup>213</sup> <https://coveragemap.comreg.ie/map> MSPs active in the Irish market include 48, An Post Mobile, Clear Mobile, Eir, GoMo, Lycamobile, Tesco Mobile, Three, Virgin Media and Vodafone.

<sup>214</sup> The area served by a mobile base station.

<sup>215</sup> 2020 Explanatory Note p.38

speeds ('**2021 Mobile Coverage Assessment**')<sup>216</sup> illustrate significant variation in download speeds, depending on the network used. The typical speeds experienced during the tests were significantly lower than the theoretical maximum speeds advertised for these MBB products.

- 4.102 The actual speed an MBB end user receives depends on the coverage of the provider and the strength of the signal. As noted in the terms and conditions to the Three MBB offering,<sup>217</sup> the variability of the download and upload speeds achieved, and the technology used to access data services may affect the end user experience of service, ability to access and distribute information and content and use applications.

**Table 6: Mobile Broadband Download and Upload Speeds by Technology and SP**<sup>218</sup>

Service Provider	Technology	Estimated Max Download Speed	Estimated Max Upload Speed
<b>Eircom</b>	4G	10 Mbps	1 Mbps
	5G	50 Mbps	5 Mbps
<b>Three</b>	3G	2.5 Mbps	0.49 Mbps
	4G	10 Mbps	2.8 Mbps
	5G	25 Mbps	5 Mbps
<b>Vodafone</b>	4G	10 Mbps	
	5G	25 Mbps	

- 4.103 ComReg's analysis of MBB packages shows that advertised download speeds range from up to 10 Mbps to up to 500 Mbps,<sup>219</sup> dependent on the underlying technology (4G or 5G). By comparison, retail broadband products provided over FTTC, CATV and FTTP networks have maximum advertised download capabilities of 100 Mbps, 1 Gbps and 2 Gbps respectively.
- 4.104 According to research conducted by Ookla, the median 5G download speed in Ireland during H2 2021 was 162.5 Mbps and the median 5G upload speed was 21.2 Mbps.<sup>220</sup> Further research conducted by Ookla (in June 2022), put the

<sup>216</sup> <https://www.comreg.ie/publication/assessment-of-mobile-network-operators-compliance-with-licence-obligations-coverage-winter-2021>

<sup>217</sup> See <https://www.three.ie/legal/terms/mobile-and-fwa-network-speeds.html>

<sup>218</sup> Taken from the speeds advertised by the main providers of mobile broadband in the State. Eir; <https://www.eir.ie/ourmobilenetwork/> and Three; <https://www.three.ie/legal/terms/mobile-and-fwa-network-speeds.html>

<sup>219</sup> [https://konnnectme.ie/5g-broadband/?ppc\\_5gbroadband\\_pmm&gclid=Cj0KCQjw8uOWBhDXARIsAOxKJ2HPhuNrPlcFrVv1H9ggULsD4Rd4NtjUCONW\\_a\\_PuA7pe3vTQ2CUoMaAI1HEALw\\_wcB](https://konnnectme.ie/5g-broadband/?ppc_5gbroadband_pmm&gclid=Cj0KCQjw8uOWBhDXARIsAOxKJ2HPhuNrPlcFrVv1H9ggULsD4Rd4NtjUCONW_a_PuA7pe3vTQ2CUoMaAI1HEALw_wcB) and <https://switcher.ie/broadband/compare/mobile-broadband/>

<sup>220</sup> <https://www.ookla.com/articles/ireland-puts-5g-in-the-fast-lane-q3-q4-2021>

mean and median download speed over MBB at 29 Mbps and 75 Mbps, versus 71 Mbps and 140 Mbps for the same metric over fixed broadband.<sup>221</sup>

- 4.105 The 2022 Market Research found that amongst respondents with MBB, the average (claimed) download speed was 118 Mbps.<sup>222</sup>
- 4.106 As set out in the QKDR, average data consumption by MBB users on a mobile network is 29GB per month, as of Q2 2022 - one of the lowest data consumption figures across platforms, only above satellite-based broadband.
- 4.107 ComReg considers that, while network capabilities on both fixed and mobile broadband networks have continued to improve as SPs have invested in their networks, the gap between the headline network download capabilities has declined, particularly in light of 5G (although this is not universally available).
- 4.108 5G enabled MBB will provide higher bandwidth and enable operators to provide tailor-made services for the different requirements of customers in terms of latency, reliability, bitrates, and end-to-end service levels. Although 5G is currently only at the early stages of rollout in Ireland, when more widely available, 5G MBB will likely enhance end user experience, increasing the similarities, from a product characteristics perspective, of fixed NG broadband. However, to date they are not sufficiently similar, on this basis.

### **Pricing**

- 4.109 A detailed examination of MBB pricing is contained in Annex 4. ComReg's analysis of MBB packages shows that prices range from as low as €20 to €45 per month, with an average price of €32.
- 4.110 Amongst the respondents to the 2022 Market Research, residential end users were paying an average of €33 and €53 per month for standalone and bundled MBB respectively.<sup>223</sup>
- 4.111 In comparison to the pricing of FTTx and CATV plans, on average, MBB is advertised at a slightly lower price point, although there is some degree of overlap depending on the plans being compared.
- 4.112 Contract lengths for MBB vary between no contract (marketed as 'rolling contracts, 30 days in duration'), prepaid services (marketed as 'Pay As You Go') and contracts of up to 24 months. According to the 2022 Market Research

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<sup>221</sup> <https://www.speedtest.net/global-index/ireland#mobile> Here, 'mobile broadband' refers collectively to all mobile broadband plans/packages i.e., those delivered over 3G/4G or 5G mobile network signal.

<sup>222</sup> See Slide 85 of the 2022 Residential Market Research \*Small Base Size

<sup>223</sup> See Slide 52 and Slide of the 2022 Residential Market Research.

42% of residential respondents with MBB were currently under contract with their SP, versus 45% who were not under contract.<sup>224</sup>

### **Intended Use**

- 4.113 Retail broadband provided on FTTx and CATV networks is typically marketed on the basis of characteristics such as price, unlimited download allowances, download speed and availability within bundled offerings. Conversely, MBB offerings highlight product mobility, convenience and coverage. MBB offerings are, relative to fixed broadband, more constrained by the limited download allowances typically offered by MBB plans. This is likely to limit the substitutability of MBB (particularly over 3G and 4G) with fixed broadband services, which typically have much higher download allowances (or unlimited allowances) and faster download speeds.
- 4.114 The 2022 Market Research revealed that the main uses among MBB end users were using email (80%), browsing the internet (77%) and online shopping (59%). Respondents with MBB were significantly less likely to use their broadband service for remote work, remote study and streaming services than across other platforms, particularly in comparison to end users with fibre broadband,<sup>225</sup> illustrating the contrasting usage intentions (and capabilities) of mobile versus fixed platforms.
- 4.115 For end users with MBB, the average time spent online per day was 4.3 hours, which was the lowest reported across any platform, although not by a significant degree, sitting below the overall average of 5 hours per day. As set out in the QKDR, the average data consumption by broadband users on a mobile network is 29GB per month.
- 4.116 In discussion with ComReg NBI suggested that [X ██████████  
██████████  
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██████████ X] NBI also discussed that [X ██████████  
██████████  
██████████  
██████████ X]
- 4.117 As outlined in the 2020 Explanatory Note, 5G will have three main areas of application:<sup>226</sup>

<sup>224</sup> See Slide 43 of the 2022 Residential Market Research. The remaining respondents were unsure if they were under contract.

<sup>225</sup> See Slide 20 of the 2022 Residential Market Research.

<sup>226</sup> 2020 Explanatory Note.

- (a) **eMBB** – enhanced Mobile Broadband, which allows for up to 10 Gbps peak speed and average speed of 500-600 Mbps in dense urban areas;
- (b) **mMTC** – massive Machine-type Communication; and
- (c) **uRLLC** – ultra Reliability Low Latency.

4.118 These applications and characteristics of 5G all mark improvements in the capabilities of 5G MBB vis-à-vis 4G MBB. However, despite the improvements that 5G will bring, the three usage cases above diverge significantly from many of the usage cases and characteristics of standard fixed broadband, delivered over FTTx and CATV – therefore mitigating the degree to which MBB is able to act as an effective substitute for the focal product.

4.119 The bandwidth capabilities of MBB fall below that of FTTx and CATV. With MBB achieving maximum speeds of up to 3 Mbps, 10 Mbps and 25 Mbps for 3G, 4G and 5G technology respectively,<sup>227</sup> it is unlikely end users will migrate from FTTx services which achieve higher speeds. In light of end user behavioural changes (e.g., increased working from home arrangements arising from Covid-19), there is a potential for end users to require broadband services offering higher bandwidth, i.e., higher download and upload speeds. For this reason, MBB is unlikely to be a substitute to retail broadband delivered over FTTx.

### **Substitution**

4.120 Having regard to the above, ComReg considers that MBB is not likely to be sufficiently functionally equivalent to retail broadband provided over FTTx and CATV networks. In particular, the variability and reliability in download speeds due to contention, coupled with more limited download allowances and its impact on intended use, suggests that MBB is less likely to be an effective demand-side substitute for the focal product.

## **Broadband provided over a Fixed Wireless Access ('FWA') network**

### **Product characteristics of broadband provided over FWA**

4.121 **FWA** refers to the delivery of broadband access to a fixed location (a premises) over a wireless network and generally offers advertised broadband services at speeds of up to 150 Mbps,<sup>228</sup> making it broadly comparable to FTTC in terms of download speeds.

<sup>227</sup> <https://n.vodafone.ie/support/mobile/data-speed-information.html>

<sup>228</sup> See Annex 4 for a comprehensive overview of FWA-based broadband offerings in the Irish retail broadband market. The main provider of FWA in Ireland is Imagine, whose offerings are summarised here; <https://www.imagine.ie/broadband/> An alternative provider of FWA is Digiweb; <https://digiweb.ie/metro-broadband/>.

4.122 In Table 4 above, ComReg sets out the key product characteristics of FWA broadband. Rather than delivering internet access via copper, fibre or coaxial cables, FWA is delivered using wireless signals.

4.123 Despite previously being in decline, since Q4 2018, FWA subscriptions have risen (for 13 consecutive quarters, commencing in Q1 2019), increasing by 36,775 (77%) over the period to a total of 84,327 as of Q2 2022. However, this remains well below the peak of FWA subscriptions at 123,456 in Q3 2007 and accounts for the second smallest segment of the overall retail broadband market, by platform (after satellite). To further contextualise FWA subscriptions, FWA household penetration sits at 3.8%, as of Q2 2022.

4.124 In terms of the download speeds attainable to FWA retail broadband end users, according to QKDR data, the majority of subscriptions (67%) are sold within the 100 Mbps to 500 Mbps range, broadly similar to FTTx.

4.125 In discussions with ComReg, NBI was of the opinion that [redacted]

ComReg data suggest that the majority of FWA subscriptions fall into the IA.

4.126 NBI further noted that it has a relatively large number of customers/retail partners who are Wireless Internet Service Providers ('WISPs') and [redacted]

**Pricing**

4.127 A detailed examination of broadband pricing and packages can be found in Annex 4. The price of FWA broadband ranges from €35 to €70 per month for residential packages and the only FWA plan targeted at business end users is charged at €48.77 per month (from Imagine). Contract lengths for broadband provided over FWA are typically for a period between 12 and 18 months for both types of end users. These prices are broadly comparable to those charged for FTTx broadband services, although new customers or connections can incur more significant connection or setup fees than FTTx broadband.<sup>229</sup>

<sup>229</sup> For example, Whizzy charges a €90 set up fee and Imagine charges a €100 connection fee, whereas the majority of FTTx plans typically do not incur such charges at the initial stage of the contract.

4.128 The main providers of FWA based broadband in Ireland are Imagine and Digiweb, with the rest of the market highly segmented between a large number of smaller, typically highly localised providers (collectively, WISPs).

### **Intended Use**

- 4.129 FWA plays an important role in (predominantly rural) areas where fixed broadband service over FTTx or CATV is not (yet) available to end users. Data gathered by ComReg suggest that 78% of FWA subscribers are located within the IA, which consists of large rural areas. In general, coverage is relatively widespread, although end users can experience congestion related issues, particularly where FWA services are delivered over license-exempt spectrum (although the main FWA provider in the State, Imagine, provides FWA over licensed, 36GHz band spectrum).<sup>230</sup>
- 4.130 The average time spent online amongst respondents with FWA based broadband was 4.6 hours<sup>231</sup> and the average traffic, per subscriber by broadband users on a FWA network is 73GB per month.<sup>232</sup>
- 4.131 5G FWA represents a potentially closer substitute for FTTx-based broadband than 3G or 4G FWA-based broadband, given its enhanced capabilities in terms of download speed and bandwidth. The 2020 Explanatory Note suggests that consideration should be given to the inclusion of certain FWA products, in particular 5G FWA, as a substitute for fixed broadband.<sup>233</sup> On a forward looking basis the EC expects that 5G FWA is likely to act as a substitute for fixed access, particularly in rural areas across Member States, as widespread 5G rollout advances. However, the 2020 Explanatory Note outlines that 5G FWA capabilities fall short of FTTP and substitutability would be less likely in Member States where FTTP is more widespread.
- 4.132 5G FWA is not currently available to end users in Ireland as no such rollout has yet occurred in the State. At least one operator (Imagine) has rights of use on 3.6GHz band, which is 5G spectrum. However, the product delivered by Imagine on that band is not itself a 5G FWA product. Imagine itself describes

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<sup>230</sup> Unless license exempt, all wireless telegraphy equipment requires a license. In Ireland, a large number of radio systems are exempt from licensing. License exempt equipment operates on a non-interference, non-protected basis and in radio spectrum that is shared with other radio devices. License exempt equipment may not cause interference to other devices and may not claim protection from any interference received. See <https://www.comreg.ie/industry/radio-spectrum/licence-exemptions/#:~:text=Licence%20exempt%20radio%20equipment%20operates,protection%20from%20any%20interference%20received>.

<sup>231</sup> See Slide 22 of the 2022 Residential Market Research.

<sup>232</sup> ComReg QKDR data.

<sup>233</sup> 2020 Explanatory Note at p. 53.

its network as a '5G ready fixed wireless network', rather than a network delivering 5G FWA,<sup>234</sup> as further discussed below.

- 4.133 Further to this, the 2020 Explanatory Note acknowledges that although 5G FWA offers 'more promise as a potential alternative' to fixed broadband connections, its 'capabilities lie at the lower end of those available via FTTH'.<sup>235</sup>

### **Substitution**

- 4.134 ComReg's preliminary view is that a HM supplier of the retail broadband focal product is likely to be able to sustain a profitable SSNIP in the range of 5-10% above the competitive level because a sufficient number of end users are unlikely to switch to a FWA service in response. Despite some overlap in the underlying product characteristics, usage and pricing of FWA and FTTx based broadband, the degree of substitution between the two technologies is likely insufficient for FWA to sufficiently constrain FTTx nor therefore be included in the retail market.
- 4.135 Although FWA subscriptions have been trending upwards, ComReg is of the preliminary view that this rise in demand will be relatively transitory in nature and subdue once FTTP rollout progresses further and end users (particularly in rural areas) have greater choice of high speed fixed broadband solutions. Moreover, the increase in FWA subscriptions has been modest, relative to growth in other platforms, particularly FTTP, over this same period.
- 4.136 As of 2022, substitution between fixed and FWA technologies has been found in Italy, Hungary, Romania, Belgium, the Czech Republic<sup>236</sup> but in other Member States, to date, FWA does not yet serve as a viable substitute. However, in view of the expected short to medium term developments, 5G FWA in particular is expected to play a significant role as a substitute for fixed access, particularly in rural areas across some Member States.<sup>237</sup>
- 4.137 Although FWA subscriptions have increased over the past 12 quarters, when coupled with the analysis presented above, on intended usage, product characteristics and substitution dynamics, it suggests that an insufficient number of end users are likely to consider FWA services to be an effective substitute for FTTx-based broadband. In particular, the lack of suitability for all applications, particularly those requiring higher bandwidth (including but not limited to video calling, gaming and remote work), suggests that, on a forward-

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<sup>234</sup> <https://www.imagine.ie/broadband/>, accessed on 14 August 2022.

<sup>235</sup> 2020 Explanatory Note at p. 63.

<sup>236</sup> BEREC opinion, BoR (20) 174 p.17

<sup>237</sup> Wireless technologies have been used for rural areas in the context of state aid programmes in Italy, Greece and elsewhere.



looking basis, FWA is likely to be viewed by end users as a complement to, rather than a substitute for, FTTx-based broadband.

## Satellite broadband

### **Product Characteristics of satellite broadband**

- 4.138 ComReg set out the key characteristics of satellite-based broadband in Table 4 above. As of Q2 2022, there were 3,296 subscribers to satellite broadband, a decline of 27% since the publication of the 2018 Decision.<sup>238</sup>
- 4.139 In Ireland, satellite services are typically advertised as offering download speeds of up to 75 Mbps, where this is an absolute maximum attainable download speed.<sup>239</sup> This is with the exception of Starlink, which offers higher speed satellite-based broadband via its low earth orbit satellites, and as of September 2022 advertises a maximum attainable download speed of 200 Mbps.<sup>240</sup> As of Q2 2022 there were 1,699 subscriptions to Starlink within the Irish retail broadband market (a share of approximately 52% of satellite subscriptions).
- 4.140 QKDR data show that in Q2 2022, 43% of satellite subscriptions were at speeds of <30 Mbps, 5% were between 30 and 100 Mbps, and 52% were between 100 and 500 Mbps.<sup>241</sup> Satellite-based broadband packages are usually differentiated by download allowance and/or speed, the former of which makes satellite-based products much more restrictive relative to usage allowances on other fixed platforms and the latter which has implications for usage capabilities.<sup>242</sup> The different satellite broadband packages on offer to end users are outlined in Annex 4.

### **Pricing**

- 4.141 A detailed examination of satellite broadband pricing is contained in Annex 4. Generally, prices range from €48 to €99 per month for residential end users (depending on download speed and allowance, and whether it is part of a bundle). Satellite broadband typically incurs significant equipment, installation

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<sup>238</sup> ComReg notes that in Q2 2022, Starlink began submitting figures as part of the QKDR, contributing to a quarter on quarter increase of 1,631 subscriptions (98%). Although the inclusion of Starlink markedly increases the absolute figure, as a proportion of the overall retail broadband market, satellite only constitutes 0.2%.

<sup>239</sup> See Annex 4 for further details on such packages/products. The two 'Konnect' plans available in the Irish market, Konnect Lite and Konnect Plus are priced at €47.90 and €67.90 per month, at speeds of (on average) 37 Mbps and 75 Mbps, with download allowances of 75GB and 150GB respectively.

<sup>240</sup> <https://www.starlink.com/orders/?processorToken=0fb57f4a-0623-4235-b0a5-461b67410a88> The maximum download speed quoted here is 200 Mbps, however, ComReg notes the ambiguity in the advertising around download speeds for Starlink customers.

<sup>241</sup> ComReg QKDR Data

<sup>242</sup> 'Unlimited' subject to the relevant fair usage policy of the SP.

and activation costs/charges, ranging from €128 to €649.<sup>243</sup> Therefore, there is a significant difference in the cost of broadband provided over satellite relative to the cost of broadband provided over the focal product, including monthly rental and connection/installation fees.

- 4.142 Given the low number of satellite subscriptions in the State, the results for satellite broadband in the 2022 Market Research are based on small sample sizes and are should therefore treated with the appropriate degree of caution.

### **Intended Use**

- 4.143 As noted at paragraph 4.138, in Q2 2022, satellite broadband accounted for 3,296 retail subscriptions, or 0.2% of overall broadband subscriptions. The very low number of satellite subscriptions is indicative of very low levels of demand for satellite-based broadband in the State, and taking a forward-looking perspective, given the increasing availability of NG broadband the number of end users with satellite broadband is unlikely to rise to any significant degree in the future, particularly relative to other platforms.
- 4.144 The average time spent online amongst respondents with satellite broadband was 4.7 hours.<sup>244</sup> As set out in ComReg's QKDR, the average data consumption of satellite broadband subscribers<sup>245</sup> is 86GB per month, as of Q2 2022, a figure below the data consumption on cable, FTTC and FTTP.

### **Substitution**

- 4.145 Satellite broadband subscribers may experience latency issues,<sup>246</sup> which becomes an issue for bandwidth intensive uses of broadband, such as gaming, video streaming, video calling and OTT content. Given issues around latency, it is unlikely that, in response to a SSNIP, end users would switch away from the focal product, which typically has notably lower levels of latency and the ability to deliver higher quality, data intensive services, to satellite-based services. Furthermore, given the typically higher cost of satellite-based services,<sup>247</sup> in the event of a SSNIP it is unlikely that a satellite-based subscription would be a cheaper alternative to an FTTx-based product, as

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<sup>243</sup> From advertised plans on satellite providers websites, as of September 2022, installation and activations fees vary from €128, €199 and €649 (Digiweb, Irish Satellite Broadband, Konnect and Starlink).

<sup>244</sup> Slide 22.

<sup>245</sup> 'Average traffic per subscriber'.

<sup>246</sup> Latency refers to signal delay/round trip delay. Latency is a key variable of interest when considering time sensitive applications of broadband. Latency is in part determined by the medium that is used (copper, radio waves, fibre), the number of medium conversions, the encryption/decryption used and the number of packet processing hubs in the connection.

<sup>247</sup> An average satellite-based subscription costs €57.90, compared to the average FTTx subscription at €46.10 (an average of standalone fibre-based broadband).

even following a SSNIP of the focal product, satellite is still likely to be more expensive (particularly when installation charges are taken into account).

- 4.146 A HM supplier of the focal product is therefore likely to be able to sustain a profitable SSNIP in the range of 5-10% above the competitive level because end users are unlikely to switch in sufficient numbers to satellite broadband in response to this price increase. This conclusion is supported by the continuing low numbers of subscribers on satellite broadband.
- 4.147 On this basis, it is ComReg's preliminary view that satellite broadband is unlikely to be an effective demand-side substitute for broadband provided over FTTx and CATV networks.

### Broadband provided over a leased line

- 4.148 As set out in the 2020 Explanatory Note, the Wholesale Dedicated Capacity ('**WDC**') market, which includes Leased Lines ('**LL**'), constitutes a market deemed susceptible to *ex ante* regulation (Market 2/2020), which was previously known as (under the 2014 Recommendation) Wholesale High Quality Access provided at a fixed location ('**WHQA**') Market 4.
- 4.149 A leased line is a retail product (typically used by business end users) that involves the supply of dedicated high quality and reliable transmission capacity between fixed locations via a fixed or wireless connection. Leased lines typically include guaranteed high quality service levels (for instance, repair times), symmetric upload and download speeds, and guaranteed availability, in comparison to retail broadband services provided over copper, FTTx and CATV networks, which are generally asymmetric and contended services, with bandwidth that is typically lower than that for retail leased line services.
- 4.150 In H1 2022, the most recent period for which data are available, there were a total of 21,506 active retail leased lines in the State. Retail LL services are demanded by organisations to support a wide variety of Information and Communications Technology ('**ICT**') applications<sup>248</sup> and can also be used to build Virtual Private Networks ('**VPNs**') that allow business organisations to link business premises together, including data centres, so that offices can exchange data and access corporate applications – again, contrasting with the capabilities of FTTx-based business broadband. In addition, the Service Level Agreements ('**SLAs**') provided by SPs for retail broadband services (if any) are generally of a lower standard than those for leased lines.
- 4.151 A number of SPs are active in the provision of retail (and wholesale) LL services in Ireland, including Enet, BT, Colt, Eircom, Verizon and Virgin Media.

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<sup>248</sup> Such as access to the internet, private voice and data networks, cloud based services, backup and disaster recovery, remote monitoring and telemetry applications.

4.152 Across various parameters leased lines have higher service levels than broadband delivered over other fixed platforms. Therefore, for a particular set of end users (namely businesses with specific and intensive requirements of their broadband connection), a leased line will be most capable of servicing those requirements – impacting the suitability of a leased line as a substitute for FTTx (and CATV) based broadband, and vice versa. LLs fundamentally differ from the other technologies utilised by business broadband customers in terms of download and upload symmetry, and dedicated connectivity.

### **Product characteristics of leased lines**

4.153 In this section, ComReg summarises the product characteristics of retail broadband compared to LL services in terms of the extent to which broadband may represent an effective retail substitute for either Traditional Interface ('TI')<sup>249</sup> or Modern Interface ('MI') Leased Lines.<sup>250</sup> The analysis will focus on business end users, as leased lines tend to satisfy business user demand. A LL will not typically be an attractive product for residential end users as, in comparison to FTTx or CATV broadband, LL services are significantly more expensive and encompass a range of services and features which are not typically demanded by residential end users.

4.154 The 2022 Market Research indicated that the average download speed experienced by business respondents (who were aware of their download speed) was 145 Mbps,<sup>251</sup> whereas for LL-based end users, the average download speed was 530 Mbps.<sup>252</sup> This clearly demonstrates the disparity in achievable download speeds over LL versus other retail broadband products. However, on a forward-looking basis, FTTP is increasingly able to support speeds in the same region.

### **Pricing**

4.155 The results of the 2022 Market Research indicate substantial cost differences between business retail broadband and LL services. The average monthly cost of a standalone broadband service cited by business respondents was €152.<sup>253</sup> The average monthly service cost amongst LL purchasers is likely to be multiples of this figure. The market research also found that leased lines tend to be used by larger companies, with 14% of businesses surveyed making

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<sup>249</sup> Traditional Interface refers to copper-based LL interfaces including Analogue, Digital and TDM.

<sup>250</sup> Modern Interface refers to fibre-based LL interfaces including Ethernet and xWDM.

<sup>251</sup> See Slide 22 of the 2022 SME Market Research.

<sup>252</sup> See Slide 23 of the 2022 SME Market Research. Caution - small sample size.

<sup>253</sup> See Slide 33 (bundled).

use of a leased line, in comparison to 38% of businesses in the 51-249 employees cohort.<sup>254</sup>

- 4.156 Given that LLs are typically significantly more expensive than business broadband products delivered over FTTx networks, ComReg considers it unlikely that business broadband subscribers would switch to a LL service in response to a hypothetical price increase in their broadband service. Consequently, a HM of the focal product would likely be able to sustain a SSNIP without losing enough customers to render the increase unprofitable, to services delivered over LL.

### **Intended Use**

- 4.157 As part of the 2022 Market Research respondents were asked to indicate what they used their broadband and/or LL services for. LLs were mostly used by businesses for email and internet access (88%), VoIP services (37%) and connectivity between premises (28%).<sup>255</sup>
- 4.158 In comparison to end users with a fibre connection, those with a LL are significantly more likely to use this connection for disaster recovery services, connectivity between premises, VoIP and employee remote access. These results suggest that for business end users who purchase and use FTTx business broadband versus those who opt for a LL based solution, they use and rely on these broadband products in different ways. This evidences that FTTx business broadband and LLs are likely not substitutes from a demand side perspective.
- 4.159 The 2022 Market Research was based on SME respondents and although this is a representative sample of the firms operating in Ireland, it results in a relatively small sample of larger firms (specifically in the 51-249 employee cohort), who are more likely to have a LL and also more likely have more specific needs and requirements for their broadband connection (which a LL is more capable of supporting than other technologies). ComReg therefore treats the LL related results from the 2022 Market Research with the appropriate degree of caution, given the small sample size.

### **Substitution**

- 4.160 Having regard to the analysis set out in paragraphs 4.148 to 4.159, ComReg's preliminary view is that leased lines are unlikely to be an effective demand side substitute for the focal product over the lifetime of this market review.

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<sup>254</sup> See Slide 9 of the 2022 SME Market Research.

<sup>255</sup> See Slide 19 of the 2022 SME Market Research.

## Supply Side Substitution

- 4.161 ComReg must also consider whether any alternative products could represent an effective supply-side substitute to the focal products. Supply-side substitution measures how potential (rather than actual) competitors react to price increases. The HMT assesses whether a SSNIP of a focal product supplied by a HM would cause sufficient new entry into the relevant market by potential competitors, such that it would render the price increase unprofitable.
- 4.162 Under this analysis of supply-side substitution, ComReg will examine whether, in response to a SSNIP of the focal product, an operator(s) in another market could potentially enter the market for the focal product in the short term, without incurring significant sunk costs. Where supply-side substitution is possible, a potential entrant could enter the market and render a hypothetical price increase unprofitable for the hypothetical monopolist. In this instance, it may be appropriate to broaden the market definition to include products similar to the focal product on the basis of the supply-side substitution. Of note, the impact of supply-side substitution must be equivalent to the impact of demand-side substitution, in terms of effectiveness and immediacy.
- 4.163 In this case however, ComReg is of the preliminary view that there are no clear candidate supply-side substitutes to assess. ComReg has already assessed whether retail broadband already delivered over copper, FWA, mobile signal, satellite or leased line as part of its demand-side assessment above, and it is not necessary to reassess these products at supply-side substitution stage. A supply side substitute, more generally, and in the instance of retail broadband, occurs in the instance where a potential entrant could enter the market and render a hypothetical price increase unprofitable for the incumbent hypothetical monopolist. In Ireland however, all those platforms discussed above are already used (to varying degrees) to deliver retail broadband services, which removes the hypothetical nature of the potential substitution. Therefore, the potential for such platforms to act as supply side substitutes (and therefore warrant inclusion in the market) ceases to require consideration.

## Preliminary Conclusion on Direct Constraints

- 4.164 Having considered the relevant demand-side factors, including functionality, pricing and usage patterns, alongside the evolution in observed demand for retail broadband delivered over copper and FTTx, ComReg's view is that:
- (a) Copper-based broadband is unlikely to be a sufficiently effective substitute for the retail broadband focal product. End users are not likely to substitute away from the focal product to copper-based retail broadband in response to a hypothetical price increase in sufficient numbers to render that price increase unprofitable. Retail broadband

delivered over copper and FTTx appears to be characterised by asymmetric substitution (whereby end users substitute away from copper-based broadband towards FTTx broadband, but not vice versa);

- (b) CATV-based retail broadband is sufficiently similar to the focal product, such that end users are likely to find it a good demand-side substitute (subject to availability and switching costs) and should therefore be included in the relevant retail broadband market;
- (c) MBB is unlikely to be a sufficiently effective substitute for the retail broadband focal product as there are sufficient functional differences between MBB and fixed broadband. Primarily, MBB is limited in terms of download speed, reliability of service and download allowances, in comparison to fixed-based services and there is also evidence of differences in intended use;
- (d) FWA-based broadband is unlikely to be an effective substitute for the retail broadband focal product. Although retail market trends indicate that subscriptions for FWA-based broadband services have increased by a non-trivial degree during the period since the publication of the 2018 Decision, as a proportion of the overall broadband market, and relative to the peak of FWA subscriptions in Q1 2008, this trend does not warrant the inclusion of FWA in the retail broadband market;
- (e) Satellite broadband is unlikely to be an effective substitute for the retail broadband focal product. In its current form, the substantially different pricing structure, higher up-front cost and lack of suitability for some broadband applications, particularly higher bandwidth applications, mean satellite broadband is not likely to be viewed by end users as a substitute for the focal product; and
- (f) Leased lines are unlikely to be an effective substitute for the retail broadband focal product, given significant differences in product characteristics, usage and pricing, primarily around the dedicated capacity nature of a LL and the associated SLAs, in comparison to broadband delivered over FTTx and CATV.

#### 4.2.5 Residential and Business Users

4.165 ComReg has considered whether retail fixed broadband products<sup>256</sup> used by residential and business users form part of the same relevant retail market, or whether there are grounds to define separate residential and business end user markets. SPs tend to offer a broadly similar range of products to both

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<sup>256</sup> Namely FTTx and CATV based broadband, as the other forms of retail broadband access have been excluded from the retail broadband market based on the analysis set out above.

business and residential end users. Some SPs differentiate service offerings and pricing by providing business customers with products that have higher specifications, such as lower contention ratios, higher upload speeds, timeline commitments for issue resolution or static IP addresses (with such components specified under the associated SLA).

- 4.166 Within the business subset of end users, there exists a distinction between SMEs, with relatively modest broadband requirements (more similar to residential end users) and larger corporations and institutional end users, with more intensive broadband requirements. For the purposes of the discussion below ComReg refers to the former as 'Low Level' business end users and 'High Level' business end users.
- 4.167 ComReg has considered, on the demand side, whether a subscriber to a residential broadband service would be likely to find a business broadband service to be an effective substitute, and vice versa. In terms of product characteristics, similar products are offered to both types of subscribers. A micro or SME business (see the discussion of low-level business end users below) or a residential end user is likely to have similar requirements in terms of download speeds and data allowances. While some SPs may structure their offers slightly differently, the analysis presented in Annex 4 shows that there are no significant differences in the range of broadband services which are available to residential and small business users.
- 4.168 However, the broadband requirements of large businesses and institutions (high level business users), for instance an office or university are likely to differ from those of residential or SME users. Although, broadly speaking the offerings of SPs to residential and small business subscribers are similar, retail broadband requirements appear to vary for firms which have larger numbers of employees and wider scale operations (implying more intensive broadband requirements and the need for a broader range of services).<sup>257</sup>
- 4.169 In terms of usage, ComReg notes a strong trend amongst all users to subscribe to higher speed products. In Q2 2022, 43% of business users and 73% of residential users subscribed to fixed broadband at speeds at or above 100 Mbps,<sup>258</sup> which suggests strong demand for higher speeds by residential and business customers, but particularly amongst residential end users.
- 4.170 The main difference between business (particularly high-level) and residential products arises in the packages offered and ancillary services included (for

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<sup>257</sup> For example, Virgin Media delineates its business broadband products by the number of employees, varying from Small, Medium, Enterprise, Construction to Public Sector. In a similar fashion, Eir delineates its business broadband offering by employee numbers, 'eir Business' for 1 to 9 employees versus 'eir evo' for 10+ employees.

<sup>258</sup> ComReg QKDR Data. =>100 Mbps to =<1 Gbps.



instance, SLAs). Residential broadband subscribers are more likely to bundle their broadband service with telephony, and/or TV services, while business subscribers are more likely to purchase broadband as a standalone product, in a bundle with fixed and/or mobile telephony or as part of a suite of business services e.g. cloud connectivity. Overall, both sets of end users show a tendency to purchase broadband as part of a bundle, but they can differ in the non-broadband components of those bundles.

- 4.171 ComReg has also considered from the supply side whether an operator which supplied only residential broadband services would be able to switch to supply business broadband services, or vice versa, without incurring significant additional costs or risks and within a short timeframe.
- 4.172 While some operators choose to predominantly serve only the business market (e.g. BT Ireland or Goldfish) or only the residential market (e.g. Virgin Media), or to serve both but market them separately (e.g. Eircom and Vodafone), the definition of the product market is not only based on how operators currently behave, but also on whether they could provide an effective constraint on each other by altering their business model to offer services to the segment(s) of the market where they are not currently active. ComReg is of the view that SPs currently engaged in the provision of residential or business broadband could hypothetically move into the provision of the 'other' service, in the case where they are currently only active in one, serving to constrain SPs currently active in the provision of that portion of the market.
- 4.173 ComReg considers that the underlying inputs used to supply residential and business retail fixed broadband (primarily FTTx), are fundamentally comparable, regardless of whether that broadband is offered to a business or a residential customer. It is possible that there may be differences in some elements of service provision, particularly amongst high level business end users – for example, business users may require more extensive customer support. However, ComReg does not view such service-related features as precluding an operator which is currently offering residential or business-only retail broadband from switching to supply the other group of customers within a reasonably short time period, and without incurring significant infrastructure and other sunk costs, and therefore act as an effective constraint.
- 4.174 ComReg is of the view that, while a customer using the most basic residential broadband package would be unlikely to find the highest specification business package to be a good substitute, and vice versa (for high level business end users in particular), overlaps in product specification and pricing between adjacent broadband offerings indicate a chain of substitution across residential and non-residential retail broadband provided over FTTx.

4.175 Taking both the demand-side and supply-side considerations discussed above into account, ComReg is of the view that the retail market should not be differentiated by customer type.

#### 4.2.6 Standalone versus Bundled Broadband

4.176 In this section ComReg considers how the prevalence of bundling at retail level may affect market definition at retail level, and whether it may be appropriate to delineate separate standalone and bundled retail broadband markets.

4.177 Guidance on how to treat bundling retail broadband services should as part of a market analysis is limited. The 2014 Explanatory Note<sup>259</sup> notes that:

*“...in the presence of a small but significant non-transitory increase in price there is evidence that a sufficient number of customers would “unpick” the bundle and obtain the service elements of the bundle separately, then it can be concluded that the service elements constitute the relevant markets in their own right and not the bundle”.*<sup>260</sup>

4.178 The retail broadband (and related services) market in Ireland is characterised by the provision of broadband on a single-play (standalone) basis, or, together with various combinations of RFTS, TV services and mobile phone services, as part of a dual-play, triple-play or quad-play bundles. Examples of the types of bundles and standalone products available to end users are outlined in Annex 4.

4.179 Bundling occurs where a firm sells two or more services together, as one combined offering at a joint price. Several SPs offer standalone and dual-play bundles, with Eircom, Sky, Vodafone and Virgin Media offering triple-play bundles and Eircom, Virgin Media and Vodafone offering quad-play bundles.

4.180 Retail broadband services are typically bundled together by SPs in order to benefit from economies of scope in the supply of those services. Bundling products into one service offering is likely to achieve savings in production, distribution and transaction costs. Bundling may also offer suppliers the possibility of reducing churn in a market which is typically characterised by high customer acquisition costs,<sup>261</sup> and may increase the revenue per customer even where the price of individual services is decreasing on a marginal basis.

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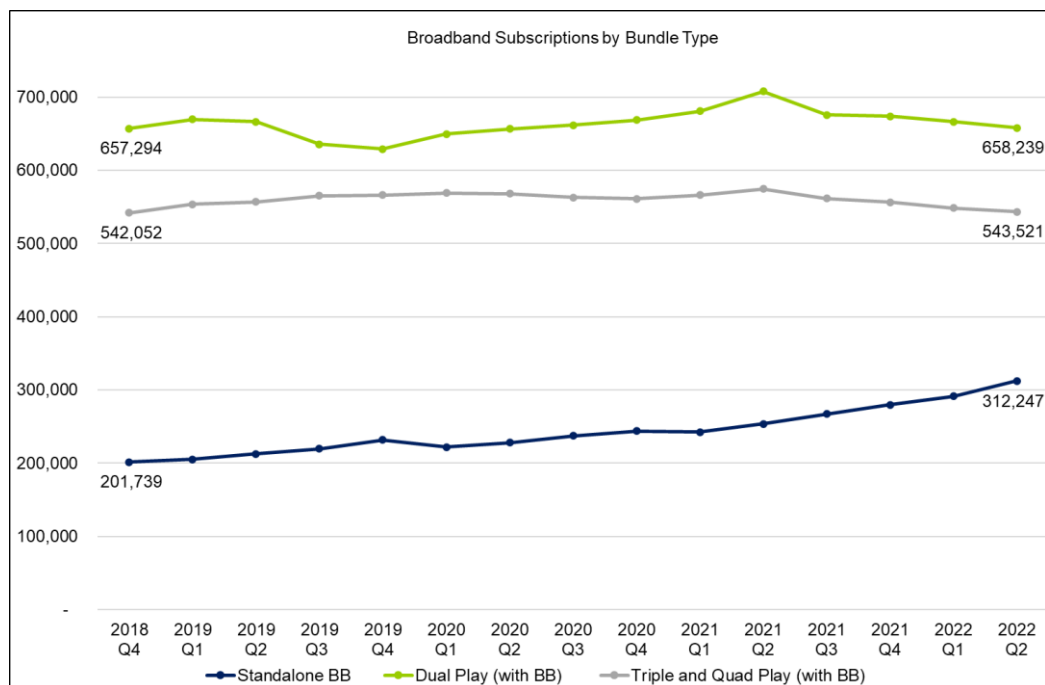
<sup>259</sup> Although the 2020 Recommendation supersedes the 2014 Recommendation, the 2020 Recommendation provides no relevant guidance on the phenomenon of end users ‘unpicking’ a bundle in response to a SSNIP.

<sup>260</sup> 2014 Explanatory Note.

<sup>261</sup> Customer acquisition costs are the costs related to acquiring a new customer. In the context of telecoms and broadband the main component of these costs stem from marketing and advertising.

4.181 As shown below in Figure 21, since Q4 2018 the number of standalone retail broadband subscriptions has risen by 55%, from 201,739 to 312,247, which is clear evidence of the growth in demand for standalone services since the publication of the 2018 Decision. Over the same time period, dual play bundles (with a broadband component), remained relatively unchanged, falling 0.1% from 657,294 to 658,239 and triple and quad play bundles increased 1.2% from 542,052 to 548,498. As illustrated in Table 8 below, between Q4 2018 and Q2 2022 standalone retail broadband subscriptions, as a percentage of overall retail subscriptions have risen from 14% to 21%. Together, these figures demonstrate that bundling remains commonplace in the retail broadband market, but also that in comparison to 2018 demand for standalone broadband has increased.

**Figure 21: Bundles with a Broadband Component, Q4 2018 – Q2 2022**



4.182 As of Q2 2022, the most common bundle is a dual-play bundle of RFTS plus broadband (515,579), followed by a triple-play bundle of RFTS, broadband and TV services (363,615) and then dual-play broadband plus TV (134,373). Since the publication of the 2018 Decision, triple-play bundles of broadband, TV and mobile telephony have grown by 124%, contrasting with the decline in RFTS plus broadband bundles, which fell by 17%. Overall, since the publication of the 2018 Decision, standalone broadband subscriptions have risen by 55% and bundled subscriptions, with a broadband component have risen by 0.2%.

- 4.183 There were a total of 1,201,721 bundled subscriptions<sup>262</sup> with a broadband component in Q2 2022, 55% of which were dual play, 40% triple play and 5% quad play (as illustrated in Table 7 below).
- 4.184 In terms of demand for standalone and bundled broadband, [X ██████] indicated in its February 2022 IIR response that, although bundling of broadband, telephone and TV services at retail level continues, there is an inherent demand for standalone services within the market, evident in increased demand for standalone broadband over the period, and the fact many consumers no longer see value in RFTS.<sup>263</sup> According to [X ██████ ██████ X], a growing proportion of new connections were standalone broadband (approximately 57% of [X ██████ ██████ X] sales as of Q1 2022 are of standalone broadband).
- 4.185 Similarly, [X ██████ X] noted that standalone broadband subscriptions have grown, again, driven by consumer demand. However, this anecdotal evidence from various SPs is contrary to the fact that Eircom (the SP with the largest retail market share across platforms) no longer offers standalone services as part of its main product offering.

**Table 7: Breakdown of Bundled Broadband Subscriptions, Q2 2022**

Broadband Bundle	Subscriptions	Share
Dual Play	658,239	55%
Triple Play	479,829	40%
Quad Play	63,708	5%
<b>Total Bundled Subscriptions with Broadband Component</b>	1,201,760	

**Table 8: Bundled and Standalone Broadband Subscriptions**

Subscriptions with BB component	Q4 2018		Q2 2022	
	Subscriptions	Share	Subscriptions	Share
<b>Bundled</b>	1,199,346	86%	1,201,760	79%
<b>Standalone</b>	201,739	14%	312,247	21%
<b>Total</b>	1,401,085	100%	1,514,968	100%

<sup>262</sup> Overall, there were 1,201,760 bundled subscriptions (including those with and without a broadband component). Bundles with a broadband component therefore made up 99% of total bundled subscriptions as of Q2 2022.

<sup>263</sup> The views expressed here around RFTS are that of [X ██████ ██████ X] and not ComReg. However, according to ComReg data, cumulatively, RFTS subscriptions (both standalone and bundled) have declined by 17% between Q4 2019 and Q2 2022.

- 4.186 Overall, a total of 1,514,968 subscriptions included a broadband component (either standalone or bundled with other retail broadband products), 312,247 (21%) of which are standalone subscriptions. Despite persistence in the incidence and take-up of bundled retail broadband packages, a non-trivial portion of end users opt for a standalone product.
- 4.187 [REDACTED] reported a similar sentiment, noting that, from a consumer market perspective, in terms of advertisements and perceived relative importance of the various components of offers, it is clear that the broadband element is the key consideration for end users. However, [REDACTED]
- 4.188 The 2022 Residential Market Research found that 62% of respondents with access to broadband at home bundle their broadband service with at least one other service.<sup>264</sup> Of those with bundled broadband access, the most common bundle was broadband and TV (32%), followed by broadband, RFTS and TV, and broadband and RFTS (both 21%).<sup>265</sup>
- 4.189 Overall, on the issue of bundling, based on the data and analysis above, ComReg is of the view that bundling remains commonplace in the retail broadband market, despite declines in certain bundles, primarily broadband and RFTS. However, also observable alongside the continued prevalence of bundling, is an increase in the demand for standalone broadband.
- 4.190 When assessing whether separate standalone and bundled retail markets exist, another factor for consideration is the prevalence of Over-The-Top ('OTT') services. As noted in the 2020 Recommendation,<sup>266</sup>
- “An important factor when assessing whether a retail market for bundles exists is the increased use of services offered by OTT providers. Those services break the link between network access and service provision.”*
- 4.191 OTT services refers to any services or content which can be delivered via a broadband connection. Such services are described as 'over the top' as they are delivered 'on top' of an internet connection. For instance, video streaming services such as Netflix, Disney+ and Prime Video are examples of OTT services, as are voice-based services, which are classified as 'unmanaged VoIP', delivered over platforms such as WhatsApp and Skype.

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<sup>264</sup> See Slide 29 of the 2022 Residential Market Research.

<sup>265</sup> See Slide 33 of the 2022 Residential Market Research.

<sup>266</sup> 2020 Explanatory Note.

- 4.192 The provision and availability of OTT services may reduce consumer incentives to purchase bundled plans, as standalone broadband is sufficient to access the OTT services they require. QKDR data and engagement with operators suggest that a significant portion of end users demand standalone rather than bundled broadband services (21% of the retail broadband market), which could be suggestive that the provision of OTT services can facilitate 'breaking the link' between network access and service provision.
- 4.193 In response to information requests issued by ComReg in January 2022, several SPs submitted responses which included their views and experiences of OTT related trends.
- 4.194 [X ██████ X] noted that growth in OTT video content streaming services has driven demand for higher speed retail broadband services and that, on an ongoing basis, demand for higher speed broadband will continue to be driven by the evolution of end user device capabilities and end user expectations regarding broadband quality.
- 4.195 [X ██████████ X] similarly noted that the move towards an IP-based landscape has catapulted the rise of OTT services and that OTTs will continue to change the competitive landscape as new and innovative ways to deliver services at the retail level have emerged, which it sees as increasingly acting as a substitute — over NG broadband — for traditional offers from SPs.
- 4.196 [X ██████ X] perception is that there has been a shift away from triple- and quad-play bundled services, in recent times, partly driven by the decline in the utility of linear TV services and a rise in demand for streaming video services, such as Netflix, Amazon Prime, Now TV and Apple TV.
- 4.197 [X ██████ X] noted that data usage by consumers has grown substantially, driven particularly by video services and the uptake in higher bitrate compatible viewing devices, such as HD/4K TVs, Next Gen Gaming Consoles and WiFi 6.

### Broadband and RFTS Bundles

- 4.198 Broadband bundled with RFTS is the most popular bundle consumed by retail broadband subscribers.<sup>267</sup> The cost and popularity of broadband and RFTS bundles suggests that the economies of scope may be sufficient to inhibit switching from bundled to standalone offerings. The prices of standalone broadband and standalone RFTS are sufficiently high, such that it is significantly more expensive to buy each on a standalone basis than it is to buy a broadband and RFTS dual play bundle. Often, the cost of a dual play broadband and RFTS bundle is the same as a standalone broadband plan or only slightly higher, with a very low marginal cost for the RFTS component, if

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<sup>267</sup> Both ComReg QKDR Data and the 2022 Market Research results point to this conclusion.

added to the bundle.<sup>268</sup> As a result, it is likely that an insufficient number of customers would be likely to unpick a broadband and RFTS bundle in response to a SSNIP of the bundle price.

- 4.199 Some SPs do not offer standalone broadband (most notably Eircom) and oblige end users to purchase RFTS alongside broadband. This means that, for a portion of the 515,579 broadband plus RFTS bundles purchased (as of Q2 2022), this may not have been an 'active choice' by end users, but rather an outcome of the packages available.
- 4.200 Despite the 17% decline in subscriptions between Q4 2018 and Q2 2022, broadband and RFTS remains the most popular bundle amongst end users.<sup>269</sup>
- 4.201 Notably, in terms of the incidence of bundling broadband with RFTS, the 2022 Residential Market Research showed that broadband and RFTS bundles were significantly more common amongst end users with a copper-based broadband connection (47%), than those on other platforms.<sup>270</sup> Moreover, Eircom customers were significantly more likely to bundle their broadband with RFTS (39%) than customers of other SPs,<sup>271</sup> which may reflect the fact Eircom no longer offers a standalone broadband product.

### Broadband and TV Bundles

- 4.202 Eircom, Sky, Virgin Media and Vodafone all offer broadband and TV bundles. As of Q2 2022, 134,373 residential customers subscribed to such a bundle (up 359% from 29,259 in Q4 2018). However, a significant number of customers also choose to purchase these services separately. As of Q2 2022, 445,149 TV subscriptions were purchased on a standalone basis.
- 4.203 The 2022 Market Research showed that broadband and TV bundles were most popular amongst respondents, particularly those with a CATV (41%) or FTTx (37%)<sup>272</sup> broadband connection and amongst Sky customers (58%).<sup>273</sup>

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<sup>268</sup> In support of this proposition (as of June 2022), Vodafone customers have the option to add on RFTS at no additional cost to an otherwise standalone broadband plan; Virgin Media customers can add RFTS ('World Talk Home Phone') for an additional €3 per month, on any broadband plan and Magnet customers can add various phone packages to their standalone broadband plan which vary in cost from €10 to €20 per month.

In terms of the costs of standalone RFTS, this varies from €29 to €40 per month, substantially higher than the costs associated with adding RFTS to a bundle, with e.g. broadband.

<sup>269</sup> ComReg QKDR Data.

<sup>270</sup> See Slide 33 of the 2022 Residential Market Research.

<sup>271</sup> *Ibid.*

<sup>272</sup> *Ibid.*

<sup>273</sup> See Slide 34 of the 2022 Residential Market Research.

### Preliminary conclusion on bundled versus standalone broadband

- 4.204 Irrespective of whether it is appropriate to define separate standalone and bundled retail broadband markets, this is unlikely to have a material impact on the WLA and WCA market definitions. At the upstream level, the underlying wholesale products are the same, regardless of how the retail service is sold to the end user (i.e., bundled or standalone) at the downstream retail level. Therefore, in light of the analysis above of the various dynamics in demand and supply of standalone and bundled retail broadband, ComReg is of the view that standalone and bundled broadband fall within the same market.
- 4.205 Overall, ComReg is of the view that a sufficient number of customers could (and would) 'unpick' a bundle if there were to be a hypothetical increase in the price of the bundle which included a broadband component, such as to render that price increase unprofitable. Despite the continued prevalence of bundling, there has been a slight shift since the 2018 Decision towards standalone broadband. Although only 24% of the market is made up of such subscriptions, the rise does suggest a willingness amongst end users to opt for a standalone product, and in a hypothetical price increase scenario, this is likely to manifest in a stronger willingness to switch from a bundle to a standalone plan i.e., 'unpick' the components of the bundle.
- 4.206 It follows, consistent with the reasoning in the 2020 Explanatory Note, that there should not be separate markets for standalone and bundled broadband.

### Overall Conclusion on Likely Retail Product Market

- 4.207 As discussed above, ComReg is not required to conclude on, or precisely define the scope of, the retail market. However, it has carried out the preceding analysis to inform its subsequent analysis of the WLA and WCA markets.
- 4.208 The focus of this section has been the extent to which different retail broadband products can act as effective substitutes for one another. The evaluation of the degree of substitutability between different products has taken account of functional characteristics, pricing, intended usage and supply-side factors.
- 4.209 In summary, ComReg's conclusion is that:
- (a) Broadband provided over FTTx and CATV should be included in the retail broadband market, whereas broadband delivered over copper (arising from asymmetric substitution), MBB (4G/5G), FWA, satellite or a leased line should be excluded from the retail market;
  - (b) There is a chain of substitution between retail broadband products provided over FTTx and CATV, which are all hypothetically capable of delivering download speeds at or in excess of 100 Mbps. The analysis



above of the product characteristics (intended use, speed, packages and prices) suggests that it is possible for a broadband subscriber to switch to a faster retail broadband product for a similar or cheaper price than they are paying for their existing service.<sup>274</sup> However, the availability of FTTx and CATV broadband products may limit the ability of customers to switch between platforms in response to a hypothetical price increase, particularly in rural areas, where these networks have not (yet) rolled out;

- (c) The retail broadband market should not be segmented by customer type as there is insufficient difference between the provision of residential and business retail broadband, particularly between residential and low level business end users; and
- (d) The retail broadband market should not be segmented on the basis of whether end users purchase broadband on a standalone or bundled basis - as a sufficient portion of end users, in the event of a SSNIP in their bundle, would 'unpick' that bundle in response.

4.210 Overall, ComReg proposes accordingly to define a NG retail broadband market in Ireland consisting of broadband provided over FTTx and CATV. It may separately be appropriate to define a CG retail broadband market consisting of broadband provided over copper-only networks.

### 4.3 Geographic Assessment

4.211 The purpose of this section is to define the geographic scope of the retail broadband market. ComReg's approach follows that adopted and outlined by the European Commission in the 2020 Recommendation.

4.212 ComReg assesses the geographic features of the retail market having regard to the following issues:

- (a) Geographic differences in entry conditions over time (paragraphs 4.215 to 4.223);
- (b) Evolution and distribution of market shares (paragraphs 4.224 to 4.235);
- (c) Variation in the number and size of potential competitors (paragraphs 4.236 to 4.243);
- (d) Evidence of differentiated pricing strategies or marketing (paragraphs 4.244 to 4.247); and

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<sup>274</sup> On eir, and as of October 2022, a copper subscription with speeds up to 24 Mbps is €34.99 on a 12-month contract and a fibre subscription with speeds up to 500 Mbps is the same price. Vodafone also offer standalone broadband with speeds up to 100 Mbps for €35 on a 12-month contract and a 500 Mbps fibre broadband subscription for €35 on a 12-month contract.

- (e) Geographical differences in product functionality and demand characteristics (paragraphs 4.248 to 4.250).
- 4.213 Under the MGA, in an absent regulation scenario, ComReg assumes that Eircom would no longer provide upstream merchant market WLA or WCA. In that scenario, there are four possible outcomes for end users:
- (a) The end user ceases purchasing retail broadband services;
  - (b) The end user switches to Eircom retail, as Eircom continues to offer retail services based on its own self supply of WLA and WCA inputs;
  - (c) The end user retains their retail broadband service as the Access Seeker from which they purchase those retail services is able to purchase alternative WLA and/or WCA inputs from SIRO or NBI (or, on a forward-looking basis, Virgin Media); or
  - (d) The end user switches to a provider that is not reliant on Eircom wholesale inputs, namely Virgin Media (which is vertically integrated), where the premises is passed by its DOCSIS 3.1 CATV network.
- 4.214 If Eircom were to withdraw merchant market WLA, then in the 2021 Revised Urban WCA market, where it currently offers merchant market WCA (despite the fact it has been deregulated) this WCA could also be withdrawn, as its provision is reliant on upstream merchant market provision of WLA.

### 4.3.1 Geographic differences in entry conditions over time

- 4.215 In considering the geographic scope of the market, ComReg assesses the extent to which sufficient differences in competitive conditions may evolve in particular areas over the lifetime of this market review. To this end, ComReg assesses the coverage and evolution of market shares of NG broadband networks over time, in order to identify any existing or potential geographic variations in entry and competitive conditions across geographic areas.
- 4.216 Taking the Exchange Area ('EA') as the geographic unit of assessment, differences in entry conditions across EAs are, in large part, governed by the presence (or absence) of different NG broadband networks capable of delivering retail broadband services over their own network based on self-supply, or offering merchant market provision of WLA and/or WCA inputs to Access Seekers. The presence or absence at an EA of NG networks, at an appreciable level of coverage, and at an appreciable level of overlapping coverage, is a key determinant in distinguishing differences in competitive conditions between EAs. This is because it reflects the ability of an SP to serve particular areas and the extent of competition, as measured by the number of SPs in a particular area.
- 4.217 A number of networks have been rolled out, which vary by technology and

presence. Eircom, SIRO, NBI and, on a forward-looking basis, Virgin Media, all operate or intend to operate FTTx networks but are present to varying degrees in different areas of the State. Eircom operates the network with the most extensive coverage, whereas SIRO coverage is concentrated in regional areas and large towns. NBI coverage is within the IA and Virgin Media's presence is concentrated in urban areas (predominantly Dublin, Galway, Limerick). Retail SPs which do not operate their own networks may be able to purchase wholesale inputs from multiple Network Operators (where present) in order to provide broadband to end users, which mitigates the degree to which entry conditions vary across geographic areas.

- 4.218 However, absent regulation, Eircom merchant market WLA and WCA would not be available to SPs wishing to provide retail broadband to end users. This could impact on the degree to which Access Seekers would purchase commercial wholesale services from SIRO and/or NBI, given that Access Seekers would, based on the smaller network footprints of these SPs, not be able to provide services at a national or near national basis (noting that the largest retail SPs strategy to date has been to operate nationally). Thus, if Eircom withdrew merchant market provision of WLA and WCA, this could also have the effect of reducing Access Seeker demand for wholesale services delivered by SIRO or NBI, if an Access Seeker intends to offer retail services on a national basis, or considers that end users would expect national level coverage of it. This is because retail broadband coverage over SIRO and NBI would be unable to replicate the near-national coverage of Eircom FTTx.
- 4.219 The presence, and coverage levels, of networks capable of delivering NG retail broadband varies across EAs, such that the NG broadband options available to a given end user will depend on their location. In general, NG broadband availability is likely to be greater in areas of greater premises density. NBI rollout, as it progresses and is eventually completed, will facilitate greater NG broadband availability to areas of lower population density.
- 4.220 Access Seekers can currently supply retail broadband on the basis of Eircom, SIRO, and NBI (and, on a forward-looking basis, Virgin Media) wholesale inputs. ComReg has identified 52 retail SPs which – entirely or partially - offer retail broadband on the basis of WLA or WCA purchases from Eircom, SIRO and/or NBI, and many of these Access Seekers purchase wholesale inputs on multiple networks.<sup>275</sup> For instance, nine retail SPs purchase wholesale inputs from all of Eircom, SIRO and NBI,<sup>276</sup> one purchases wholesale inputs from

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<sup>275</sup> ComReg data including QKDR data.

<sup>276</sup> Blacknight, Digiweb, Fastcom, Magnet, Pure Telecom, Sky, Telcom, Vodafone, and Westnet.

both Eircom and SIRO,<sup>277</sup> nine from both Eircom and NBI<sup>278</sup> and four from NBI and SIRO.<sup>279</sup> This high-level overview suggest that at least 14 retail SPs already purchase wholesale inputs from more than one Network Operator. Additionally, Virgin Media has agreed to commence the provision of wholesale services to Vodafone, and has indicated that it is willing to also supply wholesale services to other Access Seekers [X ██████████  
██████████  
██████████ X].

- 4.221 In an absent regulation scenario, where Eircom withdraws its merchant market WLA and WCA inputs, Access Seekers would only, hypothetically, be left to choose between purchasing inputs from SIRO or NBI (and, on a forward-looking basis, Virgin Media). Even bearing in mind that Access Seekers have proven themselves willing to purchase inputs from multiple wholesale operators, their ability to purchase these inputs for the provision of retail broadband is governed by the presence of these operators in different geographic areas. For instance, SIRO is unlikely to materially extend its network presence into the IA (although some overlap is possible).
- 4.222 Although Access Seekers have the ability to purchase inputs from several Network Operators, in an absent regulation scenario, this is a moot point where those Network Operators are not present. At end user level, in an absent regulation scenario, an end user could switch to purchasing retail broadband from Virgin Media, where Virgin Media's CATV network has rolled out. However, ComReg data suggest limited overlap between Virgin Media CATV and SIRO, or between Virgin Media CATV and NBI.
- 4.223 In terms of geographic differences in entry conditions over time, in an absent regulation scenario, ComReg is of the preliminary view that there may be differences in competitive conditions between those areas where multiple Network Operators are present, and those areas where Eircom is the only Network Operator present, even allowing for the capacity of Access Seekers to purchase wholesale inputs from multiple operators in an absent regulation scenario. However, these differences are likely to decline over time as alternative FTTP network rollout progresses, such that fewer parts of the State are characterised by the presence of Eircom FTTP only. Thus, as network rollout progresses, at retail level, differences in geographic entry conditions sufficient to warrant defining separate geographic markets are likely to decline.

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<sup>277</sup> Airwire.

<sup>278</sup> Aptus, Atlantek Computer, BBnet, Eircom (self-supply), IFA Telecom, Ivertec, Lightnet, Net1, and Regional Broadband Ireland.

<sup>279</sup> Carnsore, Kerry Broadband, Rocket Broadband, and Viatel.

### 4.3.2 Evolution and distribution of market shares

- 4.224 As discussed above, the broadband options available to a given retail end user depend on their location. In general, although not a perfectly linear relationship, the availability of alternative platforms, to which the end user could hypothetically switch is correlated with population and premises density.
- 4.225 There are non-trivial differences in the geographic coverage and availability of the various networks over which retail broadband is delivered in Ireland. Eircom's copper network is ubiquitous, although ultimately given its FTTP coverage and upgrade plans, it would be expected to be concentrated largely within the IA and is likely to further decline, as end users express preferences for services delivered over FTTx. As of Q2 2022, Eircom's FTTC network passes approximately 1.2 million premises in the State, and its FTTP network passes approximately 864,000 premises.<sup>280</sup> At completion, Eircom's FTTP footprint (once the upgrade from copper only *and* FTTC is fully complete), is planned to reach 1.9 million premises over a five-year horizon. According to Eircom, this will result in its FTTP network passing 84% of premises.<sup>281</sup>
- 4.226 SIRO's network currently passes over 460,000 premises in the State (as of November 2022)<sup>282</sup> with FTTP, and once its network rollout reaches completion, it has stated that this figure is set to rise to 770,000 premises (although the timing is uncertain, having regard to SIRO's pace of roll-out to date relative to its original timeframe).
- 4.227 Virgin Media's network passes 958,700 premises in the State (as of Q2 2022),<sup>283</sup> largely concentrated in urban areas. As set out above, Virgin Media has announced its intention to overbuild its network with FTTP, and as of Q2 2022 its FTTP network passes [§< ██████████ §<] premises in the State<sup>284</sup> although [§< ██████████

<sup>280</sup> See Slide 7 of [https://www.eir.ie/.content/pdf/IR/presentations/2022\\_2023/eir\\_Q2-22\\_results\\_presentation.pdf](https://www.eir.ie/.content/pdf/IR/presentations/2022_2023/eir_Q2-22_results_presentation.pdf)

The premises currently passed by FTTP and FTTC are in some cases non-mutually exclusive and there is a degree of overlap between the two, given the ongoing rollout of FTTP and upgrade of FTTC to FTTP by Eircom.

<sup>281</sup> See <https://www.openeir.ie/broadband-reach-and-investment/>

Noting differences in 'total premises' figures relied upon by Eircom versus ComReg. The ComReg figure for total premises in the State is higher, and therefore reduces the total percentage of premises passed by Eircom by FTTP on a forward-looking basis.

<sup>282</sup> The SIRO rollout map is available at <https://siro.ie/roll-out/> The green represents areas in which the network is already partially or fully rolled out, the orange represents areas in which rollout is planned.

<sup>283</sup> <https://www.libertyglobal.com/wp-content/uploads/2022/07/Virgin-Media-Ireland-Fixed-Income-Q2-2022-Release.pdf>

<sup>284</sup> [§< ██████████ §<]

[REDACTED] §]. For more discussion of Virgin Media’s rollout plans, see paragraphs 3.28 to 3.30 above.

- 4.228 NBI’s network currently passes 80,324<sup>285</sup> premises in the state with FTTP (as of Q2 2022),<sup>286</sup> within the IA, which is predominantly rural. Once fully rolled out, NBI’s network will pass approximately 560,000 premises.
- 4.229 Once Eircom, SIRO and NBI (and on a provisional, forward looking basis Virgin Media) complete their respective rollouts there will be a portion of premises in the State which are passed by more than one FTTP network – allowing Access Seekers to serve end users via a wider range of SPs. The propensity/willingness of Access Seekers to purchase from multiple Network Operators was illustrated above. Retail SPs are not necessarily constrained by the presence or absence of any one network operator where, absent regulation in a MGA scenario, they are willing and able to purchase WLA from multiple wholesale Network Operators, namely Eircom, SIRO and NBI.
- 4.230 ComReg calculated FTTP overlap figures<sup>287</sup> (which give a more representative picture of FTTP availability in the State), which illustrate that certain premises will be passed by multiple FTTP networks on a forward-looking basis, although as noted above there is timing uncertainty on the pace of network rollout. Although it is unlikely to commence the provision of wholesale services before [§ [REDACTED] §], ComReg nevertheless proposes to designate Virgin Media as a Network Operator on the basis that it has commenced overlay of its CATV network with FTTP, and has signed an agreement with Vodafone for the provision of wholesale services over that network.

**Table 9: Retail Broadband Lines by Technology and Network Operator, Q2 2022 [§REDACTED§]**

Network Operator	Copper	FTTC	FTTP	Cable	Total Lines
Eircom	[REDACTED]				
SIRO					
NBI					
Virgin Media					
Total					

<sup>285</sup> See [www.nbi.ie](http://www.nbi.ie). Accessed on 26 September 2022.

<sup>286</sup> The NBP interactive ‘High Speed Broadband Map’ is available at <https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=99c229dc4c414971afc50818b25337ef>. The amber areas represent the Intervention Area and the blue areas represent the Commercial Area.

<sup>287</sup> Overlap figures are calculated based on Eircodes where more than one network operator has passed the premises with FTTP. This figures counts individual premises rather than the number of FTTP lines at each premises, to avoid artificially inflating FTTP coverage.

Table 10: FTTP Overlaps by Operator, Q2 2022 [REDACTED]

Network Operators	FTTP overlap premises
Eircom & SIRO	[REDACTED]
Eircom & NBI	
Eircom & VMI	
Eircom & SIRO & NBI	
Eircom & SIRO & VMI	
SIRO & VMI	
SIRO & NBI	
SIRO & VMI & NBI	
Eircom & SIRO & NBI & VMI	
Eircom & NBI & VMI	
NBI & VMI	

- 4.231 Absent regulation, Eircom would no longer be designated with SMP and could remove its provision of wholesale inputs. In this instance, end users would be faced with various options. End users could stop purchasing broadband services completely, purchase the same broadband services (where their retail SP purchases wholesale inputs from a different service provider, namely SIRO or NBI), switch broadband services to a vertically integrated provider (Virgin Media) or in the absence of SIRO, NBI or Virgin Media at their premises, continue to purchase from Eircom as a retail SP.
- 4.232 The change in market shares of retail SPs would be determined by the amount of overlap each wholesale service provider has with Eircom and if the retail SP has the option to switch to a different wholesale service provider.
- 4.233 In a worst-case scenario, all services would revert back to Eircom retail broadband, where alternative FTTP wholesale inputs (from SIRO, NBI, or, on a forward-looking basis, Virgin Media) were not present. In that scenario, Access Seeker retail market shares would likely decline.
- 4.234 ComReg considers that differences in the availability of broadband delivered over various platforms are, absent regulation, likely to be reflected in variations in the coverage of Network Operators in different geographic areas. Absent Eircom merchant market WLA or WCA, Access Seekers have the option to purchase wholesale inputs from other Network Operators, but only where Network Operator rollout has occurred. Absent Eircom provision of merchant market WLA/WCA, market shares of retail SPs who rely on these inputs would likely decline where SIRO or NBI are unavailable and Eircom, arising from its much greater coverage footprint, would gain a sizeable portion of these customers, thus increasing its retail market share.
- 4.235 ComReg accordingly considers that the likely evolution and distribution of market shares may be indicative of geographic differences in competitive

conditions, but that, on a forward-looking basis, these differences may decline over time, arising from FTTP rollout by Eircom, NBI, SIRO, and Virgin Media.

### 4.3.3 Variation in the number and size of potential competitors

- 4.236 In this section ComReg assesses the number of competitors within the retail broadband market and their relative sizes. Fundamentally, the retail broadband market is characterised by several large operators servicing large portions of the State in addition to numerous smaller operators operating more locally based on either their own limited network presence or via the purchase of upstream inputs from Network Operators.
- 4.237 Eircom, as a provider of WLA and WCA, faces a number of competitors in areas of higher premises density, where retail SPs purchase WCA and/or WLA inputs to provide retail services, or where retail SPs have built independent alternative networks to engage in self-supply only (e.g. Virgin Media, whose coverage of 42% of premises is concentrated in urban areas). In an absent regulation scenario, whereby Eircom exits the provision of merchant market WLA/WCA services, retail SPs would risk losing end user custom if they were unable to procure alternative wholesale inputs from SIRO or NBI.
- 4.238 The least densely populated areas in the State tend to lie within the IA. Within the IA, NBI has 39 retail partners.<sup>288</sup> This figure is the cumulative total across the IA, and the 39 are not all present across the entirety of the IA, with some retail SPs focussing on supply of retail broadband on a local basis (for example, Clare WiFi serves premises in west Clare only).
- 4.239 Together, six SPs account for 91% of the retail broadband market in Ireland,<sup>289</sup> measured by subscriptions – Eircom, Virgin Media, Vodafone, Sky, Pure Telecom and Digiweb. However, this is in the presence of WLA and WCA regulation. Of these six SPs, only Eircom operates a network which has near national coverage, through a combination of its ubiquitous CG copper network and FTTx network (which will eventually be fully upgraded to an FTTP-only network). Virgin Media has network coverage of approximately 41% of premises (largely households) as at Q3 2022 with its independent CATV network.<sup>290</sup> Vodafone and Sky's (including via BT) retail NG broadband coverage is dependent on the coverage footprint of their respective upstream wholesale partners – Eircom, SIRO, NBI, and in the case of Vodafone and on a forward-looking basis, Virgin Media.

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<sup>288</sup> <https://nbi.ie/where-can-i-buy/>.

<sup>289</sup> ComReg QKDR Data, as at Q2 2022.

<sup>290</sup> <https://www.libertyglobal.com/wp-content/uploads/2022/11/Virgin-Media-Ireland-Fixed-Income-Q3-2022-Release.pdf>.



- 4.240 The five main competitors to Eircom compete nationally and have considerable national coverage, although in the case of Vodafone and Sky (BT), this is based on a significant degree of Eircom's merchant market WLA and/or WCA, which in an absent regulation scenario would be withdrawn.
- 4.241 In addition to the Network Operators, and in the presence of regulation, there is also some localised competition from regional SPs such as Rapid Broadband,<sup>291</sup> Carnsore<sup>292</sup> or Westnet.<sup>293</sup> Accordingly, there appears to be a consistent pattern across the State, whereby several large operators with national presence have significant market shares while local operators whose identity varies geographically (such as Tipp Broadband in Tipperary, or Carnsore Broadband in Wexford) have the remaining market share.
- 4.242 However, in an absent regulation scenario, these market shares are likely to change where Access Seekers reliant on Eircom WLA or WCA are unable to source alternative wholesale inputs. The impact of these changes is likely to lessen over time as additional FTTP network rollout continues. Based on Q2 2022 data, there are likely to be instances of geographic differences in competitive conditions, measured by variation in the number and size of potential competitors.
- 4.243 However, bearing in mind expected future FTTP rollout by other Network Operators, the similarities and patterns in the makeup of market shares across EAs, (i.e., several large SPs operating alongside smaller, more fringe, localised operators), are, on balance, likely sufficiently similar to warrant a national retail broadband market on a forward-looking basis.

#### **4.3.4 Evidence of differentiated pricing strategies or marketing**

- 4.244 Despite the geographic variations in network coverage, there is a lack of evidence of sufficiently differing competitive constraints on retail broadband pricing. ComReg's review of SPs' retail broadband packages does not indicate any variation in prices by geographic region, e.g. a retail broadband package with material price differentials between one part of the country and the other (see Annex 4 for a full overview of retail broadband pricing and packages). Retail broadband packages are advertised and sold to end users at the same price, regardless of location, illustrating that prices are national and not differentiated based on geographic criteria.
- 4.245 Retail broadband is provided on a national basis by a small number of large operators and on a more regional basis by a large number of small, more

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<sup>291</sup> <http://rapidbroadband.ie/coverage/>

<sup>292</sup> <https://www.carnsorebroadband.com/>

<sup>293</sup> <https://www.westnet.ie/>

localised operators. Operators offering retail broadband on a national basis appear to price retail broadband uniformly across the State, even where they purchase wholesale inputs from multiple operators (in the case of Vodafone, from both Eircom and SIRO).

- 4.246 The only geographic difference in pricing which appears to arise is where the underlying access networks and the products offered over these networks vary. For example, where FTTP is available, retail broadband may be offered at a higher price – in line with the higher speeds and other features available. However, in areas where the competitive dynamic is enhanced by the existence of multiple suppliers of retail broadband, to date, there is no evidence to show disparity in the pricing of these products, compared to areas where fewer retail SPs are present.
- 4.247 Based on information collected, retail SPs appear to pursue a policy of uniform, national pricing, suggesting that, from this perspective, competitive conditions for retail broadband are sufficiently homogenous nationwide.

#### **4.3.5 Geographical differences in product functionality and demand characteristics**

- 4.248 In terms of product functionality, ComReg has not found evidence to conclude that any SP offers retail products with different functionalities in different geographic areas or bases its marketing on geographic differences in product functionalities or characteristics. The geographic location of an end user does not determine the products offered or the characteristics of that product (e.g. quality of service, download speed etc.), but rather, the product offering available to end users is determined by the technology available in their area.
- 4.249 Demand for retail broadband does not appear to vary on a geographic basis, but rather, is constrained by the geographic availability of different platforms required to meet derived demand for high-speed connections. The degree to which this demand is constrained by the absence of NG broadband networks capable of facilitating such end user requirements or expectations will likely decline over time in line with FTTP rollout by Eircom, SIRO, NBI, and – potentially – Virgin Media, particularly in more rural/less densely populated areas, allowing for greater homogeneity in broadband product functionality.
- 4.250 Retail broadband can be provided over a range of inputs, through merchant market purchases of different combinations of WLA and/or WCA inputs, or self-supply by vertically-integrated SPs. Overall, although there are some variations in demand for retail broadband, these are largely dictated by supply-side factors such as availability and are insufficient to conclude that the provision of retail broadband is characterised by geographic differences in product functionality and demand characteristics.

### 4.3.6 Overall preliminary conclusion on geographic market

- 4.251 Having regard to the five geographic factors considered above, ComReg is of the preliminary view that, absent regulation, a number of factors are indicative of the presence of geographic differences in competitive conditions in provision of retail broadband in the State, while other factors suggest the presence of a national market. In particular, ComReg considers that the presence or absence of alternative Network Operators capable of providing wholesale and retail broadband inputs could be indicative of the presence of differences in competitive conditions.
- 4.252 However, ComReg also notes that the lack of differentiated pricing and limited differences in demand characteristics across geographic regions suggest that the retail broadband market is national in geographic scope.
- 4.253 Having considered the above, it is ComReg's view that, based on Q2 2022 data, there is some evidence of geographic differences in competitive conditions in the retail broadband market (in an absent regulation scenario). However, on a forward-looking basis, and assuming continued FTTP rollout by SIRO, NBI, and Virgin Media, ComReg considers that these geographic differences are likely to diminish over the lifetime of this market review period, as fewer and fewer areas are characterised by the presence of Eircom NG broadband only. Accordingly, ComReg considers that, on a forward-looking basis, and bearing in mind continued alternative Network Operator FTTP rollout capable of delivering wholesale inputs to Access Seekers, there may be grounds to define a single national geographic market for the provision of retail broadband. However, ComReg proposes to leave this conclusion open, on the grounds that it will not impact the determination in respect of its assessment of the relevant upstream wholesale markets.

## 4.4 Conclusion on the retail broadband market

- 4.254 In paragraphs 4.18 to 4.210, ComReg analysed the retail broadband market from a product perspective and set out its preliminary view that it is comprised of two markets:
- (a) The CG retail broadband market, consisting of
    - i. Retail broadband provided over Eircom's copper-only network
  - (b) The NG retail broadband, consisting of

- i. Retail broadband provided using Network Operator<sup>294</sup> FTTx (FTTC and FTTP) inputs on either a merchant market or a self-supply basis, and
- ii. Retail broadband provided over Virgin Media's DOCSIS 3.1 CATV network.

4.255 In paragraphs 4.211 to 4.253, ComReg analysed the retail broadband from a geographic perspective and set out its preliminary view that, on a forward-looking basis, there is a single, national retail broadband market in Ireland based on the analysis of the five criteria laid out in paragraph 4.212.

4.256 Thus, ComReg proposes to define two Relevant Retail Broadband Markets:

- (a) A national CG Retail Broadband Market; and
- (b) A national NG Retail Broadband Market.

together referred to as the '**Relevant Retail Broadband Market(s)**'.

**Q. 2. Do you agree with ComReg's proposed definition of the Relevant Retail Broadband Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

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<sup>294</sup> ComReg proposes to designate NBI, SIRO, Virgin Media (over FTTP only) and Eircom as Network Operators, that is, operators capable of delivering wholesale inputs to the provision of NG retail broadband.

## 5 Relevant WLA Market Definition

### 5.1 Introduction

- 5.1 In its 2020 Recommendation, the European Commission established that the WLA market is susceptible to *ex ante* regulation and, in doing so, refers to the WLA market as ‘*Wholesale local access provided at a fixed location*’. This market was designated as ‘Market 3A’ under the 2014 Recommendation but is now designated as ‘Market 1’ under the 2020 Recommendation.
- 5.2 This section considers which, if any, products or services might be considered by a SP to be an effective substitute for WLA, taking account of demand-side and supply-side considerations.
- 5.3 In defining the Relevant WLA Market(s), ComReg begins by identifying the appropriate focal product or products. From here, ComReg examines whether this focal product constitutes a market of its own, or whether a broader market should be defined taking into account direct supply-side or demand-side substitutes. ComReg also assesses the degree to which indirect retail constraints arising from downstream retail markets might effectively and sufficiently constrain behaviour in the WLA markets, before then assessing the geographic scope of the WLA markets.
- 5.4 The Notice on Market Definition defines a relevant market as follows:
- (a) A relevant **product market** comprises all those products and/or services which are regarded as interchangeable or substitutable by the end user by reason of the products’ characteristics, prices and intended use;
  - (b) A relevant **geographic market** comprises the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.
- 5.5 In line with the MGA<sup>295</sup> ComReg’s assessment starts from the assumption that regulation is not present in the market under consideration. However, regulation present in other related markets, or through other aspects of the regulatory framework, may be assumed to be present.

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<sup>295</sup> See p. 9 of the 2020 Explanatory Note and p.8 of the 2014 Explanatory Note. The Modified Greenfield Approach requires NRAs to assess whether markets are effectively competitive from a forward-looking perspective in the absence of SMP regulation, in order to avoid circular reasoning whereby a market is deemed to be competitive on the basis of the presence of SMP regulation.

- 5.6 Market definition is not an end in itself but is undertaken to provide the context for the subsequent competition assessment. It allows ComReg to consider the competitive constraints imposed by demand and supply side substitutes (and, consequently, the buyers and suppliers of those substitute products/services) on a forward-looking basis; that is, taking into account expected or foreseeable technological or economic developments over a reasonable time horizon linked to this market review.
- 5.7 Accordingly, this section is structured as follows:
- (a) Summary of the 2018 Decision (discussed in paragraphs 5.9 to 5.10);
  - (b) Identifying the focal product, which is the initial product against which potential substitute products are assessed (discussed in paragraphs 5.11 to 5.77 below);
  - (c) Whether any alternative WLA products should be included in the Relevant WLA Market(s), having regard to the effectiveness of any direct constraints from demand-side substitutes or supply-side substitutes, including self-supplied inputs (discussed in paragraphs 5.78 to 5.122);
  - (d) Whether any retail products should be included in the Relevant WLA Market(s), having regard to the effectiveness of any indirect retail constraints from the retail market (discussed in paragraphs 5.123 to 5.200); and
  - (e) The geographic scope of the Relevant WLA Market(s) (discussed in paragraphs 5.201 to 5.281 below).
- 5.8 As part of its assessment, ComReg considers the 2022 Market Research, information provided by SPs in response to ComReg requests for information, using both statutory information gathering powers (Statutory Information Requests ('**SIRs**')), and on a non-statutory basis (Informal Information Requests ('**IIRs**')), as well as other available data, including ComReg's QKDR. In addition, given the absence of clear and precise data regarding elasticities of demand for WLA and potential substitutes, ComReg considers the Hypothetical Monopolist Test ('**HMT**') in a general sense (see paragraph 5.79), and uses this as an additional tool to inform its consideration of relevant issues alongside qualitative and qualitative data.

- 5.9 In its 2018 Decision, ComReg defined a single WLA market which was national in its geographic scope. ComReg concluded that the WLA focal product was Local Loop Unbundling ('LLU') provided by Eircom over its copper Current Generation ('CG') network. ComReg also included two demand-side substitutes to Eircom LLU, Virtual Unbundled Access ('VUA') provided by Eircom over its FTTx Next Generation ('NG') network, together with VUA provided by SIRO over its FTTP NG network. ComReg also included Eircom's self-supply of LLU and VUA in the WLA Market since such supply is typically readily divertible to the wholesale merchant market.
- 5.10 ComReg concluded that no supply-side substitutes or indirect retail constraints were sufficiently effective to warrant inclusion in the WLA product market. In respect of the geographic scope of the WLA market, ComReg concluded that it was appropriate to define a single national WLA market, based on the existence of a small number of competitors in the WLA market, with Eircom having a high and relatively static market share, a lack of differentiated pricing and limited differences in demand characteristics across regions.

## 5.2 Relevant Product Market Assessment

### 5.2.1 Identifying the Focal Product(s)

- 5.11 WLA is used by Access Seekers as a means of providing various communications services either to end users or, in some cases, to their own wholesale customers. In practice, WLA provides the Access Seeker with connectivity between a point of interconnection (typically at an exchange or a street cabinet) and the end user premises.
- 5.12 The first step in defining the WLA market(s) involves identifying the relevant focal product(s). A focal product is a product where a competition bottleneck is believed to occur, that is, a product which Access Seekers rely on to offer effective competition on downstream markets. If a firm does not grant access to the focal product which it controls, then it is likely to be in a position to exclude competitors from downstream markets. According to BEREC,

*"The focal product is defined as the main product under investigation and the focal area is the area under investigation, in which the focal product is sold. The definition of the focal product may depend on specific market conditions and on the issues that NRAs want to address during the market analysis."*

*(.....) an NRA should start by identifying the focal product considering their national market conditions. One of the possible criteria chosen by NRAs might be to define the focal product as the one where competition problems are believed to exist.*<sup>296</sup>

- 5.13 The identification of the focal product is a thought exercise designed to identify where a competition bottleneck is likely to occur. Accordingly, in defining a focal product, it is necessary only to define the product itself and it is not necessary to identify a specific provider of the focal product. The focal product is, therefore, capable of being provided by one or more SPs.<sup>297</sup>

### The 2020 Explanatory Note

- 5.14 In its 2020 Explanatory Note, the EC states that the WLA market consists of “...physical access products as well as those virtual access products that mimic the capabilities of physical access (VULA) enabling transmission of internet and related data services”, while also noting that LLU and SLU are used to a decreasing extent throughout the EU.<sup>298</sup> Thus, the 2020 Explanatory Note allows for the inclusion of both LLU and VUA in the WLA product market.
- 5.15 ComReg considers below whether LLU and VUA offered in the State satisfy the 2020 Explanatory Note requirements for designation in principle as products capable of falling within the WLA market.

### Designation of the appropriate focal product

- 5.16 Pursuant to the 2020 Recommendation, WLA continues to be deemed susceptible to *ex ante* regulation at EU level. Accordingly, there is a presumption in favour of continued regulation of WLA.
- 5.17 In the 2018 Decision, ComReg designated LLU as the WLA focal product, with VUA as a demand-side substitute to the focal product. ComReg considers that this designation is no longer appropriate, arising from the decline in CG broadband (over which LLU is delivered) and the increase in NG broadband (over which VUA is delivered) over the intervening time period, which indicate altered patterns of Access Seeker substitution. ComReg now considers it appropriate to define two WLA focal products, LLU and VUA, which are not mutually substitutable.

<sup>296</sup> BEREC Report on Impact of Fixed-Mobile Substitution in Market Definition, at p.12. BoR 12 (52), 24 May 2012. Available online at [https://www.berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/363-berec-report-impact-of-fixed-mobile-substitution-fms-in-market-definition](https://www.berec.europa.eu/eng/document_register/subject_matter/berec/reports/363-berec-report-impact-of-fixed-mobile-substitution-fms-in-market-definition)

<sup>297</sup> See, for example, Ofcom’s focal product assessment set out at paragraphs 6.25 to 6.33 of its “Promoting competition and investment in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26 - Volume 2: Market assessment”, available online at [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0029/188822/wftmr-volume-2-market-assessment.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0029/188822/wftmr-volume-2-market-assessment.pdf)

<sup>298</sup> At p.48.



- 5.18 The focal product describes the main product under investigation, in respect of which competition problems may exist. Accordingly, if supply of either LLU or VUA were to cease, this would likely lead to competition problems if retail broadband providers were unable to switch, in a short period of time, to an alternative means of facilitating the delivery of retail broadband.
- 5.19 However, the magnitude of any such competition problem would be much greater in respect of VUA than in respect of LLU. As of Q2 2022, ComReg data indicate that 10,415 LLU lines are sold in the State (all by Eircom, the sole supplier of LLU) – a decline from a figure of 30,517 at the time of the 2018 Decision. Trend data since 2018 suggest that this figure is likely to continue to decline. In contrast, over the same time period, ComReg data indicate an equivalent figure of 401,105 VUA lines (264,556 Eircom VUA delivered over FTTC and FTTP, 132,728 delivered over SIRO FTTP, and 3,821 delivered over NBI FTTP). Accordingly, the magnitude of the competition problem arising from the withdrawal of VUA would be much more substantial – by a factor of more than 20 – than from the withdrawal of LLU, and this is likely to continue to be the case on a forward-looking basis.
- 5.20 Given the disparity in the size of LLU and VUA purchases, ComReg proposes to designate more than one focal product, for the reasons set out below.

### Operator views

- 5.21 In January 2022, ComReg issued IIRs and asked operators whether, in their view, it was appropriate to continue to designate LLU as the WLA focal product or whether, given the market developments since the 2018 Decision, a different WLA focal product was appropriate.
- 5.22 Of seven questionnaire respondents, only one argued that LLU delivered over copper should continue to be the WLA focal product. Four argued that VUA delivered over NG networks should be the relevant focal product subject to the support from relevant data, and two respondents indicated that LLU was no longer appropriate, without specifying an alternative WLA focal product.
- 5.23 [REDACTED] indicated that LLU may no longer be the appropriate WLA focal product, although it did not identify an alternative WLA focal product. In a similar vein, [REDACTED] argued that the WLA focal point should facilitate retailers migrating their base away from copper-based services in the context of the move towards an FTTP-only environment.
- 5.24 In contrast, [REDACTED] maintained that LLU delivered over copper continues to be the appropriate WLA focal product arguing, *inter alia*, that operators continue to sweat their copper assets and that vectoring and G.fast technologies allow copper to meet demand for higher speeds. [REDACTED] added that there was no evidence of significant changes since the 2018

Decision, or of likely significant changes in coming years. [X] argued that, despite significant growth in network deployment, FTTP (and therefore VUA) should not be the WLA focal product, due to its comparatively small scale of take-up, compared to xDSL (that is, DSL delivered over copper and VDSL delivered over FTTC).

- 5.25 [X] noted that, while the WLA focal product appeared to be migrating towards VUA, many LLU facilities need to be maintained to support the delivery of VUA, where LLU forms the physical basis of VUA connectivity. [X] expressed concern that difficulties with Eircom CEI could lead to LLU delivered over fibre being designated as the WLA focal product.
- 5.26 [X] argued that VUA is the appropriate WLA focal product, noting the ongoing decline of CGA, Eircom's copper switch-off proposals, and the continuing decline in broadband subscribers reliant on CGA.
- 5.27 [X] noted that, while DSL and VDSL continue to outnumber FTTP, the trend is shifting on an accelerating basis towards FTTP. Subject to a number of caveats and appropriate data analysis, [X] considered that VUA should be the more likely WLA focal product.
- 5.28 [X] argued that the WLA focal product should be delivered over FTTP (therefore VUA, rather than LLU), noting the sharp decline in LLU numbers.

### VUA and LLU form separate focal products

- 5.29 Products may not fall in the same product market where they are not effective substitutes for one another. For the reasons set out below, ComReg is of the view that LLU and VUA are not sufficiently effective substitutes for each other, due to the presence of differences in competitive dynamics in the delivery of LLU and VUA since the publication of the 2018 Decision resulting in asymmetric substitution. Since LLU and VUA are not effective substitutes, it follows that they should not be included in the same relevant product market.
- 5.30 Accordingly, and for the reasons set out below, ComReg proposes instead to designate separate LLU and VUA focal products.
- 5.31 Recent precedent exists for the definition of separate copper and fibre WLA markets. In its draft 2019 notification, the Swedish NRA (PTS) defined separate markets for WLA to fibre networks and WLA to copper networks. In respect of the copper WLA market, PTS notes that this market had declined considerably in recent years as customers switched to better-performing networks.<sup>299</sup> Similar market dynamics are evident in Ireland, as set out below.

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<sup>299</sup> EC comments letter to PTS dated 6 December 2019 regarding Cases SE/2019/2216-2218. The PTS Decision was vetoed, but on the basis of the fibre WLA network geographic market definition. The EC did not take issue with the definition of separate copper and fibre WLA networks.

- 5.32 Similarly, in its draft 2021 notification, the Danish NRA (DBA) defined separate high capacity infrastructure (consisting of CATV and FTTx) and low capacity infrastructure (consisting of copper and FWA) wholesale broadband markets consisting of both WLA and WCA. In doing so, DBA noted that VUA had almost entirely replaced LLU delivered over copper.<sup>300</sup>

### LLU and VUA exhibit different speed and quality characteristics

- 5.33 Due to the higher download speeds attainable over FTTx than copper, VUA products can be used to provide a broader range of services than copper-only CG LLU. G.fast technology<sup>301</sup> is capable of delivering high speeds (between 100 Mbps and 1 Gbps) over copper comparable to speeds available over FTTx. However, speeds at the higher end of the scale are generally only achievable over very short loops of less than 500m in length, and G.fast is not available on Eircom's CG copper-only network. Accordingly, while LLU and VUA have similar intended uses deriving from downstream demand for retail broadband, there are quantifiable differences in the quality of broadband delivered over VUA and LLU, due to the increased speeds which FTTx, which delivers VUA, can provide compared to full copper, which delivers LLU.
- 5.34 This difference in quality is reflected in retail end user demand for broadband capable of delivering data-intensive uses such as streaming, video calling, or online gaming, all of which require bandwidth and speeds which may not be achievable over full copper. QKDR data indicate that, as of Q2 2022, 52% of retail broadband subscriptions were for speeds of at least 100 Mbps, with significant differences in speeds across platforms. All retail broadband subscriptions delivered over copper-only DSL are at speeds below 30 Mbps, while 94% of FTTC subscriptions are at speeds of 30-100 Mbps, and 99% of FTTP subscriptions are at speeds of at least 100 Mbps. The greater speeds available over FTTC and FTTP facilitate more and better usage cases than DSL delivered over copper, such that copper would not meet the usage expectations of a sufficiently significant cohort of retail broadband end users.

### LLU and VUA are characterised by asymmetric substitution

- 5.35 ComReg's analysis indicates the presence of asymmetric substitution from LLU to VUA, but not from VUA to LLU. In that case, VUA would be a substitute for LLU, but LLU would not be a substitute for VUA and LLU and VUA could

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<sup>300</sup> EC comments letter to DBA dated 1 December 2021 regarding Cases DK/2021/2346. The EC opened a Phase II investigation into the DBA's proposed findings of SMP against certain operators, following which DBA altered aspects of its SMP findings.

<sup>301</sup> G.fast is a digital subscriber line (DSL) protocol standard for local loops shorter than 500 metres in length, with performance targets between 100 Mbps and 1 Gbps, depending on loop length.

not be included in the same relevant product market, as LLU would not exert a sufficiently effective demand-side constraint on VUA.

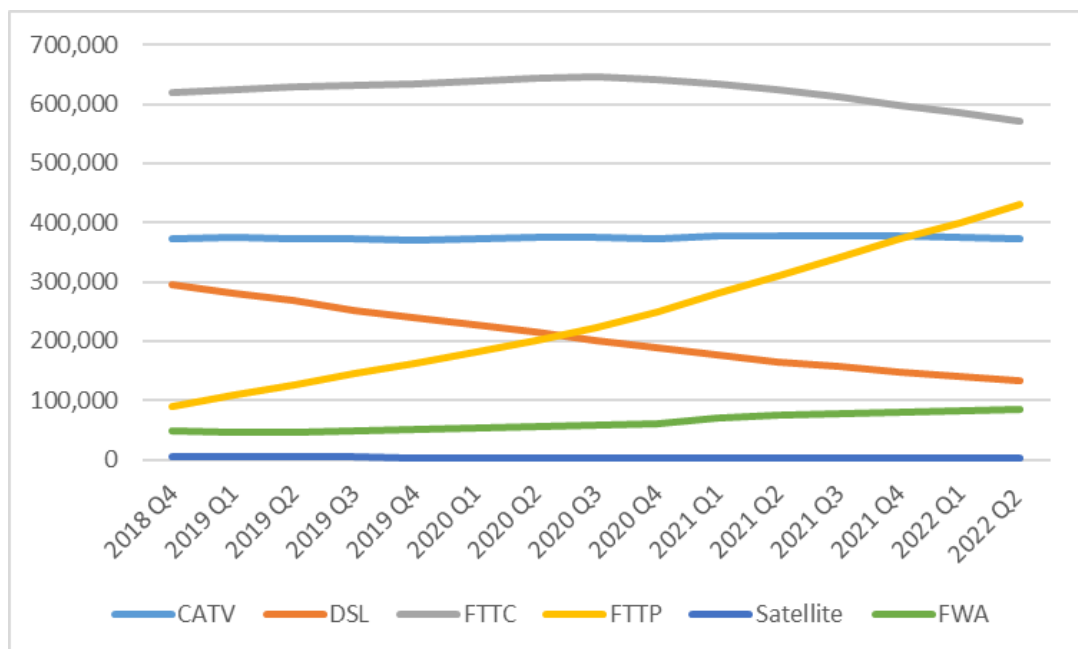
- 5.36 Asymmetric substitution occurs where Product A is a substitute for Product B, but Product B is not a substitute for Product A. In assessing asymmetric substitution, the starting point is critically important – a more advanced product may be a substitute for an older legacy product, but the converse may not be the case.
- 5.37 According to the 2020 Explanatory Note, most NRAs, to date, have not shown breaks in the chain of substitution between NG WLA and CG WLA products. Therefore, *“at least in the near term, access to FttH, FttB or FttC/VDSL (either PtP or PtMP) network should be considered as a substitute to traditional copper LLU.”*<sup>302</sup> That is to say, VUA (NG WLA) should be considered a substitute for LLU (CG WLA). The 2020 Explanatory Note focusses on substitution from LLU to similar products delivered over FTTx (i.e., VUA), but is silent on substitution in the opposite direction, from VUA to LLU.
- 5.38 If the proposition of asymmetric substitution is correct, ComReg would expect to observe significant Access Seeker substitution from LLU to VUA, but little or no substitution from VUA to LLU. While ComReg does not hold data at the individual line level to measure substitution patterns, ComReg can draw inferences from aggregate VUA and LLU data over time. According to QKDR data, Eircom (full and shared) LLU sales have declined every quarter since the publication of the 2018 Decision, from 30,517 lines in Q4 2018 to 10,415 lines in Q2 2022, a decline of 20,102 lines, or 66%. Together, BT and Magnet account for 99% of LLU purchases,<sup>303</sup> with BT alone accounting for [X ██████████ ██████████ X] of all LLU purchases. Since Q1 2019, BT purchases of LLU have declined by [X ██████████ X], and Magnet purchases have declined by [X ██████████ X].
- 5.39 Over the same time period, Eircom VUA lines increased from 215,155 to 264,556. This 49,401 increase in Eircom VUA lines is therefore more than twice as large as the 20,102 decline in LLU lines over the same period. The net increase in VUA lines, coupled with the net decrease in LLU line purchases by BT and Magnet is consistent with a pattern of asymmetric substitution from LLU to VUA where demand for higher speeds at the retail level is not being met over LLU, but can be met over VUA. It is also consistent with the retail trends described earlier where there is a clear pattern of end users increasingly adopting higher speed broadband products where these are available.

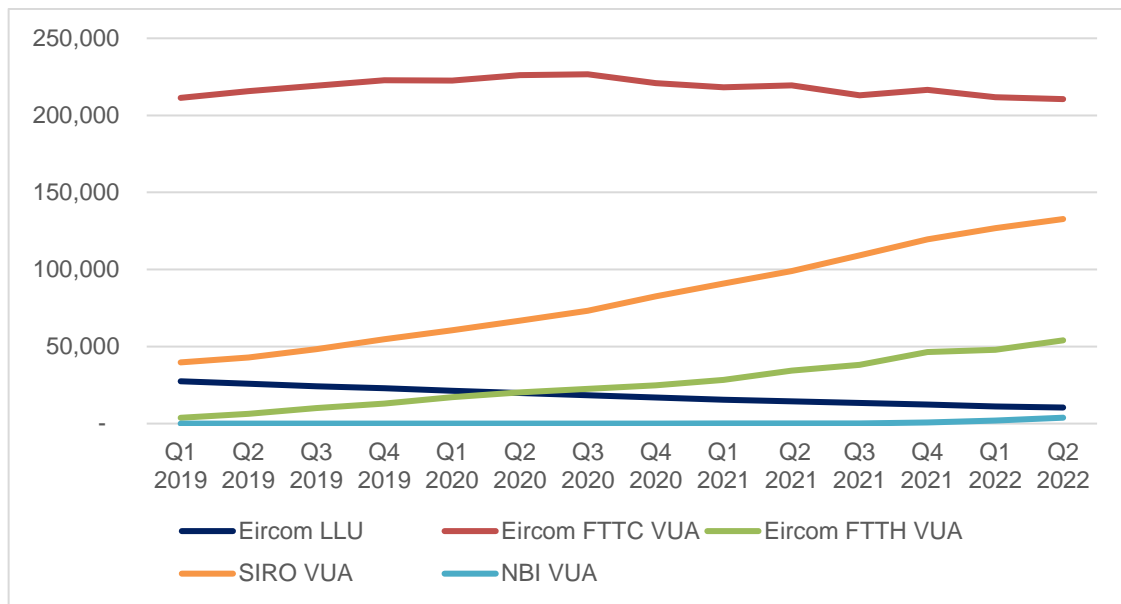
<sup>302</sup> 2020 Explanatory Note, p.48.

<sup>303</sup> Colt, which purchases [X ██████████ X] LLU lines, is the only other purchaser of LLU from Eircom.

- 5.40 On a current and forward-looking basis, LLU demand is likely to continue to decline, suggesting that there would be insufficient switching to LLU for it to be capable of acting as an effective demand-side constraint on VUA. This is consistent with the comparative magnitude of LLU and VUA. At the time of the 2018 Decision, total LLU lines amounted to 15% of total VUA lines. As of Q1 2021, total LLU lines amounted to less than 5% of total VUA lines.
- 5.41 As SIRO and NBI roll their FTTP networks out, Eircom overlays FTTC with FTTP, and Virgin Media overlays its CATV network with FTTP, it is likely that FTTP will become the dominant transmission medium within the lifetime of this market review period, bearing in mind the continuing decline in copper driven, in particular, by end user demand for higher broadband speeds capable of meeting usage expectations.

**Figure 22: Broadband subscriptions by platform, Q4 2018-Q2 2022**



**Figure 23: WLA Lines by Line Type and Network Operator, Q1 2019 – Q2 2022**

5.42 Accordingly, the provision of LLU and VUA is characterised by asymmetric substitution. ComReg proposes to define separate LLU and VUA focal products and carry out its product market assessments from these points.

### Local Loop Unbundling ('LLU') focal product

5.43 LLU is a CG WLA product which also includes Full Unbundling,<sup>304</sup> Line Share ('LS')<sup>305</sup> and Sub-Loop Unbundling ('SLU') products. It is a passive local access<sup>306</sup> service offered over copper only that, similar to VUA, allows Access Seekers to provide downstream retail and/or wholesale end users with a range of services. The 2018 Decision defined LLU as the sole WLA focal product and, accordingly, Eircom's supply of LLU is currently subject to the obligations set out in the 2018 Decision. The details of Full Unbundling and Line Share products (and associated facilities) offered by Eircom pursuant to its regulatory obligations are set out in its Access Reference Offer ('ARO').<sup>307</sup>

<sup>304</sup> Full Unbundling allows Access Seekers to use the entire physical copper access path located between Eircom's telephone exchanges (or equivalent) and the customer's premises for the purposes of supplying voice, broadband and other services. Eircom describes its Full Unbundling product as 'Unbundled Local Metallic Path' ('ULMP').

<sup>305</sup> Line Share allows an Access Seeker to only rent part of the copper access path, namely the frequencies which enable offering a broadband service. Line Share requires the presence of a narrowband connection, so the retail end user must also maintain a line rental service.

<sup>306</sup> Passive access products enable an Access Seeker to utilise the network facilities of a wholesale supplier, where those facilities are supplied without active powered equipment. VUA products are active in the sense that they are supplied and function over powered electronic equipment.

<sup>307</sup>

[https://www.openeir.ie/reference-offers/#:~:text=The%20Access%20Reference%20Offer%20\(ARO,and%20Unbundled%20Local%20Metallic%20Path.](https://www.openeir.ie/reference-offers/#:~:text=The%20Access%20Reference%20Offer%20(ARO,and%20Unbundled%20Local%20Metallic%20Path.)

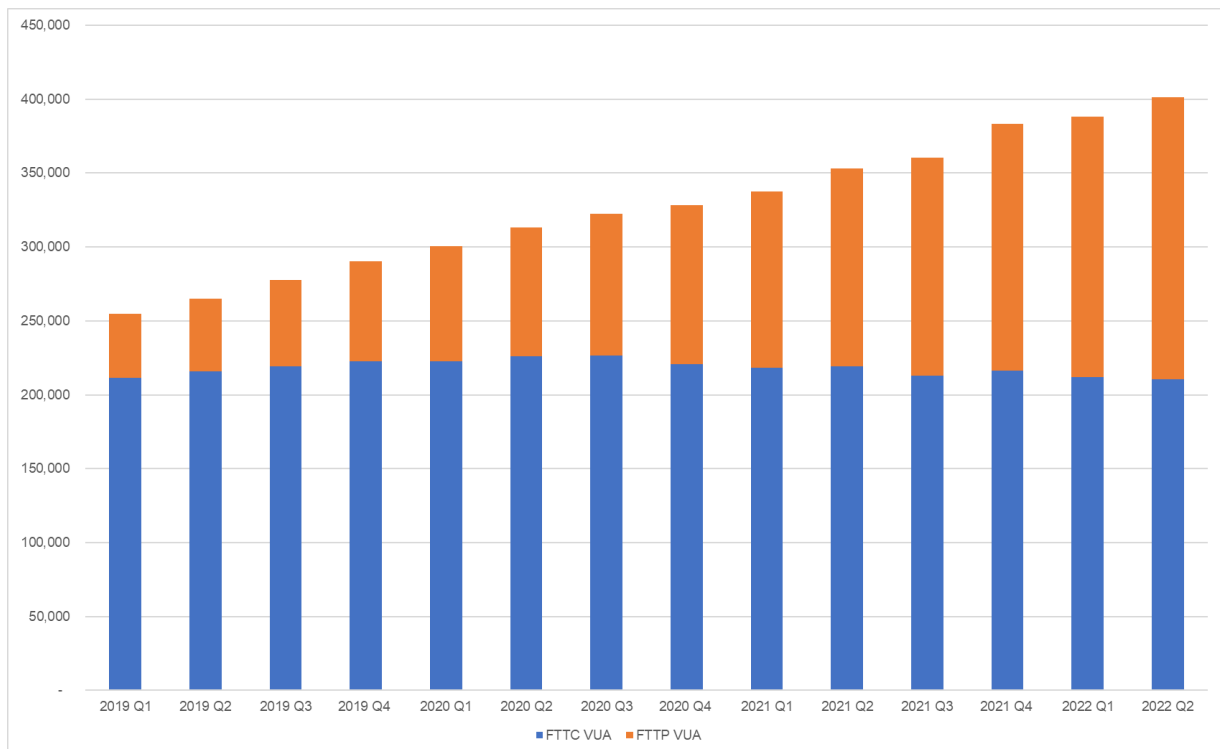
- 5.44 Access Seekers can use LLU to provide a range of downstream services at the wholesale and retail level, including (but not limited to) broadband access, telephony, and other services.
- 5.45 Eircom is the sole provider of copper-based LLU, LS and SLU products and these products are therefore, in principle, available on a ubiquitous basis on Eircom’s nationwide legacy copper network. However, in practice, LLU, SLU and LS are purchased by a small number of Access Seekers, and demand for such product has declined by 69% since the publication of the 2018 Decision. As of Q2 2022, Eircom offered a total of 10,415 such lines across its copper network, less than 5% of the equivalent number of Eircom VUA lines.

### Virtual Unbundled Access (‘VUA’) focal product

- 5.46 The 2020 Explanatory Note<sup>308</sup> sets out three criteria to assess whether VUA is functionally equivalent to physical unbundling, and therefore capable of being included in the WLA market:
- (a) **Criterion 1** - Access occurs locally in principle,
  - (b) **Criterion 2** - Access is generic and provides Access Seekers with a service-agnostic transmission capacity uncontended in practice, and
  - (c) **Criterion 3** - Access seekers need to have sufficient control over the transmission network.
- 5.47 For the purposes of the product market definition exercise, the focal product is deemed to be offered by a HM. In practice, three operators – Eircom, SIRO, and NBI – offer VUA at varying coverage levels throughout the State which meets the three EC designation criteria set out above. In October 2022, Virgin Media announced that it would commence the provision of wholesale services over FTTP to Vodafone, but ComReg understands that, as of November 2022, service delivery has not yet commenced [X ██████████ ██████████ X].
- 5.48 VUA may be delivered over FTTC, which consists of a fibre component to the cabinet and a copper component to the end user premises, or FTTP, which consists of a full fibre path. Since the publication of the 2018 Decision in Q4 2018, fibre rollout has increased, and the percentage of VUA delivered over NBI and SIRO FTTP has increased, as set out at Figure 24 below:<sup>309</sup>

<sup>308</sup> At p.49.

<sup>309</sup> Based on data reported in Eircom quarterly results, available at <https://www.eir.ie/investorrelations/>

Figure 24: Eircom, SIRO & NBI Merchant Market VUA, 2019-2022<sup>310</sup>

5.49 This figure makes clear that FTTP VUA as a proportion of total VUA has increased since 2019 both absolutely (from 2% to 18%) and relatively (from 3,769 lines to 46,477 lines), while VUA delivered over FTTC has declined in relative terms (from 98% to 82% of total VUA lines). Accordingly, while FTTC continues to account for the majority of VUA, over the lifetime of this market review, ComReg expects that FTTP will form an increasing proportion of VUA. These dynamics are driven partially by new FTTP connections to greenfield sites, but also by Eircom replacing existing FTTC with FTTP by overlaying the copper connection from the premises to the cabinet with fibre. Thus, FTTP rollout is a combination of brand new rollout to newly-constructed premises and upgrading existing FTTC rollout to FTTP.

5.50 As of Q2 2022, VUA delivered over FTTC continues to account for the majority of VUA. ComReg expects that, over the lifetime of this market review period, VUA delivered over FTTP will continue to increase and VUA delivered over FTTC will continue to decline. Taking these likely market dynamics into account, on a forward-looking basis, it is appropriate to include VUA delivered over FTTC and VUA delivered over FTTP in the VUA focal product.

<sup>310</sup> Eircom's self-supply is reported as Bitstream, leading to reporting of VUA lines being merchant market only.



## Eircom VUA

- 5.51 Eircom's FTTx-based VUA products are available on an extensive, but not national, basis where Eircom has rolled out its FTTx network.<sup>311</sup>
- 5.52 As of Q2 2022, Eircom provided 264,556 merchant market VUA lines over its FTTC and FTTP networks. These products are purchased by a number of Eircom's wholesale customers (including BT Ireland, Vodafone, Magnet and Digiweb) in those areas where Eircom has rolled out its FTTx network. As of Q2 2022, Eircom reported that it had passed 1.2m premises in the State with FTTC and 864,000 premises with FTTP, amounting to total FTTx coverage of 87% of premises.<sup>312</sup> Eircom is therefore capable, in principle, of delivering VUA over FTTC or FTTP to 87% of premises in the State.
- 5.53 Table 11 below sets out Eircom's FTTP rollout to date and as of Q2 2022 Eircom's network has passed over 847,000 premises.

**Table 11: Eircom FTTP Rollout to date, as of Q2 2022<sup>313</sup> [REDACTED]**

Quarter	Premises passed
Q2 2022	
Q1 2022	
Q4 2021	
Q3 2021	
Q2 2021	
Q1 2021	
Q4 2020	
Q3 2020	
Q2 2020	
Q1 2020	
Q4 2019	
Q3 2019	
Q2 2019	
Q1 2019	

<sup>311</sup> As of Q4 2021, Eircom Quarterly Reports indicate 86% Eircom FTTx premises coverage nationally.

<sup>312</sup> Eir Group Results, Q2 2022, at page 7. Eircom calculated the figure of 87% based on an estimated 2.3 million total premises in Ireland, based on total GeoDirectory address points.

<sup>313</sup> ComReg QKDR Data, as of Q2 2022.

**Eircom Remote VUA and Local VUA fall into the VUA focal product**

- 5.54 ComReg distinguishes two types of Eircom VUA product:
- (a) **Local VUA** – where the Eircom MDF/ODF<sup>314</sup> and the customer traffic handover point (being the serving Agg node/WEIL)<sup>315</sup> are co-located in the same exchange; and
  - (b) **Remote VUA** – where the Eircom MDF/ODF and the customer traffic handover point (being the serving Agg node/WEIL) are not co-located in the same exchange.
- 5.55 In the case of Eircom Local VUA, the customer traffic handover point is at the local exchange. Therefore, the local access condition is likely satisfied for Local VUA, which therefore should form part of the WLA focal product. In the case of Eircom Remote VUA, the traffic handover point is not at the local exchange, but at a higher point in the network hierarchy.
- 5.56 For FTTx, the access path is either fibre (in the case of FTTP) or a combination of copper and fibre (in the case of FTTC). Fibre optic cables use optical signals which can transmit customer data over much greater distances than their copper equivalent. Therefore, the traffic handover point between the access and core networks over NG FTTx no longer needs to be as close to the customer premises as over CG copper. The shift to FTTx access paths accordingly has consequences for network build and the positioning of traffic handover points in the network.
- 5.57 Services delivered over FTTx allow network SPs to optimise network architecture compared to copper, by reducing the number of traffic handover points in the network, while providing similar or improved services to their retail and wholesale customers. FTTx diminishes or removes the physical distance limitation associated with the copper access path that pre-determined traffic handover points. It is therefore no longer necessary to connect customers to the core network at the nearest local exchange in order to provide retail services, and customer traffic can be aggregated more efficiently at a higher point in the network hierarchy (i.e., at larger, more centralised exchanges). This approach benefits both the network SP and potential wholesale customers, because the network SP can optimise its investment, and the wholesale customer will be able to offer retail or wholesale services based on

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<sup>314</sup> Main Distribution Frame ('MDF') and Optical Distribution Frame ('ODF') respectively. The Main Distribution Frame is a termination point within the local exchange where exchange equipment and terminations of local loops are connected via jumper wires. The Optical Distribution Frame uses fibre cable.

<sup>315</sup> Aggregation Node ('AGG node') and Wholesale Ethernet Interconnection Link ('WEIL'). The WEIL is the interconnection service provided by Eircom which provides a handover for various wholesale products including its NGA and NGN wholesale products.

VUA at exchanges that may not have been economically viable to unbundle without aggregating customer traffic.

- 5.58 As Eircom's FTTx network rolled out, initially at larger exchanges with high customer density, local traffic handover points were maintained. However, as FTTx rollout advances to less densely populated locations, the traffic handover points are moved from the local exchange to a larger nearby exchange, in order to optimize the network investment. The 2014 Explanatory Note notes that such changes are likely and that the number of interconnection points does not need to be equivalent to the copper network's point of interconnection.<sup>316</sup>
- 5.59 ComReg is accordingly of the view that the local condition can be fulfilled by Remote VUA, even if the point of interconnection is not at the local exchange, but at a suitable location in the network hierarchy i.e., at a higher point in the network. Eircom Local VUA and Remote VUA therefore both meet the local access condition for inclusion in the VUA focal product.

### SIRO VUA

- 5.60 SIRO currently offers VUA over its FTTP network which is purchased by a number of Access Seekers. Accordingly, SIRO considers itself to be active in the provision of WLA, and ComReg included SIRO VUA in its 2018 WLA product market definition.
- 5.61 The SIRO network is being rolled out to 154 towns across Ireland in two phases. As of November 2022, Phase 1 is fully or largely complete, and Phase 2 has commenced. The planned SIRO footprint overlaps with Eircom's FTTC network over which VUA products can also be purchased, but does not typically overlap with the NBI IA. Eircom has announced further plans to roll out its FTTP network in some of the areas to be served by the SIRO network.
- 5.62 As set out in Table 12, as of Q2 2022, the SIRO network has passed over 440,000 premises, and is available in 86 towns. SIRO's Phase 2 plans to roll out to an additional 344,161 premises, with the eventual announced intention being to pass 770,000 premises in 154 towns.<sup>317</sup> In the three-year period to Q2 2022, SIRO increased its network footprint by just over 200K premises.

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<sup>316</sup> 2014 Explanatory Note, page 43. The more recent 2020 Explanatory Note does not address this point.

<sup>317</sup> <https://www.irishtimes.com/business/technology/siro-announces-620m-investment-to-upgrade-broadband-network-1.4712850>

Table 12: SIRO Rollout to date, as of Q2 2022<sup>318</sup> [X<REDACTED]

Quarter	Premises passed
Q2 2022	
Q1 2022	
Q4 2021	
Q3 2021	
Q2 2021	
Q1 2021	
Q4 2020	
Q3 2020	
Q2 2020	
Q1 2020	
Q4 2019	
Q3 2019	
Q2 2019	
Q1 2019	

- 5.63 SIRO VUA is delivered over its FTTP network, which is capable of delivering speeds of up to 1 Gbps in most of its network locations, as well as speeds of 2 Gbps in Kilkenny<sup>319</sup> and, as of June 2022, speeds of 10 Gbps in Galway.<sup>320</sup> Accordingly, SIRO VUA is capable of meeting similar intended usage cases to Eircom VUA (and exceeding intended usage cases over LLU).

<sup>318</sup> ComReg QKDR Data, as at Q2 2022.

<sup>319</sup> <https://siro.ie/news-and-insights/irelands-first-2-gigabit-fibre-home-broadband-service/>

<sup>320</sup> <https://www.siliconrepublic.com/comms/galway-siro-roll-out-10-gigabit-city-ireland>

## NBI VUA

5.64 NBI's Reference Offer describes six VUA products:<sup>321</sup>

**Table 13: NBI VUA products**

Product name	Downstream	Upstream
VUA Consumer Standard	500 Mbps	50 Mbps
VUA Consumer Premium	1 Gbps	100 Mbps
VUA Consumer Elite	1 Gbps	200 Mbps
VUA Business Standard	500 Mbps	100 Mbps
VUA Business Premium	1 Gbps	200 Mbps
VUA Business Enterprise	2 Gbps	400 Mbps

5.65 NBI describes the products it offers for sale in the IA as VUA, subject to the provisos that it has deployed network and the Access Seeker has the required wholesale infrastructure in place to facilitate service for an end user.<sup>322</sup>

5.66 NBI's pricing of its VUA and Bitstream products is constrained by the terms of the NBP Contract. In particular, NBI is required to set its prices by reference to a Benchmark Reference Price ('BRP') which is set against a comparable regulated wholesale product, if such a product exists. Otherwise, the BRP is set against the average wholesale prices which prevail in other, more competitive, parts of the State.

5.67 In any year, NBI may not increase its prices by more than 10%, unless the BRP increases by that amount. NBI is not obliged to price at the BRP and may price at any level below it. ComReg understands that, if NBI increases its prices, and to the extent this leads to generation of additional revenues, such revenues would be regained by the State through the clawback mechanism.<sup>323</sup> Quite apart from the 'price controls' already in place, this may reduce incentives to engage in excessive pricing.

5.68 NBI is required to seek Ministerial approval to alter its VUA prices and, in doing so, must not exceed the BRP or cause a wholesale margin squeeze.

<sup>321</sup> "Standard Access Agreement relating to Wholesale Bitstream and VUA Broadband Products" V2.1, dated 28 September 2021 (the 'NBI Reference Offer'). Available online at [https://nbi.ie/service-provider-portal/NBI%20Reference%20Offer%20Bitstream%20and%20VUA%20v2.1%20-%2028092021%20\(Clean\).pdf](https://nbi.ie/service-provider-portal/NBI%20Reference%20Offer%20Bitstream%20and%20VUA%20v2.1%20-%2028092021%20(Clean).pdf)

<sup>322</sup> NBI Reference Offer, at p.56.

<sup>323</sup> <https://www.gov.ie/en/publication/c1b0c9-national-broadband-plan/> - Project Governance and Compliance.

- 5.69 NBI VUA is delivered over its FTTP network, which is capable of delivering speeds of up to 2 Gbps.<sup>324</sup> Accordingly, NBI VUA is capable of meeting similar intended usage cases to both Eircom VUA and SIRO VUA, and of exceeding intended usage cases over Eircom LLU.

### VUA offered by new market entrants

- 5.70 ComReg recognises the possibility of market entry in the provision of VUA and notes, in particular, announcements by Virgin Media to this effect. Virgin Media has publicly announced its intention to overlay its CATV network with FTTP, and to commence provision of wholesale services over that FTTP network. It announced in October 2022 that it had reached agreement with Vodafone for the provision of wholesale services and has further indicated its willingness to offer wholesale services to other Access Seekers.
- 5.71 If Virgin Media were to offer a VUA product over FTTP which met the characteristics set out at paragraph 5.46 above (or were to indicate the intent to do so on the basis of sufficiently reliable deployment forecasts), such a product could potentially form part of the VUA focal product offered by a HM.
- 5.72 In October 2022, Virgin Media announced that it had reached agreement with Vodafone for the provision of wholesale services over its FTTP network, despite the fact that significant overlay of CATV with FTTP has not yet occurred. Notwithstanding this announcement, as of November 2022, Virgin Media does not offer a VUA product [redacted], and its overlay of CATV with FTTP is still at the initial stages. Virgin Media has indicated to ComReg that it intends to have completed FTTP network overlay [redacted]. Accordingly, Virgin Media does not currently offer VUA and has not provided ComReg with detailed plans for where and when it plans to do so, but intends to do so within the scheduled five-year lifetime of the market review period. ComReg therefore considers that VUA offered over Virgin Media FTTP should be included in the VUA focal product but that, in the absence of sufficiently reliable deployment plans and noting VMI is still at the early stage of development and the associated uncertainties, it is not possible or appropriate to take VMI FTTP rollout into account on a forward-looking basis in its geographic market assessment or its competition assessment (other than factoring it in to its general assessment). Should more details emerge, ComReg will take this into account in its final decision.

<sup>324</sup> <https://nbi.ie/fags/#:~:text=The%20NBI%20network%20is%20being,as%20your%20data%20needs%20do>.

## VUA and LLU self-supply form part of the LLU and VUA focal products

5.73 SIRO and NBI are both active at the wholesale level only (although SIRO is a 50:50 joint venture between the ESB and Vodafone, with Vodafone being active at the retail level). In contrast, Eircom provides wholesale inputs to its own retail arm (self-supply), as well as to Access Seekers (merchant market wholesale supply). Similarly, and on a forward-looking basis, Virgin Media intends to provide VUA to its own retail arm (self-supply), as well as to Access Seekers (merchant market wholesale supply) on its FTTP network. For the purpose of this market definition exercise, ComReg considers that Eircom self-supply of LLU and VUA falls within the appropriate focal products, alongside its merchant market supply to Access Seekers. This is because, in ComReg's view, Eircom's self-supply could be relatively easily converted into external merchant market supply within a reasonable timeframe and without incurring significant costs or risks. In this respect, the 2020 Explanatory Note states:

*“NRAs should commence the exercise of defining the relevant product or service market by grouping together products or services that are used by consumers for the same purposes (end use). Where self-supply and external supply are undistinguishable from a consumer perspective and services are functionally similar and interchangeable, such self-supply should be considered to be part of the same product market as the services supplied externally.”<sup>325</sup>*

5.74 For example, Eircom implicitly provides LLU to its own retail business (self-supply), as well as to Access Seekers (external merchant market supply) using its copper network inputs and provides VUA on the same basis using its FTTP network inputs. Similarly, ComReg considers, in principle and on a forward-looking basis, that the retail self-supply of other SPs active in the merchant wholesale market would also fall within the relevant WLA markets.

5.75 ComReg specifically considers that Eircom's implicit self-supply of LLU forms part of the LLU focal product, and Eircom self-supply of VUA forms part of the VUA focal product, on the grounds that both Eircom LLU self-supply and Eircom VUA self-supply are readily convertible to merchant market wholesale supply. For the same reasons, and on a forward-looking basis, ComReg considers that VMI self-supply of VUA over its FTTP network – once that network is rolled out and being used to supply merchant market VUA – forms part of the VUA focal product, on the grounds that VMI VUA self-supply is readily convertible to merchant market wholesale supply.

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<sup>325</sup> At p.34.

## Overall View on WLA Focal Products

- 5.76 ComReg proposes to designate the following two focal products (collectively, the '**WLA focal products**')
- (a) VUA products provided over Eircom's FTTx NG network (including VUA delivered over both FTTC and FTTP), over SIRO's FTTP network, over NBI's FTTP network and, on a forward-looking basis, Virgin Media's FTTP network (the '**VUA focal product**'), and
  - (b) LLU products provided over Eircom's copper CG network (including Line Share and SLU) (the '**LLU focal product**').
- 5.77 For the avoidance of doubt, the VUA focal product also includes Eircom self-supply of VUA and, on a forward-looking basis, Virgin Media self-supply of VUA on its FTTP network, and the LLU focal product also includes Eircom self-supply of LLU.

### 5.2.2 Assessment of Direct Constraints

- 5.78 The designation of two separate WLA focal products implies the presence of two different WLA product markets – a **NG WLA product market** and a **CG WLA product market**, collectively, the **WLA product markets**. ComReg considers the strength of any direct constraints on the WLA focal products to determine whether the Relevant WLA Markets should be broadened beyond the VUA focal product and the LLU focal product to include effective substitutes. In particular, ComReg considers:
- (a) Potential demand-side substitution (paragraphs 5.79 to 5.87 below); and
  - (b) Potential supply-side substitution, including the self-supply of vertically-integrated SPs (see paragraphs 5.88 to 5.122 below).

### Demand-Side Substitution

- 5.79 Demand-side substitution measures how customers react to small but significant and permanent price increases. The measurement of demand-side substitution is formalised in the HMT. The HMT assesses whether a small but significant non-transitory increase in price (a '**SSNIP**') above the competitive level – taken to be in the range of 5% to 10% - of a focal product supplied by a HM would provoke a sufficient number of customers to switch to an alternative product, such that it would render the price increase unprofitable. If enough customers switch to the alternative product, rendering the price increase unprofitable, then the alternative product is also included in the relevant product market. The HMT is carried out for any number of alternative products which, by means of their characteristics, prices and intended use, may constitute an effective substitute to the focal product. If switching to these alternative products renders the SSNIP (above the competitive level) of the

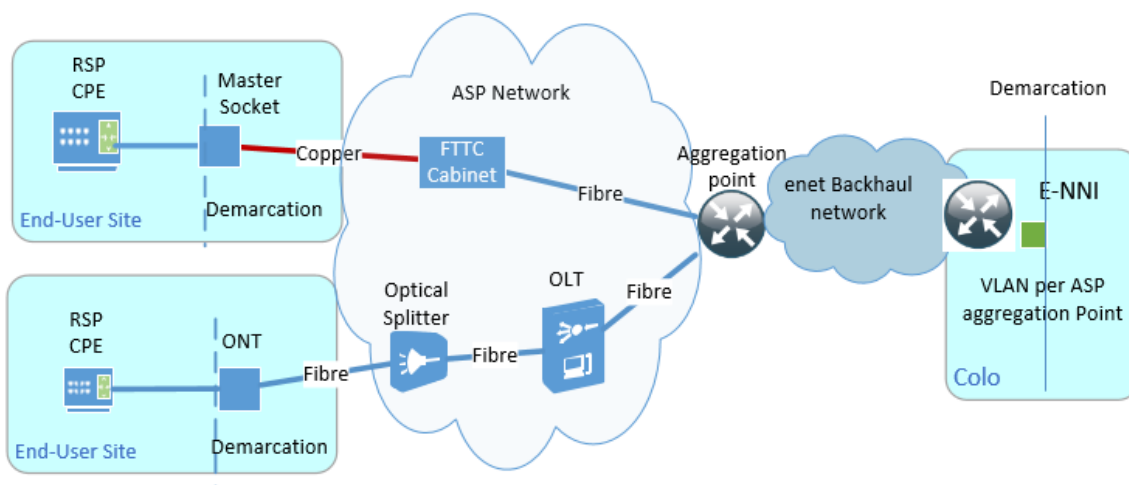


focal product (and any alternatives already deemed substitutable) unprofitable, then these are also included in the relevant product market.

- 5.80 On the demand side, ComReg considers what, if any, products can act as an effective direct constraint on the WLA focal products (and therefore may fall to be included in the same relevant markets). ComReg notes that WLA is not provided over networks other than copper, FTTC, or FTTP. In particular, ComReg notes that Virgin Media does not offer WLA – nor does it intend to offer – WLA over its widespread CATV network. As noted above, ComReg proposes to include WLA to be offered by Virgin Media over its FTTP network – which has yet to be built – in the NG WLA focal product.

### Alternative FTTP networks

- 5.81 Eircom, SIRO and NBI operate copper and FTTx networks with substantial regional or national presence. Aside from these networks, a number of smaller SPs (for example, Magnet Plus, Digiweb, or Enet) operate FTTP networks with local reach. In principle, these FTTP networks may be technically capable of providing VUA. As of November 2022, however, neither Magnet nor Digiweb offer wholesale merchant market access to their networks. In the absence of appropriate billing systems and other systems necessary to facilitate the delivery of wholesale broadband to Access Seekers, the self-supply by such operators of wholesale broadband inputs is not readily transferable to wholesale supply. Accordingly, ComReg considers that alternative FTTP networks such as Magnet or Digiweb are unlikely to generate sufficiently effective direct demand-side constraints on either the LLU focal product or the VUA focal product.
- 5.82 In contrast to SPs such as Magnet or Digiweb, Enet markets a range of wholesale products which rely on Enet's own network, as well as Eircom and SIRO network inputs, which enable Access Seekers to provide high speed broadband and telephony services to their own retail end users. ComReg understands that these products share characteristics which are more similar to WCA than WLA, as Enet provides the backhaul component of the service (as set out at Figure 25 below). For this reason, ComReg considers that Enet does not offer a WLA product.

Figure 25: Enet Broadband Enabler product<sup>326</sup>

### Accounting for asymmetric substitution

- 5.83 As set out at paragraphs 5.35 to 5.45, ComReg considers that VUA and LLU are characterised by asymmetric substitution. Asymmetric substitution raises analytical challenges in a market review process. In determining how best to account for asymmetric substitution, ComReg has had regard to BEREC guidance, as set out in the BEREC FMS Report.<sup>327</sup> The BEREC FMS Report notes that NRAs may address asymmetric substitution in either of two ways.
- 5.84 Under **Practice A**, an NRA assesses asymmetric substitution at market definition stage, having first identified the focal product. If there is substitution from the focal product to the alternative product, but not vice versa, the alternative product is included in the same market as the focal product. If, on the other hand, there is no substitution from the focal product to the alternative product, but substitution from the alternative product to the focal product, the alternative product should not be included in the market.
- 5.85 Under **Practice B**, the NRA does not include the focal product and the alternative product in the same market, regardless of the direction of substitution between the products. The NRA considers that the alternative product belongs to a distinct adjacent product market exercising competitive constraints on the focal product market. Any competitive constraints arising from asymmetric substitution are taken into account at competition assessment stage, on a forward-looking basis.

<sup>326</sup> [Broadband-Enabler-WebPD-V1.2.pdf \(enet.ie\)](https://www.enet.ie/Broadband-Enabler-WebPD-V1.2.pdf)

<sup>327</sup> BEREC Report impact of fixed-mobile substitution (FMS) in market definition (BoR (12) 52) (the '**BEREC FMS Report**'). Available online at <https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-impact-of-fixed-mobile-substitution-fms-in-market-definition>

- 5.86 Based on the particular circumstances of VUA and LLU provision in the State, as well as having regard to retail market dynamics, which strongly suggest that NG broadband will be the most prevalent retail broadband offering over the projected five-year market review period, ComReg considers that Practice B is more appropriate, and therefore proposes to consider the implications of asymmetric substitution at competition assessment stage, rather than at market definition stage. This will not affect the analysis outcome as the impact of asymmetric substitution on competition is appropriately taken into consideration. While VUA may, in principle, be a substitute for LLU on the basis of asymmetric substitution, it will not be a substitute in practice where a premises is not passed by both CG and NG networks. ComReg considers it highly likely that many of the premises within the NBP IA are copper-only premises and, pending NBI rollout, do not have alternative FTTx networks available to them.
- 5.87 Accordingly, ComReg proposes to address asymmetric substitution at competition assessment stage.

### Supply-Side Substitution

- 5.88 ComReg must also consider whether any alternative products could represent an effective supply-side substitute to the focal products. Supply-side substitution measures how potential (rather than actual) competitors react to price increases. The HMT assesses whether a SSNIP of a focal product supplied by a HM would cause sufficient new entry into the relevant market by potential competitors, such that it would render the price increase unprofitable.
- 5.89 The Notice on Market Definition makes clear that the impact of supply-side substitution must be equivalent to the impact of demand-side substitution, in terms of effectiveness and immediacy.<sup>328</sup>

*“Supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are **equivalent to those of demand substitution in terms of effectiveness and immediacy**. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved. **Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect.**”*

- 5.90 In particular, ComReg considers whether an SP would be likely, in response to a HM’s SSNIP of the LLU focal product or the VUA focal product above the

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<sup>328</sup> See paragraph 20. ComReg emphasis added.

competitive level, to switch into provision of WLA in the immediate to short term (typically within one year), without incurring significant costs, and start supplying services of equivalent characteristics to the focal products. ComReg also considers whether supply-side substitution would render the HM's price increase unprofitable through any consequential demand-side substitution.

- 5.91 Aside from the demand-side substitution possibilities identified at paragraphs 5.79 to 5.87. above, constraints on the focal products may also arise from potential competitors who, by means of supply-side substitution, offer merchant market WLA to Access Seekers, and/or self-supply WLA as an input to the provision of their own retail broadband or WCA. This could include, *inter alia*, WLA supplied by vertically-integrated SPs (not supplying merchant market services).
- 5.92 In carrying out this assessment, ComReg has considered SPs' responses to the IIRs, particularly views and evidence provided by SPs that indicate the strength of any direct constraint arising from supply-side substitution (including from vertically-integrated SPs).
- 5.93 ComReg considers below the potential for WLA supply-side substitution by SPs (including self-supply where relevant) over the following platforms:
- (a) CATV (paragraphs 5.94 to 5.102 below);
  - (b) FWA (paragraphs 5.103 to 5.106 below);
  - (c) Localised alternative FTTP (paragraphs 5.107 to 5.111 below);
  - (d) Mobile services (paragraphs 5.112 to 5.114 below); and
  - (e) Leased lines (paragraphs 5.115 to 5.120 below).

#### **Supply-side substitution (including self-supply) over CATV**

- 5.94 Virgin Media offers retail broadband over its CATV network on a standalone basis, as well as in a bundle together with RFTS, Pay TV or mobile telephony. ComReg accordingly considers the possibility of LLU or VUA supply-side substitution arising from Virgin Media's vertically integrated CATV network.
- 5.95 In assessing any direct supply-side constraint posed by Virgin Media CATV, ComReg notes that Virgin Media has not expressed any interest in providing WLA on its CATV network. Moreover, as set out at paragraph 3.29 above, Virgin Media announced in October 2022 its intention to commence provision of wholesale services to Vodafone over its FTTP network. Such wholesale services could, potentially, include VUA. Bearing these proposals in mind, ComReg assesses the likelihood of supply-side substitution over CATV from both a technical and a strategic perspective.
- 5.96 In terms of whether it is technically feasible to provide WLA over a DOCSIS

3.x CATV network, the conclusions reached by independent consultants WIK ('WIK') in respect of the possibility of providing WLA or WCA over CATV and set out in a report published in March 2016 ('WIK CATV Report')<sup>329</sup> remain technically valid:

- (a) It is not technically feasible to deliver VUA products over DOCSIS 3.0 due to the complexity associated with VUA delivery;
- (b) DOCSIS 3 does not support the Layer 2 (Ethernet) protocol, which is typically associated with VUA products;
- (c) In well-established CATV networks, there is no capacity left for VUA-like access services with dedicated bandwidth; and
- (d) VUA products are unlikely to be possible over the DOCSIS 3.1 standard as it is adopted.

5.97 Noting that the conclusions of the WIK CATV Report continue to be technically valid, ComReg is of the view that, within the lifetime of this market review, it is unlikely to be technically feasible to provide VUA over a CATV network. ComReg understands that it may be possible to offer VUA over the newer DOCSIS 4.0 standard<sup>330</sup> but, in light of VM's announced moves to overlay CATV with FTTP, considers it extremely unlikely that Virgin Media would incur the investments required to upgrade its CATV network to DOCSIS 4.0.

5.98 Apart from the likely technical infeasibility, an Access Seeker would incur significant costs when switching from purchasing WLA on an existing FTTx network, to a hypothetical VUA product available on Virgin Media's CATV network (for example, the costs involved in interconnecting with Virgin Media's local access handover points and in migrating retail customers to the cable platform). Furthermore, switching to VUA delivered over CATV could also involve stranding existing investments made in backhaul and associated equipment (such as WEILs) in procuring WLA on FTTx networks. It is also likely that Access Seekers would need to further develop their own IT and order handling systems in order to integrate with any Virgin Media order handling/management systems.

5.99 Access Seekers providing retail services would also need to replace their retail customers' CPE (such as modems) with specific CPE designed for operating on a DOCSIS CATV network.

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<sup>329</sup> Available online at <https://www.comreg.ie/publication/technical-feasibility-providing-wholesale-broadband-access-cable-tv-infrastructure-ec-market-3-2>

<sup>330</sup> 2020 Explanatory Note, pp. 26 and 49.

- 5.100 Such factors would likely discourage Access Seekers from switching to a hypothetical CATV-based VUA product, and even if they were to switch, the transition process would likely take a sufficient period of time such that it would undermine the immediacy of any competitive impact.
- 5.101 In addition, from a strategic perspective, WLA provided over CATV is unlikely to be an effective supply-side substitute to the LLU or VUA focal products. This is because Virgin Media has publicly signalled its intention to replace its CATV network with FTTP, and to offer wholesale services over that network. Accordingly, over the lifetime of this market review, and on a forward-looking basis, Virgin Media is likely to commence and progress switching from CATV to FTTP, and unlikely to commit to the investment costs required to commence offering WLA services on its CATV network, even if it were technically possible to do so. Additionally, from an Access Seeker perspective, it is unlikely that WLA offered over a network which would eventually be decommissioned would be an attractive commercial prospect, given that Access Seekers would need to switch to alternative WLA provision as the CATV network shrunk.
- 5.102 These technical and strategic factors are likely to undermine the strength of any direct constraint arising from potential supply-side substitution from CATV networks. For these reasons, ComReg considers that CATV networks are unlikely to provide an effective supply-side constraint on the provision of LLU or VUA by the HM over the period of this market review.

#### **Supply-side substitution (including self-supply) over Fixed Wireless Access ('FWA')**

- 5.103 Although broadband provided over FWA is unlikely to fall within the retail broadband market,<sup>331</sup> ComReg nonetheless considers the potential for supply-side substitution arising from vertically integrated FWA SPs entering the WLA markets, as well as FWA self-supply. Digiweb and Imagine both offer FWA-based broadband services. Following a protracted period of decline from 2008 to 2016, FWA retail broadband subscriptions have rebounded, doubling from a low of 41,742 in Q2 2016 to 84,327 in Q2 2022.
- 5.104 Neither Digiweb nor Imagine currently provide LLU or VUA. However, with respect to the potential for WLA supply-side substitution over FWA, ComReg notes that:
- (a) ComReg is not aware of any intentions by FWA SPs to commence the provision of WLA;

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<sup>331</sup> As set out at paragraphs 4.121 to 4.137.

- (b) It is unclear whether it would be technically possible to provide a suitable technical substitute for LLU or VUA over FWA. In particular, ComReg is not clear that FWA would be capable of supporting a local access service of sufficient quality to meet the expectations of Access Seekers (and, ultimately, that Access Seeker's retail or wholesale customers) which meets the test for WLA designation set out at paragraph 5.46 above;
- (c) It is unlikely that there would be significant wholesale demand for a WLA service provided over FWA networks, even if it were technically possible to provide such a service. In this respect, while demand for broadband and other services provided over FWA networks has increased since 2016, and as at Q2 2022 stood at 84,327 subscribers, FWA still only accounts for 5% of total retail broadband subscriptions, compared to 24% in the case of CATV, 25% in the case of FTTP, and 37% in the case of FTTC. As a platform, FWA therefore appears to be less attractive than other access platforms with greater reach. This is likely to dampen demand for any retail and/or wholesale service and, therefore, any derived demand for WLA products provided over FWA;
- (d) The fragmented nature of any hypothetical WLA service on FWA networks is likely to hinder effective supply-side substitution. In this respect, ComReg notes that there are two larger FWA SPs and a number of smaller regional operators, and no individual FWA network would likely be in a position to offer ubiquitous, or extensive WLA coverage relative to Eircom's LLU or VUA product availability<sup>332</sup> (nor is there likely to be national coverage of WLA between all of the FWA networks collectively). This means that Access Seekers would need to purchase wholesale services from (and interconnect with) multiple FWA-based WLA SPs in order to reach the retail and/or wholesale customers that are currently serviced by Eircom VUA products. This could impose significant additional costs associated with switching away from LLU or VUA or, indeed, using it in parallel; and
- (e) Access Seekers would be likely to incur costs when switching to an alternative FWA-based WLA provider, for example, establishing new backhaul (and associated interconnect) or installing customer premises equipment capable of receiving signals from a FWA service. Switching to a WLA product could also lead to stranding existing interconnects and backhaul with Eircom. These factors may discourage Access Seekers from switching.

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<sup>332</sup> The largest FWA SP – Imagine – advertises national rural-only coverage of 74% on its website, as of 7 December 2022, although it does not specify whether this measures premises, land area, or population.

- 5.105 For the reasons set out above, there is unlikely to be sufficient demand from Access Seekers for any hypothetical FWA-based WLA product. Similarly, ComReg considers that self-supply of WLA by an FWA SP should not be included in the WLA markets because:
- (a) It is unlikely that an FWA SP could provide merchant market WLA to Access Seekers in the short term without incurring significant additional costs or risks;
  - (b) There is unlikely to be significant demand from Access Seekers for a WLA product offered over FWA; and
  - (c) It is not clear that FWA SPs would be in a position to start supplying a WLA service of equivalent characteristics on an immediate basis in response to small and permanent changes in relative prices of WLA.
- 5.106 Accordingly, ComReg's view is that FWA networks are unlikely to provide an effective direct supply-side constraint on the WLA focal products over the period of this market review. Similarly, ComReg's view is that self-supply by vertically integrated FWA SPs should not be included in the WLA markets.

#### **Supply-side substitution (including self-supply) over localised alternative FTTP networks**

- 5.107 At paragraphs 5.81 to 5.82 ComReg concluded that localised alternative FTTP networks would be unlikely to generate a sufficiently effective demand-side constraint on the LLU focal product or the VUA focal product. ComReg now considers whether those networks are, instead, likely to be capable of generating a sufficiently effective supply-side constraint.
- 5.108 ComReg is unaware of any intentions by operators of localised alternative FTTP networks (e.g., Magnet, Digiweb, Enet) to commence provision of WLA. The total take-up of FTTP-based retail products (either broadband, TV and/or RFTS) over localised alternative FTTP networks remains very limited. Of the total 426,166 FTTP lines, only 5,566 lines are provided over localised alternative FTTP networks (around 1%).
- 5.109 ComReg considers that it is unlikely that a WLA service offered over localised alternative FTTP networks would meet the expectations of Access Seekers, given the very limited geographic coverage of these networks at present, bearing in mind that an alternative FTTP SP could only offer a WLA service in fragmented and localised geographic areas. It is accordingly unlikely that an Access Seeker would switch from the (widely available) LLU or VUA focal products provided over these localised alternative FTTP networks.
- 5.110 Similarly, ComReg considers that self-supply of WLA by these localised alternative FTTP SPs does not fall within the WLA markets because:



- (a) It is unlikely that such an alternative FTTP operator could provide an WLA product to third parties in the short term without incurring significant additional costs or risks;
- (b) There is unlikely to be significant demand from Access Seekers for such a WLA product over localised alternative FTTP networks; and
- (c) It is not clear that an FTTP SP would be in a position to start supplying a WLA service of equivalent characteristics on an immediate basis in response to small and permanent changes in relative prices of WLA.

5.111 For these reasons, ComReg is of the view that, over the period of this market review, localised alternative FTTP networks are unlikely to provide a sufficiently effective direct supply-side constraint on the WLA focal products and should not be included in the relevant product market. Similarly, self-supply by alternative vertically integrated FTTP SPs should not be included in the WLA markets. However, even if included, given the small scale of these networks, they would likely have no material bearing on the analysis.

#### Supply-side substitution over mobile networks

5.112 ComReg considers the potential for supply-side substitution arising from Mobile Service Providers ('**MSPs**') that provide MBB services. Three Mobile Network Operators ('**MNOs**') (Vodafone, Three, and Eircom) currently provide MBB to end users. For the reasons set out in Section 4, MBB provided over 3G, 4G or 5G mobile networks does not fall within the retail broadband product market. ComReg nonetheless considers the potential for supply-side substitution arising from vertically integrated MNOs entering the WLA markets, as well as self-supply.

5.113 ComReg is unaware of any MNO having expressed an intention to provide WLA products over their 3G, 4G or 5G networks. ComReg also notes that an MNO wishing to offer WLA to Access Seekers would likely incur significant and sunk costs associated with rolling out a (CG or NG) fixed access network. Network rollout would also likely take a number of years to complete in view of the need to procure material, contract out labour, secure funding, and apply for the necessary wayleaves and licenses to lay infrastructure. Given the stipulation set out in the Notice on Market Definition recalled at paragraph 5.89 above that the impact of a supply-side substitute in terms of effectiveness and immediacy should be equivalent to demand substitution, even if an MNO were to undertake a programme of fixed network rollout, this would be insufficiently immediate to make it an effective supply-side substitute for the LLU focal product or the VUA focal product.

5.114 3G, 4G or 5G networks are unlikely to generate a sufficiently effective supply-side substitute for the WLA focal products. Vodafone, Three and Eircom self-

supply 3G, 4G and 5G data services, but Vodafone also separately purchases WLA (and WCA) services from SPs to offer retail broadband services, while Eircom operates CG and NG fixed access networks, together with its 3G, 4G and 5G mobile networks (rather than solely relying on their mobile networks to provide retail services). This suggests that 3G, 4G or 5G MBB is more likely to be a complement to, rather than a substitute for, WLA services.

### Supply-side substitution over leased lines

- 5.115 Leased lines are technically capable of supporting various wholesale and retail services, including access and data transmission services at the wholesale level. At paragraph 4.160 above, ComReg found that leased lines should not be included in any notional retail broadband market.
- 5.116 Retail broadband is capable of being delivered over a variety of platforms. ComReg has considered the degree to which leased lines (also known as **'Wholesale Dedicated Capacity'**, or **'WDC'**<sup>333</sup>) could be used to potentially provide wholesale broadband access, and the extent to which this might act as a supply-side constraint on the WLA focal products.
- 5.117 It is unlikely that leased lines could act as a supply-side substitute for the WLA focal products. For large corporate end users, full leased line solution is used to provide a full spectrum of connectivity beyond broadband alone, comprising multiple services such as voice, data, e-mail, instant messaging and disaster recovery, such that substitution from WLA may only arise if the organisation is expanding or in a greenfield scenario. Unless the requirements of the end user change due to expansion (or other factors), the extra costs associated with the acquisition of a leased line solution and the extra investment required to upgrade IT systems and equipment to support the new infrastructure is likely to result in an unwillingness to switch.
- 5.118 ComReg therefore considers that there is currently insufficient evidence that leased lines are likely, within the short to medium term, to pose an effective direct competitive constraint on the provision of WLA.
- 5.119 This conclusion is supported by ComReg research which suggests that, from a pricing perspective, there is a break in the chain of substitution between VUA and LLU on the one hand, and leased lines on the other hand. As Table 14 indicates, Ethernet leased line prices are significantly more expensive than wholesale LLU and VUA prices (which are set out at Table 15 below), measured by monthly rental costs. This indicates that, in response to a SSNIP of the WLA focal products, insufficient switching to leased lines would occur, to render that SSNIP unprofitable:

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<sup>333</sup> Prior to the 2020 Recommendation, WDC was known as **'Wholesale High Quality Access'**, or **'WHQA'**.

**Table 14: Indicative Ethernet leased line monthly rental costs, Q3 2022<sup>334</sup>**

Same Region Handover 10 Mbps circuit speed				
		Zone B		Zone B
	Medium Density		High Density	
<b>Option 1</b>	€ 698.83	€ 240.42	€ 317.33	€ 109.17
<b>Option 2</b>	€ 392.58	€ 135.08	€ 199.67	€ 68.67
<b>Option 3</b>	€ 219.83	€ 75.58	€ 133.33	€ 45.83
<b>Option 4</b>	€ 196.92	€ 67.75	€ 124.58	€ 42.83
<b>Option 5</b>	€ 173.75	€ 59.75	€ 115.67	€ 39.75
<b>Option 6</b>	€ 582.17	€ 200.25	€ 272.50	€ 93.75
Same NGN Node Conveyance				
	€ 96.75	€ 38.58	€ 94.83	€ 58.67

5.120 ComReg considers, based on the significant differences in pricing and functionality between leased lines on the one hand, and VUA and LLU on the other hand, that WLA delivered over leased lines would not be an effective supply-side substitute for the LLU focal product or the VUA focal product.

### Summary of overall conclusions on direct constraints

5.121 In paragraphs 5.78 to 5.120 above, ComReg has considered whether demand-side and supply-side constraints (including, in some cases, self-supply) exercised by alternative platforms, including CATV, FWA, localised alternative FTTP networks, mobile networks and leased lines, are likely to exert a sufficient timely and effective direct constraint on the WLA focal products such that products provided over these alternative platforms warrant inclusion in the relevant WLA product markets.

5.122 ComReg notes that VUA products provided over FTTx networks with substantial footprints (Eircom, SIRO, NBI and, on a forward) are likely to be a sufficiently effective demand-side constraint on the provision of the LLU focal product. In all other cases, ComReg considers that none of the above identified potential direct constraints are likely to provide a sufficiently immediate and effective competitive constraint - from either the demand side or the supply side - on a HM's provision of the LLU focal product or the VUA focal product, such that it would warrant their inclusion in the WLA markets.

### 5.2.3 Assessment of Indirect Retail Constraints

5.123 Aside from direct demand-side or supply-side constraints, a vertically-

<sup>334</sup> Pricing data taken from open eir Network Price List Effective Rates, v.8.0, available online at <https://www.openeir.ie/wp-content/uploads/2022/02/Network-Price-List-Effective-Rates-V8-0-Unmarked-07022022.pdf>

integrated alternative SP's self-supply of WLA (where that SP is not active in the merchant market supply of WLA) could fall within the WLA markets if its presence on downstream retail markets were to exert a sufficiently strong, immediate and effective indirect pricing constraint on a HM's pricing of LLU or VUA. In this respect, retail customer behaviour may, through demand-side substitution at the retail level, indirectly impact the ability of the HM WLA supplier to profitably sustain a SSNIP of WLA prices above the competitive level, i.e., indirect retail constraints arising from the retail market may affect wholesale price setting behaviour in the CG WLA or NG WLA markets.

- 5.124 ComReg assesses whether retail (demand-side) substitution to alternative networks in response to an increase in the price of WLA by the HM indirectly prevents the HM from imposing a profitable SSNIP of WLA. This might occur, for example, if the HM faced a reduction in overall profitability after increasing the price of WLA due to, for example, a decline in VUA or LLU sales. Such a fall in profitability might occur if, and to the extent that, Access Seekers bearing the WLA price increase passed that increase through to the retail prices they charge their own end users. This in turn results in their retail customers switching away in sufficient numbers to other SPs (not dependent on the HM's WLA products) or lowering their consumption of existing WLA services.
- 5.125 From an Access Seeker (and, therefore, retail end user) perspective, the cost of WLA is an input to the overall costs of the provision of retail services (such as telephony, broadband access or TV services, including bundles). As such, ComReg considers it likely that an increase in the price of WLA would (at least to some extent) be passed through by the purchasing Access Seeker to retail prices charged to end users. ComReg's indirect retail constraints assessment examines a retail end user's most likely response to an increase in the price of their retail service arising from the pass-through by the Access Seeker of a SSNIP of WLA (that is, LLU or VUA).
- 5.126 To this end, ComReg assesses the magnitude of possible indirect retail price constraints emanating from network platforms that are considered to form part of the retail broadband product market, as set out in Section 4. In line with EC guidance<sup>335</sup> on the assessment of indirect retail substitution effects arising from a SSNIP by a HM at wholesale level, ComReg assesses the following relevant factors:

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<sup>335</sup> 2020 Explanatory Note, p.50.

- (a) Whether and to what extent Access Seekers would be forced to pass a hypothetical wholesale price increase on to their end users at the retail level based on the wholesale/retail price ratio,<sup>336</sup> i.e., how would a SSNIP of WLA be likely to impact on the retail market? (discussed in paragraphs 5.128 to 5.152);
- (b) Whether there would be sufficient demand substitution at the retail level in response to the pass-through of the SSNIP of WLA into retail prices such as to render the SSNIP of WLA unprofitable i.e., what likely response in retail demand would be required to make a SSNIP unprofitable? (discussed in paragraphs 5.153 to 5.185); and
- (c) Whether the retail customers of Access Seekers purchasing WLA would switch to a significant extent to the retail arm of the integrated HM, in particular if the HM does not raise its own retail prices when it raises its WLA prices (discussed in paragraphs 5.186 to 5.191).

5.127 ComReg has carefully considered the guidance from the EC on indirect retail constraints by assessing each of the above three criteria in turn below. ComReg's conclusions are set out at paragraphs 5.192 to 5.193.

### **Criterion 1: How is a SSNIP of WLA likely to impact downstream markets?**

- 5.128 The assessment of indirect retail constraints is designed to determine the likely impact of a 5% to 10% increase in the price of WLA on the relevant downstream retail price by assessing likely retail end user behaviour in the form of substitution.
- 5.129 ComReg assesses the relationship between wholesale and retail prices by considering the extent to which Access Seekers purchasing WLA would be likely to pass through a potential wholesale price increase imposed by a HM supplier of LLU or VUA to their own retail end users.
- 5.130 The intensity of competition in downstream retail markets could impact whether and, if so, to what extent, WLA price increases would be passed on by Access Seekers to their own retail end users. For example, faced with a strong competitor which had the ability to absorb a WLA price increase (i.e., not pass it through into higher retail prices), a competing SP would need to consider, in response to a WLA price increase, the degree to which it would raise its retail prices, and whether its end users would switch to a competing SP in response. If the WLA price increase were not passed on, this would be a cost to the Access Seeker which it did not recoup from its own end users.

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<sup>336</sup> This is the wholesale price as a proportion of the overall retail price.

- 5.131 Assuming that all other elements of the downstream retail service were provided at a competitive price level,<sup>337</sup> an increase in the price of WLA could result in a retail price increase, given that the Access Seekers would otherwise be providing the retail service at a loss in the long run.<sup>338</sup> If the retail market was not fully competitive, the Access Seeker purchasing WLA may choose not to pass through some or all of the wholesale price increase, but instead may choose to absorb the wholesale price increase. In such circumstances, an indirect retail constraint may be less capable of constraining the price-setting behaviour of a HM than a direct constraint where some or all of the wholesale price increase is not passed-through.
- 5.132 Moreover, even where the Access Seeker purchaser of WLA intends to pass through some or all of the WLA price increase into retail prices, any wholesale price increase will be diluted once it is translated into a retail price increase. This is because the cost of LLU or VUA is just one of numerous inputs to the price of retail broadband. In this respect, an increase of 10% in the price of WLA would be unlikely to give rise to a 10% price increase at the retail level. In the context of assessing indirect retail constraints, establishing the ratio between the price of LLU or VUA and downstream retail prices is central to the application of the *second factor* and *third factor* set out in paragraphs 5.126(b) and 5.126(c) above for assessing indirect retail constraints.
- 5.133 The EC's *second factor* also notes the need to establish whether there would be sufficient demand-side substitution at the retail level to render the wholesale price increase in question unprofitable.
- 5.134 In establishing the wholesale/retail price ratio, that is, the relationship between the wholesale input cost and the retail price (the '**Price-Cost Ratio**'), it is first necessary to determine which prices to use to calculate this ratio. The pricing of retail services making use of WLA inputs is multifaceted and complicated by the presence of non-linear pricing components such as bundling and discounts. A bundle may include one or more of RFTS, broadband, TV or mobile telephony. The 2022 Market Research revealed that 62% of residential respondents with broadband access at home, bundle their broadband with at least one other communications service, with 69% of those on a copper line bundling with at least one other service.<sup>339</sup> The bundling breakdown is as follows: broadband and home phone (21%), broadband, home phone and TV (21%), broadband and TV (32%), broadband, home phone and mobile phone

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<sup>337</sup> In general, this is a price level sufficient to cover its costs plus a reasonable rate of return.

<sup>338</sup> Assuming, in the case of bundles, that no cross-subsidisation to retail broadband from other services occurs.

<sup>339</sup> See Slide 29 and Slide 30 of the 2022 Residential Market Research.

- (5%), broadband and mobile phone (11%) and broadband, home phone, TV and mobile phone (9%).<sup>340</sup>
- 5.135 In deciding whether or not to switch SP in response to a price increase, end users may also take into account non-price factors such as product characteristics, bundling offers, or product speeds. However, the SSNIP in this instance would only apply to those components of the retail bundle reliant on VUA or LLU inputs, rather than to all of the inputs used to create the bundle.
- 5.136 For SPs that only offer retail services provided using WLA inputs as part of a broader bundle of services, it is not possible to be definitive about the retail price associated with the WLA-related element of the bundle, due to the difficulty of separating the wholesale costs of each component, together with costs common across the bundle, such as advertising. However, ComReg does consider the price of WLA within the context of the overall retail price for the service bundle provided by the SP.
- 5.137 Having regard to the above, ComReg calculates the margin between retail prices on the one hand and LLU and VUA prices on the other hand based on the following proxy values:
- (a) A notional retail price based on an estimated average monthly spend for a package or bundle which includes services reliant on upstream LLU or VUA (which may also contain other services); and
  - (b) A notional estimate of the LLU or VUA costs that would be incurred by an Access Seeker to provide the average retail package or bundle which includes services reliant on upstream WLA (given that a notional SSNIP would only apply to WLA).
- 5.138 The prices which Eircom charges for LLU and FTTC-based VUA are currently subject to a cost orientation obligation. In the case of FTTP-based VUA, Eircom is subject to an obligation not to engage in a margin squeeze with respect to either FTTP-based Bitstream or the retail price of a retail product, sold singly, which is delivered by FTTP-based VUA. ComReg uses the prices for these services arising from Eircom's regulatory obligations as a proxy for cost in a competitive market outcome.
- 5.139 The current regulated monthly cost for Eircom LLU and VUA is as follows:<sup>341</sup>

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<sup>340</sup> See Slide 32 of the 2022 Residential Market Research.

<sup>341</sup> open eir Access Reference Offer Price List v.23.0, 1 October 2022. Available online at [https://www.openeir.ie/wp-content/uploads/2022/09/ARO-Price-List-V23\\_0-Unmarked-01102022.pdf](https://www.openeir.ie/wp-content/uploads/2022/09/ARO-Price-List-V23_0-Unmarked-01102022.pdf)

**Table 15: Eircom LLU and VUA monthly rental prices, October 2022**

Product	€ at 11 October 2022	
LLU	€11.52	
Line Share	€0.62	
SLU	€6.12	
SLU Line Share	€0.62	
FTTC-based VUA	Standalone	POTS-based
	€18.54	€4.98
FTTP-based VUA	Standalone	POTS-based
	150/300/500 Mbps	€23.50
500/100 Mbps	€27	€12.59
1000 Mbps	€28.50	€14.09
1000/150 Mbps	€32	€17.59
2000 Mbps	€33.50	€19.09

### Residential Retail Prices

5.140 To estimate average residential retail prices, ComReg examines bundles that include broadband, RFTS and TV. The operators included are Eircom retail (Eir), Sky, Digiweb and Vodafone and Magnet. Table 16 below outlines the estimation of the residential prices and a full outline of the derivation of these prices is given in Annex 6. The average prices are lower than the findings from the 2022 Market Research amongst residential customers.<sup>342</sup>

**Table 16: Estimation of residential retail prices for products based on Eircom VUA inputs – including VAT (November 2022)**

	Standalone broadband	Broadband and RFTS	Broadband and TV	Broadband, RFTS and TV	Combined Average Price
<b>Min</b>	€22.50	€34.99	€30.00	€44.98	€33.12
<b>Average</b>	€39.14	€47.15	€50.00	€58.74	€48.76
<b>Max</b>	€65.00	€65.00	€85.00	€85.00	€75.00

**Table 17: Estimation of residential retail price for products based on LLU inputs - including VAT (November 2022)**

	Standalone broadband	Broadband and RFTS	Combined Average Price
<b>Min</b>	€49.99	€59.95	€54.97
<b>Average</b>	€49.99	€59.95	€54.97
<b>Max</b>	€49.99	€59.95	€54.97

<sup>342</sup> Findings outlined in Annex 6. The average national spend on broadband (in a bundle) is €75 (see Slide 38 of the 2022 Residential Market Research, with those on a fixed phone line (copper network) paying €70 and those on a fibre network paying €84. For those not in a bundle the average spend is €43 (See Slide 51), with those on a fixed phone line (copper network) paying €43 and those on a fibre network paying €47.



- 5.141 Having regard to the above assumptions, ComReg estimates the ratio of the VUA price relative to the retail bundle product (the **'Price-Cost Ratio'**) to be approximately [redacted],<sup>343</sup> and estimates the Price-Cost Ratio for LLU to be approximately [redacted].<sup>344</sup>
- 5.142 The VUA Price-Cost Ratio ([redacted]<sup>345</sup>) reflects the proportion of the total bill for a package or bundle containing retail services that would likely be affected by a SSNIP of Eircom VUA. This can be used to derive the dilution effect, which is the percentage increase in retail prices that would occur in response to the pass-through of a SSNIP of the VUA focal product.
- 5.143 The LLU Price-Cost Ratio ([redacted]<sup>346</sup>) reflects the proportion of the total bill for a package or bundle containing retail services that would likely be affected by a SSNIP of LLU, which can be used to derive the LLU dilution effect.
- 5.144 The dilution effects for Eircom VUA are set out in Table 18 below. ComReg estimates that a SSNIP of VUA would translate into approximate retail price increases of [redacted]<sup>347</sup> and [redacted]<sup>348</sup> for a SSNIP of 5% and 10% respectively. In future, ComReg expects that VUA delivered over FTTP will become more pervasive and VUA delivered over FTTC will decline.

**Table 18: Dilution Ratios - increase in residential retail prices from SSNIP of Eircom VUA**

Access Seeker Marginal Cost €	SSNIP %	Wholesale Price Increase €	Price-Cost Ratio	Pre-SSNIP Retail Price <sup>349</sup>	Effective Retail Price Increase €	% Retail Price Increase
[redacted] <sup>350</sup>	5%	[redacted]	[redacted]	€48.76	[redacted]	[redacted]
	10%	[redacted]	[redacted]		[redacted]	[redacted]

<sup>343</sup> Computed as the simple average price of standalone FTTx VUA divided by the combined average price of retail products making use of Eircom VUA inputs: [redacted]/€48.76. Between 60% and 70%.

<sup>344</sup> Computed as [redacted]/€54.97. Between 10% and 20%.

<sup>345</sup> Between 60% and 70%.

<sup>346</sup> Between 10% and 20%

<sup>347</sup> Between 1% and 10%

<sup>348</sup> Between 1% and 10%

<sup>349</sup> The estimation of these retail prices is outlined in Table 15 above.

<sup>350</sup> [redacted]  
 [redacted]  
 [redacted]  
 [redacted]  
 [redacted]

5.145 The approximate dilution effects for LLU are set out in Table 19 below. ComReg estimates that a SSNIP of LLU would translate into approximate retail price increases of [redacted]<sup>351</sup> and [redacted]<sup>352</sup> for a SSNIP of 5% and 10%.

**Table 19: Dilution Ratios - % increase in residential retail prices from SSNIP of LLU**

Marginal Cost to Access Seeker €	SSNIP %	Wholesale Price Increase €	Price-Cost Ratio	Pre-SSNIP Retail Price <sup>353</sup>	Effective Retail Price Increase €	% Retail Price Increase
[redacted] <sup>354</sup>	5%	[redacted]	[redacted]	€54.97	[redacted]	[redacted]
	10%	[redacted]	[redacted]		[redacted]	[redacted]

### Business Retail Prices

5.146 ComReg undertook a similar analysis for business end users. The estimation of business retail prices is outlined in Table 20. Business bundles tend to include broadband and RFTS as well as other business services, but not TV. Eircom appears to be the sole provider of business services over LLU.<sup>355</sup>

**Table 20: Estimation of business retail prices for products based on VUA inputs – including VAT**

	Standalone broadband	Broadband and RFTS	Combined Average Price
<b>Minimum</b>	€35.00	€40.00	€37.50
<b>Average</b>	€49.98	€52.21	€51.10
<b>Max</b>	€60.00	€65.00	€62.50

**Table 21: Estimation of business retail prices for products based on LLU inputs – including VAT**

	Standalone broadband	Combined Average Price
<b>Min</b>	€65.00	€65.00
<b>Average</b>	€76.33	€76.33
<b>Max</b>	€99	€99

<sup>351</sup> Between 1% and 10%.

<sup>352</sup> Between 1% and 10%.

<sup>353</sup> The estimation of these retail prices is outlined in Table 17 above.

<sup>354</sup> This is the weighted average of the prices of LLU (€11.52) and Line Share (€0.62). - Open Eir Bitstream price list v.7 34 – pg. 26: [https://www.openeir.ie/wp-content/uploads/2022/04/Broadband-Price-List-V30\\_0-Unmarked-04042022.pdf](https://www.openeir.ie/wp-content/uploads/2022/04/Broadband-Price-List-V30_0-Unmarked-04042022.pdf). LLU and Line Share are weighted according to their prevalence i.e., lines sold. ComReg has also taken into account the retail cost an Access Seeker would bear when purchasing a wholesale LLU product.

<sup>355</sup> Eircom price list (No. 7 2019), eir broadband (Asymmetric Digital Subscriber Line). <https://www.eir.ie/opencms/export/sites/default/content/pdf/pricing/Part3.1.pdf>

- 5.147 Having regard to the above assumptions, ComReg estimates the ratio of the VUA price relative to the business retail bundle product (the ‘**Price-Cost Ratio**’) to be approximately [redacted],<sup>356</sup> and estimates the Price-Cost Ratio for LLU to be approximately [redacted].<sup>357</sup>
- 5.148 The VUA Price-Cost Ratio ([redacted])<sup>358</sup> reflects the proportion of the total bill for a package or bundle containing business retail services that would likely be affected by a SSNIP of Eircom VUA. This can be used to derive the dilution effect, which is the percentage increase in retail prices that would occur in response to the pass-through of a SSNIP of the VUA focal product.
- 5.149 The LLU Price-Cost Ratio ([redacted])<sup>359</sup> reflects the proportion of the total bill for a bundle containing business retail services that would likely be affected by a SSNIP of LLU, which can be used to derive the LLU dilution effect.
- 5.150 The business end user dilution effects for VUA are set out in Table 22 below and are similar to those for residential retail prices. The WLA prices are symmetric across business and residential customers. ComReg estimates that a SSNIP of VUA would translate into approximate retail price increases of [redacted]<sup>360</sup> and [redacted]<sup>361</sup> for a SSNIP of 5% and 10% respectively.

**Table 22: Dilution Ratios - % increase in business retail prices from SSNIP of VUA**

Marginal Cost to Access Seeker €	SSNIP	Wholesale Price Increase €	Price-Cost Ratio	Pre-SSNIP Retail Price	Effective Retail Price Increase €	% Retail Price Increase
[redacted]	5%	[redacted]	[redacted]	€51.10	[redacted]	[redacted]
	10%	[redacted]	[redacted]		[redacted]	[redacted]

<sup>356</sup> Computed as the simple average price of standalone FTTx VUA divided by the combined average price of retail products making use of Eircom VUA inputs: [redacted]/€51.10. Between 60% and 70%.

<sup>357</sup> Computed as [redacted]/€76.33. Between 10% and 20%.

<sup>358</sup> Between 60% and 70%.

<sup>359</sup> Between 10% and 20%.

<sup>360</sup> Between 1% and 10%.

<sup>361</sup> Between 1% and 10%.

5.151 The approximate business end user dilution effects for LLU are set out in Table 23 below and are similar to those for residential retail prices. The WLA prices are symmetric across business and residential customers. ComReg estimates that a SSNIP of LLU would translate into approximate retail price increases of [redacted]<sup>362</sup> and [redacted]<sup>363</sup> for a SSNIP of 5% and 10% respectively.

**Table 23: Dilution Ratios - % increase in business retail prices from SSNIP of LLU**

Marginal Cost to Access Seeker €	SSNIP	Wholesale Price Increase €	Price-Cost Ratio	Pre-SSNIP Retail Price	Effective Retail Price Increase €	% Retail Price Increase
[redacted]	5%	[redacted]	[redacted]	€76.33	[redacted]	[redacted]
	10%	[redacted]			[redacted]	[redacted]

5.152 An Access Seeker purchasing LLU or VUA inputs may choose not to pass through some or all of the SSNIP of WLA, and instead absorb the wholesale price increase. However, in the long run, a SP operating in a competitive market, which is not covering its costs may have to exit that market. This would likely further limit the extent to which retail substitution by end users might undermine the profitability of the SSNIP. While it is uncertain whether the WLA price increase would be fully or partially passed through to the price of retail services or other associated prices, ComReg forms the working assumption of full pass-through for the purpose of market definition, since this will prevent underestimation of any indirect retail constraints on the WLA markets arising from the pass-through of a VUA or LLU price increase into retail prices.

### **Criterion 2: What response in retail demand would be likely required to make a SSNIP unprofitable?**

5.153 The threshold at which changes in retail demand may undermine the profitability of a SSNIP is estimated by means of a Critical Loss Test ('CLT'). The CLT forms part of a SSNIP analysis by providing an estimate of the percentage of customers that would have to divert away from the focal product in response to a SSNIP (in this case the pass-through of a wholesale SSNIP to retail prices) to render the focal product price increase unprofitable.

<sup>362</sup> Between 1% and 10%.

<sup>363</sup> Between 1% and 10%.

- 5.154 Any increase in a retail price will typically have two opposing effects: a fall in sales (as customers switch to other providers) leading to reduced profits, but higher profits on sales to customers who remain with the HM. The CLT estimates the point at which the two effects directly offset each other, such that overall HM profit levels after the SSNIP remain unchanged. This point is known as the Critical Loss Value ('**CLV**').
- 5.155 An estimate of actual sales loss from the price increase can then be compared to the CLV. If the degree of demand substitution from the focal product(s) to another given product is less than the CLV, then the SSNIP is likely to be profitable and the market is no wider than the focal product. If the degree of demand substitution from the focal product(s) to another given product is greater than the CLV, then the SSNIP is likely to be unprofitable, and that alternative product should be included in the same market as the focal product.
- 5.156 The CLT requires detailed information regarding, for example, profitability and the marginal cost of WLA products in a competitive environment.<sup>364</sup> The CLT is by no means conclusive on its own, and is considered by ComReg alongside other relevant indicative factors referred to throughout this Consultation.
- 5.157 ComReg has estimated the following CLVs associated with a 5% and 10% SSNIP of the focal products for residential end users:<sup>365</sup>

**Table 24: Estimated residential and SME CLVs [X REDACTED ]**

SSNIP	LLU		VUA	
	Residential	SME	Residential	SME
5%	████	████	████	████
10%	████	████	████	████

- 5.158 These estimates represent the proportion of retail end users (i.e., those who are currently purchasing retail services for which VUA or LLU is a wholesale input) that would have to switch to a retail product provided on an alternative platform in order for that alternative product to be potentially included in the WLA markets on the basis of a sufficient indirect retail constraint.

<sup>364</sup> Assuming that, in a competitive environment, prices would, over the long run, be set at long run marginal cost.

<sup>365</sup> The detailed calculations underpinning these figures are set out at Annex 6.

- 5.159 For the purposes of this analysis, and in order to take a prudent approach to assessing potential substitutes due to the presence of effective indirect retail constraints, ComReg assumes that all of the SSNIP of the focal products by the HM would be passed through by the Access Seeker to prices at the retail level. Such retail price increases could manifest in a number of ways, including individual service elements of bundles or overall bundle charges. The dilution effects discussed in paragraph 5.142 suggest that a wholesale price increase would likely result in a lower price increase at the retail level.
- 5.160 As identified in paragraphs 5.141 and 5.147, the Price-Cost Ratio for residential and business customers is calculated at [redacted]<sup>366</sup> and [redacted]<sup>367</sup> respectively for VUA and [redacted]<sup>368</sup> and [redacted]<sup>369</sup> for LLU. ComReg has also calculated that a 5% SSNIP of VUA would result in an increase in the price of related retail services of [redacted],<sup>370</sup> while a 10% SSNIP of VUA would result in an increase in the price of related retail services of [redacted]<sup>371</sup> for residential retail customers. Therefore, the potential maximum retail price increases arising from the pass-through of a 5% and 10% SSNIP of VUA are [redacted]<sup>372</sup> and [redacted]<sup>373</sup> respectively. A 5% SSNIP of LLU would result in an increase in the price of related retail services of [redacted],<sup>374</sup> while a 10% SSNIP of LLU would result in an increase in the price of related retail services of [redacted].<sup>375</sup> Thus, the potential maximum retail price increases from the pass-through of a 5% and 10% SSNIP of LLU are [redacted]<sup>376</sup> and [redacted].<sup>377</sup>

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<sup>366</sup> Between 60% and 70%.

<sup>367</sup> Between 60% and 70%.

<sup>368</sup> Between 10% and 20%.

<sup>369</sup> Between 10% and 20%.

<sup>370</sup> Between 1% and 10%.

<sup>371</sup> Between 1% and 10%.

<sup>372</sup> Between 1% and 10%.

<sup>373</sup> Between 1% and 10%.

<sup>374</sup> Between 1% and 10%.

<sup>375</sup> Between 1% and 10%.

<sup>376</sup> Between 1% and 10%.

<sup>377</sup> Between 1% and 10%.

- 5.161 ComReg calculates that a 5% SSNIP of VUA for business customers would result in an increase in the price of related business retail services of [redacted],<sup>378</sup> while a 10% SSNIP of VUA would result in an increase in the price of related business retail services of [redacted].<sup>379</sup> The potential maximum price increases arising from a pass-through of a 5% and 10% SSNIP of VUA are [redacted]<sup>380</sup> and [redacted]<sup>381</sup> respectively. A 5% SSNIP of LLU would result in an increase in the price of business retail services of [redacted],<sup>382</sup> while a 10% SSNIP of LLU would result in an increase in the price of related business retail services of [redacted].<sup>383</sup> Therefore, the potential maximum price increases arising from the pass-through of a 5% and 10% SSNIP of LLU are [redacted]<sup>384</sup> and [redacted]<sup>385</sup> respectively.
- 5.162 Only those retail end users which purchase retail services (whether on a standalone basis or as part of a broader bundle) from an Access Seeker that purchases WLA inputs are affected by the SSNIP. These end users face potential retail price increases arising from the pass-through of the SSNIP, and the profitability of that SSNIP will be influenced by the responses of end users. ComReg data suggest that, as of Q2 2022, approximately 10,415 end users on CG technology would be affected by the SSNIP and 401,105<sup>386</sup> end users on NG technology. If a sufficient number of retail customers switched to alternative platforms in response to the SSNIP of WLA by the HM, the scope of the WLA product markets could broaden to include those platforms.
- 5.163 End users are likely to take a wide range of factors into account when deciding whether to switch supplier and/or reduce their consumption of services, including factors not related to the price of their retail service (including where it is a component of a broader bundle of services). For example, end users may incur costs associated with switching between SPs,<sup>387</sup> or may

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<sup>378</sup> Between 1% and 10%.

<sup>379</sup> Between 1% and 10%.

<sup>380</sup> Between 1% and 10%.

<sup>381</sup> Between 1% and 10%.

<sup>382</sup> Between 1% and 10%.

<sup>383</sup> Between 1% and 10%.

<sup>384</sup> Between 1% and 10%.

<sup>385</sup> Between 1% and 10%.

<sup>386</sup> This is total number of VUA products made available by a hypothetical monopolist in Q2 2022 to wholesale purchasers, according to ComReg QKDR data. This consists of 264,556 end users using Eircom VUA products, 132,728 using SIRO and 3,821 using NBI.

<sup>387</sup> Possible switching costs include search costs and costs associated with the purchase of new customer premises equipment ('CPE'), installation charges and potential costs for early contract termination (given that, particularly in the case of bundles, customers are usually tied to contracts). Service disruption during the switching process may also be a factor, particularly for business customers.

demonstrate inertia arising from preferences around other aspects of a retail package or bundle (for example, regarding choice of broadband provider).

- 5.164 According to the 2022 Residential Market Research (Slide 35), 52% of residential respondents were definitely aware of the monthly cost of their retail package or bundle, while 19% were not aware of the monthly cost of their retail package or bundle. Such levels of awareness are likely to impact the potential response of end users to price changes resulting from a SSNIP of WLA. In particular, end users who demonstrate awareness of the cost of their retail package are more likely to identify and respond to any price increases.
- 5.165 The 2022 Market Research reported a relatively low incidence of churn between retail SPs, with just 8% of residential respondents and 17% of business respondents having reportedly switched in the 12 months prior to the survey date. The 2022 Market Research accordingly showed that 64% of residential and 36% of business respondents had never switched.<sup>388</sup>
- 5.166 The low rate of churn suggests the presence of a level of inertia amongst end users which is likely to deflate switching behaviour, some of which may be explained by the increased prevalence of bundled retail services, which tends to increase the complexity of purchasing and switching decisions, compared to the purchase of services on a standalone basis. ComReg notes in this regard that Eircom has announced its intention to increase its retail price annually.<sup>389</sup> Other operators have similarly announced their intention of increasing retail prices on different technologies on an annual basis.<sup>390</sup> Indeed, despite these announcements, retail subscriptions delivered over these FTTx platforms have increased, from 709,272 in Q4 2018 to 1,002,554 in Q2 2022.
- 5.167 Annex 2 and Annex 3 summarise outputs from the 2022 Market Research concerning residential and SME respondents' reported behaviour in response to a notional €4 increase in the **retail price** of broadband in a bundle, or €2 in the case of standalone broadband. In the context of an assessment of indirect retail constraints, this notional €2 or €4 retail price increase may overestimate the behavioural responses of retail end users, having regard to the maximum retail price increases arising from the pass-through of a 5% and 10% SSNIP in WLA. Nevertheless, reported behavioural changes in response to these price increases can inform the indirect retail constraints assessment.

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<sup>388</sup> See Slide 72 of the 2022 Residential Market Research and Slide 42 of the 2022 SME Market Research slides.

<sup>389</sup> Eir proposes to increase the price of monthly plans in April of each year, in line with the Consumer Price Index (CPI) plus an additional 3%, <https://www.eir.ie/annual-price-increase/>.

<sup>390</sup> Vodafone will increase its monthly price plans from April each year based on the CPI plus 3% on mobile broadband packages, <https://n.vodafone.ie/annual-price-adjustment.html>. Three is implementing a 4.5% price increase to monthly charges every April, <https://www.three.ie/legal/terms/annual-price-adjustment.html>.



5.168 ComReg considers whether retail services provided over CATV or alternative FTTP networks could pose a sufficiently immediate and effective indirect retail constraint, such that they warrant inclusion in the WLA product markets.

### Retail services provided over CATV

5.169 In paragraphs 4.80 to 4.95, ComReg identified that retail broadband services provided over a CATV network to a fixed location would likely be effective substitutes for retail broadband delivered using WLA inputs. QKDR data indicate that, since the publication of the 2018 Decision, retail subscriptions on Virgin Media's CATV network have remained reasonably stable, recording a -0.1% decrease from Q4 2018 to Q2 2022 to a total of 372,423 subscriptions.

5.170 ComReg now considers whether retail broadband provided over a CATV network should be included in the WLA markets on the basis of the indirect retail constraint it is capable of generating. That is, in response to a 5% to 10% SSNIP of LLU or VUA being passed by Access Seekers on to higher retail prices, would a sufficient number of those Access Seeker customers switch to CATV-based retail services such that it would render the SSNIP unprofitable?

5.171 The EC has indicated in its 2020 Explanatory Note that:

*“Access to current generation of cable networks (DOCSIS 3.1) can only be provided at central level. Therefore, the WLA market does not include access to cable networks. However, a relatively widespread presence of cable at retail level can constrain the ability of fixed incumbents to act independently at wholesale level. Under such circumstances, the WLA market could be left, at least partly, unregulated based on indirect retail constraints stemming from cable. Such deregulation is not unprecedented.”<sup>391</sup>*

5.172 As of Q2 2022, Virgin Media's CATV network coverage extended to 869,102 premises in the State, largely in urban areas.<sup>392</sup> Virgin Media predominantly provides retail services to the residential customer segment, with limited provision of retail services to businesses.<sup>393</sup> This suggests that a significant proportion of retail customers (i.e., end users located outside the Virgin Media network footprint, or business customers located within it) that would be impacted by a SSNIP of WLA could not switch to a CATV-based retail product. Any constraint is, therefore, likely to be sub-national in nature and limited to those areas where the Virgin Media CATV network has rolled out.

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<sup>391</sup> At p.42.

<sup>392</sup> Liberty Global Q2 2022 Fixed Income Release <https://www.libertyglobal.com/wp-content/uploads/2022/07/UPC-Fixed-Income-Q2-2022-Release.pdf>

<sup>393</sup> ComReg QKDR data suggest that, as of Q2 2022, 4.9% of Virgin Media CATV subscriptions were to business customers, a slight increase from 4.1% at the time of the 2018 Decision.

- 5.173 Figure 26 below presents market share figures for the WLA markets in the hypothetical scenario where Virgin Media's CATV retail subscriber base is included in those markets on the basis of indirect retail constraints. This describes a 'worst case' scenario where all retail broadband delivered using Eircom merchant market NG WLA reverts back to Eircom retail. In reality, ComReg considers that there would also be migration to SIRO/NBI. Accordingly, Figure 25 suggests a hypothetical upper bound for Eircom retail broadband market share, taking into account Virgin Media CATV.
- 5.174 There are more Virgin Media CATV subscribers than there are subscribers served using merchant market LLU or VUA. However, including Virgin Media's 372,423 retail subscribers does not materially alter the conclusion that Eircom is the primary supplier and consumer (i.e., self-supply) of WLA products.

Figure 26: Hypothetical Market Shares – NG WLA market<sup>394</sup>

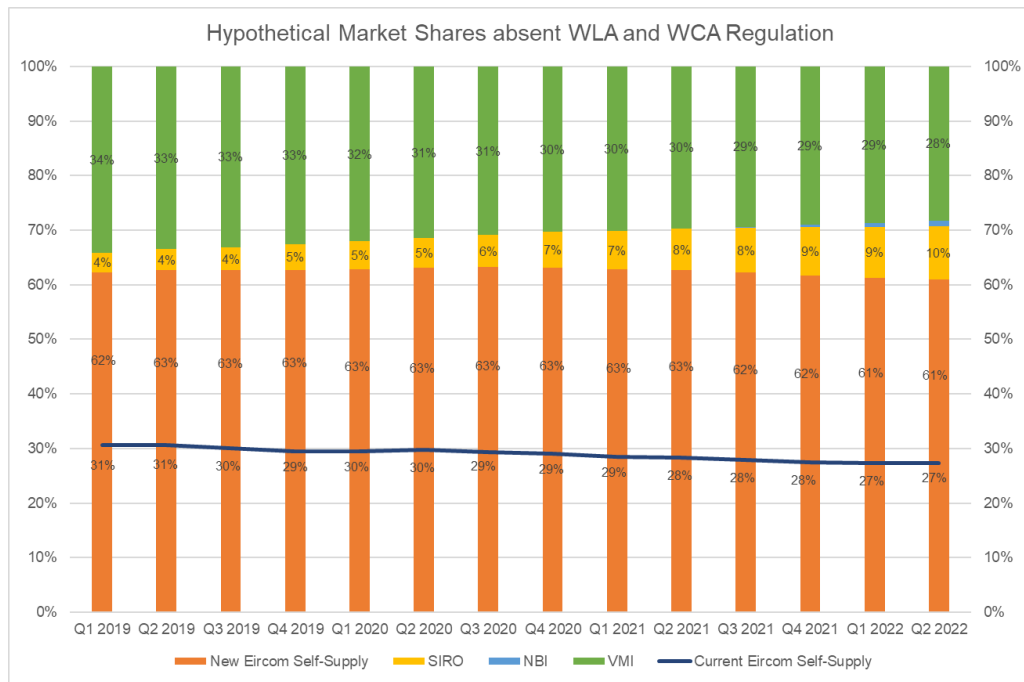
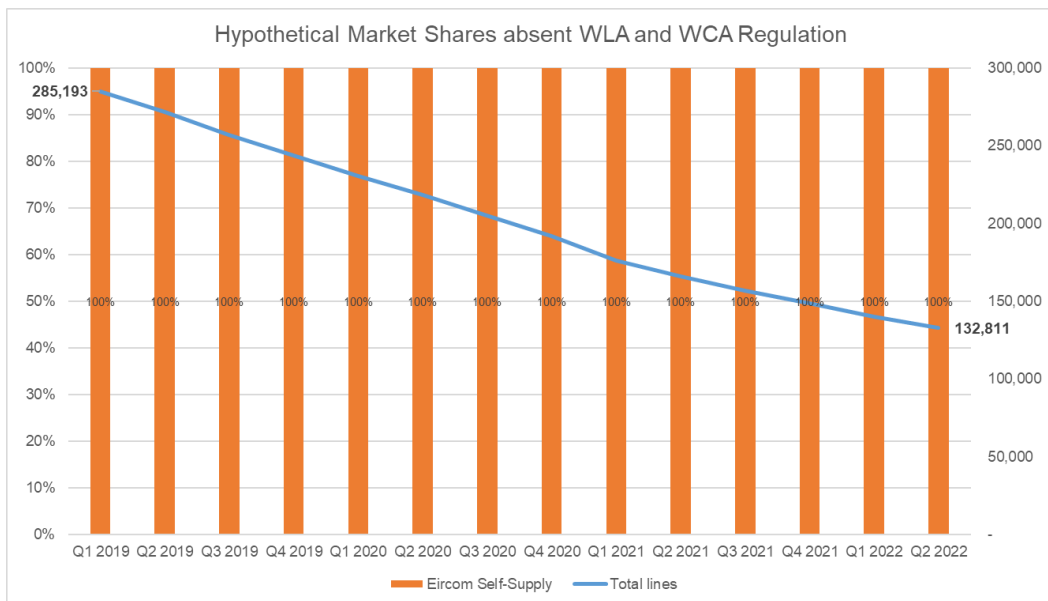


Figure 27: Hypothetical Market Shares – CG WLA market<sup>395</sup>



<sup>394</sup> In accordance with the MGA ComReg assumes no regulation in the WLA markets or related downstream markets. In this scenario, Eircom NG WCA merchant market supply would become VUA supply to its retail arm.

<sup>395</sup> In accordance with the MGA, ComReg assumes that Eircom's CG WCA merchant market supply would become LLU supply to its retail arm.

- 5.175 According to the 2022 Market Research, 25%<sup>396</sup> of residential end users who purchase broadband as part of a bundle would consider changing their behaviour in response to a €4 increase in the price of their broadband service. Of the 3.4% of residential respondents who positively affirmed that they were likely to switch their SP in response to a SSNIP of €4 in the price of their broadband service, 22% indicated they would switch to a CATV-based network – that is, less than 1% of respondents who purchase broadband as part of a bundle.<sup>397</sup> In other words, out of 10,000 respondents, 2,500 would consider changing their behaviour in response to a SSNIP. 340 would switch SP, of whom 75, or 0.7% of all respondents, would switch to CATV, specifically.
- 5.176 Virgin Media’s network coverage is focussed on urban and suburban areas. Accordingly, only those end users located in this network footprint could potentially switch to a CATV-based retail service in response to the pass-through at retail level of a SSNIP of WLA. Of the respondents who indicated their intention to switch to another type of broadband, only 81% were sure that the broadband in question was, in fact, available in their area.<sup>398</sup> As the 22% figure referred to in the previous paragraph is based on a nationally representative sample of respondents, it is likely that not all those respondents could actually switch to CATV.<sup>399</sup> Thus, this figure may overstate the potential CATV switching response.
- 5.177 ComReg accordingly considers it unlikely that there would be sufficient demand substitution to CATV-based services at the retail level in response to the pass-through of a SSNIP in WLA into retail prices such as to render that wholesale price increase unprofitable, on either the CG WLA market or the NG WLA market. Subscriptions on Virgin Media’s CATV network have been in decline in recent quarters, even where other SPs such as Eircom have increased their retail price increases. ComReg therefore proposes that Virgin Media CATV retail broadband is unlikely to act as a sufficiently effective indirect retail constraint on the provision of CG WLA or NG WLA.

### Retail services provided over localised alternative FTTP networks

- 5.178 ComReg considers whether retail services provided over localised alternative FTTP networks (e.g., Magnet, Digiweb) should be included within the WLA markets on the basis of indirect retail constraints. i.e., in response to the pass-through of a 5% to 10% SSNIP in WLA by Access Seekers on to retail prices,

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<sup>396</sup> At slide 54.

<sup>397</sup> At slide 59.

<sup>398</sup> Slide 60.

<sup>399</sup> CATV-based broadband is available to approximately 41% of premises in the State.

would a sufficient number of customers switch to retail services delivered over localised alternative FTTP such that it would make the SSNIP unprofitable?

- 5.179 Given the indirect link between the retail market and WLA market, any competitive constraint posed by localised alternative FTTP products in the retail market is likely to be muted in terms of its constraint on the WLA markets, given the dilution effects discussed at paragraphs 5.142 and 5.143 above. Accordingly, end users are likely to have a muted response to a diluted retail price increase arising from the 5% to 10% SSNIP of a wholesale input, compared with a direct SSNIP of 5% to 10% in retail prices.
- 5.180 The coverage of localised alternative FTTP networks in the State is limited, and as of Q2 2022, is capable of providing retail services to circa 30,000 premises, largely in urban areas. This suggests that a significant proportion of retail customers affected by a SSNIP of WLA would not be in a position to switch to retail services delivered over localised alternative FTTP.
- 5.181 The 2022 Market Research indicates that some residential broadband customers would consider switching to FTTP products in response to a SSNIP of their current retail broadband product. 25% of residential customers on a copper network who are likely to switch would switch to fibre in response to this SSNIP.<sup>400</sup> As noted above, the diluted retail price increase is likely to dampen incentives for effective retail substitution compared to a direct SSNIP.
- 5.182 The 2022 Market Research data indicates 22% of residential customers on a copper network would switch to a FTTP product in response to a SSNIP of their retail broadband product.<sup>401</sup>
- 5.183 Given the likely response from retail customers to a diluted increase in retail prices arising from a 5% to 10% SSNIP of LLU or VUA, it is unlikely that the proportion of customers switching to retail products delivered over localised alternative FTTP in response to a SSNIP of WLA would exceed the CLVs identified in Table 24 above.
- 5.184 Accordingly, ComReg is of the view that retail services provided over localised alternative FTTP are unlikely to exert a sufficiently effective indirect retail constraint on LLU or VUA. While the product characteristics, pricing and intended use of retail broadband offered over localised alternative FTTP would, in principle, allow it act as an effective demand-side substitute for retail

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<sup>400</sup> Slide 56 in 2022 Residential Market Research. These customers purchase broadband as a standalone product (i.e., not part of a bundle).

<sup>401</sup> Slide 59 in 2022 Residential Market Research. These customers purchase broadband as a standalone product).

broadband delivered over FTTx, this is limited by the geographic coverage of alternative localised FTTP networks.

### Retail services provided over FWA, Satellite, and Mobile networks

5.185 In paragraphs 4.121 to 4.137, ComReg found that retail broadband services provided over FWA, satellite and mobile networks do not fall within the retail broadband market. In view of this, ComReg is of the view also that such services are unlikely to exert a sufficiently effective indirect retail constraint on Eircom WLA, given the likely lack of effective demand-side substitution in response to the pass-through of a SSNIP of Eircom WLA.

### Criterion 3: Whether the strength of indirect retail constraints would be weakened by retail customers switching to Eircom's own retail arm?

5.186 ComReg now considers the European Commission's *third factor* set out at paragraph 5.126(c), namely whether the retail customers of Access Seekers purchasing LLU or VUA would switch to the retail arm of the vertically-integrated HM if the latter does not raise its own retail prices following the SSNIP of WLA.

5.187 If Access Seeker retail customers switched to Eircom in response to a SSNIP of WLA, Eircom could benefit from increased retail revenue which may off-set wholesale revenue losses from reduced Access Seeker demand for WLA.

5.188 Having regard to the MGA, absent regulation, a vertically-integrated HM supplier of WLA over a widespread or ubiquitous network would likely have incentives to hold its own retail prices constant<sup>402</sup> in order to induce Access Seeker retail customers (who are facing retail price increases arising from the pass-through of the SSNIP) to switch away from Access Seekers to its own downstream arm.

5.189 Access Seekers compete at the retail and (downstream) wholesale level predominantly through the purchase of VUA products, which are available on an almost, but not fully, national basis, and also, at a significantly lower level, through the purchase of LLU products. ComReg notes that, in accordance with the Modified Greenfield Approach, absent existing regulation of the WLA market, Eircom VUA and LLU products are either:

- (a) unlikely to be made available by the HM at all to Access Seekers, or
- (b) made available to Access Seekers, but on less favourable terms than equivalent supply arrangements to the HM's own retail arm.

5.190 Access Seekers would therefore not be able to offer retail and other

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<sup>402</sup> Although it is possible that it could increase retail prices for less price sensitive customers and decrease them for more price sensitive customers.

downstream services using these wholesale inputs, or would be able to do so, but under disadvantageous terms, compared to the HM. Retail end users affected by a SSNIP of WLA are likely to consider the HM's retail service to be a suitable substitute, due to similarities in product characteristics and relatively low switching costs (since the retail service would be provided over the same network using similar CPE, with no requirement for the porting of telephone numbers and limited service downtime). Furthermore, the widespread coverage of the HM's network implies that its downstream arm would not be constrained by coverage in the same way as alternative platforms, such as CATV or localised alternative FTTP, which pass fewer premises nationwide.

- 5.191 For these reasons, ComReg considers it likely that, in response to a SSNIP of VUA or LLU, end users of Access Seekers who offer retail services based on VUA or LLU inputs would be likely to switch to retail products offered by Eircom's retail arm, in circumstances where Eircom did not raise its retail prices, but Access Seekers did. This would have the effect of mitigating any reduction in Eircom wholesale revenue. This effect further diminishes the potential for alternative platforms to act as effective indirect retail constraints on a vertically integrated HM supplier of WLA.

### Overall conclusions on Indirect Retail Constraint Assessment

- 5.192 In paragraphs 5.169 to 5.185 above, ComReg assessed the indirect retail constraint posed by retail services provided over localised alternative FTTP, FWA and satellite platforms. ComReg notes that the coverage and use of retail services provided over these networks is exceeded by the coverage and use of retail services provided over Eircom's FTTx network. Therefore, ComReg considers that indirect retail constraints from satellite, localised alternative FTTP and FWA platforms are unlikely to be sufficient to warrant inclusion in the WLA market.
- 5.193 In respect of Virgin Media's CATV network, ComReg does not consider that indirect retail constraints from that network would likely be sufficiently effective to constrain the price setting behaviour of a HM supplier of CG WLA or NG WLA, bearing in mind the limited coverage of Virgin Media's CATV network, together with its proposal to overlay CATV with FTTP, resulting in the eventual decommissioning of the CATV network over the lifetime of this market review period. In this regard, ComReg notes that Virgin Media has already rolled out FTTP passing [X [REDACTED] premises as of Q2 2022, but that this has been accounted as part of the direct constraints assessment on a forward-looking basis above. The degree of indirect retail constraint posed by CATV-based retail services will be considered further in the context of the assessment of competition in the WLA market in Section 6,

in particular, the effectiveness of this constraint over a longer time horizon.

#### 5.2.4 Overall conclusions on Relevant WLA Product Markets

- 5.194 On the basis of the analysis at paragraphs 5.11 to 5.193 above ComReg proposes to define two WLA product markets (collectively, the '**WLA Product Markets**'), as follows.
- 5.195 The first market – the **NG WLA Product Market** - consists of Next Generation WLA, being VUA offered over:
- (a) Eircom's FTTC network;
  - (b) Eircom's FTTP network;
  - (c) SIRO's FTTP network;
  - (d) NBI's FTTP network; and
  - (e) On a forward-looking basis, over Virgin Media's FTTP network, as that network is rolled out.
- 5.196 The self-supply of VUA by Eircom and, on a forward-looking basis, Virgin Media, to their own downstream retail arm is also included in the NG WLA Product Market.
- 5.197 The second market – the **CG WLA Product Market** - consists of Current Generation WLA, being the following products offered over Eircom's copper-only CG network:
- (a) Local Loop Unbundling,
  - (b) Sub-Loop Unbundling, and
  - (c) Line Share.
- 5.198 The self-supply of LLU by Eircom to its own downstream retail arm is also included in the CG WLA Product Market.
- 5.199 Providers of WLA are therefore to be included in the WLA Product Markets where (i) the products which they offer meet the LLU and VUA product definition set out in the 2020 Explanatory Note, (ii) any planned delivery of WLA is based on sufficiently reliable deployment plans and (iii) the products are likely to be effective substitutes. Where these conditions are not met, ComReg proposes not to include such products in the WLA Product Market.
- 5.200 Having defined the parameters of the WLA Product Markets, ComReg now considers the scope of the WLA geographic market(s).

### 5.3 Geographic Assessment of WLA Markets

- 5.201 In this section, ComReg considers the geographic scope of the WLA Product



Markets described in Section 5.2 above. In doing so, ComReg follows the approach adopted by the EC in the 2020 Recommendation.

5.202 The Notice on Market Definition states that the relevant geographic market is:

*“... an area in which the Undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different.”<sup>403</sup>*

5.203 The EC further notes in its SMP Guidelines that:

*“According to established case-law, the relevant geographic market comprises an area in which the Undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different. The definition of the geographic market does not require the conditions of competition between traders or providers of services to be perfectly homogeneous. It is sufficient that they are similar or sufficiently homogeneous, and accordingly, only those areas in which the conditions of competition are ‘heterogeneous’ may not be considered to constitute a uniform market. In general, the process of defining the geographic boundaries of markets involves identifying any geographic areas where a distinct break in competitive conditions can be observed. This approach places weight on the underlying structural and behavioural factors that are relevant in determining the competitiveness of a market.”<sup>404</sup>*

5.204 In the 2018 Decision, ComReg concluded that the 2018 WLA Market was national in geographic scope.

5.205 ComReg assesses below the homogeneity (or heterogeneity) of competitive conditions between geographic areas, taking account of both structural and behavioural criteria in respect of each of the WLA product markets. This is a two-phase process, with Phase 1 consisting of criteria of general application to determine whether there are grounds to define national or sub-national markets. If Phase 1 suggests that there are sufficient grounds to warrant defining sub-national markets, then Phase 2 applies criteria to distinguish the boundaries of those sub-national markets.

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<sup>403</sup> Notice on Market Definition, paragraph 8.

<sup>404</sup> SMP Guidelines, paragraph 56.

### 5.3.1 Phase 1: Application of criteria of general application

- 5.206 In assessing potential geographic variances in competitive conditions, ComReg takes utmost account of the Notice on Market Definition and the BEREC Common Position on Geographic Aspects of Market Analysis.<sup>405</sup> Having regard to the above, ComReg assesses the geographic scope of the WLA markets according to the following factors:
- (a) Geographic differences in entry conditions over time (paragraphs 5.209 to 5.219);
  - (b) Variation in the number and size of potential competitors (paragraphs 5.220 to 5.224);
  - (c) Distribution of market shares (paragraphs 5.225 to 5.256);
  - (d) Evidence of differentiated pricing strategies or marketing (paragraphs 5.257 to 5.265); and
  - (e) Geographical differences in product functionality and demand characteristics (paragraphs 5.266 to 5.269).
- 5.207 ComReg applies the MGA in assessing the geographic scope of the WLA Product Markets. This assumes a hypothetical scenario in which there is no *ex ante* SMP regulation in the candidate Relevant WLA Markets but that regulation is present in markets upstream of WLA such as, for instance, PIA.
- 5.208 In carrying out its geographic assessment of the WLA markets, ComReg has regard, *inter alia*, to existing FTTx rollout, but also future rollout plans, where these plans are based on available and sufficiently reliable, deployment data. Eircom, SIRO and NBI are all already engaged in FTTP network rollout. Of these, NBI appears to be capable of providing ComReg with available rollout forecasts with some level of reliability. Virgin Media has not yet commenced FTTP network rollout WLA service delivery as of December 2022, nor is it yet in a position to furnish ComReg with reliable deployment data. Accordingly, ComReg proposes to take Eircom, NBI and SIRO rollout into account as appropriate in its geographic assessment below. However, although Virgin Media FTTP is included in the NG WLA focal product on a forward-looking basis – and therefore falls into the WLA product market – ComReg does not take Virgin Media FTTP into account in its WLA geographic assessment below due to the absence of material existing rollout, and the absence of sufficiently reliable deployment data. ComReg will, however, take any such data, should it become available, into account in its final decision.

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<sup>405</sup> BEREC “[Common Position on Geographic Aspects of Market Analysis](#)”, BoR (14) 73, 05.06.2014 (the ‘BEREC Common Position’).

## Criterion 1: Geographic differences in entry conditions

- 5.209 In this section, ComReg assesses geographic differences in entry conditions in the WLA Product Markets over time.
- 5.210 Eircom offers similar VUA products across its almost-national FTTx network (noting only some degree of overlap in the NBP IA), and also offers similar LLU products across its ubiquitous copper network – pursuant to regulation under the 2018 Decision. However, the presence of commercial SPs (SIRO and, on a forward-looking basis, Virgin Media) on a sub-national basis, together with NBI in the IA, which is deemed to be commercially unattractive for the rollout of high-speed broadband, suggests that the NG WLA market exhibits some level of geographic variation in entry conditions. In particular, parts of the State are deemed to be more commercially attractive, while other parts of the State would not be served by FTTP capable of delivering VUA in the absence of the State-aided NBI rollout arising from diseconomies of scope, scale and density due to low premises density and dispersed rural development.
- 5.211 Total FTTx rollout by all operators passes 96% of premises in the State as of Q2 2022, while Eircom copper-only rollout passes 8% of premises.<sup>406</sup> There is some geographic variation in the VUA products available, depending on whether Eircom, SIRO, NBI or, on a forward-looking basis, Virgin Media, have already, or have sufficiently firm plans to, roll out FTTx capable of delivering VUA. For example, Eircom only offers FTTC VUA in those locations where it has not yet upgraded its FTTC network infrastructure to FTTP (it may also retain the capability to offer FTTC VUA at premises where FTTP is rolled out).
- 5.212 ComReg also proposes to take into account envisaged Network Operator rollout, where that rollout is available and based on sufficiently reliable deployment data. Based on interactions with Network Operators, ComReg considers that NBI is capable of providing reliable deployment data up to two years in advance. However, neither SIRO, Eircom nor Virgin Media were willing to commit to provide ComReg with sufficiently reliable deployment data in advance of rollout. Accordingly, ComReg proposes to take into account envisaged NBI rollout, but cannot, absent data, take into account envisaged Eircom, SIRO (or, for that matter, Virgin Media) FTTP rollout.
- 5.213 The fact that NBI is targeting the provision of wholesale services only – including VUA – to areas of the State otherwise unserved on a commercial basis by NG broadband (that is, the IA) suggests that the prospects for commercial rollout to significantly overlap NBI coverage are low, and ComReg

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<sup>406</sup> The FTTx and copper-only numbers exceed 100%. This is because a measurement inconsistency arises from the fact that a non-trivial minority of FTTC premises do not have Eircodes. In some instances, it is not possible to say with certainty whether a premises is passed by both FTTC and FTTP. This means that FTTx coverage numbers may be inflated as overlapping coverage is not fully reported where Eircode data are absent.

is not, as of Q4 2022, aware of detailed deployment plans to this effect. There is, however, some marginal overlap. As of Q2 2022 Eircom's FTTx network overlaps approximately [REDACTED]<sup>407</sup> of those premises in the NBI IA, and SIRO's FTTx network overlaps [REDACTED]<sup>408</sup> of those premises in the NBI IA.

5.214 ComReg proposes to include VUA delivered over Eircom FTTx, and SIRO and NBI FTTP and, on a forward-looking basis, Virgin Media FTTP, in the NG WLA Product Market only.

5.215 SIRO has commenced Phase 2 of its rollout, and it has announced its intention to pass an additional 320,000 premises on top of the 450,000 which it passed in Phase 1, which would bring its total rollout to 770,000 premises in 154 towns nationwide by 2025,<sup>409</sup> passing approximately one third of premises in the State (see Table 12 above). SIRO has provided ComReg with data on the general geographic scope of its intended Phase 2 rollout but has not been in a position to provide ComReg with detailed forecast deployment data. Additionally, as set out in greater detail at paragraph 6.70 below, SIRO Phase 1 rollout was characterised by regular revisions to its scheduled target rollout such that its actual roll-out significantly lagged its anticipated rollout. Accordingly, ComReg cannot, as of Q4 2022, take SIRO Phase 2 rollout into account in its WLA geographic market assessment. ComReg will use any updated data that is available in the decision which will follow this Consultation.

5.216 By way of a sensitivity check, ComReg has assessed SIRO's overlap with Virgin Media, although Virgin Media FTTP cannot be reliably counted, due to the absence of reliable deployment data. Data relying on existing VMI CATV rollout suggest that, if VMI were included in the WLA market, it would overlap with SIRO at a total of 105 EAs at any level of overlap greater than a single premises. However, the number of EAs where SIRO and VMI overlap falls significantly, where both SIRO and VMI are constrained to pass the Phase 2 overlap criterion (that at least 50% of premises in a Modified EA must be passed by at least three Network Operators) set out in Annex 8 below. [REDACTED]

5.217 [REDACTED]<sup>410</sup> in the NBP Contract, NBI's FTTP network will pass 560,000 premises in the IA, amounting to coverage of c.24% of premises in the State.<sup>410</sup>

<sup>407</sup> Between 1% and 10%.

<sup>408</sup> Between 1% and 10%.

<sup>409</sup> <https://www.eib.org/en/projects/pipelines/all/20210132>

<sup>410</sup> 560,000 NBI premises as a percentage of 2.34 million postal addresses in the State. NBI uses the expression 'premises', defined in the NBP Contract as "all buildings (whether a business premises, residence or other building)

According to the NBI website,<sup>411</sup> NBI passed 91,378 premises as of October 2022 and intends to pass a total of 102,000 premises by January 2023.<sup>412</sup>

- 5.218 Apart from the likelihood there will be no material commercial rollout of FTTP in the IA, ComReg assumes that there will be no rollout of copper networks capable of delivering LLU more generally, given FTTP is now the chosen network medium, and shifting consumer preferences away from copper towards FTTx. In this regard, the existence of the IA (which identified non-commercial areas through a mapping exercise and consultation with SPs) signals that the commercial attractiveness of areas of the State varies.
- 5.219 Overall, and having regard to the above, there appears to be sufficient evidence to suggest that there are some differences in geographic entry conditions in the NG WLA market, arising from the presence or absence of commercial SPs, as characterised by the presence in areas of higher premises density of NG networks rolled out on a commercial basis, while in areas of lower premises density, NBI is rolling out a state-aided NG broadband network, due to the absence of incentives to provide NG broadband to these areas on a commercial basis. ComReg considers that such entry incentives are absent in the IA due to the presence of barriers to entry arising from diseconomies of density, in particular, whereby the average cost of passing or connecting a single premises is much higher than equivalent costs in urban areas.<sup>413</sup> In contrast, ComReg considers that there do not appear to be geographic differences in CG WLA entry conditions, given the lack of incentives for Network Operators to enter.

## Criterion 2: Variation in the number and size of potential competitors

- 5.220 In this section, ComReg assesses the number of competitors in the WLA Product Markets and their relative sizes. Eircom is the only provider of LLU, while, as of Q2 2022, VUA is provided over Eircom FTTx, SIRO FTTP and NBI FTTP. Absent regulation, Eircom's merchant market supply of NG WLA (and, therefore, NG WCA) may no longer be available. NBI is obliged under the terms of the NBP Contract to offer VUA to Access Seekers in the IA, while SIRO offers VUA on a commercial basis. NBI is scheduled to pass 560,000 premises in the State which are located in the IA by 2026/7. As of 17 November

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*in the Intervention Area that have a corresponding Eircode in the Premises Database (as amended or should have been amended from time to time in accordance with this Agreement)".*

<sup>411</sup> [www.nbi.ie](http://www.nbi.ie), accessed on 17 November 2022, reporting data as of 4 November 2022.

<sup>412</sup> [https://www.oireachtas.ie/en/debates/debate/joint\\_committee\\_on\\_transport\\_and\\_communications/2022-06-29/2/](https://www.oireachtas.ie/en/debates/debate/joint_committee_on_transport_and_communications/2022-06-29/2/).

<sup>413</sup> ComReg notes that this is a generalisation, in that the IA also includes premises located in urban areas. However, these premises may similarly be commercially unattractive to serve due, for example, to localised access difficulties leading to increased costs of connection for Network Operators.

2022, NBI has passed 91,378 premises, or 16% of its total scheduled rollout.

- 5.221 According to its website, SIRO passes over 460,000 premises, as of November 2022.<sup>414</sup> SIRO has announced the commencement of Phase 2 of its rollout plan, to pass an additional 320,000 premises across 154 towns, supported by €620 million of funding, including €170 million of funding from the European Investment Bank ('EIB').<sup>415</sup> According to the EIB, SIRO intends to complete Phase 2 rollout by 2025, with a focus on areas with no, or limited, very high capacity broadband coverage.<sup>416</sup> If SIRO meets its Phase 1 and Phase 2 coverage targets, it will pass a total of 770,000 premises.
- 5.222 Eircom's quarterly reporting figures suggest that its current FTTx rollout passes 2 million premises, split between 1.2m FTTC premises and over 864,000 FTTP premises (43%).<sup>417</sup> ComReg data indicate that, as of Q2 2022, [X ██████████ X] premises are overlapped by both Eircom FTTC and Eircom FTTP. Eircom's FTTP premises passed grew by 189,000 in the year to June 2022 (up by 28%) and Eircom has also indicated that its partnership with InfraVia will increase the pace of its expansion of its FTTP network rollout, with the target ultimately to upgrade 1.9m premises passed to FTTP.<sup>418</sup>
- 5.223 ComReg accordingly considers that, absent regulation, the NG WLA market is likely to be characterised by some variation in the number and size of potential competitors from a geographic perspective. ComReg has formed this view on the basis that the number of potential competitors in the provision of NG WLA across the State is likely to vary, based on current and expected network rollout. In particular, NBI is unlikely to face material competition (in the sense of other competitors) in the IA, while in some other areas outside the IA premises may be passed by at least two networks capable of delivering VUA. This may particularly be the case, for instance, in areas where Eircom FTTC is already present, but is likely to upgrade to FTTP over the lifetime of this market review.<sup>419</sup>
- 5.224 Eircom is the only provider active on the CG WLA Market. Even absent regulation, ComReg considers that, due to shifts in end user demand patterns, there is no incentive for other Network Operators to enter the market – given FTTP will be the future transmission medium of choice. ComReg considers

<sup>414</sup> [www.siro.ie](http://www.siro.ie), accessed on 17 November 2022.

<sup>415</sup> <https://www.irishtimes.com/business/technology/siro-announces-620m-investment-to-upgrade-broadband-network-1.4712850>

<sup>416</sup> <https://www.eib.org/en/projects/pipelines/all/20210132> This press statement also suggest that the project cost is €342m.

<sup>417</sup> [https://www.eir.ie/content/pdf/IR/presentations/2022\\_2023/eir\\_Q2-22\\_results\\_presentation.pdf](https://www.eir.ie/content/pdf/IR/presentations/2022_2023/eir_Q2-22_results_presentation.pdf).

<sup>418</sup> <https://www.eir.ie/pressroom/eir-announces-completion-of-significant-infrastructure-deal-with-InfraVia/>

<sup>419</sup> See paragraph 5.280 onwards for data on differences in number of competitors in different EAs.

that this is unlikely to change throughout the market review period.

### Criterion 3: Distribution and evolution of market shares

5.225 The EC Notice on Market Definition confirms that NRAs should take a preliminary view of the scope of the geographic market on the basis of the distribution of market shares between undertakings. Moreover, the BEREC Common Position notes at paragraph 111 that:

*“One way to account more explicitly for the relative size of operators would be to look at the variation in local “market” shares across different geographical areas. Ideally this should include not only market shares at a particular point in time but also the development of market shares, particularly where the competitive conditions in the market are going through a period of change. Since the collection of the necessary data is associated with a high administrative burden for operators as well as NRAs, it will usually suffice to consider two points in time to draw inferences about trends in market shares. To the extent that there is evidence of variation in market shares, this could be indicative of geographical variations in competitive conditions.”*

5.226 Accordingly, where an NRA measures variations in SP market shares over time in different geographic locations, this may potentially be indicative of a level of geographic variation in competitive conditions sufficient to warrant some level of geographic market differentiation.

5.227 At the time of the publication of the 2018 Decision, Eircom faced very limited competition in the supply of VUA from SIRO and held a market share in excess of 95% in the provision of WLA nationwide, based on the market definition set out therein. Taking into account proposed changes to the WLA product market definition, as well as SIRO and NBI rollout, ComReg now measures Eircom market shares on the separate NG WLA Product Market and the CG WLA Product Market. Eircom’s (national) share of the provision VUA in the presence of regulation has now declined to [X ██████████ X],<sup>420</sup> although, on a forward-looking basis, this national share masks non-trivial geographic differences at local level arising from the presence or absence of SIRO or NBI. Eircom’s share of the provision of LLU, SLU and LS remains high, again, in the presence of regulation, at 100%.

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<sup>420</sup> Between 50% and 80%.

5.228 ComReg considers that the NG WLA product market includes the merchant market supply of VUA by Eircom, SIRO, NBI and, on a forward-looking basis, Virgin Media, together with the self-supply of VUA by Eircom and, on a forward-looking basis, Virgin Media. The CG WLA product market includes Eircom's self-supply and merchant market supply of LLU, SLU, and LS. In respect of NG WLA, at the level of the EA, market shares can only be assigned to VUA delivered over NG broadband networks where those networks are present. ComReg considers the distribution of WLA market shares in the presence of WLA regulation, and then considers how the distribution of these market shares would be likely to change in an MGA scenario, absent WLA regulation.

### Market share distribution in the presence of regulation

#### **Market share data on a national basis**

5.229 The data set out at Table 25 below indicate that Eircom and Virgin Media are the two largest retail broadband SPs in the State, including all retail broadband subscriber lines counted in the QKDR (in the presence of regulation). These market share data therefore include SPs excluded from the retail broadband definition in Section 4 above. Retail market shares based solely on those technologies included in the retail broadband market definition are therefore deflated. Given that both Eircom (27%) and Virgin Media (24%) rely on own-network self-supply for retail broadband purposes, this suggests that, based on current market shares and Access Seeker use of wholesale inputs from Eircom and other Network Operators, a maximum of 49%<sup>421</sup> of retail broadband subscriber lines are delivered by Access Seekers reliant on merchant market inputs (WLA and/or WCA), allowing for small-scale provision of retail broadband self-supply over FWA or localised alternative FTTx.

**Table 25: QKDR retail broadband market share by subscriber lines, Q4 2018 – Q2 2022**

	2018 Q4	2019 Q4	2020 Q4	2022 Q2
<b>Eircom</b>	33%	31%	30%	27%
<b>Virgin Media</b>	26%	26%	25%	24%
<b>Vodafone</b>	18%	20%	19%	20%
<b>Imagine</b>	0%	0%	3%	3%
<b>Sky</b>	13%	14%	14%	14%
<b>Pure Telecom</b>	-	-	2%	2%
<b>Digiweb</b>	-	-	-	2%
<b>OAOs</b>	9%	10%	7%	7%

<sup>421</sup> Calculated by subtracting Eircom's 27% and Virgin Media's 24% market shares, both of which are on a self-supply basis, from 100%.



5.230 When retail broadband market shares are assigned based on FTTx subscriptions only, the most notable change is the decline in Eircom's retail market share (from 48% in Q1 2019 to 38% in Q2 2022), with a range of other SPs making small market share gains. Eircom remains the single largest provider of FTTx retail broadband subscriptions, however.

**Table 26: FTTx retail broadband subscriber line market shares, Q1 2019 – Q2 2022<sup>422</sup>**

	2019 Q1	2019 Q4	2020 Q4	2022 Q2
<b>Eircom</b>	48%	44%	42%	38%
<b>Vodafone</b>	26%	30%	30%	30%
<b>Sky</b>	18%	19%	20%	20%
<b>Pure Telecom</b>	2%	2%	3%	3%
<b>Digiweb</b>	2%	2%	2%	2%
<b>Virgin Media</b>				2%
<b>OAOs</b>	3%	3%	3%	4%

5.231 When retail broadband market shares are assigned based on FTTP subscriptions only (which ComReg started recording at a granular level in Q1 2019), the most notable change is the decline in Eircom's retail market share (from 47% in Q1 2019 to 31% in Q2 2022 – although the FTTP base at the start was small), and the initial increase but then decrease in Vodafone's market share, which, as of Q2 2022, is the largest provider of FTTP retail broadband subscriptions (with a 36% share). These figures must also be interpreted in the context of the pace at which Access Seekers commenced purchasing FTTP VUA from Eircom initially and the growth of FTTP provision from an initially low base.<sup>423</sup>

**Table 27: FTTP retail broadband subscriber lines, Q1 2019 – Q2 2022<sup>424</sup>**

	2019 Q1	2020 Q1	2021 Q1	2022 Q1	2022 Q2
<b>Eircom</b>	47%	39%	33%	31%	31%
<b>Vodafone</b>	37%	40%	39%	37%	36%
<b>Virgin Media</b>	6%	5%	5%	4%	4%
<b>Digiweb</b>	3%	3%	3%	3%	3%
<b>Sky</b>	0%	7%	13%	18%	18%

<sup>422</sup> Individual market shares are only reported above 2%. Where an SP's market share is below 2%, it is counted as part of the aggregate OAO market share. ComReg QKDR Data (accessed via Qlik).

<sup>423</sup> In Q1 2019 there were approximately 110K subscriber lines, rising to 431K in Q2 2022 (+292% in the period).

<sup>424</sup> Individual market shares are only reported above 2%. Where an SP's market share is below 2%, it is counted as part of the aggregate OAO market share.

<b>Pure Telecom</b>	0%	0%	3%	4%	4%
<b>OAOs</b>	7%	6%	4%	4%	4%
<b>Total FTTP subscriber lines</b>	<b>109,949</b>	<b>180,543</b>	<b>282,035</b>	<b>400,394</b>	<b>431,388</b>

5.232 ComReg data indicate that overall fixed retail broadband subscriptions have increased by 12%, and FTTx retail broadband subscriptions have increased by 41%, between Q4 2018 and Q2 2022. Over the same time period, the proportion of retail broadband subscriptions relying on (Eircom, SIRO, or NBI) VUA inputs has risen from 41% to 51%. Given that Eircom relies on own-network self-supply for retail broadband purposes (except in the IA where Eircom will be expected to purchase wholesale inputs from NBI),<sup>425</sup> this suggests that, based on current market shares and Access Seeker purchases of VUA, a maximum of 51% of FTTx retail broadband subscriptions are provided by Access Seekers which rely on VUA provided by Eircom, SIRO, or NBI (bearing in mind that, as of December 2022, Virgin Media is not active in the provision of VUA).

**Distribution of merchant market VUA purchases**

5.233 Retail broadband market shares provide useful but somewhat limited insight into the general impact of upstream wholesale broadband markets on the retail broadband market. By definition, NBI’s network roll-out will be predominantly (but not entirely) located in different parts of the State than that of SIRO and Eircom (and Virgin Media), thus weakening the inferences which can be drawn from national retail market share data on the upstream WLA markets. A more relevant measure in this case is wholesale market share data, split by those areas within the IA, and outside of the IA – that is, where NBI is (or will be) present, and NBI is absent, as set out at paragraphs 5.237 to 5.250.

**Table 28: VUA merchant market purchases, Q1 2019 and Q2 2022**  
 [REDACTED]

Network	FTTC		FTTP					
	Eircom		Eircom		SIRO		NBI	
Vendor →	Eircom		Eircom		SIRO		NBI	
Buyer ↓	Q1 19	Q2 22	Q1 19	Q2 22	Q1 19	Q2 22	Q1 19	Q2 22
█								█
█	█	█	█	█		█		
█	█	█	█	█		█		

<sup>425</sup> <https://www.eir.ie/nbi/>

██████		████		██████		████		
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Table 29: % VUA merchant market purchases, Q1 2019 and Q2 2022  
 [REDACTED]

Network	FTTC		FTTP					
Vendor →	Eircom		Eircom		SIRO		NBI	
Buyer ↓	Q1 19	Q2 22	Q1 19	Q2 22	Q1 19	Q2 22	Q1 19	Q2 22
██████	████	████	████	████	████	████	████	████
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5.234 Table 28 indicates that, in respect of VUA provided by Eircom, SIRO, and NBI at Q2 2022, Vodafone accounts for [REDACTED]<sup>426</sup> of purchases, BT accounts for [REDACTED]<sup>427</sup> of purchases, Digiweb accounts for [REDACTED]<sup>428</sup> of purchases and 13 other SPs collectively account for the remaining [REDACTED]<sup>429</sup> of purchases. It is worth noting at this point that Eircom self-supply accounts for the majority of wholesale broadband provision – it effectively uses WLA in supplying itself. However, this is not included in the data above, as Eircom designates its wholesale broadband self-supply as WCA Bitstream, and not WLA.

<sup>426</sup> Between 51% and 60%.

<sup>427</sup> Between 31% and 40%. This includes Sky's purchases from SIRO. Sky contracts directly with SIRO but this is managed by BT, thus their purchases are presented as a collective in this Table.

<sup>428</sup> Between 1% and 10%.

<sup>429</sup> Between 11% and 20%.

**Table 30: VUA merchant market supply, Q1 2019 – Q2 2022 [REDACTED]**

VUA lines	Q1 2019		Q2 2022	
VUA self-supply	n	%	n	%
Eircom	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>VUA merchant market supply</b>				
Eircom	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SIRO	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NBI	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total VUA merchant market</b>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

5.235 In respect of VUA merchant market provision, Eircom’s share has declined, albeit from [REDACTED]<sup>430</sup> to [REDACTED]<sup>431</sup>, with SIRO accruing a [REDACTED]<sup>432</sup> share between Q1 2019 and Q2 2022.

**Distribution of merchant market LLU purchases**

5.236 Table 31 below indicates that, in the presence of regulation, BT accounts for [REDACTED]<sup>433</sup> of LLU purchases, Magnet accounts for [REDACTED]<sup>434</sup> of LLU purchases, and one other SP accounts for the less than [REDACTED]<sup>435</sup> of LLU purchases. As set out at paragraph 5.234 above, Eircom reports its CG self-supply as WCA bitstream, rather than as WLA.

**Table 31: Merchant market LLU purchases (volumes and percentages), Q1 2019 and Q2 2022 [REDACTED]**

Network	LLU			
Vendor →	Eircom			
Buyer ↓	Q1 2019	Q2 2022	Q1 2019	Q2 2022
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

<sup>430</sup> Between 90% and 100%

<sup>431</sup> Between 60% and 70%

<sup>432</sup> Between 30% and 40%

<sup>433</sup> Between 91% and 100%.

<sup>434</sup> Between 0% and 10%.

<sup>435</sup> Between 0% and 10%.

### Market share data in the presence of regulation, split by IA and Non-IA

5.237 The data set out below are presented below on a geographically disaggregated basis. The IA, by design, is an area which exhibits different competitive characteristics from the rest of the State, arising from the assumption that NG broadband would not be largely provided on a commercial basis in those areas now comprising the IA. In respect of NG WLA, Table 32 indicates that there is a notable difference in the Eircom, SIRO and NBI shares of VUA lines in the IA on the one hand, and outside the IA on the other hand. As wholesale-only operators, neither NBI nor SIRO are active in self-supply (although we note Vodafone is 50% owner of SIRO).

**Table 32: Merchant Market VUA Sales %, Q2 2022 [REDACTED]<sup>436</sup>**

SP	Non-IA VUA	IA VUA
Eircom	[REDACTED]	[REDACTED]
SIRO	[REDACTED]	[REDACTED]
NBI	[REDACTED]	[REDACTED]
<b>Total</b>	100%	100%

**Table 33: LLU purchase %, Q2 2022 [REDACTED]**

	LLU		
	Eircom	SIRO	NBI
Eircom retail		[REDACTED]	[REDACTED]
BT	[REDACTED]	[REDACTED]	[REDACTED]
Others	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>	[REDACTED]	[REDACTED]	[REDACTED]

5.238 Taking into account merchant market LLU supply only, thus excluding Eircom retail self-supply, there appears to be little variation in selling behaviour across the CG WLA Market. However, from a supply-side perspective, there are clear and significant differences in patterns of NG WLA supply within the IA, and outside the IA, as reflected in the NBI, Eircom and SIRO sales patterns set out at Table 32 above and Table 34 below:

**Table 34: Merchant-market VUA sales, Q2 2022 [REDACTED]**

SP	Non-IA VUA	IA VUA
Eircom	[REDACTED]	[REDACTED]
SIRO	[REDACTED]	[REDACTED]
NBI	[REDACTED]	[REDACTED]

<sup>436</sup> Supply-side information was used for the purposes of this Table as accurate demand side information was not available to ComReg on a sub-geographic basis.

- 5.239 This shows that over 90% of VUA merchant market sales occur outside the IA, and that Eircom, SIRO, and NBI shares of merchant market VUA sales all vary substantially between the IA and outside the IA, with Eircom's share increasing from [redacted],<sup>437</sup> SIRO's share also increasing from [redacted],<sup>438</sup> and NBI's share decreasing from [redacted].<sup>439</sup> Accordingly, in the presence of regulation, there is evidence from supply-side market shares that there are differences in patterns of NG WLA supply within the IA, and outside the IA.
- 5.240 In respect of CG WLA and taking into account merchant market LLU supply only, thus excluding Eircom retail self-supply, there is little variation across the CG WLA Product Market. In the presence of regulation, Eircom accounts for 100% of merchant market LLU sales. Accordingly, there appear to be no pronounced differences across the CG WLA Product Market.

### Market share distribution under the MGA, absent regulation

- 5.241 In an MGA scenario, WLA regulation is no longer present, leading to the assumption that Eircom no longer provides VUA or LLU, or does so under different commercial terms. Therefore, Access Seekers which were reliant on Eircom VUA or LLU may need to migrate to delivery of retail broadband over other networks (where available/possible), in order to retain or grow their customer base.<sup>440</sup> Failure to do so suggests that these end users will migrate to Eircom or to Access Seekers which rely on VUA provided by SIRO or NBI (or, on a forward-looking basis, Virgin Media), where those networks have rolled out. Accordingly, under the MGA, Eircom merchant market supply of CG WLA and NG WLA falls to zero and moves to Eircom retail. The resultant increase in Eircom self-supply will depend on the ability of Access Seekers to migrate wholesale or retail customers previously served by Eircom WLA to alternative network provision.
- 5.242 It is important to note that market dynamics in the presence of WLA regulation are unlikely to accurately mirror market dynamics in an MGA scenario where WLA regulation is removed. This is because, in the presence of regulation, Access Seekers which have the capability to purchase VUA from SIRO or NBI may instead choose to purchase regulated VUA or LLU from Eircom.
- 5.243 Where an Access Seeker intends to migrate its retail broadband end users (or its wholesale customers in the case of BT NG Bitstream) from VUA delivered

<sup>437</sup> From 41-50% to 61-70%.

<sup>438</sup> From 0-10% to 31-40%.

<sup>439</sup> From 41-50% to 0-10%.

<sup>440</sup> For example, absent VUA regulation, BT would potentially be unable to continue to supply NG Bitstream to Access Seekers, as its supply of NG Bitstream is partially reliant on access to Eircom VUA.

by Eircom to VUA delivered by another Network Operator, it may need to build new backhaul out to the Network Operator's Point(s) of Interconnection ('**Pol(s)**'). Given that a number of Access Seekers already purchase VUA from two or more vendors, Access Seekers may, to some extent, have already incurred this cost. Accordingly, in respect of the NG WLA market, the main impediments to an Access Seeker doing so are whether the end user premises is passed by an alternative Network Operator capable of delivering VUA and, if so, the potential cost of building backhaul to the associated Pols.

- 5.244 In respect of the CG WLA market, an Access Seeker must overcome additional technical barriers when migrating its retail broadband end users from LLU to products outside the CG WLA Market (e.g., VUA), arising from differences in the underlying fibre and copper technologies – since Eircom is the only provider of LLU. An Access Seeker must first determine whether its end users' premises are passed by Eircom, SIRO or NBI FTTx capable of delivering VUA and, having done so, carry out any administrative (e.g. development of order management systems) or technical alterations to facilitate the switch from delivery of retail broadband over LLU to VUA. There may also be a temporal consideration in circumstances where NBI (or SIRO or, on a forward-looking basis, Virgin Media) rollout to an area is scheduled but has not yet occurred. In those circumstances, an Access Seeker will additionally need to wait until rollout has occurred before migrating its end users to the alternative network.
- 5.245 In an MGA scenario where Eircom ceased merchant market supply of CG WLA to Access Seekers, no other LLU provision would be available to Access Seekers. If Access Seekers failed to migrate away from LLU (or from CG Bitstream which was itself reliant on LLU), their end users would:
- (a) cease purchasing CG retail broadband,
  - (b) migrate to Eircom, or
  - (c) migrate to an alternative retail broadband SP which did not rely on LLU inputs, where the premises is also passed by NG broadband.
- 5.246 On the NG WLA market, where an Access Seeker's end user premises is not passed by SIRO or NBI, that Access Seeker will be unable to migrate to alternative VUA in an MGA scenario.

5.247 As set out at Table 35 below, ComReg estimates how many premises are, as of Q2 2022, served by Eircom, SIRO or NBI VUA.<sup>441</sup> In an MGA scenario, Access Seekers supplying end users at these premises with retail broadband on the basis of Eircom merchant market VUA or LLU would be capable of retaining these end users, as they would be able to migrate their end users to VUA delivered over other NG broadband networks.

**Table 35: Premises passed by FTTx networks, Q2 2022**

	Total premises	Eircom <sup>442</sup>		SIRO		NBI	
		n	%	n	%	n	%
<b>IA</b>	476,491	86,961	18%	8,037	2%	476,491	100%
<b>Non-IA</b>	1,811,999	2,116,198	117%	432,896	24%	0	0%
<b>Total FTTx premises</b>	2,288,490	2,203,159	96%	440,933	19%	476,491	21%

5.248 These data suggest that, outside the IA, all measured premises are passed by Eircom FTTx, SIRO FTTP, or both. In an MGA, NG WLA Access Seekers are therefore only capable – in principle – of retaining their retail broadband end users if they can switch to SIRO VUA at the 24% of premises outside the IA where SIRO has rolled out (as well as Eircom VUA on the CG WLA market, given asymmetric substitution). Access Seekers serving the remaining premises outside the IA using Eircom VUA would, based on SIRO Q2 2022 rollout, be unable to migrate their end users to SIRO VUA.

5.249 In comparison, in the IA, all premises, including those passed by Eircom VUA and/or LLU are also passed (or scheduled to be passed) by NBI, although not ultimately until 2026/7. Therefore, Access Seekers serving premises in the IA by means of Eircom VUA or LLU would, on a forward-looking basis, be capable of migrating their end users to VUA delivered over NBI (or, in a small number of cases, SIRO), subject to the potential temporal consideration set out at paragraph 5.244 above.

5.250 The IA is an area in which commercial rollout of NG broadband is not contemplated. That said, data available to ComReg suggest that 18% of

<sup>441</sup> ComReg notes that while Eircom is present in some parts of the IA, it is not always capable of providing speeds above 30Mbps as premises with download speeds lower than this generally fall within the NBP IA.

<sup>442</sup> Eircom's network coverage is measured in terms of lines, rather than address points, leading to an inflated figure of >100% when measuring its network rollout. However, ComReg notes that the high figure presented in Table 34 is indicative of an almost ubiquitous level of coverage, thus ComReg deflates this figure from 177% coverage to 100% for the purposes of further analysis.



premises in the IA are, in fact, passed by Eircom FTTx. Thus, a withdrawal of Eircom VUA would only impact 18% of premises in the IA. However, all of these premises would be – or are due to be – passed by NBI. Accordingly, Access Seekers delivering retail broadband to end users at these premises on the basis of Eircom VUA or LLU inputs would, in all cases, be able to migrate their end users to NBI VUA, on a forward-looking basis.

### **Access Seeker multi-homing**

- 5.251 [X ██████████ X] of Eircom’s merchant market VUA sales are accounted for by four Access Seekers (BT, Digiweb, Vodafone, and Enet), and [X ██████████ X] of Eircom’s merchant market LLU sales are accounted for by one Access Seeker [X ██████████ X], as of Q2 2022. Data available to ComReg indicate that each of these Access Seekers also purchases NG WLA from vendors other than Eircom:
- (a) BT purchases VUA from Eircom and SIRO;
  - (b) Vodafone purchases VUA from Eircom and SIRO;
  - (c) Digiweb purchases VUA from Eircom, SIRO and NBI; and
  - (d) Enet purchases VUA from Eircom and SIRO.
- 5.252 Accordingly, the four SPs which account for the large majority of Eircom’s merchant market LLU and VUA sales have all already invested in VUA purchasing capacity with SIRO and NBI and, allowing for Eircom bulk migration capability,<sup>443</sup> would presumptively be able to migrate a portion their wholesale or retail customers to SIRO or NBI VUA in an MGA in a timely manner and without incurring significant sunk costs, where their customers are passed by those networks. There would, however, be potential disruption at the consumer level, due to the need to arrange appointments for installation etc. Access Seekers may also need to increase backhaul capacity to accommodate a larger customer base on these networks.
- 5.253 In a MGA where Eircom withdraws merchant market CG WLA and NG WLA, market share distributions are likely to shift. Unless they are passed by SIRO or NBI, retail broadband end users reliant on upstream Eircom WLA directly or, in the case of BT Bitstream, indirectly, must migrate to Eircom if they wish to retain retail broadband. This shift in market shares in an MGA scenario suggests the presence of differences in competitive conditions between EAs where Eircom has a high retail broadband market share due to the absence (or presence, but at a low level) of SIRO or NBI on the one hand and, on the other hand, EAs where end users can purchase retail broadband from Access

<sup>443</sup> Bulk Migration allows an Access Seeker to have multiple migrations facilitated via a single request.

Seekers making use of SIRO or NBI VUA either directly or, in the case of BT NG Bitstream, indirectly.

- 5.254 Due to data limitations, ComReg cannot isolate Access Seeker purchases from each of SIRO, NBI and Eircom inside the IA, and outside the IA. However, the data set out at Table 35 above indicate the share of premises passed by SIRO and NBI, both within the IA, and outside the IA, and accordingly provide a proxy for the capacity of Access Seekers to retain their end users by migrating to alternative CG WLA or NG WLA provision in an absent regulation scenario, if Eircom withdrew provision of merchant market CG WLA or NG WLA. These data therefore isolate those wholesale purchases which are especially vulnerable to a MGA scenario where WLA regulation is not present.
- 5.255 ComReg therefore estimates that, in an absent regulation scenario, the following outcomes are plausible, based on the data set out above:
- (a) On the **CG WLA Market**, all retail end users would revert back to Eircom retail, if no asymmetric substitution to NG WLA were permitted, thus increasing Eircom retail market share to 100%. If asymmetric substitution is taken into account, the scenarios set out below in respect of NG WLA in the IA and outside the IA respectively apply;
  - (b) **Within the IA**, on a forward-looking basis, 100% of premises will be passed by NBI FTTP. However, only [X ■ X] of IA premises are passed by Eircom FTTx. Accordingly, in a MGA scenario, Access Seekers relying on Eircom VUA at those [X ■ X] of premises would be capable of switching to NBI VUA. At the large majority of premises in the IA not passed by Eircom FTTx, the MGA scenario is moot, as Eircom VUA is not available at these premises in any case. This suggests that, in an MGA, retail broadband market shares would change minimally, and Access Seekers served by Eircom VUA would likely be well positioned to retain their retail ed users by switching to NBI VUA;
  - (c) **Outside the IA**, SIRO is the only alternative VUA operator present, pending commencement of Virgin Media wholesale service, and Eircom has full or close to full FTTx coverage. In an MGA, and given SIRO coverage levels, Access Seekers serving three in every four premises would be unable to procure SIRO VUA. This suggests that Eircom's retail broadband share would likely increase significantly, as Access Seekers would be unable to continue to provide retail broadband to their end users in the absence of alternative wholesale services.

5.256 This suggests that the distribution and evolution of market shares on the NG WLA Market is indicative of geographic difference in competitive conditions, arising from the presence or absence of alternative FTTP networks capable of providing VUA, in an absent regulation scenario. For example, an Access Seeker's share of NG retail broadband in the IA does not necessarily change in an absent regulation scenario, because, on a forward-looking basis, it is capable of migrating its customers to NBI VUA. In contrast, outside the IA, that Access Seeker's market share is likely to decline substantially (while Eircom's market share would likely rise), as it can only migrate its customers to SIRO if those end users form part of the minority of premises outside the IA passed by both Eircom FTTx and SIRO FTTP.

#### Criterion 4: Evidence of differentiated pricing or marketing strategies

5.257 ComReg has assessed whether there is evidence of differentiated pricing or marketing that might indicate the presence of regional and/or local variations in competitive conditions, in particular, geographically de-averaged or differentiated WLA (or retail broadband) pricing. Furthermore, variation in product quality between geographic areas (which may infer effective price differences), or variation in the marketing of WLA products may also be suggestive of localised competitive pressures within a market.

5.258 At the wholesale level, none of Eircom, SIRO, or NBI vary their prices for VUA by geographic location. VUA is provided by Eircom on an almost-national basis (outside of the IA), albeit in the presence of regulation, and is priced on a uniform basis nationwide, by Eircom in accordance with its regulatory obligations, by NBI in accordance with its state aid obligations and its contract with DECC, and, on a commercial basis, SIRO. Similarly, Eircom does not vary its prices for LLU geographically. LLU is priced on a uniform basis nationwide, albeit in the presence of regulation.

5.259 Eircom's pricing of WLA products is uniform across the country, although this is in the presence of regulation (noting that existing SMP price control obligations place restrictions on Eircom VUA and LLU pricing which, absent regulation, would otherwise likely not be in place). The only geographic differences in Eircom WLA pricing arise from the availability of various access products, which is driven by the availability of technologies within an EA and Eircom network rollout. For example, in areas where Eircom's FTTP network has not yet been rolled out, Access Seekers can only purchase Eircom VUA over its FTTC network. This differentiated pricing is, therefore, not driven by competitive conditions, but rather by the presence of specific access networks capable of delivering VUA.

5.260 SIRO indicated that it prices its products on a uniform basis, where its network is available, although as an unregulated commercial entity, it would be free to

vary its prices geographically, if it wished. Similarly, NBI appears to price VUA on a uniform basis throughout the IA and is constrained to do so by the terms of the NBP Contract. On a forward-looking basis, and on the basis of its non-discrimination obligations, NBI is obliged to offer wholesale products for sale at a uniform price across the IA.

- 5.261 ComReg has already addressed differentiated pricing for retail broadband at sub-section 4.243 above, and concluded, taking account of all the evidence available to it, that there are insufficient grounds to conclude that SPs active in the provision of retail broadband differentiate their pricing or marketing strategies on a geographic basis.
- 5.262 ComReg notes, however, that SPs may vary retail broadband prices, bundling and marketing schemes depending on the network technology available in an area. In addition, retail broadband is marketed nationally by the four SPs which, collectively, account for 86% of retail broadband subscriptions, as of Q2 2022 (Eircom, Virgin Media, Vodafone, and Sky), with local marketing campaigns following the rollout of new broadband services (e.g., FTTP network rollout).
- 5.263 Insofar as potential differences in prices across different geographic areas are concerned, there is little behavioural evidence to suggest that Eircom is facing significantly different competitive conditions specifically in the provision of WLA between different geographic areas. Accordingly, ComReg has insufficient evidence to conclude that the provision of WLA is characterised by differentiated pricing or marketing strategies across different sub-national geographic areas.
- 5.264 As noted above, Eircom's pricing of WLA products is uniform across the country, although this is in the presence of regulation. The only geographic difference in pricing arises based on the availability of the various access products. This is driven by the availability of technologies within an EA and the rollout of FTTC and FTTP by Eircom. For example, in areas where no FTTC or FTTP network has been rolled out, VUA is unavailable and Access Seekers seeking to use WLA products must purchase LLU or Line Share. This differentiated pricing is not driven by competitive conditions but rather by network availability.
- 5.265 Insofar as potential differences in prices across different geographic areas are concerned, there is no evidence to suggest that operators vary WLA pricing across different areas of their networks for equivalent WLA products.

### Criterion 5: Geographic differences in product functionalities and demand characteristics

- 5.266 Demand for WLA arises from Access Seekers who do not own or operate an access network with sufficient coverage to compete in downstream markets, but who wish to provide downstream wholesale and/or retail services.<sup>444</sup> Widespread WLA coverage ensures that these Access Seekers are able to offer downstream retail and/or wholesale services. Demand for WLA products is generally likely to only vary geographically based on premises density and investment decisions, e.g., in areas of lower premises density, Access Seekers are unlikely to demand WLA products if downstream demand is insufficient to recover investments made. That said, while the IA consists of those areas of the State where it is not commercially viable to roll out NG broadband network infrastructure due to low population or premises density, NBI’s reported list of retail partners indicates that it is commercially viable to offer broadband services in those areas, albeit without having to incur the sunk costs associated with an infrastructure build.<sup>445</sup> As such, ComReg considers that demand for WLA is likely to be national in nature.
- 5.267 Access Seekers purchasing VUA or LLU from Eircom can benefit from national coverage which permits them, if they wish, to offer retail broadband on an almost-national basis in the case of VUA and a ubiquitous basis in the case of LLU, using Eircom wholesale inputs. In respect of Access Seeker VUA purchases from SIRO or NBI, larger Access Seekers appear to purchase VUA to service retail end users on a national basis. For example, Vodafone and Sky currently purchase both SIRO and NBI inputs in order to deliver retail broadband on a national basis. ComReg has identified some smaller Access Seekers which offer retail broadband on a regional basis. For example, Carnsore Broadband provides retail broadband services in Wexford on the basis of SIRO and NBI VUA inputs.

**Table 36: Retail Broadband Subscriptions by Service Provider, Q2 2022**  
 [REDACTED]

Retail Operator	NG Subscriptions	CG Subscriptions	% Share of Total (NG)
Eircom	[REDACTED]	[REDACTED]	[REDACTED]

<sup>444</sup> [REDACTED]

<sup>445</sup> ComReg notes that, where an Access Seeker considers that there is insufficient scale to warrant incurring the sunk costs of infrastructure investment required to procure NBI VUA, the Access Seeker may instead choose to purchase NBI Bitstream thereby avoiding the service delivery disincentives arising from diseconomies of scale, scope or density.

Vodafone			
Sky			
Pure Telecom			
Digiweb			
Virgin Media			
PrePay Power			
Magnet			
Three			
Westnet			
IFA Telecom			
BT Ireland			
LightNet			
Ivertec			
Fulnett			
Fastcom Broadband			
WellTell			
Intellicom			
Whizzy			
Imagine			
Crossan			
Transaction Network Services			
Total			

- 5.268 ComReg considers that Access Seeker demand for retail broadband displays limited geographic variance. In particular, three Access Seekers (Eircom, Vodafone, and Sky) which, together, account for 62% of retail broadband subscriptions nationally, purchase LLU and VUA from one or more Network Operators on a merchant market or, in the case of Eircom, self-supply, basis to offer services on a national basis, while, throughout the State, smaller Access Seekers purchase VUA or LLU to deliver retail broadband on a local or regional basis. In this regard, ComReg considers that EAs across the State are characterised by similar competitive conditions whereby a number of SPs with national reach are present alongside local operators. The identity of the larger SPs (Vodafone, Eircom, Sky) tends not to vary across EAs, while the identity of local operators purchasing VUA or LLU does tend to vary such that, for example, Net1 is active in Louth and Westnet is active in Mayo on the basis of merchant market VUA inputs.
- 5.269 Accordingly, ComReg has insufficient evidence to conclude that the provision of WLA is characterised by geographic differences in demand characteristics across different sub-national geographic areas, noting *inter alia* that Access Seekers may purchase inputs, or self-supply, from more than one operator.

### 5.3.2 Are there sufficient grounds for geographic differentiation?

- 5.270 ComReg has assessed the five geographic assessment criteria considered above. In respect of **CG WLA**, all five criteria indicate the likely absence of sufficiently different, yet stable, competitive conditions between geographic areas on a forward-looking basis. Accordingly, on balance, the evidence available to ComReg suggests that there are insufficient grounds to conclude that competitive conditions on the CG WLA Product Market are moving from a situation of relative uniformity, to a situation of differentiation across the State. This conclusion is supported by the ongoing decline in service provision over copper-only networks, as evidenced by low and declining LLU numbers. These market dynamics suggest that the CG WLA market is unlikely to be characterised by different competitive conditions across the State and the market is therefore likely to be national in scope.
- 5.271 In respect of **NG WLA**, three of the criteria (geographic differences in entry conditions over time, variation in the number and size of potential competitors, and distribution of market shares) indicate the likely presence of sufficiently different, yet stable, competitive conditions between geographic areas on a forward-looking basis, while two (evidence of differentiated pricing or marketing strategies, and geographic differences in demand characteristics) do not. Accordingly, on balance, the evidence available to ComReg suggests that there are sufficient grounds to conclude that competitive conditions on the NG WLA Product Market are moving from a situation of relative uniformity, based on ongoing demand for VUA (as defined in the 2018 Decision) delivered over Eircom's NG network, to a situation of differentiation across the State, driven by the rollout of NG broadband by other operators and, in particular, the implications for WLA geographic market definition of NBI's non-commercial rollout in the IA.
- 5.272 Over the lifetime of this market review, ComReg expects Eircom, SIRO and NBI FTTP rollout to continue.<sup>446</sup> ComReg has also noted VMI's announcement of its intention to commence the provision of wholesale services over FTTP but, on the basis of information provided by VMI, it is unlikely that this will have a material impact within this market review period. This suggests that it may not, on a forward-looking basis, be appropriate to define a single national geographic NG WLA market, given that competitive conditions may not be sufficiently homogenous nationally, owing to increased rollout of NG broadband facilitating the delivery of VUA and stable geographic differences in the availability of those networks. It follows that there may be grounds for distinguishing competitive conditions on the NG WLA market on a geographic

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<sup>446</sup> Eircom's FTTP rollout is likely to upgrade or replace existing FTTC and copper networks.

basis. In particular, it may be appropriate on the basis of sufficient differences in competitive conditions to characterise sub-national geographic markets.

- 5.273 In Phase 2 below, ComReg sets out the criteria which it proposes to apply to measure any sufficient differences in competitive conditions between EAs which would justify defining two or more sub-national geographic markets, rather than a single geographic market, in the provision of NG WLA.

### 5.3.3 Phase 2: Application of geographic assessment criteria to EAs

#### Relevant geographic unit for the geographic market assessment

- 5.274 As set out in Annex 8, ComReg considers that the relevant geographic unit for the Phase 2 NG WLA geographic market assessment is the Modified Eircom Exchange Area (the '**Modified EA**'). This is because using the EA as the unit of assessment would fail to account for the geographic split between NBI coverage within the IA, and Eircom or SIRO coverage outside the IA. The Modified EA is divided internally between the IA EA – that is, the part of the EA falling within the IA, and the Commercial EA – that is, the part of the EA falling outside the IA. In most cases, the Modified EA will consist of both a Commercial EA and an IA EA component. However, in a small number of cases, the Modified EA will lack a Commercial EA or an IA EA component, as appropriate, where the Modified EA falls fully within, or without, the IA.
- 5.275 The 2020 Explanatory Note<sup>447</sup> indicates that, when NRAs are examining the geographic scope of a market, they should ensure that geographic units:
- (a) Are of an appropriate size;
  - (b) Reflect the network structure of relevant Service Providers; and
  - (c) Have clear and stable boundaries over time.
- 5.276 In this regard, Eircom's EA boundaries are of an appropriate size to allow detailed analysis, yet avoid a burdensome micro-analysis which may not add analytical value. Both Eircom and BT Ireland use the EA in their supply of retail and wholesale services. Furthermore, EA boundaries are relatively stable over time (although dynamics within them may vary at the premises level) and are well understood by SPs who purchase services over Eircom's FTTx network.
- 5.277 Given that NBI's and SIRO's networks are not ubiquitous, ComReg overlays those network footprints onto the Eircom EA boundaries. This allows consideration of market shares, network presence and coverage of the various SPs within an EA, regardless of whether they use Eircom inputs in their

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<sup>447</sup> At page 19.



network. While alternative geographic units may suit individual networks, in circumstances where ComReg has to take account of multiple networks there is no unique unit of assessment that can accommodate all network perfectly. ComReg considers that, for the reasons set out above and in Annex 8, that the Modified EA is a reasonable and proportionate way of proceeding.

- 5.278 ComReg limits its assessment of competitive conditions<sup>448</sup> in EAs to those operators whose networks it proposes to include in the NG WLA Product Market or CG WLA Product Market ('**Network Operators**'), namely:
- (a) Eircom's FTTC and FTTP networks;
  - (b) SIRO's FTTP network; and
  - (c) NBI's FTTP network.
- 5.279 ComReg notes announced FTTP rollout by Virgin Media but, as of Q4 2022, is not in possession of sufficiently detailed forecast FTTP rollout data from any operator other than NBI. ComReg can only therefore take account of other SPs' projected network rollout more generally.

#### Criteria for assessing the WLA geographic markets

- 5.280 Annex 8<sup>449</sup> outlines the proposed criteria for assessing the NG WLA geographic markets and ascertaining how to objectively identify differences in conditions of competition between Modified EAs. Having regard to the above, ComReg proposes to set out a range of cumulative criteria (each of which is explained below), based around the following conditions:
- (a) A minimum number of Network Operators;
  - (b) Absolute network coverage; and
  - (c) Overlapping network coverage.
- 5.281 The analysis of these conditions leads to a set of cumulative criteria to assess whether or not there are differences in competitive conditions between geographic areas. The proposed criteria are:
- (a) **Criterion 1:** At least three Network Operators capable of delivering VUA (SIRO, NBI, or Eircom)<sup>450</sup> must be present at the Modified EA;

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<sup>448</sup> Note that this is not intended as an SMP assessment, but rather an examination as to whether competitive conditions may differ across different geographic areas.

<sup>449</sup> Discussed in paragraphs A 8.30 to A 8.51.

<sup>450</sup> Although Virgin Media is designated as a Network Operator, ComReg does not include it in any of the three assessment criteria, as based on information provided by Virgin Media, it is unlikely that Virgin Media VUA will be available to Access Seekers before [REDACTED].

- (b) **Criterion 2:** Individual Network Operator coverage at a Modified EA must be (or be reasonably forecast to be) at least 60%; and
- (c) **Criterion 3:** At least 50% of premises in a Modified EA must be passed by at least three Network Operators.

5.282 The fine detail of these criteria is set out at Annex 8. On the basis of the application of these cumulative criteria, ComReg has concluded that it is appropriate to define two broad NG WLA Geographic Markets:

- (a) The **Commercial NG WLA Market**, consisting of those parts of the Modified EAs falling outside the EA which fail one or more of the Criteria set out above; and
- (b) The **IA NG WLA Market**, consisting of those parts of the Modified EAs falling within the EA which fail one or more of the Criteria set out above.

5.283 ComReg also notes, as set out in further detail in Annex 8 that two Modified EAs passed all three criteria, but are deemed to be too small, based on Q2 2022 data, to warrant defining a separate geographic market.

## 5.4 Overall Conclusion on WLA Market Definition

5.284 In paragraphs 5.11 to 5.200, ComReg analysed the WLA market from a product perspective and set out its preliminary view that it is comprised of two markets:

- (a) The CG WLA Product Market, consisting of
  - i. LLU, SLU, and Line Share products provided over its copper-only network by Eircom to Access Seekers, and
  - ii. the self-supply of LLU, SLU, and Line Share by Eircom to its own retail business.
- (b) The NG WLA Product Market, consisting of
  - i. VUA products provided over FTTx networks by Eircom, SIRO, NBI and, on a forward-looking basis, Virgin Media, to Access Seekers; and
  - ii. the self-supply of VUA by Eircom and, on a forward-looking basis, Virgin Media, to their own retail businesses.

5.285 In paragraphs 5.201 to 5.282, ComReg analysed the WLA markets from a geographic perspective and set out its preliminary view that there are three distinctive WLA product and geographic markets (collectively, the '**Relevant WLA Markets**'), based on the analysis of the criteria laid out in paragraph 5.281. These are:

- (a) The '**National CG WLA Geographic Market**';

- (b) The '**Commercial NG WLA Geographic Market**'; and
- (c) The '**IA NG WLA Geographic Market**'.

- Q. 3. Do you agree with ComReg's product market assessment for the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**
- Q. 4. Do you agree with ComReg's geographic market assessment for the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

## 6 WLA Competition Analysis

### 6.1 Framework for Assessing SMP

- 6.1 Having defined the Relevant WLA Markets at Section 5 above, ComReg now determines whether those markets are effectively competitive, having regard to whether or not any of the SPs operating within them have SMP.
- 6.2 Since the WLA market is identified in the 2020 Recommendation as a market susceptible to *ex ante* regulation, it is therefore not necessary to carry out a 3CT before advancing to the SMP assessment, as the presumption in favour of regulation is already met at EU level by means of the 2020 Recommendation and Article 67(1) of the EECC (mirrored in Regulation 49(4) of the ECC Regulations). ComReg is entitled to form a presumption that regulation of the WLA markets is – in principle – warranted, and can therefore proceed to assess whether, based on the evidence available to it, there are grounds to conclude that any SP has SMP in each of the CG WLA Market, IA NG WLA Market or the Commercial NG WLA Market.
- 6.3 The European regulatory framework for electronic communications networks and services has aligned the concept of SMP with the competition law definition of dominance advanced by the Court of Justice of the European Union in *United Brands v. Commission*:<sup>451</sup>

*“The dominant position referred to [by Article 102 of the Treaty on the Functioning of the European Union] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its end users.”*

- 6.4 Article 63(2) of the EECC (mirrored in Regulation 45(2) of the ECC Regulations) effectively mirrors this definition of dominance and states that:

*“An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.”*

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<sup>451</sup> Case 27/76 *United Brands v European Commission* [1978] ECR 207, Paragraph 65. See also paragraph 52 of the 2018 SMP Guidelines.

6.5 The European Commission's SMP Guidelines, of which ComReg is required to take utmost account, describe a range of criteria that may be considered by NRAs when seeking to establish whether an undertaking(s) has SMP in a relevant market.

6.6 The SMP Guidelines state that:

*“According to established case-law, very large market share held by an undertaking for some time — in excess of 50 % — is in itself, save in exceptional circumstances, evidence of the existence of a dominant position. Experience suggests that the higher the market share and the longer the period of time over which it is held, the more likely it is that it constitutes an important preliminary indication of SMP.”<sup>452</sup>*

6.7 Market shares in excess of 50% therefore give rise to a strong presumption of SMP. However, the SMP Guidelines also state that the existence of a high market share alone is not sufficient to establish the existence of SMP; rather it means that the undertaking concerned *may* be in a dominant position and this needs to be considered alongside other potentially relevant criteria for assessing the existence of SMP, such as:

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

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<sup>452</sup> Paragraph 55 of the SMP Guidelines.

6.8 The relative importance of each factor may vary from one analysis to another as the characteristics or dynamics of the market under assessment change. Consequently, flexibility is needed in applying the above criteria. In addition, many of the above factors, while presented separately, may, in fact, be interrelated and all available evidence is considered by ComReg collectively before a determination on SMP is made. The SMP Guidelines note that:<sup>453</sup>

*“A dominant position can derive from a combination of the above criteria, which taken separately may not necessarily be determinative.”*

## 6.2 Approach to Assessing SMP in the Relevant WLA Markets

6.9 In assessing whether an undertaking has SMP in the Relevant WLA Markets, ComReg carries out a forward-looking analysis on the basis of existing and likely future market conditions<sup>454</sup> to consider the range of factors identified above that are of most relevance to the market being examined.

### 6.2.1 Relevant SMP Criteria

6.10 For the purposes of analysing the Relevant WLA Markets, ComReg considers that the following criteria are of most relevance to the assessment of SMP:

- (a) Overall size of the undertaking;
- (b) Control of infrastructure not easily duplicated;
- (c) Absence of or low countervailing buyer power;
- (d) Economies of scale and scope;
- (e) Vertical integration;
- (f) Absence of potential competition; and
- (g) Barriers to entry and expansion.

6.11 ComReg also views factors such as historical and likely future pricing behaviour as relevant considerations.

6.12 Other factors in addition to those set out at paragraph 6.10 above, which could be used to assess the presence of SMP have been considered but, for the

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<sup>453</sup> Paragraph 79 of the SMP Guidelines.

<sup>454</sup> Paragraph 20 of the SMP Guidelines states that “*In carrying out the market analysis....NRAs will conduct a forward looking, structural evaluation of the relevant market, based on existing market conditions. NRAs should determine whether the market is prospectively competitive, and thus whether any lack of effective competition is durable, by taking into account expected or foreseeable market developments over the course of a reasonable period. The actual period used should reflect the specific characteristics of the market and the expected timing for the next review of the relevant market by the NRA. NRAs should take past data into account in their analysis when such data are relevant to the developments in that market in the foreseeable future.*”

reasons set out in Annex 7, are considered of less (or no) relevance for the purposes of the SMP assessment in the Relevant WLA Markets.

## 6.2.2 Approach to Existing Regulation

- 6.13 In markets subject to *ex ante* SMP regulation, an undertaking's behaviour may be restricted by way of existing SMP obligations. It is necessary, however, to consider the potential ability of the undertaking to exert market power in the absence of *ex ante* SMP regulation<sup>455</sup> in the markets concerned. To do otherwise could lead to a circular finding of non-dominance on the basis of SMP regulatory remedies that would cease to exist following the completion of a market analysis and, in the absence of which, the undertaking may be able to exert market power. In the context of an SMP assessment, in the Relevant WLA Markets, the key hypothetical questions to be assessed are:
- (a) How the undertaking in question would be likely to behave in the markets under assessment, if it were free from current or potential SMP regulatory constraints; and
  - (b) How the undertaking in question would be likely to behave in the markets under assessment, having regard to any SMP and other obligations in related markets that could impact the Relevant WLA Markets.
- 6.14 ComReg is also currently reviewing the PIA market in a separate consultation (the '**PIA Consultation**')<sup>456</sup> issued in parallel with this Consultation, and which consists of, *inter alia*, the poles and ducts necessary to support wired electronic communications networks, which in turn can be used to offer downstream, WLA, WCA and retail broadband (and other) services. PIA is, therefore, an upstream input into the provision of these services. Under the 2018 Decision, Eircom had obligations imposed on it requiring it to provide access to its physical infrastructure ('**PI**').<sup>457</sup> In the PIA Consultation, ComReg proposes to define PIA as a standalone market located upstream of WLA and WCA markets and to designate Eircom with SMP in that national PIA market. Accordingly, ComReg must consider the implications - if any - for competition in the Relevant WLA Markets, having regard to the proposed presence of regulation on the upstream PIA market.
- 6.15 Based on the evidence available, ComReg is of the view that, within the lifetime of this five-year market review period, other than for NBI, regulation of the PIA market and its use by other SPs is unlikely to have a significant impact on

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<sup>455</sup> However, while discounting SMP regulation in the market concerned, other obligations (such as, for example, relevant SMP remedies existing in other markets, or obligations relating to general end user protection) are assumed to be in place.

<sup>456</sup> Physical Infrastructure Access ('**PIA**') Market Review, Consultation, ComReg Document 23/04.

<sup>457</sup> Civil Engineering Infrastructure ('**CEI**') is synonymous with the term PI.

competition within the WLA and WCA (and related) markets. ComReg will continue to monitor the situation. The only SP which currently makes use of (and is expected to make use of) Eircom PIA at any level of scale is NBI. Accordingly, the provision of WLA by SIRO on the Commercial NG WLA Market (or the CG WLA Market in the case of CG WLA) would likely remain largely unaffected by the presence of PIA regulation, since SIRO does not rely on wholesale access to Eircom's PI. Eircom's self-supply of PI is manifested to date in its ongoing roll-out of FTTP, along with its future plans to do so where it intends to ultimately pass 1.9 million premises with FTTP by 2026. In the IA NG WLA Market, NBI relies heavily on access to Eircom's PI, and the proposed presence of upstream PIA regulation enables ComReg to take account of the competitive impact of NBI in the downstream WLA and WCA markets.<sup>458</sup>

### 6.3 Assessment of SMP

- 6.16 Each of the relevant factors identified in paragraph 6.10 above are considered in detail below. Given an inherent degree of overlap, ComReg combines its assessment of these factors under the following three broad headings:
- (a) **Existing competition in the Relevant WLA Markets:** factors such as market shares, indirect retail constraints, vertical integration, relative strength of existing competitors, barriers to expansion, and pricing behaviour (discussed in paragraphs 6.17 to 6.94);
  - (b) **Potential competition in the Relevant WLA Markets:** factors such as the overall size of the undertaking and control of infrastructure not easily duplicated, barriers to entry in the WLA markets, economies of scale/scope, and the overall strength of potential competitors (discussed in paragraphs 6.95 to 6.152); and
  - (c) **Strength of any countervailing buyer power (CBP):** an assessment of the impact posed by any strong buyers of WLA on the competitive behaviour of WLA providers (discussed in paragraphs 6.153 to 6.200).

### 6.4 Existing Competition in the Relevant WLA Markets

- 6.17 As of November 2022, WLA is provided by Eircom, SIRO, and NBI. Virgin Media has signalled its intent to commence the provision of WLA over FTTP, but has indicated to ComReg that this is unlikely to occur before [X ██████████ ██████████ X], and has not been in a position to provide forecast data on scheduled WLA service provision. Accordingly, ComReg does not propose to assess intended VMI WLA provision under the existing competition heading. Eircom is – in the presence of regulation - the largest supplier of merchant market NG

<sup>458</sup> If such access were to be mandated as a remedy/obligation imposed in the WLA market, in accordance with the MGA, its competitive impact in the WLA and WCA markets would need to be discounted.



VUA (FTTC and FTTH), and the sole supplier of CG WLA in the State. Eircom provides VUA over its widely available FTTx network (ultimately to cover 1.9m premises with FTTP), where present and CG WLA over its ubiquitous copper network. SIRO and NBI also supply VUA in areas where they have rolled out their FTTP networks. ComReg expects that Eircom (predominantly upgrading from FTTC to FTTP), SIRO and NBI (the latter within the IA) will continue to roll out their respective networks over the lifetime of this five-year market review period. Further information on Eircom, SIRO, and NBI roll out plans is set out at section 3.2.2 above.

- 6.18 Eircom and NBI FTTP rollout locations largely differ (noting the possibility of some overlap), and SIRO has passed 450,000 premises as part of its Phase 1 rollout, having announced its intention to pass an additional 330,000 premises as part of its Phase 2 rollout. Over the five-year lifetime of this market review, the overlaps between the Eircom and SIRO FTTP networks will likely increase (and potentially Virgin Media). In an absent regulation scenario, ComReg is of the view that, for the reasons set out in this Section, over the scheduled lifetime of this market review period, absent regulation no WLA provider is likely to face a sufficiently strong competitive constraint in the Relevant WLA Markets from existing competitors, arising *inter alia* from insufficient levels of alternative and overlapping operator rollout.
- (a) On the **CG WLA Market**, Eircom holds a 100% market share measured by LLU lines, as no other operator provides CG WLA in the State;
  - (b) On the **Commercial NG WLA Market**, Eircom holds a market share of [X ██████████ X],<sup>459</sup> measured by existing VUA lines, while SIRO has the remaining market share of [X ██████████ X].<sup>460</sup> It is ComReg's view that Eircom is and will not be sufficiently indirectly constrained by downstream retail competition; and
  - (c) On the **IA NG WLA Market**, NBI holds a market share of 49%, measured by VUA lines rolled out as of Q2 2022 (rather than by forecast NBI rollout, which would likely suggest a much higher market share). No other operator holds a market share any higher than 41%. NBI is unlikely to be indirectly constrained by downstream retail competition (but it is likely constrained by the NBI Contract).
- 6.19 ComReg notes in Section 5 that the CG WLA focal product (LLU) and the NG WLA focal product (VUA) are likely characterised by asymmetric substitution and fall within separate WLA markets. ComReg also indicated that, consistent with BEREC guidance, and bearing in mind the specific circumstances of the

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<sup>459</sup> Between 55% and 65%.

<sup>460</sup> Between 35% and 45%.

provision of WLA in the State, it would assess the implications of CG WLA/NG WLA asymmetric substitution as part of the competition assessment exercise.

- 6.20 In paragraphs 5.123 to 5.193, ComReg also considered the likely impact of any indirect retail constraints on the Relevant WLA Markets generated by retail providers offering services over CATV, alternative FTTP, FWA, satellite and mobile networks. The strength of any such constraints was not considered likely to be sufficient to warrant their inclusion in any of the Relevant WLA Markets. However, these constraints are further examined below for the purpose of identifying the effectiveness of any competitive constraints arising from existing competition, albeit over a longer time horizon. ComReg's view is that such indirect constraints would not be effective.

#### 6.4.1 Market Shares

- 6.21 ComReg considers below the likely market shares of SPs capable of providing WLA, absent regulation in each of the Relevant WLA Markets.
- 6.22 ComReg considers market share figures as of Q2 2022 on the Relevant CG WLA Market on an absent regulation basis for:
- (a) Eircom merchant supply of LLU, SLU, and LS;
  - (b) Eircom self-supply of retail broadband based on its own CG WLA and WCA inputs; and
  - (c) Eircom merchant market supply of CG WCA (which would, absent regulation, likely become part of Eircom's own supply unless alternative SIRO or NBI NG WLA was present at the premises in question).
- 6.23 Eircom, SIRO and NBI all supply NG WLA VUA-based services, while Eircom also supplies CG WLA. At the time of the 2018 Decision, SIRO rollout was limited, and Eircom had a market share of in excess of 90% on the then-defined national WLA market (noting that then only one product market definition was identified and would have included but CG and NG WLA). As set out in Section 5 above, some market entry/expansion has occurred in the intervening time period, and VMI may enter in the future (although noting the location and timing uncertainty). In assessing existing competition, ComReg now considers market share figures on an absent WLA regulation basis, as appropriate, as of Q2 2022 on each of the Relevant NG WLA Markets for:
- (a) Eircom merchant market supply of VUA;
  - (b) Eircom self-supply of retail broadband based on its own effective NG WLA inputs (which would include its self-supply of WCA);

- (c) Eircom merchant supply of NG WCA (which would, absent regulation, likely become part of Eircom's own supply unless alternative SIRO or NBI NG WLA was present at the premises in question);
- (d) SIRO supply of NG WLA; and
- (e) NBI supply of NG WLA.

## CG WLA Market

6.24 As of Q2 2022, Eircom has a 100% market share on the CG WLA Market taking into account only those products falling into the CG WLA product market (LLU, SLU, and Line Share, all of which are provided exclusively by Eircom, including its self-supply). Moreover, bearing in mind the CG WLA product market definition, Eircom has retained a 100% market share in the provision of CG WLA since the 2018 Decision, but on a declining market, as set out at paragraph 6.30 below. As set out at Section 5 above,<sup>461</sup> the provision of VUA and LLU is likely to be characterised by asymmetric substitution, which falls for assessment at competition assessment stage. ComReg therefore also considers at this stage whether CG WLA is constrained by NG WLA, even though they form separate product markets. This approach is consistent with the 2018 SMP Guidelines which state that:

*“Where competitive constraints stem from outside the market, they should, nevertheless, be taken into account at the stage of the SMP assessment”*<sup>462</sup>

6.25 ComReg concludes at paragraphs 5.35 to 5.42 that NG WLA VUA and CG WLA LLU are characterised by asymmetric substitution. Accordingly, VUA is likely to exert a competitive constraint on LLU, having regard to the retail dynamics discussed in Section 3 whereby retail end users have been migrating to NG broadband, where available. Given the network upgrade plans of various SPs, including NBI rollout in the IA, Eircom's CG network is likely to be surpassed by FTTP networks over the period of this review. ComReg considers whether that NG WLA constraint from outside the CG WLA Market is likely sufficient to prevent Eircom from behaving to an appreciable extent, independently of its competitors, customers and ultimately of its end users.

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<sup>461</sup> At paragraphs 5.83 to 5.87.

<sup>462</sup> Explanatory Note to the 2018 SMP Guidelines, at p.9.

- 6.26 Since NG WLA falls outside the CG WLA Market, Eircom's market share remains at 100% on that market. In an absent regulation scenario, Eircom's market share remains at 100%, as, following the withdrawal of merchant market CG WLA, Access Seekers would be unable to procure CG WLA from alternative sources, with the result that most end users wishing to retain CG broadband would be obliged to switch to Eircom retail.
- 6.27 However, Eircom may nevertheless be restricted in its CG WLA behaviour by NG WLA in certain circumstances. While NG WLA is, in principle, capable of acting as a constraint on the supply by Eircom of CG WLA, in practice, the extent to which it is capable of doing so is likely to vary for a number of reasons.
- 6.28 NG WLA is only provided by Eircom, SIRO, and NBI. Eircom provision of CG WLA is unlikely to be effectively constrained by Eircom's own provision of NG WLA in an MGA scenario. That said, given ComReg's finding below that Eircom has SMP in the Commercial NG WLA Market, and the resultant SMP obligations imposed, its supply of NG WLA could constrain its CG WLA, where available in the footprint of the Commercial NG WLA Market. A degree of competitive constraint on Eircom's provision of CG WLA is also likely to arise from the provision of VUA by NBI<sup>463</sup> or SIRO.
- 6.29 The majority of CG WLA subscriber lines are likely to be located in the footprint of the IA where NBI has, or is scheduled to, roll out its FTTP network to premises not already served, or planned to be served, by NG broadband on a commercial basis.<sup>464</sup> Accordingly, within the footprint of the IA, Eircom CG WLA is likely, on a forward-looking basis, to be effectively constrained by NBI NG WLA (or indeed by any overlap from commercially supplied NG WLA in the IA). For any CG WLA provided outside the footprint of the IA, SIRO VUA is likely to be capable of acting as an effective asymmetric constraint (where it has or is expected to have coverage), but there are likely to be fewer such cases relative to the IA scenario.
- 6.30 Additionally, given the ongoing decline of CG WLA, the asymmetric constraint posed by NG WLA is likely to be time-bound in nature. Since the 2018 Decision, there has been a pronounced shift away from CG WLA towards NG WLA, arising from changed derived demand at end user level. Since the 2018 Decision, full and shared LLU subscriber lines have declined by 66%, from 30,517 in Q4 2018, to 10,415 in Q2 2022.<sup>465</sup> Similarly, retail broadband subscriptions delivered over CG DSL technology have declined by 55% and,

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<sup>463</sup> Noting that NBI's coverage is likely to be where there is no NG WLA (although some overlap is possible).

<sup>464</sup> ComReg is unable to calculate the precise number of CG WLA lines in the IA, as most CG WLA lines do not have an Eircode assigned to them. Accordingly, ComReg cannot determine with certainty individual CG WLA lines lie within or outside the IA.

<sup>465</sup> ComReg QKDR data.

as of Q2 2022, now amount to just 8% of total fixed subscriptions, according to QKDR data. In the expectation that CG WLA numbers continue to decline (potentially to an end point at some stage in the future when the provision of copper based broadband services ceases), NG WLA will continue to act as an asymmetric substitute, but in respect of a shrinking CG WLA market.

- 6.31 The decline of CG WLA and the increase in the supply and demand for NG WLA can be considered to be also driven by a general technological step change from an older CG legacy technology to a new, more modern NG technology. In that regard, the shift from CG WLA to NG WLA is part of a broader step change across the delivery of various services to Access Seekers and end users which would be likely to occur regardless of whether NG WLA was capable of sufficiently constraining CG WLA.
- 6.32 ComReg is, accordingly, of the view that in the short term, and viewed in isolation, there are unlikely to be sufficiently effective or immediate direct constraints on Eircom in the CG WLA Market. Over the five-year time horizon for this market review, however, the increased availability for NG WLA (particularly as NBI rolls out) along with end user switching patterns suggest that it is likely to effectively constrain CG WLA. Also, the CG WLA market is, itself, likely to shrink in size, and Eircom's high CG WLA market share needs to be viewed in this context. In particular, on a forward-looking basis, high market shares may not be a reliable indicator of the capacity of an operator to exercise market power where that market is in decline, as measured by subscriptions. In respect of CG WLA, the presence of asymmetric substitution from outside the market in the form of NG WLA is likely to limit Eircom's ability to behave, to an appreciable extent, independently of competitors, customers and consumers over the lifetime of this market review period. ComReg does, however, note that this constraint is predicated on NBI rollout.
- 6.33 Therefore, ComReg considers that Eircom's current 100% market share in the CG WLA Market is not a sufficiently reliable indicator of its ability to behave, to an appreciable extent, independently of competitors, customers and consumers, particularly in the context of the expected decline in this market, driven by end user switching to NG retail broadband, where available.

### Commercial NG WLA Market

- 6.34 Eircom has a high market share on the Commercial NG WLA Market. NBI is not present on the Commercial NG WLA Market, while SIRO has a more limited market share, measured by subscriber lines. Table 37 below presents the likely market shares for Network Operators capable of providing VUA in the Commercial NG WLA Market, absent WLA regulation. [X ██████████
- ██████████
- ██████████

[REDACTED] <sup>466</sup> As of Q2 2022, Eircom reports that its FTTC network covers 1.2m premises, and its FTTP network has rolled out to 864,000 premises nationwide.<sup>467</sup> It has signalled its intention to upgrade its FTTC network to FTTP, ultimately to cover 1.9 million premises by 2026.<sup>468</sup> It has also signalled that its recently completed joint venture with InfraVia will enable it to roll out its FTTP network more quickly than previously envisaged.

*“Investment provided by this joint venture will allow eir to increase the pace of expansion of its fibre-to-the-home broadband network, and it is estimated that 200,000 homes will be passed in 2022, increasing to 250,000 homes in 2023. This acceleration of the network roll-out will enable access to ultrafast fibre broadband for around 50,000 more than initially anticipated premises per year.”<sup>469</sup>*

6.35 ComReg considers that there are unlikely to be sufficiently effective or immediate direct constraints from existing competition (measured by market shares) on Eircom in the Commercial NG WLA Market. In principle, there may be scope for the strength of these constraints to change over the lifetime of this market review period, but based on the data at its disposal, ComReg considers that any such additional constraint would likely remain ineffective. This is particularly in the context of Eircom planning to upgrade to FTTP at 1.9m premises,<sup>470</sup> which would strengthen its position, such that it will gain market share (noting that its footprint will be significantly larger than SIRO’s planned FTTP footprint of 770,000 premises) and it would continue to be capable of behaving, to an appreciable extent, independently of its competitors, customers or consumers.

**Table 37: Market Shares in the Commercial NG WLA Market in the presence of regulation – Q2 2022<sup>471</sup> [REDACTED]**

<sup>466</sup> Eircom Investor Information Memorandum in connection with possible investment in what ultimately became FNI, '**Investment Information Memorandum**'. This document was provided to ComReg as part of its engagement with Eircom in relation to its transaction with InfraVia.

<sup>467</sup> In its trading update for Q3 2022, Eircom reports its FTTC network passes some 1.1m premises, while its FTTP network passes 925K premises, provision a total FTTx coverage of just over 2m premises. See [PowerPoint Presentation \(eir.ie\)](https://www.eir.ie/presentation)

<sup>468</sup> Eir Group results, Q2, 2022, at p.7. [https://www.eir.ie/opencms/export/sites/default/content/pdf/IR/presentations/2022\\_2023/eir\\_Q2-22\\_results\\_presentation.pdf](https://www.eir.ie/opencms/export/sites/default/content/pdf/IR/presentations/2022_2023/eir_Q2-22_results_presentation.pdf)

<sup>469</sup> <https://www.eir.ie/pressroom/eir-and-InfraVia-Form-Partnership-to-Accelerate-eirs-Fibre-Broadband-Roll-Out/>

<sup>470</sup> “Fibre broadband use in the State has grown rapidly in recent years and Eir now aims to pass 1.9 million premises by the end of 2026.” <https://www.irishtimes.com/business/technology/eir-to-accelerate-broadband-rollout-after-deal-with-infravia-1.4787778>

<sup>471</sup> Q2 2022 QKDR.

Operator	Lines	Share
Eircom merchant market supply of VUA and NG Bitstream <sup>472</sup>	██████████	██
Eircom self-supply of VUA & supply of NG Bitstream	██████████	██
SIRO merchant market supply of VUA <sup>473</sup>	██████████	██
<b>Total</b>	██████████	<b>100%</b>

6.36 In the presence of regulation, Eircom merchant market supply [X ██████████ ██████████ X],<sup>474</sup> is the largest WLA supplier in the Commercial NG WLA Market, and Eircom accounts for a total of [X ██████████ X]<sup>475</sup> of all WLA supply. Absent regulation, ComReg assumes that Eircom would withdraw merchant market provision of NG WLA in the Commercial NG WLA Market. In those circumstances, Eircom merchant market supply of NG WLA-based VUA and NG WCA-based Bitstream will revert back to Eircom self-supply, unless those premises are also passed by SIRO, in which case an Access Seeker may be capable of switching some of its purchases of Eircom VUA to SIRO VUA. At the wholesale level, no other options are available to Access Seekers, given that NBI is not present on the Commercial NG WLA Market.

**Table 38: Market Shares in the Commercial NG WLA Market, absent regulation – Q2 2022<sup>476</sup> [X REDACTED X]**

Operator	Lines	Share
Eircom merchant market supply of VUA and NG Bitstream <sup>477</sup>	█	██
Eircom self-supply of VUA & supply of NG Bitstream	██████████	██

<sup>472</sup> Supply of NG Bitstream is included here, as VUA inputs are required to supply services in this market. The data available to ComReg on NG Bitstream lines do not currently enable it to create a split between the Commercial NG WLA Market, and the IA NG WLA Market. To estimate this split, the ratio of Network Operator FTTP coverage between the Commercial NG WLA Market and the NG IA WLA Market was used as a proxy and applied to the national market share figures to offer indicative figures in this case.

<sup>473</sup> SIRO supply of VUA increased to [X ██████████ ██████████ X]

<sup>474</sup> Between 45% and 55%.

<sup>475</sup> Between 80% and 90%.

<sup>476</sup> Q2 2022 QKDR.

<sup>477</sup> Supply of NG Bitstream is included here, as VUA inputs are required to supply services in this market. The case presented in the Table assumes the worst-case scenario, i.e., that all Eircom merchant market VUA and NG Bitstream supply will revert back to Eircom Retail once regulation is removed. This Table does not take into account any potential switching of Access Seekers to SIRO VUA due to frailties associated with the data.





## IA NG WLA Market

- 6.41 NBI is expected to be the main provider of services in the IA, which serves areas which would not otherwise be served by NG broadband on a commercial basis. In this context, it would likely hold a significant NG WLA market share, measured by subscribers. As of 11 November 2022, NBI reports that it has connected to 23,916 premises (that is, 26% of premises it has passed), although ComReg expects that this number is likely to increase as NBI rollout continues.<sup>479</sup> The NBP Contract<sup>480</sup> with the State<sup>481</sup> requires NBI, a wholesale-only operator that does not compete in retail markets, to roll out a high-speed broadband network within the IA, which it will operate and manage over a 25-year period. In accordance with the terms of the NBP Contract, NBI is subject to constraints on its conduct separate to any constraints arising from existing competition. The specific terms of NBI's contractual obligations and requirements are likely to substantially constrain its behaviour in a way which, as set out below, (where it would otherwise be hypothetically possible to do so), is likely to restrict its ability to act independently of its competitors, customers and end users and exert market power, even where it is likely to hold a significant market share.
- 6.42 Under the NBP Contract, 'NBPCo' (that is, NBI)<sup>482</sup> must provide various wholesale products (including NG WLA) to SPs on an Equivalence of Input ('Eol') basis.<sup>483</sup> The NBP Contract outlines the 'Minimum Required Wholesale Products'<sup>484</sup> and 'Additional Required Wholesale Products'<sup>485</sup> that must be provided, and also states that NBI may choose to further provide 'Other Permitted Wholesale Products' that are not defined as a 'Minimum or Alternative Required Product', also on an Eol basis.
- 6.43 NBI is required under the NBP Contract to sell products which deliver minimum performance and service specifications as set out in the NBP Contract and must develop and publish a rolling 10 year 'Wholesale Product Roadmap'

<sup>479</sup> [www.nbi.ie](http://www.nbi.ie), accessed 21 November 2022. Data accurate as of 11 November 2022.

<sup>480</sup> The full details of which, including the contract document are available at <https://www.gov.ie/en/publication/16717-national-broadband-plan-contract/> ('**NBP Contract**'). The contract is subject to a change control procedure and elements may be updated over the lifetime of the project.

<sup>481</sup> Managed via the Department of the Environment, Climate and Communications ('**DECC**').

<sup>482</sup> The company that entered into the NBP Contract was made a new designated activity company limited by shares incorporated specifically for the project ('**NBPCo**'). NBPCo refers to NBI Infrastructure Designated Activity Company with registered number 631656 and a registered office at 10 Earlsfort Terrace, Dublin 2.

<sup>483</sup> Wholesale products, services and information must be made available to all SPs in the same timescales, on the same terms and conditions, and by means of the same systems and processes.

<sup>484</sup> Active and passive wholesale products, and passive backhaul wholesale products.

<sup>485</sup> Business wholesale products, other wholesale products that may be suitable for Strategic Community Points and any other variants of residential active wholesale products.

which provides information on product testing, availability and enhancement of functionality/processes. Moreover, NBI must ensure that Retail Service Providers ('**RSP(s)**') provide an anchor residential retail product based on the minimum bitstream wholesale product, which meets or exceeds the minimum performance for all specifications.

- 6.44 NBI must publish and update a Reference Offer<sup>486</sup> in relation to all wholesale products offered and provide those wholesale products at the pricing and under the terms and conditions outlined in the Reference Offer. The minimum requirements include functionality, specifications and availability timing, operational processes for SPs to manage the lifecycle of the wholesale product, SP SLA for the wholesale product, the wholesale price, and SP terms for the wholesale product. The NBP Contract also provides a detailed technical description of the specifics of each wholesale product to be offered and the operational performance required.
- 6.45 In accordance with the NBP Contract, NBI must treat all SPs on a non-discriminatory basis and apply equivalent conditions and wholesale products to all SPs in equivalent circumstances (and, as noted above, on an EoI basis). It must charge all SPs the same price for a particular wholesale product in all circumstances and provide all wholesale products (including all related services and facilities) and information to all SPs under the same conditions and prices. NBI must also ensure that the list of wholesale products is sufficiently unbundled so a SP is not required to pay for or order wholesale products that are not necessary for the wholesale product required.
- 6.46 On a forward-looking basis, NBI is likely to be the largest operator in the IA NG WLA Market measured by coverage, ultimately with coverage of 100% by 2026/7, once full rollout is complete. This is likely to result in the accrual by NBI of a large NG WLA market share compared to Eircom or SIRO (in those cases where they overlap the IA), both of which have a substantially lower footprint in the IA NG WLA Market, as of Q3 2022 (and are likely to do so on a forward-looking basis). As a result, Eircom's and SIRO's IA NG WLA market share (and other SPs) is likely to be significantly lower than in the Commercial NG WLA Market arising from the presence at scale of NBI. Accordingly, despite the presence of some SIRO and Eircom overlap with NBI, ComReg considers it likely that, on a forward-looking basis, and over the 5 year lifetime of the market review period, NBI market share is likely to be extremely high on the IA NG WLA Market and remain so.

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<sup>486</sup> Which can be found online at <https://nbi.ie/wp-content/uploads/2020/02/NBI-Reference-Offer-Bitstream-and-VUA-v1.1.2.pdf>

- 6.47 Absent regulation in the IA NG WLA Market, Eircom and SIRO would have freedom of commercial manoeuvre, but would face a much larger competitor in NBI, unless these SPs significantly increased their coverage footprint in the IA NG WLA Market (for which ComReg currently has no evidence). NBI is not currently subject to SMP regulation. Accordingly, in respect of NBI, the absent regulation assumption reflects NBI's existing and expected market position, rather than a hypothetical counterfactual in which existing SMP regulation is removed. For the purpose of the analysis, ComReg assumes that Eircom would withdraw merchant market provision of NG WLA in the IA NG WLA Market – although the likelihood is that Eircom's presence would be predominantly characterised by CG WLA and/or CG WCA, given the nature of the IA. In those circumstances, it is not necessary to assume that Eircom merchant market supply of VUA and NG Bitstream would revert back to Eircom self-supply, since Access Seekers would, on a forward-looking basis, be able to switch to wholesale purchases from NBI instead. ComReg additionally notes that, since Eircom NG WLA is only present at [X ██████████ X]<sup>487</sup> of premises in the IA NG WLA Market, the overall impact of Eircom withdrawal of merchant market NG WLA absent regulation would be limited.
- 6.48 Eircom, in its Investment Information Memorandum [X ██████████ ██████████ ██████████ X] However, Eircom has indicated to ComReg that it is unable to provide rollout forecasts more than two months in advance. Accordingly, rollout proposals out to 2026/7 are unlikely to have a level of reliability which would allow ComReg to granularly take such rollout into account for competition assessment purposes. This is fully consistent with the approach which ComReg has taken to other network rollout forecasts, as set out in detail at Annex 8 below.
- 6.49 Accordingly, in the IA NG WLA Market, ComReg considers that market share data suggest that, on a forward-looking basis, NBI is unlikely to face sufficiently strong competitive constraints in the form of existing competition from other NG WLA providers. However, its market share in and of itself is not necessarily suggestive of any position of market power. As noted above, NBI is subject to a number of strict conditions under the NBI Contract (which exist absent regulation), the significant majority of which effectively mirror the range of access, transparency, non-discrimination, price control and cost accounting obligations that could be imposed under regulation in an SMP scenario. Additionally, NBI is a wholesale-only SP, which means it does not face the same incentives to act in an anti-competitive manner as a vertically integrated

<sup>487</sup> ComReg is of the preliminary view that the significant majority of these premises will not be capable of providing broadband speeds over 30mb.

SP. In ComReg's view, despite an absence of existing competition in the IA, these factors are likely to constrain NBI's ability to behave, to an appreciable extent, independently of its competitors, customers and consumers.

### Conclusions on market shares

- 6.50 As set out in paragraphs 6.21 to 6.49 above, ComReg is of the view that, based on evidence from market share data (which, as noted above, may not be a useful indicator in the cases of the CG WLA Market or the IA NG WLA Market), no operator is likely to face sufficiently effective competitive constraints from existing competition on the Relevant WLA Markets in an absent regulation scenario, in the short term. Measured by market shares, NBI faces limited competitive constraints in the provision of NG WLA in the IA NG WLA Market while, in the Commercial NG WLA Market, Eircom faces insufficient constraints from SIRO alone, where SIRO has rolled out its network. In the CG WLA Market, Eircom faces constraints from outside the market only, in the form of asymmetric substitution from NG WLA.
- 6.51 The market share figures presented above suggest that Eircom would have the ability to behave, to an appreciable extent, independently of competitors, customers and consumers on the Commercial NG WLA Market only.
- 6.52 Factors other than market shares must also be taken into account in carrying out an SMP assessment. In particular, NBI faces constraints arising, not from existing competition, but from the terms of its NBP Contract with the State, as set out in greater detail at paragraphs 6.41 to 6.45 above. Similarly, as set out above, Eircom occupies a higher market share on the CG WLA Market, but this market appears to be shrinking in size and is also characterised by constraints arising from asymmetric substitution from outside the market.

#### 6.4.2 Indirect Retail Constraints in the Relevant WLA Markets

- 6.53 ComReg has set out at paragraphs 5.123 to 5.193 above its view that indirect retail constraints from CATV, alternative FTTP, FWA, satellite and mobile networks are likely to be insufficiently effective and that, accordingly, such retail products should not be included in the Relevant CG WLA or NG WLA Markets. In each case, ComReg considered that indirect substitution to services provided over such networks is not likely to be sufficiently effective or immediate to prevent Eircom from exercising a profitable SSNIP of WLA.
- 6.54 Similarly, while ComReg has excluded self-supply by retail only vertically-integrated SPs (such as Virgin Media) from the Relevant NG WLA Markets, ComReg nonetheless examines what SPs' market shares might be in the scenario where such alternative platforms were to be included in the Relevant

NG WLA Markets,<sup>488</sup> bearing in mind, as set out in the 2020 Explanatory Note, that a product or service not included in a relevant market may nevertheless have the capability to constrain the exercise of SMP on that market.

- 6.55 Even in the absence of existing competition, a vertically-integrated retail SP's self-supply could pose a competitive constraint in the Relevant NG WLA Markets if it were shown that its presence on the retail broadband market were to exercise a sufficiently strong constraint on the supply of WLA.

### Indirect Constraints in the Commercial NG WLA Market

- 6.56 ComReg considers that there are insufficient grounds to include any retail products in the NG WLA product market definitions on the basis that there are ineffective indirect constraints. In particular, ComReg data suggest that Virgin Media CATV broadband does not act as an effective indirect constraint. ComReg notes that, in its quarterly results, Eircom reports having increased its FTTP footprint from 263,000 premises at the time of the 2018 Decision, to 864,000 premises as of Q2 2022 – a more than 3-fold increase.<sup>489</sup> Eircom's FTTP footprint is likely to overlap, to a non-trivial extent, with Virgin Media's CATV network, which is largely in urban areas. This is likely to strengthen Eircom's position in the provision of NG WLA over the review period. In this regard, ComReg notes that Virgin Media's retail broadband subscriptions declined (by 1.01%) in Q2 2022 to 372,483 subscriptions, the largest quarterly decline in its retail broadband subscriptions since Q2 2016. As Eircom FTTP rolls out further, the strength of any indirect constraint from Virgin Media is likely to weaken (until and unless Virgin Media upgrades its network to FTTP).
- 6.57 This aside, ComReg considers that any indirect retail constraint on the supply by Eircom of NG WLA from any downstream competitors (including, for example, FWA, satellite, and mobile broadband) in the retail market would be mitigated:
- (a) Given the price-cost ratio (70% for residential customers and 67% for business customers), a SSNIP of wholesale VUA would (assuming pass-through) translate into a smaller diluted retail price increase. Fewer customers are therefore likely to respond to such a diluted retail price increase, compared to a situation where a SSNIP is applied directly to retail services. As set out in Annex 6 ComReg calculates this retail price increase to amount to €1.70 for a 5% SSNIP and €3.40 for a 10% SSNIP. From our 2022 Market Research, when end users purchasing bundled broadband were faced with a hypothetical €4 price increase, only 4% of

<sup>488</sup> ComReg infers that Virgin Media is unlikely to be present to a material degree at premises passed by Eircom CG. This is because CG-only premises are likely to be located in the IA, where Virgin Media has limited presence.

<sup>489</sup> Eircom's recent public trading update for Q3 2022 suggest this has increased to 925K premises.

respondents would opt to switch their broadband subscription and of standalone broadband subscribers (faced with a €2 price increase), only 6% would opt to switch their subscription. For residential end users, the profit maximising critical loss value for a 5% and 10% SSNIP are 3.3% and 6.7% respectively, meaning if a hypothetical monopolist imposed a SSNIP of 10%, it would be rendered unprofitable if demand fell by more than 6.7%. For LLU products, the critical loss values are 1% and 1.9% for a 5% and 10% SSNIP respectively; and

- (b) In practice, Eircom would be likely to sustain its retail prices whilst applying a SSNIP of VUA in the Commercial NG WLA Market. In such circumstances, Eircom (given its brand recognition and network ubiquity) would be likely to gain a significant proportion of any retail customers that switch away from retail services delivered using merchant market Eircom VUA. The increased revenue accruing to Eircom from those switching retail customers would contribute to offsetting any loss in wholesale revenue,<sup>490</sup> thereby mitigating the effects of any indirect retail constraint that otherwise may have been present.

6.58 ComReg considers that these factors are likely to prevail when assessing the effectiveness of any indirect constraints arising from retail SPs operating in the geographic footprint of the Commercial NG WLA Market. For the reasons set out above, ComReg's view is that over the period covered by this market review, vertically integrated retail SPs, FWA and alternative retail only FTTP-based networks are unlikely to provide a sufficiently effective indirect competitive constraint on the Commercial NG WLA Market, such that it would prevent a HM of VUA from behaving, to an appreciable extent, independently of competitors, customers or consumers.

### Indirect Constraints in the IA NG WLA Market

6.59 The IA NG WLA Market is, by construction, an area where NBI is obliged under the terms of the NBP Contract to provide 100% FTTP coverage. Given the nature of the IA, there is no, or insufficient, material presence of alternative retail SPs which are not dependent on NBI NG WLA inputs. From outside the retail broadband market, FWA, mobile broadband, and satellite are, however, capable of providing retail broadband services to end users without relying on NBI wholesale inputs. However, ComReg considers that the scale and scope of retail broadband service provision over FWA, mobile broadband, or satellite, is likely to be insufficient to generate an effective indirect constraint on NBI WLA, for the reasons set at Section 5 above.

<sup>490</sup> There would also be some reduction in Eircom's wholesale costs corresponding to any decline in wholesale demand which would impact profitability.

- 6.60 ComReg also notes that, absent WLA regulation, if NBI were to impose a SSNIP of VUA, any limited indirect retail constraint on the supply by NBI of NG WLA from downstream competitors in the retail market (in those parts of the IA where Eircom or SIRO NG WLA has rolled out) would be mitigated for the reasons set out above at paragraphs 6.57(a). Since NBI is a wholesale-only operator, the eventuality set out at paragraph 6.57(b) would not likely arise.
- 6.61 Even if ComReg were to conclude that NBI was constrained by existing competition in the form of indirect retail constraints, those constraints would likely be secondary to the constraints placed on NBI's commercial freedom by the NBP Contract. Thus, ComReg considers that NBI would not be constrained by indirect retail constraints on the IA NG WLA Market.

### Indirect Constraints in the CG WLA Market

- 6.62 The (national) CG WLA market consists of LLU, SLU and Line Share delivered by Eircom over its ubiquitous copper network on both a merchant market and self-supply basis, together with Eircom merchant market and self-supply of CG WCA which is, itself, reliant on CG WLA inputs. As set out at Section 5, ComReg considers that no indirect retail constraints are present on the CG WLA product market. This reasoning applies equally to the SMP assessment.

### Vertical Integration

- 6.63 A vertically-integrated SP enjoys significant efficiencies arising from its presence in upstream and downstream markets.<sup>491</sup> Such efficiencies can also be passed on to end users in the form of more competitive prices, lower transaction costs and/or enhanced product quality. However, vertical integration can also constitute an entry barrier where the presence of a firm at multiple levels of the production or distribution chain raises the costs of new entry (for example, where prospective new entrants perceive the need to enter multiple markets simultaneously to pose a viable competitive constraint on the vertically-integrated operator). It can also increase the possibilities for the integrated operator to foreclose competition at one or more levels in the value chain, the threat of which could, in turn, act as a disincentive to new entry.
- 6.64 As well as being the largest WLA supplier in the CG WLA Market and the Commercial NG WLA Market, Eircom is also a significant provider of RFTS and broadband (and other) services.<sup>492</sup> As such, Eircom's significant customer base in downstream retail markets is likely capable of consolidating its strength in the Commercial NG WLA Market and the CG WLA Market. In contrast, NBI,

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<sup>491</sup> Such efficiencies may include vertical efficiencies.

<sup>492</sup> See Section 3 for discussion on Eircom's market shares in retail markets.

which is the largest WLA supplier on the IA NG WLA Market, is active only at the wholesale level and is therefore, by definition, not vertically-integrated.

- 6.65 Eircom's vertically-integrated structure also mitigates the extent to which it is dependent on its WLA revenue.<sup>493</sup> As such, absent regulation, Eircom could potentially seek to maximize its total profits by increasing LLU or VUA prices (or indeed refusing access to supply WLA) and, in doing so, seek to foreclose competition in downstream wholesale and/or retail markets. ComReg has, however, already noted above that LLU is in decline.
- 6.66 Virgin Media provides retail services on a vertically-integrated basis over its CATV network. Virgin Media does not supply WLA over CATV but has announced its intention to commence the provision of wholesale services to Vodafone over its FTTP network as that network rolls out. ComReg notes, based on meetings with both Virgin Media and Vodafone, as well as a review of the agreement entered into by the parties, that Virgin Media will be in a position to provide NG WLA to Vodafone [X ██████████ ██████████ X]. ComReg also notes that [X ██████████ ██████████ X] which would further reduce any competitive impact of Virgin Media in the Commercial NG WLA Market. ComReg has assessed Virgin Media entry to the WLA markets over FTTP at paragraphs 5.70 to 5.72. As set out in paragraphs 5.94 to 5.102, ComReg does not consider that it is technically feasible for WLA to be offered over a CATV network within the lifetime of this market review, nor is it commercially likely to be the case, given Virgin Media's intent to replace its CATV network with FTTP.
- 6.67 Other than Virgin Media, SPs in downstream retail markets are not vertically integrated. Vodafone and Sky provide RFTS and broadband services mainly using upstream wholesale inputs (although they may have built out certain network elements – such as backhaul – to avail of these), while NBI and SIRO are only active at the wholesale level.<sup>494</sup>
- 6.68 Having regard to the above, ComReg is of the view that its vertically integrated structure is a factor which enables Eircom behave, to an appreciable extent, independently of its competitors, customers and end users in the Commercial NG WLA Market and the CG WLA Market. In this respect, Eircom, absent regulation, is not solely reliant on its wholesale arm to generate sales (and profitability) as it could also do so via its downstream arm.

<sup>493</sup> See further discussion of this impact under the countervailing buyer power section below.

<sup>494</sup> There may be circumstances where NBI can act as a supplier of last resort where no retail SP purchasing NG WLA from NBI is willing to serve an end user in the IA. SIRO, according to the associated State Aid approval, is to be a wholesale only SP.



## Barriers to Entry and Expansion

- 6.69 As set out in Sections 4 and 5 regarding the retail broadband and WLA markets, the commercial rollout of NG broadband networks in Ireland depends heavily on economies of density and scale. Arising from its incumbency in the Commercial NG WLA Market in particular, Eircom has largely overcome such barriers to entry and expansion, and is capable of providing VUA to itself and Access Seekers on a widespread basis outside the IA. A large component of its network costs are also sunk (although there are likely to be ongoing costs in its FTTP network upgrade which, when made, will also be sunk).
- 6.70 Some operators have already built networks and incurred sunk costs of entry – creating an asymmetry in cost structures which would likely undermine entry. Despite the high entry barriers associated with building a WLA network at scale, there is some evidence of entry by other operators on a commercial basis. Taking SIRO and Virgin Media, in particular:
- (a) VMI proposes to overlay its existing CATV network with FTTP over which it would offer retail broadband (as well as wholesale services). VMI's network overlay programme will require it to procure and install fibre optic cable to replace its existing DOCSIS 3.1 cable. This project is likely to require VMI to incur substantial sunk costs of investment in FTTP cabling and associated ancillary infrastructure, even if it can avoid some sunk costs by reusing any CEI it has. In discussions with ComReg, VMI has suggested that the costs of its overlay programme may amount to some [redacted], a non-trivial proportion of which are likely to be sunk; and
  - (b) SIRO has announced Phase 2 of its rollout programme (partially funded by the EIB), passing an additional 320,000 premises by 2025<sup>495</sup> on top of the 450,000 premises which it passed during its Phase 1 rollout. SIRO therefore similarly incurs significant sunk costs in its network rollout programme, although its use of ESB's PI ameliorates some of these. ComReg also notes that SIRO's Phase 1 rollout programme was scaled back from an initial target of 500,000 premises to 450,000 premises, and that SIRO tended to miss its own rollout targets over the course of Phase 1 (as set out at paragraphs 4.175 and 5.97 of the 2018 Decision). For example, at the time of the 2016 Consultation it was initially supposed to achieve its scheduled Phase 1 rollout to 500,000 premises by the end of 2018. At the time of the 2018 Decision, SIRO had revised its schedule to say it would pass just over 250,000 premises – half its projected rollout –

<sup>495</sup> <https://www.eib.org/en/projects/pipelines/all/20210132>

by the end of 2018. SIRO's Phase 1 rollout ultimately completed in September 2022. ComReg considers that the rollout delays which have characterised SIRO expansion to date similarly suggest the presence of barriers to entry and/or expansion in respect of networks potentially capable of facilitating indirect retail constraints in the NG WLA markets.

- 6.71 In contrast, and arising from a public policy decision, state-aided NBI rollout in the IA NG WLA Market is focused on areas characterised by low population or premises density which are, accordingly, unlikely to be served by NG broadband on a commercial basis. NBI is entering largely using access to Eircom's PI and its costs of entry to these areas are effectively supported with State Aid. In this regard, the PIA Consultation which is published in parallel with this Consultation proposes to designate Eircom with SMP in the provision of PIA on a national basis, resulting in Eircom being subject to regulatory obligations in respect of the provision of PIA to Access Seekers such as NBI.
- 6.72 Similarly, on the CG WLA Market Eircom is capable of providing LLU to itself and Access Seekers on a ubiquitous basis (although LLU and CG retail broadband is generally in decline).

### 6.4.3 Pricing Behaviour

#### Introduction

- 6.73 The pricing of WLA products and services over time can provide important insights into the development and extent of competition in a market. In an SMP assessment, the ability of a SP to price WLA independently of the pricing behaviour of its competitors may be suggestive (but not determinative) of SMP, when considered in conjunction with other factors. In view of this, ComReg has reviewed trends in LLU and VUA pricing over time.
- 6.74 Eircom's wholesale prices for FTTC-based VUA and for LLU are (in the presence of regulation) subject to an obligation of cost orientation pursuant to the 2018 Decision, while Eircom's wholesale prices for FTTP-based VUA are subject to margin squeeze obligations. Eircom is entitled to make changes to the prices of its LLU and VUA services so long as they comply with the regulatory obligations set out in the 2018 Decision, together with the 2018 Pricing Decision, and the 2018 Bundles Decision.
- 6.75 ComReg notes that Eircom, SIRO, and NBI price WLA uniformly within their respective network footprints. Eircom VUA pricing is currently regulated on a nationwide basis, while NBI is constrained to price VUA in accordance with a benchmark reference price ('BRP') pursuant to the NBP Contract, and SIRO is entitled to price its VUA on a fully commercial basis. In addition, ComReg has assessed retail broadband pricing and has been unable to identify instances of retail broadband operators charging different prices for the same

services in different geographic areas.<sup>496</sup> Where differences in pricing occur, this tends to arise on the basis of the availability of the underlying technology or access network in a particular geographic locale.

- 6.76 Table 39 below outlines Eircom’s wholesale prices for LLU and VUA over time. It is difficult, however, to draw inferences from what Eircom’s WLA pricing behaviour would be in an absent regulation scenario (in accordance with the MGA), given its prices have been regulated to date.
- 6.77 Under ComReg Decision D11/21,<sup>497</sup> since March 2022, Eircom has been subject to price ceilings in respect of CG WLA, and may price at the specified maximum, or below that maximum. Prior to D11/21 (i.e., since the 2018 Pricing Decision), Eircom was obliged to price CG WLA at specific price points, and accordingly had no pricing discretion.
- 6.78 In respect of Eircom FTTC-based VUA, the 2018 Pricing Decision obliged Eircom to price FTTC-based VUA at specific price points, albeit with limited pricing discretion to price to a floor in exceptional circumstances. Decision D11/21,<sup>498</sup> which replaced the 2018 Pricing Decision, and which took effect from March 2022 onwards, updated the specific price points, but did not alter the limited discretion Eircom had in respect of FTTC VUA pricing.
- 6.79 In respect of FTTH or FTTP-based VUA pricing, Eircom has greater pricing freedom, subject to the requirement to satisfy the standalone and bundles Margin Squeeze Tests (**MST(s)**), as well as respecting the FTTP-based VUA price floor.

**Table 39: Eircom’s regulated WLA prices<sup>499</sup>**

Effective from	Effective to	Price €
<b>FTTC Standalone VUA</b>		
01/07/2019	30/06/2020	19.79
01/07/2020	30/06/2021	20.10
01/07/2021	28/02/2022	20.36
01/03/2022	30/06/2022	18.36
01/07/2022	30/06/2023	18.54

<sup>496</sup> At Section 4.2 above.

<sup>497</sup> “Regulated Wholesale Fixed Access Charges – Reviews of the Access Network Model. Response to Consultation and Final Decision”. ComReg Decision D11/21, 17 December 2021.

<sup>498</sup> ComReg Decision D11/21 is subject to an appeal (High Court 2022/12 MCA) by Eircom but remains effective.

<sup>499</sup> Open Eir Access Reference Offer (**ARO**) Price List, v.230: [https://www.openeir.ie/wp-content/uploads/2022/09/ARO-Price-List-V23\\_0-Unmarked-01102022.pdf](https://www.openeir.ie/wp-content/uploads/2022/09/ARO-Price-List-V23_0-Unmarked-01102022.pdf)

01/07/2023		19.12
FTTC POTS-based VUA		
01/07/2019	30/06/2020	5.97
01/07/2020	30/06/2021	6.42
01/07/2021	28/02/2022	6.80
01/03/2022	30/06/2022	4.80
01/07/2022	30/06/2023	4.98 <sup>500</sup>
01/07/2023		5.56

FTTP VUA	From	To	Price €
Standalone 150 Mbps	31/08/2015	31/08/2016	20.50
	01/09/2016		23.50
Standalone 300 Mbps	01/09/2016	30/06/2020	28.50
	01/07/2020		23.50
Standalone 500 Mbps	27/04/2020	30/06/2020	28.50
	01/07/2020		23.50
Standalone 500 Mbps / 100 Mbps	05/08/2021		27.00
Standalone 1000 Mbps	01/02/2020	30/06/2020	33.50
	01/07/2020		28.50
Standalone 1000 Mbps / 150 Mbps	05/08/2021		32.00
Standalone 2000 Mbps	25/10/2021		33.50
POTS-based 150 Mbps	31/08/2015	31/08/2016	6.98
	01/09/2016		9.09
POTS-based 300 Mbps	01/09/2016	30/06/2020	14.09
	01/07/2020		9.09
POTS-based 500 Mbps	27/04/2020	30/06/2020	14.09
	01/07/2020		9.09
POTS-based 500 Mbps / 100 Mbps	05/08/2021		12.59
POTS-based 1000 Mbps	01/09/2016	31/01/2020	24.09
	01/02/2020	30/06/2020	19.09

<sup>500</sup> The price of FTTC POTS-based VUA declined arising from the reduction in WACC rate from 8% to 5.5% set out in ComReg's ANM Decision.

	01/07/2020		14.09
POTS-based 1000 Mbps / 150 Mbps	05/08/2021		17.59
POTS-based 2000 Mbps	25/10/2021		19.09

<b>LLU Monthly Rental</b>	
<b>Price €</b>	<b>Applicability</b>
€12.41	09/03/2010 to 31/01/2013
€9.91	01/02/2013 to 30/06/2016
€9.34	01/07/2016 to 30/06/2017
€9.88	01/07/2017 to 30/06/2018
€10.40	01/07/2018 to 30/06/2019
€10.92	01/07/2019 to 30/06/2020
€11.52	01/07/2020 to date
<b>Line Share Monthly Rental</b>	
€8.41	01/12/2007 to 31/10/2009
€0.77	01/11/2009 to 30/06/2016
€0.77	01/07/2016 to 28/02/2022
€0.62	01/03/2022 to date
<b>Sub Loop ULMP Monthly Rental</b>	
€10.53	09/03/2010 to 31/01/2013
€9.03	01/02/2013 to 30/06/2016
€5.41	01/07/2016 to 30/06/2017
€5.60	01/07/2017 to 30/06/2018
€5.77	01/07/2018 to 30/06/2019
€5.92	01/07/2019 to 30/06/2020
€6.12	01/07/2020
<b>Sub Loop Line Sharing Monthly Rental</b>	
€7.61	01/12/2007 to 31/10/2009
€0.77	01/11/2009 to 30/06/2016
€0.77	01/07/2016 to 28/02/2022
€0.62	01/03/2022 to date

- 6.80 As set out in detail at paragraphs 5.64 to 5.68 above, NBI VUA pricing is constrained by the NBP Contract. In particular, it is required to set its prices by reference to a BRP which is set against a comparable regulated wholesale product, if such a product exists. Otherwise, the BRP is set against the average wholesale prices which prevail in other, more competitive, parts of the State.
- 6.81 In any year, NBI may not increase its prices by more than 10%, unless the BRP increases by that amount. NBI is not obliged to price at the BRP and may price at any level below it. NBI must seek Ministerial approval to alter its VUA prices and, in doing so, must not exceed the BRP or cause a wholesale margin squeeze. NBI prices VUA on a uniform basis across the IA. It therefore follows that NBI is unable to price WLA independently of the pricing behaviour of its competitors, due to its obligation to set prices in accordance with the BRP.
- 6.82 SIRO offers a number of symmetric and asymmetric access products. LightStream is SIRO’s asymmetric connectivity product for residential, SME and enterprise applications, while LightPulse is an asymmetric connectivity product for SMEs which features a higher specification SLA and enhanced delivery experience.<sup>501</sup> SIRO has confirmed to ComReg that, as of September 2022, [REDACTED]<sup>502</sup> ComReg also notes that, since it is not subject to regulatory obligations in respect of its pricing conduct, SIRO is free to determine its own commercial pricing strategy including, for example, running short-term promotions on a national basis, or in areas in which it has recently rolled out.
- 6.83 Table 40 below outlines SIRO’s LightStream pricing, as of September 2022. ComReg notes that [REDACTED]:

**Table 40: SIRO LightStream Standard Monthly Rental [REDACTED]<sup>503</sup>**

Product	Monthly Rental (€)	
	To 31/03/2022	From 01/04/2022
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

<sup>501</sup> <https://siro.ie/partners/wholesale/>

<sup>502</sup> By means of email dated 12 September 2022.

<sup>503</sup> SIRO has multiple products, with its monthly rental pricing in the range €20-€45.

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

6.84 Comparing Eircom and SIRO pricing on their most similar products as of September 2022, it is apparent [REDACTED]:

Table 41: Comparable SIRO and Eircom VUA pricing [REDACTED]

SIRO monthly rental		Eircom monthly rental		Difference
Product	€	Product	€	
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

### Commercial NG WLA Market

6.85 Absent regulation, ComReg considers that the absence of sufficiently effective competitive constraints in the Commercial NG WLA Market, as set out at Section 5 above, would afford Eircom the ability and incentive<sup>504</sup> to increase prices (above the competitive level) charged to Access Seekers for VUA (absent regulation).

6.86 ComReg considers that there is no firm behavioural evidence to suggest that Eircom faces effective pricing constraints on the Commercial NG WLA Market. Absent regulation, Eircom would likely have the capacity and incentive to raise the price of its VUA inputs, thereby raising the cost of Access Seekers and its rivals in downstream and retail markets.

<sup>504</sup> These abilities and incentives are discussed in Section 8 below addressing competition problems.

## IA NG WLA Market

6.87 In the IA NG WLA Market, it is ComReg's view that NBI does not face sufficiently effective competitive constraints from alternative Network Operators. Accordingly, in an absent regulation scenario, NBI would not be constrained by other operators from profitably raising its VUA prices above the competitive level, thereby limiting its ability to behave, to an appreciable extent, independently of competitors, customers or end users. However, NBI would be constrained instead in its pricing conduct by the terms of the NBP Contract, such that it would be unable to profitably raise its VUA prices unless it received ministerial authorisation to do so, and unless the price increase was consistent with the other obligations set out in the NBP Contract. Thus, even in absent regulation, it appears that NBI would remain constrained in its pricing conduct.

## CG WLA Market

6.88 Absent regulation, it is ComReg's view that the lack of sufficiently effective competitive constraints in the CG WLA Market would, in principle, afford Eircom the ability and incentive to increase prices (above the competitive level) charged to Access Seekers for LLU, SLU, and Line Share.

6.89 In practice, ComReg considers that, even if Eircom were to do so, this would have a limited – and declining – impact on Access Seekers, given the very small numbers of CG WLA purchased by Access Seekers. Any such price increase would also be likely to be limited in time, given the ongoing overlay of Eircom's legacy network with FTTP outside the IA, and the rollout of NBI FTTP to those premises currently only served by Eircom CG. Thus, even absent regulation, where Eircom had the capacity and incentive to raise the price of its LLU inputs, the impact of such increases would likely decline over time.

### 6.4.4 Conclusion on Existing Competition

6.90 Based on the assessment in paragraphs 6.17 to 6.89 above, ComReg's view is that, absent regulation in the Commercial NG WLA Market, it is unlikely that Eircom would be sufficiently constrained by existing competition, such that it would prevent it from behaving, to an appreciable extent independently of its competitors, customers and end users. Eircom's persistently high market shares, the lack of an effective pricing constraint and the absence of clear evidence of competition constraining its pricing behaviour are all suggestive of Eircom holding a position of SMP in the Commercial NG WLA Market.



- 6.91 Similarly, in the IA NG WLA Market, ComReg's view is that, absent regulation, it is unlikely that NBI would be sufficiently constrained by existing competition (as there is generally none), such that it would prevent it from behaving, to an appreciable extent independently of its competitors, customers and end users. However, NBI would likely be constrained in its behaviour (including with respect to pricing), by the various obligations imposed on it through the NBP Contract with the State. While NBI is not likely to be effectively constrained by existing competition, the NBP Contract constraints largely mirror those which could be imposed in an SMP scenario.
- 6.92 In respect of CG WLA, absent regulation, it is unlikely that, in the short term, Eircom would be sufficiently constrained by existing competition, such that it would prevent it from behaving, to an appreciable extent independently of its competitors, customers and end users. However, as set out above, the specific context of CG WLA provision must be taken into account. In this regard, two key points are salient:
- (a) CG WLA will continue to be characterised by asymmetric substitution such that, where NG broadband is available, it will likely place a degree of constraint on CG WLA, in circumstances where the CG WLA market is likely to continue to shrink in size; and
  - (b) In the footprint of the IA, and on a forward-looking basis as NBI rollout continues, and subject to timing issues, NBI FTTP is likely to constrain CG WLA over time.
- 6.93 Given the small and declining numbers of CG WLA, as well as the rollout of NG WLA both in the IA and outside the IA, ComReg considers that any attempt by Eircom to exert its CG WLA market power would be limited in both time and geography and that, beyond the short term, Eircom has very limited capacity to exert market power in the provision of CG WLA.
- 6.94 Below, ComReg considers other relevant factors (potential competition and CBP) to determine whether those factors may diminish or undermine Eircom's potential SMP position in the Commercial NG WLA Market and the CG WLA Market, and NBI's potential SMP position in the IA NG WLA Market.

## 6.5 Potential Competition in the Relevant WLA Markets

- 6.95 ComReg now assesses the likely effectiveness of any constraints which may stem from potential competition in the Relevant WLA Markets.
- 6.96 This assessment considers whether entry (and expansion) in the Relevant WLA Markets is likely, timely, and credible to such an extent that it would effectively constrain an operator's ability to act independently of its

competitors, customers and end users over the medium term.<sup>505</sup> In this regard, the discussion builds on the assessment of barriers to entry and expansion in the context of existing competition set out at paragraph 6.72 above.

- 6.97 In considering constraints posed by potential competition, ComReg first examines barriers to entry and expansion insofar as they may impact upon the effectiveness of the constraints posed by potential competitors. Then, ComReg assesses the strength of any such potential competition, having regard to the barriers to entry and expansion that have been identified.

### 6.5.1 Barriers to Entry and Expansion

- 6.98 In assessing the likelihood of potential competition acting as an effective constraint on Eircom or NBI over the period of this market review, ComReg has examined the nature and extent of any barriers to firms both entering, and subsequently expanding<sup>506</sup> in, the Relevant WLA Markets.

- 6.99 Barriers to entry<sup>507</sup> generally comprise any disadvantage that a new entrant faces when entering a market that incumbents do not currently face. According to the 2020 Explanatory Note:<sup>508</sup>

*“...high structural barriers may be found to exist when the market is characterised by absolute cost advantages, substantial economies of scale and/or economies of scope, capacity constraints, and high sunk cost. Such barriers can be found in sectors that rely on the deployment of networks, such as fixed networks.”*

- 6.100 Assessing barriers to entry and expansion requires identifying what represents credible entry into the Relevant WLA Markets. In practice, ComReg considers that this means focussing on two credible entry or expansion possibilities:

- (a) SIRO FTTP market expansion, and
- (b) Virgin Media FTTP WLA market entry.

- 6.101 In determining the credibility of potential market entry or expansion, ComReg has regard to three relevant indicators, each of which are summarised below:

- (a) The overall size of the incumbent, and whether it controls infrastructure that is not easily duplicated,

<sup>505</sup> See paragraph 61 of the 2018 SMP Guidelines.

<sup>506</sup> ComReg notes that barriers to expansion would more typically be considered under constraints from existing competition. However, given similarities associated with issues concerning barriers to entry ComReg considers them in this context.

<sup>507</sup> Barriers to growth and expansion are obstacles that a new entrant (or smaller existing competitor) faces in its ability to grow or expand in a particular market, and which limit its ability to exert an effective competitive constraint over the medium to longer term.

<sup>508</sup> 2020 Explanatory Note, page 12.

- (b) Any requirement to incur sunk costs of market entry or expansion, and
- (c) The presence of any economies of scale, scope, or density.

**a. Overall size of the undertaking and control of infrastructure not easily replicated**

- 6.102 The SMP Guidelines cite<sup>509</sup> control of infrastructure not easily duplicated as one relevant criterion for assessing whether SMP exists. This may be relevant where:
- (a) access to certain infrastructure is necessary to produce a particular product or service (in this case, WLA);
  - (b) the required infrastructure is exclusively or overwhelmingly under the control of a single undertaking; and
  - (c) high and non-transitory barriers to entry, expansion or exit are associated with replacing the infrastructure in question.<sup>510</sup>
- 6.103 SPs require access to infrastructure in order to provide WLA. Potential entry or expansion into the Relevant WLA Markets would require a SP to either build an independent network or adapt an existing network to provide WLA.
- 6.104 Each approach entails significant barriers to entry or expansion, and the degree to which each would be potentially effective for replicating provision of NG WLA by Eircom, SIRO, or NBI (or VMI) (thereby effectively constraining Eircom's, SIRO's or NBI's behaviour) would vary, including having regard to network coverage. In this respect, ComReg assesses whether a SP's ability to replicate Eircom, NBI, or SIRO infrastructure would effectively act to constrain their behaviour in the Relevant WLA Markets over this market review period.
- 6.105 It may not be necessary to fully replicate an incumbent's network infrastructure for an SP to pose an effective competitive constraint in the Relevant WLA Markets by means of market entry or expansion. However, the geographic coverage of a hypothetical alternative WLA product is likely to be an important feature for Access Seekers. Additionally, factors such as cost advantages that an incumbent is likely to enjoy relative to potential competitors arising from sunk costs, economies of scale and scope, and vertical integration are all likely to influence the extent to which WLA infrastructure is replicable, and hence the degree of competitive constraint arising from potential competition.

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<sup>509</sup> At paragraph 58.

<sup>510</sup> The replicability of network infrastructure is also directly related to the criterion of sunk costs, the overall size of network coverage and customer base, as well as economies of scale, scope and density associated with extensive network infrastructure.

**b. Sunk costs**

- 6.106 Sunk costs are costs incurred that cannot be recovered if an entrant decides, or is forced, to exit the market. The existence of sunk costs does not automatically imply that entry barriers are high. A certain level of sunk costs arise in entering most markets, and the incumbent may also have had to incur similar sunk costs before it entered the WLA markets (and/or related markets).
- 6.107 However, in some circumstances it is more difficult for new entrants to break into or expand in a market than it was for the first firm (or subsequent firms) to do so. This creates a decisional asymmetry, where an incumbent has already incurred and recovered sunk costs but a new entrant has not. In general, higher sunk costs associated with market entry discourage entry.<sup>511</sup>
- 6.108 Entry into the Relevant WLA Markets is likely to involve significant costs which would be largely sunk. In particular, building an independent network to provide WLA requires significant financial and time investment. The proportion of expenditure on, for example, trenches, ducts and overground and subterranean plant is likely to be particularly high and sunk.
- 6.109 The sunk costs of entering the Relevant WLA Markets may be somewhat reduced if the potential entrant has an existing network in place, as set out in greater detail in respect of Virgin Media below.

**c. Economies of scale, scope, and density**

- 6.110 Economies of scale, scope and density refer to potential advantages that larger operators may enjoy over smaller operators. Economies of scale generally refer to the cost advantage which a large-scale operator may have over a smaller operator, where the marginal cost of production decreases as the quantity of output produced increases. Economies of scope refer to the potential efficiencies which may be gained by a firm jointly producing a range of goods and services, for example, where a FTTx network could be used to provide telephony, TV, broadband and leased line services. Economies of density refer to efficiencies associated with supplying customers who are geographically concentrated.
- 6.111 Economies of scale, scope and density in the provision of WLA must be considered in light of the retail market, where the cost of supply per end user decreases in line with the number of end users supplied, as fixed costs of supply are spread across a larger customer base, leading to lower average costs of supply. Economies of scale and scope could accordingly act as a barrier to entry to the WLA market where an incumbent has a more substantial customer base (comprised of the provision of WLA to Access Seekers, and

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<sup>511</sup> OECD, Barriers to Entry, (DAF/COMP(2005)42), 2006, Paris.

self-supply to its own retail arm) than other SPs, or where it offers a diversified product range (by, for example, bundling retail products reliant on WLA inputs).

- 6.112 A large portion of the costs of building and maintaining a telecommunications network are fixed. Therefore, the average costs of providing services, per subscriber, will fall as the number of customers served by the network increases. Economies of scale and density will, therefore, be achieved where a SP can serve as many subscribers as possible from its investment in a given part of the network. That also means that the ability of a SP to offer a viable service can often depend on its ability to acquire a large number of retail and/or wholesale customers at regional or national level.

### Barriers to entry and/or expansion in the CG WLA Market

- 6.113 The provision of CG WLA by Eircom continues to decline, measured by subscriber numbers. This trend reflecting shifting end users preferences for NG broadband capable of delivering higher-quality services. For example, it is possible to offer dual play bundles of broadband and RFTS over Eircom's copper network, but it is not possible to offer TV as part of such a bundle, due to the absence of quality of service ('QoS') markers on CG broadband. In contrast, QoS markers are automatically assigned to NG broadband traffic.
- 6.114 ComReg accordingly considers that there are little or no incentives for an operator to build a copper network to enter the CG WLA Market, in view of declining numbers of customers availing of copper services.
- 6.115 Additionally, the CG WLA Market is characterised by economies of scale, scope and density, leading to presence of structural barriers to entry. As CG WLA numbers decline over time due to end users switching away from CG retail broadband to NG retail broadband, the premises density over which CG WLA is delivered is also likely to decline. Similarly, compared to NG broadband, CG broadband is likely to exhibit lower economies of scope, as certain retail services, such as IPTV, cannot be delivered over CG broadband due to the absence of suitable QoS. Lastly, the continuing decline in CG WLA suggests that a new entrant would likely find it difficult to achieve economies of scale by growing service delivery over a larger number of end users, such that a new entrant would likely be unable to spread its fixed costs over a large number of customers.
- 6.116 The CG WLA Market is therefore likely to be characterised by the presence of economies of scale, scope, and density which could strengthen Eircom's potential SMP position. These economies are likely to result in high barriers to entry for other SPs who may seek to enter the CG WLA Market. However, ComReg considers that this is a moot point, as there would likely be few

incentives to enter the CG WLA Market, even absent such economies, for the reasons set out at paragraphs 6.113 and 6.114 above.

### Barriers to entry and/or expansion in the Commercial NG WLA Market

- 6.117 The greater premises density in the Commercial NG WLA Market potentially makes network rollout easier and more cost effective, as fibre optic cable lengths between premises to be served are shorter, and the cost recovery risks potentially lower. Nevertheless, Eircom is the largest supplier of WLA products and retail telecommunications services in the Commercial NG WLA Market. It controls extensive NG broadband infrastructure capable of delivering VUA which is not easily replicable at the same level of scale by retail or wholesale competitors.<sup>512</sup> Eircom also benefits from its network footprint, subscriber base size and product portfolio, giving it the ability to exploit greater economies of scale and scope in the provision of WLA than actual or potential competitors likely could thereby giving it greater cost advantages.
- 6.118 Eircom operates an extensive FTTx access network capable of delivering VUA which according to Eircom passes 2m or 84% of premises in the State, as of Q2 2022.<sup>513</sup> Many of the costs incurred in the initial construction of Eircom's FTTx networks (including the associated duct, pole and other assets) are largely sunk. ComReg recognises that Eircom, through its ongoing FTTP network upgrade, is also likely to continue to utilise a large number of assets for which the costs are already sunk<sup>514</sup> in upgrading and replacing its copper and FTTC network infrastructure to FTTP. Given the size of the sunk costs that are likely involved for Eircom, coupled with its economies of scale and scope, this would create cost asymmetries for any new entrant considering entering and/or expanding in these markets.
- 6.119 Economies of density are evident from the uneven deployment of competing networks across Ireland. Eircom is in the process of rolling out an FTTP network (largely upgrading FTTC to FTTP) with target coverage of 2 million premises by 2026.
- 6.120 Competitors to Eircom are already active in downstream markets, such as Vodafone, Sky Ireland and BT Ireland (which sells wholesale WCA services to Sky Ireland and others) and offer a variety of retail and/or wholesale services. These SPs either have already, to one degree or another, or have the potential to, gain benefits from economies of scale and scope by growing retail customer

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<sup>512</sup> However, as set out at Section 5 above, it should be noted that it may not be necessary to fully replicate Eircom's infrastructure in order to pose an effective potential competitive constraint in the Relevant WLA Markets.

<sup>513</sup> Eir Group Results, Q3 2022, at p.7. Available online at [https://www.eir.ie/content/pdf/IR/presentations/2022\\_2023/eir\\_Q3-22\\_results\\_presentation.pdf](https://www.eir.ie/content/pdf/IR/presentations/2022_2023/eir_Q3-22_results_presentation.pdf)

<sup>514</sup> Eircom's FTTx deployment re-utilises existing assets such as ducts, trenches, exchanges and so on.

numbers, including through cross-selling and bundling products. However, other than Virgin Media, this has largely been enabled through regulated access to WLA (and, in the Revised Regional WCA Market, WCA) products. Absent regulation, these SPs would face diseconomies of scope, as they would only be able to access SIRO or NBI VUA (it is also possible that, being unable to serve national retail markets, purchases of services on these alternative networks could also be impacted). ComReg also considers it unlikely that these SPs would seek to enter the Relevant NG WLA Markets by constructing a network capable of delivering VUA.

- 6.121 In the footprint of the Commercial NG WLA Market, a market entrant not already active (or has signalled an intention to be active) in the provision of VUA on a merchant market or self-supply basis is unlikely to rollout a network across a large geographic area on a commercial basis. ComReg therefore focusses, in particular, on whether either SIRO or Virgin Media have, or are likely to be capable of, overcoming barriers to entry or expansion in the Commercial NG WLA Market.

## SIRO

- 6.122 SIRO has, to a reasonable degree, overcome barriers to entry in certain geographic areas, having rolled out to 460,000 premises as of October 2022 and, on a forward-looking basis, it will compete with Eircom (absent regulation in the Commercial NG WLA Market) where their networks overlap (at [X [REDACTED] X]). On the basis of its announced rollout plans to eventually reach a further 330,000 premises, SIRO's footprint will amount to 790,000 premises passed on completion of Phase 2 rollout. SIRO's FTTP network will not be as extensive as Eircom's FTTx network (which, factoring in its FTTP upgrade plans, is targeted to pass some 1.9m premises). In addition, Eircom's market share in the Commercial NG WLA Market suggests that it currently faces a degree of competition from SIRO but that this is limited to those Commercial EAs where SIRO has rolled out, predominantly in areas of higher premises density. As SIRO rollout progresses in the Commercial NG WLA Market over time Eircom will likely face additional competition from SIRO, where that additional new rollout occurs.
- 6.123 SIRO's existing Phase 1 rollout of 450,000 premises (460,000 at October 2022) amounts to approximately 26% of the Commercial NG WLA Market, measured by premises, rising to 44% once its Phase 2 rollout is complete. This suggests that SIRO has no immediate plans to roll out to the remaining 56% of premises in the Commercial NG WLA Market within the lifetime of this market review.
- 6.124 The more limited presence of SIRO FTTP capable of offering NG WLA to premises in the Commercial NG WLA Market suggests that barriers to entry

and expansion arising from economies of scale, scope and density are present (although not likely to be uniform), but at a lower level than in the CG WLA Market, or the IA NG WLA Market.

### Virgin Media FTTP

- 6.125 The sunk costs involved in entering the Relevant WLA Markets may be lessened where the entrant has an existing network in place. For example, Virgin Media as an existing CATV network SP may be able to avoid certain sunk costs that would otherwise be incurred by SPs entering the WLA markets, bearing in mind its stated intention to overlay CATV with FTTP and then to commence provision of wholesale services. For example, if Virgin Media were able to re-use some existing ducts and chambers, it could avoid some of the costs associated with the provision of access infrastructure during rollout.
- 6.126 Virgin Media’s CATV network – which is likely to provide strong indicators of its eventual FTTP network presence - is predominantly located in more densely populated areas in the Commercial NG WLA Market. However, although Virgin Media has indicated its intent to commence provision of wholesale WCA and WLA services over its FTTP network, in response to information requests from ComReg, it has been unable to provide detail on its network upgrade forecasts, or wholesale service provision over that network, other than to note that it intended to commence the provision of [X [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] X].
- 6.127 Virgin Media would, additionally, likely incur other sunk costs associated with developing and marketing a wholesale product and putting in place the necessary wholesale order handling, product management and billing systems – although it appears it is intent on doing this. Virgin Media has, for example, indicated to ComReg that the replacement of CATV with FTTP [X [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]  
[REDACTED] X]
- 6.128 Virgin Media has indicated its intention to overlay its CATV network with FTTP and to offer wholesale services. In discussions with ComReg, it has indicated that [X [REDACTED]  
[REDACTED]



[REDACTED]

[REDACTED] ×]. Bearing in mind the length of time it would likely take to do so, ComReg is of the view that any impact arising from such potential competition would likely not be material until the end of the market review period. VMI would, in the first instance, be more likely to offer a WCA service until it attains a sizeable degree of coverage. This is because potential Access Seekers would not likely invest in backhaul and associated facilities to procure WLA from Virgin Media until it is economic for them to do so, including having regard to the potential customer base.

- 6.129 Overall, ComReg considers that, aside from SIRO's limited presence and Virgin Media's proposed FTTP rollout and subsequent potential entry into the provision of wholesale products, there is insufficient evidence to conclude that the Commercial NG WLA Market is characterised by the absence of barriers to entry or expansion. Rather, it is likely to be the case that the Commercial NG WLA Market is characterised by the presence of variable barriers to entry and/or expansion, but that these barriers are being gradually overcome by certain Network Operators in certain geographic areas. This limited entry does not appear to provide sufficient evidence in favour of the contention that the market is characterised by the absence of barriers to entry and expansion.
- 6.130 ComReg has accordingly concluded on a preliminary basis that the Commercial NG WLA Market is likely to be characterised by the presence of variable barriers to entry and expansion.

### **Barriers to entry and/or expansion in the IA NG WLA Market**

- 6.131 In the IA NG WLA Market, NBI is, on a forward-looking basis, likely to be the largest provider of VUA, and it currently faces a marginal presence from both Eircom and SIRO, both of whom are active in the provision of NG VUA in some parts of the IA (and CG WLA in the case of Eircom).
- 6.132 NBI is rolling out to areas generally characterised by lower premises density and higher cost on a non-commercial basis, arising from a public policy decision and funded by State Aid to justify the business case for the investment. This suggests the comparative absence of economies of density in the IA NG WLA Market. This lower premises density increases the average cost of network rollout, evidenced by the comparative absence of material commercial FTTx rollout. ComReg accordingly considers on a preliminary basis that the IA NG WLA Market is characterised by the absence of economies of scale, scope or density, leading to structural barriers to entry to, or expansion in, that market.

6.133 Since the NG WLA Market therefore addresses a market failure arising from the absence of commercial incentives to engage in NG broadband rollout, there is unlikely to be material entry or expansion by other SPs to this market during the lifetime of this market review. ComReg therefore considers that the IA NG WLA Market is characterised by the presence of structural barriers to entry and expansion which are likely to inhibit potential market entry or expansion. ComReg also notes that the PIA Consultation has proposed continuing obligations imposed on Eircom to provide access to its PI, with NBI's rollout in the IA being critically dependent on this, since its entry and presence in the IA NG WLA Market is only enabled through having upstream access to Eircom's PI.

## 6.5.2 Strength of Potential Competitors

6.134 Having regard to the barriers to entry identified in sub-section 6.5.1 above, ComReg now examines the likelihood, extent and timeliness of potential entry occurring in the Relevant WLA Markets over the lifetime of this market review and whether such potential competition is likely to mitigate any Eircom market power on the Commercial NG WLA Market and the CG WLA Market, and any NBI market power on the IA NG WLA Market.

6.135 While Section 5 defined the Relevant WLA Markets in the context of short to medium term constraints on a HM provider of WLA, an SMP assessment considers the potential competitive constraints that may materialise over a longer term horizon. Repeating the approach set out above, ComReg focusses on the strength of credible potential competitors, that is to say, SPs who have prior experience in large scale network rollout or wholesale service provision – specifically SIRO network expansion and Virgin Media WLA market entry.

6.136 In Section 4, ComReg proposes to exclude retail broadband offered over FWA, localised alternative FTTP, and satellite from the retail broadband product market definition. ComReg nevertheless now assesses whether potential entry to the Relevant WLA Markets by these retail-only SPs would be likely and would be capable of mitigating any market power on these markets. ComReg notes that retail SPs offering retail broadband over technologies such as FWA and localised alternative FTTP SPs do not appear to intend to commence offering WLA on a merchant market basis to Access Seekers (assuming it was hypothetically possible to do so). Moreover, such retail SPs currently lack, and are likely to continue to (over the period of this market review) lack the substantial – that is, at least regional – presence expected by Access Seekers wishing to purchase WLA. Therefore, ComReg does not consider that that retail-only SPs delivering broadband over FWA, localised alternative FTTP, or satellite are likely to warrant consideration as a sufficiently effective constraint on the exercise of market power by means of potential competition.

## Potential competition on the CG WLA Market

6.137 For the reasons set out at paragraphs 6.113 to 6.116 above, ComReg considers that there is very little likelihood of potential competition on the CG WLA Market, given the absence of commercial incentives to enter a declining market. ComReg has noted the asymmetric substitution between CG WLA and NG WLA (where available), and constraints are more likely to materialise in this context.

## Potential competition on the Commercial NG WLA Market

### Potential WLA entry by Virgin Media

6.138 ComReg has considered the extent to which potential competition from future Virgin Media FTTP rollout and potential entry to the Commercial NG WLA Markets would be likely to materialise and sufficiently constrain a HM provider of CG WLA or NG WLA over the period of this market review.

6.139 Virgin Media is the second-largest vertically-integrated SP in the State after Eircom. Virgin Media CATV network coverage is largely targeted at residential premises and extends to approximately 42% of premises in the State.<sup>515</sup> Virgin Media has a large residential subscriber base, and as at Q2 2022, had a national 24% share of (predominantly residential) retail broadband subscribers.<sup>516</sup> Of Virgin Media's 961,900 homes passed, 76% lie within the Commercial NG WLA Market.

6.140 As discussed above, Virgin Media has announced its intention to overlay its existing CATV network with FTTP. It has also announced its intention to commence the provision of wholesale services – including WLA – to Vodafone over that FTTP network. As of November 2022, Virgin Media is [✂

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ✂]

6.141 Assuming that future Virgin Media FTTP network coverage matches its

<sup>515</sup> Expressed as a percentage of approximately 2.3 million premises in the State, measured by postal addresses. Virgin Media's Q3 2022 Fixed Income Release reports a figure of 961,900 "homes passed", as of September 30, 2022 (<https://www.libertyglobal.com/wp-content/uploads/2022/11/Virgin-Media-Ireland-Fixed-Income-Q3-2022-Release.pdf>).

<sup>516</sup> Q2 2022 QKDR.

existing CATV coverage, it would ultimately pass over 900,000 premises, largely residential premises. This is less than Eircom's planned FTTP network (1.9 million premises) – but greater than NBI's or SIRO's FTTP network coverage. Virgin Media VUA – if it were to be offered – would not be available in those parts of the State unserved by Virgin Media's FTTP network. In particular, assuming that (i) Virgin Media's FTTP footprint matches its CATV footprint and (ii) that footprint is located entirely within the Commercial NG WLA Market. On the basis of those indicative assumptions, 55% of premises in the Commercial NG WLA Market would be passed by Virgin Media FTTP, noting that its network is mainly targeted towards residential premises.

- 6.142 ComReg notes that, as of Q4 2022, Vodafone is the only Access Seeker with which Virgin Media has contracted to provide wholesale services over its FTTP network, which ComReg considers is likely to be predominantly located in the footprint of the Commercial NG WLA Market. [REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED]. In respect of rollout plans, specific data are unavailable on the level of VMI FTTP rollout completion necessary before Access Seekers would commence purchasing WLA services, although VMI has indicated its intention to commence the provision of [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED].<sup>517</sup>

- 6.143 For the above reasons, it is ComReg's view that Virgin Media NG WLA market entry is not likely to be sufficiently timely or at a scale such that it would potentially constrain Eircom in the Commercial NG WLA Market (bearing in mind that Virgin Media FTTP is unlikely to have any – or a sufficiently significant – presence on the CG WLA Market or the IA NG WLA Market). However, if Virgin Media did enter the market by commencing provision of NG WLA over its FTTP network, then there would likely be grounds to include that NG WLA provision in the NG WLA product market. In this regard, should ComReg become aware of additional data, including rollout forecasts, in respect of Virgin Media FTTP overlay and any associated plans to commence the provision of wholesale services prior to the scheduled publication of the final Decision in respect of this market review, ComReg will take this into account in its assessment.

- 6.144 In the absence of sufficiently reliable deployment data as of Q4 2022, ComReg

<sup>517</sup> [REDACTED]  
[REDACTED]  
[REDACTED] [REDACTED]

has insufficient grounds to conclude that Virgin Media will enter the Commercial NG WLA Market at scale over the period of this market review, such that it would mitigate Eircom's suggested SMP position. While Virgin Media has suggested that it will commence the provision of NG WLA to Vodafone [§< ██████████ §<] this assertion has not been backed up by reliable data on network rollout by timing and location.

### SIRO WLA market expansion

- 6.145 As noted in paragraph 3.31, SIRO is commencing construction of Phase 2 of its FTTP network rollout which will, on completion, deliver VUA to 770,000 premises in the State. Given the barriers to entry outlined above, ComReg considers that, while SIRO is already present on the Commercial NG WLA Market, ComReg has limited capacity to take SIRO network expansion into account at a granular level when assessing its impact on potential competition on the Commercial NG WLA Market. This is because ComReg lacks certainty on the timing and scope of SIRO rollout. Although European Investment Bank ('EIB') documentation suggest that Phase 2 rollout will complete by 2025, SIRO has not itself confirmed publicly that this is indeed the case. SIRO has also been unable to provide ComReg with reliable forecast data on when and where it is likely to roll out. ComReg also notes that SIRO's Phase 1 rollout was characterised by timing uncertainty, with SIRO repeatedly missing the interim Phase 1 rollout targets which it had set itself. In particular, SIRO announced in 2014 that its Phase 1 rollout, consisting of 500,000 premises, would be completed by the end of 2018.<sup>518</sup> SIRO subsequently reduced its Phase 1 rollout target to 450,000 premises. It did not meet this reduced target until September 2022, almost four years later than originally planned.<sup>519</sup>
- 6.146 ComReg accordingly considers that SIRO is unlikely to be able to effectively constrain Eircom on the Commercial NG WLA Market from behaving independently of competitors, customers and consumers over the lifetime of this market review period, arising from market expansion.

### Potential competition on the IA NG WLA Market

- 6.147 For the reasons set out at paragraphs 6.131 to 6.133 above, ComReg considers that there is very little likelihood of potential competition on the IA NG WLA Market, given the underlying assumption that, due to diseconomies of density, commercial NG broadband rollout in the footprint of the IA is unlikely, and that state aid must be provided to incentivise network rollout on a non-commercial basis.

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<sup>518</sup> [50 towns - SIRO](#)

<sup>519</sup> SIRO's website reported that it had passed over 430,000 premises in July 2022, over 440,000 premises in August 2022, over 450,000 premises in September 2022, and over 460,000 premises in October 2022.

### 6.5.3 Conclusion on Potential Competition in the WLA Market

- 6.148 In paragraphs 6.134 to 6.147 ComReg has considered the extent to which potential competition would, over the five-year period of this market review, be likely to effectively constrain Eircom's behaviour in the Commercial NG WLA Market or the CG WLA Market. Overall, ComReg's view is that, in the Commercial NG WLA Market or the CG WLA Market, it is unlikely that Eircom is sufficiently constrained by potential competition, such that it would prevent Eircom from behaving, to an appreciable extent, independently of competitors, customers and end users.
- 6.149 Similarly, in the IA NG WLA Market, it is unlikely that NBI is sufficiently constrained by potential competition, such that it would prevent NBI from behaving to an appreciable extent, independently of competitors, customers and end users. However, as noted earlier, the requirements under the NBP Contract are likely to constrain NBI's behaviour.
- 6.150 ComReg notes that the threat of potential competition on the Commercial NG WLA Market (or the CG WLA Market) would most likely potentially come from Virgin Media (by means of market entry arising from CATV overlay with FTTP) and SIRO (by means of market expansion). Neither SIRO nor Virgin Media are likely to enter or expand in the CG WLA Market, given their likely focus on the delivery of NG rather than CG wholesale services. Similarly, neither SIRO nor Virgin Media are likely to enter or expand in the IA NG WLA Market, given that this is an area where, by definition, there are deemed to be insufficient incentives to provide NG broadband on a commercial basis.
- 6.151 Having regard to the MGA, ComReg has considered in further detail the possibility of market entry or expansion by Virgin Media or SIRO on the Commercial NG WLA Market, but considers that there is insufficient evidence to suggest that potential competition from SIRO or Virgin Media FTTP on the Commercial NG WLA Market would exert an effective competitive constraint on Eircom's provision of NG WLA, given limited current and expected network rollout by SIRO, and insufficient data (and likely lengthy timelines) in respect of Virgin Media NG WLA market entry.
- 6.152 Overall, ComReg's view is that absent regulation, it is unlikely that Eircom would be sufficiently constrained by potential competition in the Commercial NG WLA Market or the CG WLA Market, such that it would prevent it from behaving, to an appreciable extent, independently of competitors, customers and end users. Similarly, ComReg's preliminary view is that, absent regulation, it is unlikely that NBI would be sufficiently constrained by potential competition in the IA NG WLA Market, such that it would prevent it from behaving, to an appreciable extent, independently of competitors, customers and end users (although it would likely be constrained by the terms of the NBP Contract).

## 6.6 Countervailing Buyer Power

- 6.153 In addition to the preceding analysis of barriers to entry and potential competition, it is also necessary to consider whether bargaining power on the buyer side of the Relevant WLA Markets could impose a sufficiently effective<sup>520</sup> competitive constraint on Eircom or NBI, such that it would credibly offset Eircom's or NBI's potential capacity to behave, to an appreciable extent, independently of competitors, customers and, ultimately, consumers.
- 6.154 In so doing, ComReg examines whether sufficient countervailing buyer power ('**CBP**') exists such that it results in Eircom or NBI being unable to sustain WLA prices that are above the competitive level, i.e., the effective exercise of CBP is one which results in WLA prices being constrained to the levels that would arise in a competitive market.
- 6.155 The concept of CBP is not absolute,<sup>521</sup> and some degree of CBP may be present in WLA negotiations between parties. Given that WLA negotiations are usually bilateral in nature, it is reasonable to assume that the level of any CBP exercised will vary between parties, having regard to their circumstances. It should, however, be noted that WLA negotiations involving NBI are unlikely to be fully bilateral in nature, bearing in mind that NBI is constrained in its bargaining position by the terms of the NBP Contract. Absent regulation, neither Eircom nor SIRO face this constraint.
- 6.156 In assessing CBP, ComReg takes account of the **economic framework** and the **regulatory context** within which a market operates, as well as any other criteria relevant to the CBP assessment.

### 6.6.1 Overview of Framework for CBP Assessment

#### Necessary Conditions for Effective CBP

- 6.157 The effectiveness of CBP is likely to be highly contingent on the strength of the bargaining power of the purchaser in its WLA negotiations. The European Commission's 2009 enforcement priorities in applying Article 102 of the Treaty of the Functioning of the European Union to abusive exclusionary conduct by dominant undertakings<sup>522</sup> (the '**2009 Enforcement Priorities**') are informative

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<sup>520</sup> The existence of *some* level of CBP does not, in itself, suffice. Rather, CBP must be sufficiently strong to prevent WLA prices from rising above a level that would pertain in a competitive market outcome.

<sup>521</sup> The question to be addressed is not whether or not CBP has been exercised, but rather the strength of CBP exercised, and whether this is sufficient to constrain the exercise of SMP, in particular, by preventing a WLA supplier from pricing WLA above the competitive level.

<sup>522</sup> Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings (2009/C 45/02). Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>.

on the issue of CBP in competition assessments. These state<sup>523</sup> that:

*“Competitive constraints may be exerted not only by actual or potential competitors but also by customers. Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength. Such countervailing buying power may result from the customers’ size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so. If countervailing power is of a sufficient magnitude, it may deter or defeat an attempt by the undertaking to profitably increase prices. Buyer power may not, however, be considered a sufficiently effective constraint if it only ensures that a particular or limited segment of customers is shielded from the market power of the dominant undertaking.”*

6.158 In its Horizontal Mergers Guidelines,<sup>524</sup> the EC also notes that:

*“Countervailing buyer power ..... should be understood as the bargaining strength that the buyer has vis-à-vis the seller in commercial negotiations due to its size, its commercial significance to the seller and its ability to switch to alternative suppliers.”*

6.159 Accordingly, effective CBP results from customers being of sufficient size or importance to the seller and having the ability to credibly switch to alternative sources of supply, such that it deters the seller from profitably increasing its prices. Effective CBP therefore arises where buyers:

- (a) Account for a significant proportion of the supplier’s total output;
- (b) Are well-informed about credible alternative sources of supply; and
- (c) Can switch to other suppliers at little cost to themselves, or to self-supply the relevant product relatively quickly and without incurring substantial sunk costs.

6.160 The above factors are considered below (noting that (b) and (c) are considered together), along with any evidence of effective CBP being exercised in negotiations between Eircom or NBI and Access Seekers. It is also of note that effective CBP is that which has a broader market impact and not that which only results in a limited segment of customers benefiting from better terms and

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<sup>523</sup> Paragraph 18 of the 2009 Enforcement Priorities.

<sup>524</sup> European Commissions “Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings”, [Official Journal C 31, 05.02.2004](#), para 64, (the ‘**Horizontal Mergers Guidelines**’).



conditions. ComReg first assesses CBP on the Commercial NG WLA Market and IA NG WLA Market before considering the CG WLA Market.

### Regulatory context for CBP Assessment

- 6.161 In assessing CBP it is also necessary to consider the impact of existing or future potential regulation. In this regard, ComReg sets out its approach to:
- (a) Existing SMP regulation in the Relevant WLA Markets, being the markets within which prospective SMP is now being assessed;
  - (b) Existing SMP regulation in markets other than the Relevant WLA Markets; and
  - (c) Other non-SMP regulation, and the role of dispute resolution.

### Existing SMP Regulation on the Relevant WLA Markets

- 6.162 The bargaining position of a provider of WLA will likely be weakened in negotiations with an Access Seeker if its supply of WLA is subject to SMP price regulation, or other SMP obligations governing the requirement to meet reasonable requests for access and not to discriminate.
- 6.163 However, insofar as existing SMP regulation in the Relevant WLA Markets is concerned, when assessing CBP ComReg applies the MGA, whereby SMP regulation in the market under consideration is discounted when considering the prospective SMP analysis. In assessing the existence of any effective CBP, ComReg considers the potential bargaining outcomes if Eircom (on the CG WLA Market or the Commercial NG WLA Market) or NBI (on the IA NG WLA Market) were not subject to SMP obligations. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing or potential regulation on that market. Considering how the Relevant WLA Markets may function absent regulation helps to ensure that regulation is only applied (or withdrawn) where it is truly justified and proportionate to do so. To do otherwise could result in a circularity of argument whereby the Relevant WLA Markets are found to be effectively competitive only by virtue of constraints arising from existing or potential SMP obligations. Once found to be effectively competitive, SMP obligations would be withdrawn, thereby undermining the original finding of effective competition on that market.

### SMP Regulation on markets other than the Relevant WLA Markets

- 6.164 ComReg has imposed SMP obligations on Eircom on a number of other regulated markets.<sup>525</sup> NBI is not subject to SMP obligations on any other

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<sup>525</sup> This includes WCA (on the Revised Regional WCA market only), FVCT, MVCT and leased lines. While Eircom is designated with SMP in the Revised Regional Wholesale Central Access ('WCA') Market, for the purposes of the

market although, as noted at paragraphs 6.42 to 6.45 above, the NBP Contract imposes a number of contractual obligations on NBI which largely mirror those which would be imposed under an SMP regulatory scenario.

- 6.165 The bargaining position of an SP with SMP obligations in markets other than the Relevant WLA Markets may potentially be weakened in any WLA negotiations. Conversely, a number of Eircom's WLA customers are also subject to SMP regulation in other markets, which constrains their own bargaining positions. For instance, BT and Vodafone (in respect of fixed telephony), and Vodafone (in respect of mobile telephony) are subject to SMP obligations pursuant to the 2019 Termination Decision, and the 2019 Termination Rates Decision.<sup>526</sup>
- 6.166 It is ComReg's view that the bargaining positions of Access Seekers purchasing WLA from Eircom are, in some cases, somewhat strengthened by the fact that Eircom is unable to exercise its SMP on certain other markets, but that the bargaining positions of Access Seekers purchasing WLA from NBI are not similarly strengthened. However, a number of caveats apply:
- (a) First, the comparative strengthening of bargaining power is unlikely to amount to a position of 'effective' CBP; rather it may marginally increase bargaining power, but still at a low level;
  - (b) Second, some Access Seekers may themselves be subject to SMP obligations on other markets, and are therefore similarly restricted in their bargaining responses; and
  - (c) Third, the capacity to leverage bargaining strength in respect of other markets applies only in the case of Access Seekers who are also active on other markets where Eircom is designated with SMP.
- 6.167 Overall, Access Seekers in the Relevant WLA Markets are not likely to strengthen their bargaining power in negotiations with Eircom, despite the fact that Eircom's SMP position in such other markets undermines the credibility of any threat to retaliate by, for example, imposing price increases or denying access to wholesale services provided in these markets.

### **ComReg's investigative and dispute resolution powers**

- 6.168 ComReg has also considered the role of dispute resolution (and own initiative investigations) in the context of general access obligations, and how this might impact on the bargaining dynamic between parties in WLA negotiations and

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CBP assessment, this is discounted, given the requirements of the Modified Greenfield Approach. The WCA market also forms part of the current market review, and is assessed as a downstream market to the WLA market in Section 7 of this Consultation.

<sup>526</sup> Market Review - Fixed Voice Call Termination and Mobile Voice Call Termination (D10/19), and Decision - Price Control Obligations for Fixed & Mobile Call Termination Rates (D11/19), 23 May 2019.

CBP. Regulation 31 of the Framework Regulations (Regulation 67 of the EEC Regulations) empowers ComReg to resolve disputes between authorised Undertakings, not only in relation to specific SMP obligations, but also with respect to general obligations, including those governing interconnection. Furthermore, Section 10 of the Communications Regulation Act 2002 (as amended) affords ComReg the power to carry out investigations into matters relating to the supply of access, either on its own initiative, or following a complaint from an Undertaking.

- 6.169 SMP obligations may only be imposed on an SP that is designated as holding SMP. Where ComReg exercises its dispute resolution powers or its powers to initiate investigations on its own initiative, it must do so having regard to its objectives under Section 12 of the Communication Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations (Regulation 4 of the ECC Regulations).
- 6.170 In the event that SPs are unable to reach a commercially negotiated arrangement regarding access, it would potentially be open to one of the parties to seek to have the matter resolved by ComReg through the dispute resolution process provided for under Regulation 31 of the Framework Regulations (Regulation 67 of the ECC Regulations).
- 6.171 ComReg does not consider that its dispute resolution function would negate Eircom's or NBI's potential SMP positions in the provision of WLA. Dispute resolution is a regulatory function which operates in parallel to, rather than as a substitute for, market analysis functions.
- 6.172 ComReg does not consider that such a scenario is contemplated by the European Regulatory Framework. This has been borne out in a number of recent decisions by the EC under Article 7 of the Framework Directive concerning the imposition by NRAs of both SMP obligations following a market analysis, and the imposition of SMP-type obligations on non-SMP SPs pursuant to the exercise of dispute resolution functions. These EC decisions<sup>527</sup> highlight its view that regulatory intervention in the conduct of non-SMP SPs through dispute resolution, while appropriate in certain scenarios as a short-term measure, is no substitute for the conduct of a market analysis and, where appropriate, the imposition of permanent price control remedies.
- 6.173 Overall, ComReg considers that the actual or potential impact of dispute resolution is not a factor for consideration in terms of the bargaining dynamic between Eircom, as a supplier of WLA, and Access Seekers.

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<sup>527</sup> See, for example, Cases PL/2012/1280, PL/2012/1378 and IT/2016/1885.

## Non-SMP regulation

- 6.174 NBI is not currently designated with SMP by ComReg on any relevant market. Nevertheless, it is subject to restrictions on its commercial conduct arising not from SMP regulation, but rather from the terms of the NBP Contract. As set out at paragraph 6.75 above, NBI is obliged to set its pricing by reference to a BRP. Additionally, NBI is subject to obligations which replicate in various ways the types of remedies which ComReg could levy on an operator designated with SMP. These include:
- (a) NBI's Reference Offers to SPs must be approved by the Minister before they are published, amended or updated;
  - (b) NBI's SP Terms must be "fair and balanced and not impose any undue or disproportionate requirements on small or medium sized Service Providers";
  - (c) Conditions in the SP Terms for "application for use of the Wholesale Products" must be "proportionate and justifiable";<sup>528</sup>
  - (d) NBI must treat SPs on a non-discriminatory basis;
  - (e) NBI must apply equivalent conditions and provide equivalent Wholesale Products to all SPs in equivalent circumstances; and
  - (f) NBI must charge all SPs the same price for a particular Wholesale Product in all circumstances.
- 6.175 The bargaining position of a provider of WLA will likely be weakened in negotiations with an Access Seeker if its supply of WLA is governing by restrictions of general application on its pricing or access conduct, and this is the case in respect of NBI.
- 6.176 In these circumstances, NBI, in its WLA negotiations with Access Seekers, cannot credibly threaten to retaliate with an increase in WLA charges, and its bargaining power relative to Access Seekers is likely to be lessened, compared to the counterfactual in which it is not subject to contractual obligations with the State. NBI's bargaining power is therefore likely constrained in WLA negotiations with Access Seekers.
- 6.177 However, insofar as existing SMP regulation in the Relevant WLA Markets is concerned, ComReg applies the MGA, whereby SMP regulation in the market under consideration is discounted when considering the prospective SMP analysis. In assessing the existence of any effective CBP, ComReg considers the potential bargaining outcomes if no operator were designated with SMP on

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<sup>528</sup> <https://www.gov.ie/en/publication/16717-national-broadband-plan-contract/>. This list is not exhaustive. A summary of the contract terms is also set out at <https://nbi.ie/wp-content/uploads/2022/02/Contract-Summary..pdf>

the Relevant WLA Markets, and SMP obligations accordingly did not apply. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing or potential regulation on that market. Considering how the Relevant WLA Markets may function absent regulation helps to ensure that regulation is only applied (or withdrawn) where it is truly justified and proportionate to do so. To do otherwise could result in a circularity of argument whereby the Relevant WLA Markets are found to be effectively competitive only by virtue of constraints arising from existing or potential SMP obligations. Once found to be effectively competitive, SMP obligations would be withdrawn, thereby undermining the original finding of effective competition on that market.

### 6.6.2 CBP Assessment

6.178 ComReg examines evidence of the exercise of CBP on the Relevant WLA Markets. CBP could act as an effective competitive constraint where buyers:

- (a) account for a significant proportion of the supplier's total output;
- (b) are well-informed about credible alternative sources of supply; and
- (c) are able to switch suppliers at little cost, or to self-supply the relevant product relatively quickly and without incurring substantial sunk costs.

6.179 These factors are considered below (noting that ((b) and ((c) are considered together), along with any evidence of effective CBP being exercised.

#### Size of the buyer and its relative importance to the seller

6.180 The strength of CBP can be influenced by the size of the purchasing Access Seeker, measured by its share of total purchases of WLA from a provider, relative to total purchases of WLA from that provider. The degree to which high shares of WLA purchases are concentrated amongst one or more buyers may be relevant. In particular, ComReg considers the share of:

- (a) total purchases of NG WLA by an Access Seeker from Eircom on the Commercial NG WLA Market, relative to total purchases of NG WLA from Eircom;
- (b) total purchases of CG WLA by an Access Seeker from Eircom on the CG WLA Market, relative to total purchases of CG WLA from Eircom; and
- (c) total purchases of NG WLA by any Access Seeker from NBI on the IA NG WLA Market, relative to total purchases of NG WLA from NBI.

6.181 The size of the buyer and its relative importance to the seller may be dynamic over time, having regard to growth in the subscriber bases of the respective parties, and trends in the buyer's purchases of WLA. For example, as an Access Seeker's customer base grows, it may become more difficult for a WLA

- provider (in an MGA scenario) to refuse or delay access to that Access Seeker.
- 6.182 Arising from the above, relative to an established SP, a new entrant Access Seeker would find it more important to ensure that it had obtained WLA in order to ensure service provision to its own end users. Recognising this asymmetry, the bargaining power of a provider in supplying WLA to new entrant Access Seekers could potentially be enhanced.
- 6.183 In determining the sizes of buyers and their relative importance to the seller, ComReg measured purchases of WLA from the potential SMP operators (Eircom and NBI) by Access Seekers on each of the Relevant WLA Markets. The larger the share of WLA an Access Seeker purchases from a provider on each relevant market, the more likely it is that that Access Seeker may be able to exert CBP. Conversely, an Access Seeker which accounts for a small proportion of WLA purchases from a provider is unlikely to be capable of exerting effective CBP.
- 6.184 To identify the largest purchasers of WLA from each provider and their relative importance on the Relevant WLA Markets, ComReg considers:
- (a) The share of WLA supplied by each provider purchased by individual Access Seekers, and trends over time on each Relevant WLA Market;
  - (b) The size of each of the Access Seekers' subscriber bases, relative to the provider's subscriber base, and trends over time, again, on each Relevant WLA Market.
- 6.185 ComReg carries out this assessment on an MGA basis, assuming that regulation is not present on the Relevant WLA Markets, and Eircom no longer offers merchant market NG WLA or CG WLA to Access Seekers. Since NBI is active at the wholesale level only, the absent regulation scenario would not likely lead it to withdraw merchant market supply of VUA, as it has no retail arm to which it can self-supply and it constrained by the NBP Contract.
- 6.186 ComReg also notes in this regard that, in a MGA scenario, the withdrawal of Eircom merchant market WLA may have knock-on effects on Access Seeker demand for WLA provided by SIRO or NBI. For example, assume that, on the Commercial NG WLA Market, an Access Seeker switched some of its VUA purchases to SIRO. If that Access Seeker perceives that it must be capable of offering retail broadband on a geographically widespread basis in order to be an attractive retail proposition for end users, Eircom will remain an unavoidable trading partner for that Access Seeker outside of SIRO's footprint. Thus, if the Access Seeker were unable to purchase Eircom WLA, then it would have limited incentives to continue purchasing SIRO WLA and serving a limited geographic footprint. Any Access Seeker CBP would be substantially diminished by Eircom's status as an unavoidable trading partner.

- 6.187 In the presence of regulation, Eircom purchases circa 45% of NG WLA lines an absolute majority of both CG WLA on all three Relevant WLA Markets. In a MGA where it withdraws merchant market supply of CG WLA and NG WLA, Eircom's market share increases on the CG WLA Market and the Commercial NG WLA Market, since Eircom would be the sole purchaser of WLA from itself.
- 6.188 Therefore, the largest purchaser of WLA on all three Relevant WLA Markets, by a significant margin and in the presence of regulation, is Eircom's own downstream retail arm. In a MGA scenario absent regulation, ComReg considers that Eircom would be the sole purchaser of WLA from itself, assuming that it withdrew merchant market sale of WLA. In the case of merchant market supply, BT and Vodafone are the two largest purchasers of Eircom VUA, and BT and Magnet are the largest purchasers of LLU. These figures suggest the possibility that either, or both, BT and Vodafone could potentially exert CBP. However, this possibility is attenuated by the fact that Vodafone and BT together account for considerably less than Eircom's own purchases on the Relevant WLA Markets and Eircom is the only supplier of LLU (there are no alternatives, other than say migration to NG WLA).
- 6.189 A buyer is likely to be better positioned to exert CBP if it is large in absolute or relative terms, and if it is a relatively large customer of the seller, and that seller cannot serve the end user itself (for instance, if it is a wholesale-only operator). ComReg assesses whether an Access Seeker, which is an important WLA customer of Eircom (on the CG WLA Market or the Commercial NG WLA Market) or NBI (on the IA NG WLA Market), is, in principle, capable of leveraging its position to exercise CBP.
- 6.190 Based on the evidence available to it, ComReg's view is that most Access Seekers are unlikely to be of sufficient importance to prevent Eircom from having the incentive to withdraw merchant market WLA provision and divert merchant market supply to Access Seekers to its own retail arm. Eircom is the largest purchaser of its own WLA services, and the next biggest purchaser (that is, the largest purchaser of merchant market WLA) accounts for a much smaller proportion of total WLA sales on both the CG WLA Market and the Commercial NG WLA Market. ComReg carries out this analysis in respect of each individual Relevant WLA Market below.
- 6.191 In the absence of alternative network coverage capable of delivering WLA in the Relevant WLA Markets – at least to an appreciable extent – Access Seekers are unlikely to be able to credibly exert CBP as they only have alternatives in certain geographic areas. However, on a forward-looking basis, and as SIRO and NBI continue to roll out their FTTP networks, the capacity of Access Seekers to leverage CBP may increase, as credible alternative purchasing opportunities become available across a wider geographic

footprint. ComReg also notes that CBP to be effectively exercised would need to constrain market power at a market level, and not at simply result in benefits to individual or specific Access Seekers.

**Commercial NG WLA Market**

6.192 Table 42 below shows the relative size of Access Seeker purchases (including Eircom self-supply) of WLA from Eircom, as of Q2 2022 on the Commercial NG WLA Market. Eircom’s self-supply to its downstream retail business, with a [REDACTED] share of overall WLA purchases in the Commercial NG WLA Market is the largest purchaser. Eircom self-supply of WLA includes its self-supply of the relevant components of WCA, which relies on WLA inputs. Vodafone, with a [REDACTED] share of Eircom WLA purchases, is the largest merchant market purchaser of Eircom WLA in the Commercial NG WLA Market. The remaining shares of WLA purchases are split amongst a number of smaller Access Seekers (in terms of purchases).

**Table 42: WLA purchases from Eircom in the Commercial NG WLA Market, Q2 2022 [REDACTED]**

Purchaser	VUA	
	n	%
Eircom – Self-supply (inc. NG Bitstream)	[REDACTED]	[REDACTED]
Total Wholesale Merchant Market purchases – of which:	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

<sup>529</sup> Eircom’s share is 40-50%.

<sup>530</sup> Vodafone’s share is 40-50%.



**IA NG WLA Market**

6.193 Table 43 below shows the relative size of each Access Seeker’s purchases of WLA from NBI, as Q2 2022 on the IA NG WLA Market. It illustrates that Eircom’s retail business with a [X ██████████ X]<sup>531</sup> share of overall WLA purchases in the IA NG WLA Market is, by a significant margin, the largest purchaser of WLA in the IA NG WLA Market. Digiweb is also a large purchaser of WLA from NBI in the IA NG WLA Market, with a share of [X ██████████ ██████████ X]<sup>532</sup> of the WLA purchases. The remaining shares of WLA purchases are split amongst a number of smaller Access Seekers (in terms of purchases).

**Table 43: WLA purchases from NBI in the IA NG WLA Market, Q2 2022**  
[XREDACTEDX]

Purchaser	VUA	
	n	%
Total merchant market purchases	██████	██████
██████████	██████	██████
██████████	██████	██████
██████████	██████	██████
██████████	██████	██████
██████████	██████	██████
██████████	██████	██████

**CG WLA Market**

6.194 Table 44 below shows the relative size of each Access Seeker’s wholesale purchases of CG WLA from Eircom, as of Q2 2022 on the CG WLA Market. It illustrates that Eircom’s retail business with a [X ██████████ X]<sup>533</sup> share of overall purchases in the CG WLA Market is, by a significant margin, the largest purchaser. BT Ireland and Vodafone, with [X ██████████ X]<sup>534</sup> shares of overall CG WLA purchases are the next biggest purchasers, with 13 Access Seekers accounting for the remaining 12% of CG WLA purchases. Eircom purchases of CG WLA from itself are larger than the combined purchases on merchant market basis from the second, third, and fourth biggest purchasers. This suggests that Eircom is unlikely to face effective CBP in the CG WLA Market.

<sup>531</sup> Eircom’s share is 51-60%.

<sup>532</sup> Digiweb’s share is 11-20%.

<sup>533</sup> Eircom’s share is 41-50%.

<sup>534</sup> BT Ireland’s share is 21-30%, and Vodafone’s share is 11-20%.

**Table 44: National CG WLA purchases from Eircom, Q2 2022**  
 [REDACTED]

Purchaser	CG WLA	
	n	%
Total Eircom self-supply (including CG WCA)	[REDACTED]	[REDACTED]
Merchant Market purchases (including CG WCA):	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

**Conclusion**

- 6.195 The analysis above shows that the largest purchaser of WLA is Eircom’s retail arm, on all three Relevant WLA Markets. In an MGA scenario, the CBP of Access Seekers would be weakened in the absence of alternative FTTP networks capable of delivering WLA that is purchased from Eircom, given that Access Seekers would have no other means of retail broadband provision, were Eircom to cease its supply of merchant market CG WLA or NG WLA in the Commercial NG WLA Market or CG WLA Market as appropriate. In such a scenario, the proportion of WLA sales accounted for by Eircom self-supply would likely increase, further reducing already insufficient levels of CBP. In the IA NG WLA Market, NBI has low incentives to cease its merchant market supply of VUA, as it has no downstream arm to switch supply to (and it is in any event prevented from doing so under the NBP Contract).
- 6.196 ComReg’s view is that Eircom’s market power (including its ability to act independently of competitors, customers and, ultimately, end users) would, absent regulation, be unlikely to be constrained to an appreciable extent by CBP exerted by Access Seekers on the Commercial NG WLA Market or the CG WLA Market. While Access Seekers are a significant source of revenue for Eircom in the Commercial NG WLA Market and the CG WLA Market, ComReg considers that their relative size is not suggestive of a sufficiently strengthened bargaining position regarding price or other terms of supply.
- 6.197 In respect of the IA NG WLA Market, [REDACTED] [REDACTED] which, absent regulation, could be indicative of the presence of sufficiently effective CBP. However, it is

ComReg's view that this conclusion is effectively rendered moot, arising from the NBP Contract, which acts to constrain NBI's freedom of commercial conduct, regardless of the actual competitive situation which NBI faces in the IA. Thus, the presence or absence of sufficiently effective CBP on NBI in the IA is immaterial to the constraints faced by NBI arising from the NBP Contract.

### **Evidence of bargaining power from operator negotiations**

6.198 ComReg has considered whether the exercise of effective CBP is evident from bargaining in WLA negotiations between Eircom or NBI on the one hand and Access Seekers on the other. In this respect, in sub-section 6.4.3 ComReg examined Eircom's WLA pricing behaviour and set out its view that there is no firm behavioural evidence to suggest that Eircom faces effective pricing constraints in the provision of WLA, beyond the constraint imposed by SMP price regulation. This also suggests that effective CBP has not been, nor is likely to be, a relevant factor in constraining Eircom's behaviour in the Relevant WLA Markets.

6.199 In respect of NBI, ComReg notes that, even absent SMP regulation, NBI is constrained to price in accordance with the NBP Contract with the State. NBI cannot credibly refuse to provide access at prices other than the prices set by that Contract. In view of this, ComReg considers that it is a moot point whether or not there is effective CBP.

### **6.6.3 Conclusion on CBP Assessment**

6.200 Having regard to the analysis in paragraphs 6.178 to 6.199 above, ComReg's preliminary view is that it is unlikely that Eircom would be sufficiently constrained by CBP such that it would prevent it from behaving, to an appreciable extent, independently or competitors, customers and end users, on the Commercial NG WLA Market or the CG WLA Market.

6.201 The question as to whether NBI would likely be sufficiently constrained by CBP is rendered moot, given that the NBP Contract effectively prevents it from behaving, to an appreciable extent, independently or competitors, customers and end users, on the IA NG WLA Market.

## **6.7 Proposals in respect of Significant Market Power**

6.202 In paragraphs 6.17 to 6.201 above, ComReg has considered a wide range of factors to identify whether any undertaking enjoys a position of SMP in the Relevant WLA Markets identified in Section 5. These factors include:

- (a) Existing competition in the Relevant WLA Markets;
- (b) Potential competition in the Relevant WLA Markets; and
- (c) The strength of any Countervailing Buyer Power.

### 6.7.1 Commercial NG WLA Market

- 6.203 ComReg's view is that the Commercial NG WLA Market is not effectively competitive, and that Eircom would not be sufficiently constrained by the above factors such that it would prevent it from behaving, to an appreciable extent, independently of competitors, customers and end users, on that market.
- 6.204 Where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations (Regulation 49 of the ECC Regulations), that a given market identified in accordance with Regulation 26 of the Framework Regulations (Regulation 46 of the ECC Regulations) is not effectively competitive, ComReg is obliged to designate an undertaking under Regulation 27(4) of the Framework Regulations (Regulation 49(8) of the ECC Regulations) as having significant market power.
- 6.205 Having regard to the conclusions of the above market analysis, ComReg is of the view that Eircom should be designated as having SMP in the Commercial NG WLA Market.

### 6.7.2 IA NG WLA Market

- 6.206 ComReg's view is that no undertaking should be designated as having SMP in the IA NG WLA Market. NBI is, in ComReg's view, sufficiently constrained by the terms of the NBP Contract, such that it is prevented from behaving, to an appreciable extent, independently of competitors, customers and end users, on the IA NG WLA Market.

### 6.7.3 CG WLA Market

- 6.207 ComReg's view is that no undertaking should be designated as having SMP in the CG WLA Market. Although it is the sole provider of CG WLA, Eircom is constrained in its ability to behave, to an appreciable extent, independently of competitors, customers and end users, on the CG WLA Market. The CG WLA Market is in persistent decline, and CG WLA numbers are likely to continue to decline over the lifetime of this market review. Additionally, where Eircom continues to offer CG WLA, this is likely to be concentrated in the footprint of the IA where, on a forward-looking basis, NBI FTTP capable of delivering NG WLA will likely constrain Eircom CG WLA by means of asymmetric substitution. Accordingly, even if Eircom CG WLA were not effectively constrained in the short term, arising from technological shifts towards NG broadband, in the medium term Eircom is unlikely to be able to act independently of competitors, customers and end users in the provision of CG WLA.
- 6.208 Having regard to the conclusions of the market analysis, ComReg is of the view that no operator should be designated with SMP in the CG WLA Market.

**Q. 5. Do you agree with ComReg's assessment of SMP on the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

# 7 Assessment of the Modified Retail Broadband Market in the absence of WCA regulation

## 7.1 Framework for Assessing Modified Retail Broadband Market

- 7.1 In Section 4 above, ComReg set out its view on the definition of the retail broadband markets absent upstream WLA or WCA regulation.
- 7.2 In this section, on the basis of the proposed finding that Eircom has SMP in the Commercial NG WLA Market and that no operator has SMP in the IA NG WLA Market or the CG WLA Market, consistent with the MGA, ComReg now re-examines the retail broadband markets assuming the presence or absence of proposed regulation, as appropriate, in the Relevant WLA Markets, but absent regulation in the Relevant WCA Markets (the '**Modified Retail Broadband Market**'). As was the case with the Relevant WLA Markets, ComReg's assessment takes place on a forward-looking basis.

## 7.2 Modified Retail Broadband Market - product perspective

- 7.3 From a product perspective, the Modified Retail Broadband Market is the same as that defined in Section 4, having regard to the proposed presence of SMP regulation on the Commercial NG WLA Market, and the absence of regulation on the IA NG WLA Market or the Revised Regional WCA Market (the latter which was regulated pursuant to the 2021 MTA Decision, bearing in mind that the Revised Urban WCA Market has been deregulated). ComReg's assessment in Section 4 suggests that there are several ways in which SPs can enter, and compete on, the retail broadband market:
- (a) On a vertically-integrated self-supply basis over a CATV or FTTx network owned and operated by an SP (e.g., Eircom, Virgin Media); or
  - (b) On the basis of the purchase of wholesale services offered by other SPs, including WLA sold on a regulated or commercial basis, and WCA sold on a commercial basis.
- 7.4 The 2021 MTA Decision retained the WCA product market definition set out in the 2018 Decision, as follows:
- (a) WCA-based Bitstream products provided over copper and FTTx networks, including Bitstream provided using upstream WLA inputs;

- (b) Self-supply of WCA-based Bitstream by Eircom and BT Ireland;
  - (c) WCA-based Bitstream products hypothetically offered by SIRO;
  - (d) Self-supply of CATV retail broadband products offered by Virgin Media in areas where its network is present; and
  - (e) Self-supply of retail broadband products offered by SPs using WLA upstream inputs and having widespread coverage (such as Vodafone).
- 7.5 The WCA product market definition set out in the 2021 MTA Decision did not take account of NBI rollout, due to extremely limited rollout, and the lack of reliable rollout forecast data at that time. WCA is currently only regulated in the 2021 Revised Regional WCA Market and has been entirely deregulated in the footprint of the 2021 Revised Urban WCA Market, which accounted for 20% of EAs, but 57% of premises, and 68% of retail broadband subscriptions, as of Q2 2022.<sup>535</sup>
- 7.6 In an absent WCA regulation scenario, Eircom would be entitled to withdraw merchant market provision of WCA in the 2021 Revised Regional WCA Market, and Access Seekers providing retail broadband to end users on that basis would, in those circumstances, be unable to retain their end users unless alternative wholesale inputs were available.
- 7.7 Absent WCA regulation (noting that the 2021 Revised Urban WCA Market has been deregulated), an end user could retain retail broadband by relying on the following providers, where available at their premises:
- (a) Virgin Media retail broadband self-supplied over CATV (and, potentially, over its FTTP network on completion of rollout);
  - (b) Eircom retail broadband using:
    - a. self-supplied and regulated WLA inputs in the footprint of the Commercial NG WLA Market;
    - b. self-supplied WCA;
    - c. state-aided NBI WLA or WCA in the IA NG WLA Market; and
    - d. commercial WLA inputs in the footprints of the IA NG WLA Market and the CG WLA Market.
  - (c) Access Seeker retail broadband supplied on the basis of merchant market WLA inputs:
    - a. Over regulated Eircom WLA in the Commercial NG WLA Market;
    - b. Over state-aided NBI WLA in the IA NG WLA Market;

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<sup>535</sup> As set out at Table 15 of the 2021 MTA Decision.

- c. Over SIRO WLA on a commercial basis, where it has rolled out;
  - d. On a forward-looking basis, over Virgin Media WLA on a commercial basis, once this rollout occurs.<sup>536</sup>
- (d) Access Seeker retail broadband supplied on the basis of merchant market WCA inputs:
- a. On a commercial basis, from SPs using WLA inputs to offer commercial WCA (BT, Enet),
  - b. On a commercial basis (and on a forward look with some timing and presence uncertainty), from Virgin Media WCA delivered over its FTTP network which is to be rolled out; and
  - c. Over state-aided NBI WCA in the footprint of the IA.
- 7.8 While, at the product level, retail broadband can, in principle, be delivered using a variety of upstream and/or self-supplied inputs, in practice, the ability to do so will depend on which networks pass a premises.

### 7.3 Modified Retail Broadband Market – geographic perspective

- 7.9 In assessing the geographic scope of the Modified Retail Broadband Market(s), ComReg assesses whether or not conditions of competition across the State are likely to be sufficiently homogenous. If this is the case, it is likely that a national market exists. However, where there are sufficiently stable differences in competitive conditions across different geographic areas of the State, this warrants defining sub-national geographic Modified Retail Broadband Markets.
- 7.10 Below, ComReg assesses the geographic features of the Modified Retail Broadband Market(s) having regard to the following issues:
- (a) Geographic differences in entry conditions over time (paragraphs 7.11 to 7.18);
  - (b) Evolution and distribution of SP market shares (paragraphs 7.19 to 7.25);
  - (c) Geographical differences in product functionality and demand characteristics (paragraphs 7.26 to 7.31); and
  - (d) Evidence of differentiated pricing strategies or marketing (paragraphs 7.32 to 7.38).

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<sup>536</sup> Virgin Media indicated to ComReg that [redacted]



### 7.3.1 Geographic differences in entry conditions over time

- 7.11 In considering the geographic scope of the Modified Retail Broadband Market, ComReg assesses the extent to which differences in competitive conditions may evolve in particular areas over the lifetime of this market review, given the presence of two Relevant WLA Markets. In doing so, ComReg assesses the coverage and market share evolution of NG broadband networks over time as a means of identifying any existing or potential variances in entry and competitive conditions across geographic different areas.
- 7.12 As set out in detail at Section 5 above, the presence or absence at an EA of NG broadband networks, at an appreciable level of coverage, and at an appreciable level of overlapping coverage, is a key determinant in distinguishing differences in competitive conditions between EAs at wholesale level. Below, ComReg assesses the network coverage distributions of SPs from a retail perspective.
- 7.13 As set out in detail in Section 5 and Annex 8, ComReg considers that the presence and coverage levels of broadband capable of delivering NG WLA and NG WCA varies across Modified EAs. The NG broadband options available to a retail broadband end user will depend on that end user's location. Thus, NBI is present in the IA NG WLA Market, but is not present outside it, where NG broadband is delivered on a commercial basis, without the need for State intervention. In general, NG broadband availability is likely to be greater in areas of greater premises density, although NBI rollout on a State-aided basis facilitates NG broadband delivery to areas of lower premises density.
- 7.14 A number of SPs have rolled out NG broadband infrastructure to varying degrees across the State, including SIRO (FTTP), Eircom FTTx, NBI (FTTP) and, Virgin Media CATV (and, on a forward-looking basis, Virgin Media FTTP (although noting location and timing uncertainty). Access Seekers offer both wholesale and retail broadband services over Eircom's, SIRO's and NBI's networks. Access Seekers can directly supply broadband to retail customers, or offer WCA service to other Access Seekers by aggregating access to multiple upstream networks (for example, Enet and BT at the wholesale level, and Vodafone and Sky at the retail level).
- 7.15 The presence of different Network Operators in different parts of the State – as reflected in the WLA geographic market definition – does not appear to reflect differences in entry conditions over time at the retail level. In particular, retail broadband SPs appear to be willing and able to purchase wholesale inputs from multiple Network Operators (where those operators have sufficient scale/coverage), such that the absence or presence of a particular Network Operator in a particular EA, in the presence of WLA regulation, is likely to have less of an impact on the capacity of a retail SP to be present.

- 7.16 For example,<sup>537</sup> at least nine retail SPs purchase wholesale inputs (including WLA on a regulated or commercial basis, and WCA on a regulated or commercial basis) from each of open eir, SIRO, and NBI (Blacknight Solutions, Digiweb, Fastcom, Magnet Plus, Pure Telecom, Sky, Vodafone, Telcom, and Westnet); one retail SP purchases wholesale inputs from both SIRO and open eir (Airwire); nine retail SPs purchase wholesale inputs from both open eir and NBI (Aptus, Atlantek, BBnet, Eir, IFA Telecom, Ivertex, Lightnet, Net1, and Regional Broadband); and four retail SPs purchase wholesale inputs from NBI and SIRO (Carnsore Broadband, Kerry Broadband, Rocket Broadband, and Viatel). Thus, at least 23 retail SPs purchase wholesale inputs from multiple Network Operators.
- 7.17 Additionally, BT and Enet offer WCA services on a commercial basis to Access Seekers by acting as aggregators and offering WCA making use of Eircom, NBI and SIRO WLA network inputs – although neither has made public its downstream Access Seeker partners. Thus, Access Seekers can procure wholesale inputs from Eircom, SIRO, or NBI directly, or purchase WCA from aggregators such as BT or Enet which affords indirect access to networks operated by Eircom, SIRO, or NBI.
- 7.18 This suggests that, assuming the presence of upstream Commercial NG WLA Market regulation, there are likely to be limited differences in geographic entry conditions over time, as retail SPs have a proven capacity to purchase from multiple Network Operators, thus serving retail customers across the footprints of different Network Operators.

### 7.3.2 Evolution and distribution of SP market shares

- 7.19 ComReg's view is that, absent WCA regulation, there is likely to be limited variation in retail broadband SP market shares in the footprints of the IA NG WLA Market, the Commercial NG WLA Market, and the CG WLA Market, driven by fact that, despite the differing availability of CG and NG broadband in these geographic markets, Access Seekers tend to purchase wholesale inputs from multiple sources.
- 7.20 As set out at paragraph 7.16 above, retail SPs have a proven willingness and ability to purchase wholesale inputs from multiple operators in order to provide retail broadband services to end users. This means that retail SP market shares are not necessarily constrained by the presence or absence of a particular Network Operator. A number of SPs have invested in providing retail broadband either using their own networks (e.g. Eircom, Virgin Media) or

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<sup>537</sup> Based on data set out at <https://siro.ie/>, <https://www.openeir.ie/open-eir-irelands-largest-wholesale-full-fibre-network/>, and <https://nbi.ie/where-can-i-buy/>, accessed on 25 October 2022.

though access to multiple upstream wholesale broadband inputs at EAs where those inputs are available (e.g. Vodafone).

7.21 WCA is provided by NBI where it has rolled out (or intend to do so), subject to the NBP Contract, by Enet and BT on the basis of upstream WLA purchases, and by Eircom on a commercial basis in the 2021 Revised Urban WCA Market. In a MGA scenario, ComReg assumes that Eircom withdraws merchant market WCA in the footprint of the 2021 Revised Regional WCA Market. However, as set out at paragraph 7.16 above, this does not necessarily suggest the presence of differences in the conditions of competition in the provision of retail broadband at EAs arising from the presence or absence of networks capable of delivering wholesale NG broadband (on a regulated and/or commercial basis) inputs to retail broadband.

7.22 Table 45 below sets out national retail broadband market shares in the presence of WCA regulation in the 2021 Revised Regional WCA Market. In the presence of regulation, Eircom has a retail broadband market share of 20-60% in 87% of EAs. This suggests that Eircom retail market share is heavily concentrated within a certain range in the majority of EAs in the presence of regulation. This suggests the presence of a national geographic market in the presence of (partial) WCA regulation. The fact that Eircom has a market share of less than 20% or more than 80% in only 13% of EAs suggests the comparative absence of substantial differences in competitive conditions.

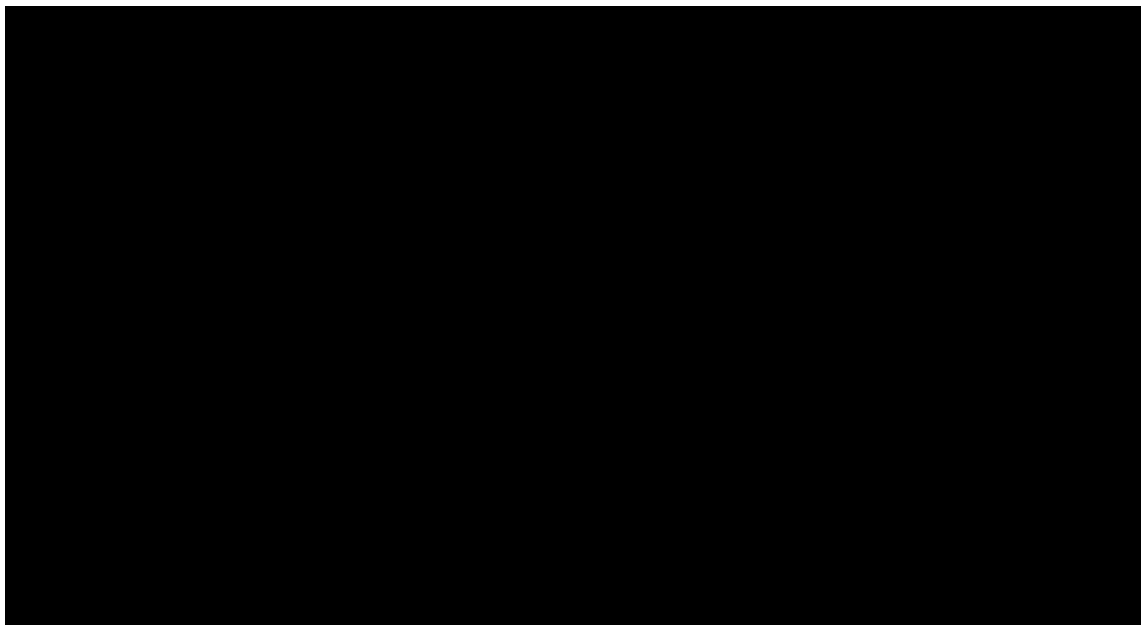
**Table 45: Retail SP market shares in the presence of regulation, Q2 2022**  
 [REDACTED]

Eircom market share range	Average market share				EAs	Lines
	VMI	Vodafone	Sky	OAOs		
0-20%	█	█	█	█	█	█
21-40%	█	█	█	█	█	█
41-60%	█	█	█	█	█	█
61-80%	█	█	█	█	█	█
81-100%	█	█	█	█	█	█

7.23 Figure 28 outlines retail market shares in an absent WCA regulation scenario, where all subscriptions provided over Eircom WCA inputs revert back to Eircom retail. The total active lines used to calculate market share in this graph consist of Next Generation retail broadband products sold using VUA, Bitstream or CATV inputs. This is a worst-case scenario which assumes that, absent WCA regulation, every single line served on the basis of regulated Eircom merchant market WCA would revert back to Eircom retail. This assumption, which maximises Eircom retail market share, is unlikely to be

realistic, as it does not account for the ability of Access Seekers to procure alternative wholesale inputs. Depending on FTTx rollout at individual premises, Access Seekers may have the options to purchase WCA provided by other SPs (NBI), or WLA provided by Eircom (on the basis of regulation of the upstream Commercial NG WLA Market), SIRO, or NBI (or, on a forward-looking basis, VMI but noting location and timing uncertainty) to provide retail services to end users.

**Figure 28: Hypothetical Modified Retail Broadband market shares, absent WCA regulation [REDACTED]**



7.24 Table 46 below shows that, even in a worst-case scenario where all merchant market WCA reverted back to Eircom retail (thus maximising the increase in Eircom retail market share), Eircom's market share would increase to [REDACTED] <sup>538</sup> absent WCA regulation, still falling below an indicative 50% threshold for SMP set out in the 2018 SMP Guidelines.<sup>539</sup> While Vodafone and Sky see the biggest drop in market shares absent Eircom WCA inputs, both Access Seekers already purchase wholesale inputs from Eircom, NBI and SIRO and, depending on network coverage, may be in a position to switch their purchases of wholesale inputs to maintain market shares.

<sup>538</sup> 31-40%.

<sup>539</sup> As set out at paragraph 55 thereof: "According to established case-law, very large market share held by an undertaking for some time — in excess of 50 % — is in itself, save in exceptional circumstances, evidence of the existence of a dominant position. Experience suggests that the higher the market share and the longer the period of time over which it is held, the more likely it is that it constitutes an important preliminary indication of SMP".

**Table 46: Change in Modified Retail Broadband market shares absent WCA regulation, Q2 2022 [PARTIALLY REDACTED]**

	WCA regulation		Change
	Present	Absent	
<b>Eircom</b>	27%	[REDACTED]	[REDACTED] <sup>540</sup>
<b>Virgin Media</b>	29%	[REDACTED]	[REDACTED] <sup>541</sup>
<b>Vodafone</b>	22%	[REDACTED]	[REDACTED] <sup>542</sup>
<b>Sky</b>	15%	[REDACTED]	[REDACTED] <sup>543</sup>
<b>Pure Telecom</b>	2%	[REDACTED]	[REDACTED] <sup>544</sup>
<b>Digiweb</b>	2%	[REDACTED]	[REDACTED] <sup>545</sup>
<b>OAOs</b>	3%	[REDACTED]	[REDACTED] <sup>546</sup>

7.25 ComReg considers it unlikely that Eircom would completely cease provision of merchant market WCA in the footprint of the Revised Regional WCA Market. In the deregulated Revised Urban WCA Market Eircom still provides WCA inputs to Access Seekers and so absent all WCA regulation, it is likely Eircom will still provide WCA inputs to Access Seekers. This suggests that, assessing retail broadband market shares nationally absent WCA regulation, even in the most extreme scenario, Eircom's market share would increase, but given the availability of WLA from other SPs, including Eircom, Comreg does not consider this to be at a sufficient level of materiality which would give rise to competitive concerns.

### 7.3.3 Geographic differences in product functionality and demand characteristics

7.26 A further indicator of potential geographic variation in competitive conditions is differences in the functionalities or types of products being offered by retail SPs, or in the marketing strategies being pursued.

<sup>540</sup> 31-40%, changing by 0-10%.

<sup>541</sup> 21-30%, changing by 0-10%.

<sup>542</sup> 21-30%, changing by 0-10%

<sup>543</sup> 11-20%, changing by 0-10%.

<sup>544</sup> 1-10%, changing by 0-10%.

<sup>545</sup> 1-10%, changing by 0-10%.

<sup>546</sup> 1-10%, changing by 0-10%.

- 7.27 Retail broadband products and quality of service tend to be identical, regardless of the geographic area of provision. Variance arises not on the basis of geography, but the underlying technology available. ComReg is unaware of any retail SP offering functionally distinct retail broadband in different geographic areas based on the same underlying access network.
- 7.28 While differences might arise in the mix of underlying wholesale and/or self-supplied network inputs used to deliver retail broadband (as set out at paragraph 7.16 above), this has not led to any material differences across geographic areas in the functionality of the retail broadband offered over such inputs. On a forward-looking basis, FTTP is likely to become the prevalent technology capable of delivering retail broadband in the State. The growth of FTTP would likely further reduce any technological differences across different geographic locales, further increasing the geographic homogeneity of product offerings, as FTTP rolls out across both urban areas characterised by higher premises density (generally on a commercial basis), and rural areas characterised by lower premises density (generally on a state-aided basis).
- 7.29 Eircom's commercial strategy to date in the presence of WCA regulation in the 2021 Revised Regional WCA Market has not led it to vary the functionality of its (retail or wholesale) broadband by geography. Hence, Access Seekers relying on Eircom WLA or WCA inputs have also not, as far as ComReg is aware, varied the functionality of their retail broadband offerings on a sub-national basis. In an absent regulation scenario, Eircom would be entitled to alter its commercial strategy, including WCA product functionalities, on a geographic basis. However, ComReg notes that, absent regulation in the 2021 Revised Urban WCA Market, Eircom does not appear to have done so in different parts of that market.
- 7.30 Demand for retail broadband is unlikely to vary geographically, assuming similar underlying usage cases for residential and business end users, regardless of location. However, the extent to which user demand can be satisfied will be constrained by network availability at a given premises. Over time, and as set out at paragraph 7.28 above, FTTP is likely to become more geographically widespread. Therefore, ComReg considers that, on a product functionality basis, demand for retail broadband is likely to be national in nature, but that there are geographic differences in access networks capable of meeting that demand. On a forward-looking basis, ongoing FTTP rollout will facilitate greater geographic uniformity in the provision of retail broadband.
- 7.31 As such, while there may be some variation in demand for retail broadband, ComReg is of the view that, on a forward-looking basis, there are insufficient differences in product functionalities or demand characteristics to warrant defining sub-geographic markets for retail broadband.

### 7.3.4 Evidence of differentiated pricing strategies or marketing

- 7.32 ComReg has assessed whether there is evidence of differentiated pricing or marketing that might indicate the presence of different regional and/or local competitive conditions, in particular, geographically de-averaged or differentiated retail pricing across different geographic areas. Furthermore, variation in product quality between geographic areas (which may infer effective price differences), or variation in marketing retail broadband products, may also be suggestive of localised competitive pressures within a market.
- 7.33 Retail broadband is provided on a national basis by a small number of large operators (e.g., Eircom, Vodafone, Sky, Virgin Media<sup>547</sup>) and on a regional or local basis by a large number of smaller operators. Operators offering retail broadband on a widespread or national basis appear to price retail broadband uniformly across the State, even where they purchase wholesale inputs from multiple operators. Thus, for example, Vodafone appears to charge the same price for retail broadband, whether it is delivered using SIRO or Eircom wholesale inputs.
- 7.34 The only geographic difference in pricing which typically arises tends to be based on the underlying access networks and the products offered over these. For example, where FTTP is available, retail broadband may be offered at a higher price point commensurate with the higher speeds and specifications available over FTTP retail broadband, compared to retail broadband delivered over other access networks.
- 7.35 ComReg's review of SPs' retail broadband packages does not indicate any variation in prices by geographic region, e.g., a retail broadband package with material geographic price differentials (see Annex 4).
- 7.36 Based on the data available, retail SPs appear to pursue a commercial policy of pricing uniformly on a national basis, suggesting that, from a pricing perspective, competitive conditions for retail broadband are sufficiently homogenous nationwide. In areas where the competitive dynamic is enhanced by the existence of multiple suppliers of retail broadband, there has, to date, been no discernible variance in the pricing or marketing of these products, compared to areas where fewer retail SPs are present. Any variance in retail broadband pricing appears to be driven by the availability of products offered over different access networks/technologies.
- 7.37 Eircom is the largest supplier of WLA and WCA products to support the provision of retail broadband by Access Seekers which do not operate their

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<sup>547</sup> In August 2022, Virgin Media announced a network deal with SIRO which will allow Virgin Media to expand its retail broadband reach beyond its own CATV network footprint. See <https://siro.ie/news-and-insights/virgin-media-expands-market-reach-on-the-siro-network/>

own networks. Eircom currently prices its WLA products on a national basis arising from its regulatory obligations. Eircom WCA pricing varies across the 2021 Revised Urban WCA Market and the 2021 Revised Regional WCA Market. Generally, the regulated price tends to be more expensive than the commercial price for CG WCA and NG WCA delivered over FTTC, while regulated and commercial charges for NG WCA delivered over FTTP tend to be the same, as set out below. This provides a natural experiment for testing the possibility of Eircom engaging in differentiated pricing strategies, absent WCA regulation, and suggests that pricing could be differentiated not by geography, but by underlying network technology.

**Table 47: Eircom WCA monthly rental charges, October 2022<sup>548</sup>**

<b>CG</b>	<b>Regional €</b>	<b>Urban €</b>	<b>Difference</b>
<b>Bitstream Connect</b>	8.41	9.48	1.07
<b>Bitstream Expand IP</b>	8.41	11.55	3.14
<b>Bitstream Rapid IP</b>	8.41	14.00	5.59
<b>Bitstream Zoom IP</b>	8.41	15.00	6.59
<b>Bitstream Swift IP</b>	8.41	16.50	8.09
<b>Bitstream Sprint IP</b>	8.41	21.50	13.09
<b>Bitstream Turbo IP Plus</b>	8.41	24.50	16.09
<b>8MB Bitstream BMB</b>	8.12	8.92	0.80
<b>24 MB Bitstream BMB</b>	8.12	9.92	1.80
<b>Standalone 8MB Bitstream BMB</b>	25.33	21.97	-3.36
<b>Standalone 24 MB Bitstream BMB</b>	25.33	22.97	-2.36
<b>NG WCA - FTTC</b>	<b>Regional €</b>	<b>Urban €</b>	<b>Difference</b>
<b>NGA Bitstream Plus Standalone</b>	22.48	28.84	6.36
<b>NGA Bitstream Plus POTS based</b>	8.92	14.16	5.24
<b>NG WCA - FTTP</b>	<b>Regional €</b>	<b>Urban €</b>	<b>Difference</b>
<b>NGA Bitstream Plus Standalone 150</b>	29.72	29.72	0

<sup>548</sup> These rates have been taken from the Eircom Broadband Service Price List (v.30.0) in respect of Regional WCA, and in the Open Eir Commercial Interconnection Services Price List (CISPL) (v.47.0) respect of Urban WCA.



<b>NGA Bitstream Plus Standalone 300</b>	29.72	29.72	0
<b>NGA Bitstream Plus Standalone 500</b>	29.72	29.72	0
<b>NGA Bitstream Plus Standalone 500/1000</b>	33.22	n/a	
<b>NGA Bitstream Plus Standalone 1000</b>	34.72	34.72	0
<b>NGA Bitstream Plus Standalone 1000/150</b>	38.22	n/a	
<b>NGA Bitstream Plus Standalone 2000</b>	39.72	n/a	
<b>NGA Bitstream Plus POTS based 150</b>	15.31	15.31	0
<b>NGA Bitstream Plus POTS based 300</b>	15.31	15.31	0
<b>NGA Bitstream Plus POTS based 500</b>	15.31	15.31	0
<b>NGA Bitstream Plus POTS based 500/1000</b>	18.81	n/a	
<b>NGA Bitstream Plus POTS based 1000</b>	20.31	20.31	0
<b>NGA Bitstream Plus POTS based 1000/150</b>	23.81	n/a	
<b>NGA Bitstream Plus POTS based 2000</b>	25.31	n/a	

- 7.38 Absent WCA regulation, Access Seekers would still be able to avail of a range of upstream regulated and commercial wholesale products, as identified at paragraph 7.7 above, but subject to geographic availability. Insofar as potential differences in prices across different geographic areas are concerned, there is some evidence to suggest that sufficiently different competitive conditions exist arising from differences in WCA pricing. However, as set out in the 2021 MTA Decision,<sup>549</sup> pricing differences between different WCA products may arise specifically in the provision of retail broadband between different areas.
- 7.39 In particular, the FTTC VUA tariff is set at a cost-oriented price level nationally so any FTTC Bitstream premium is likely to encourage migration to FTTC VUA. Additionally, the 2021 Revised Regional WCA Market has a sizeable overlap within the footprint of the IA, such that NBI Bitstream will, on a forward-looking basis, be available to Access Seekers. Table 48 outlines NBI's coverage in the Revised Regional WCA Market, with over half the EAs having NBI coverage between 30% and 60% of premises. The higher prices for CG WCA and FTTC-based NG WCA in the 2021 Revised Regional WCA Market may incentivise migration to NBI Bitstream or VUA when it becomes available.

**Table 48: NBI Coverage in the Revised Regional WCA Market Exchange Areas**

<b>NBI Coverage in an EA</b>	<b>Number of EAs</b>	<b>% of EAs</b>
<b>0% – 10%</b>	17	2%

<sup>549</sup> At paragraphs 4.234-4.239 thereof.

<b>10% – 20%</b>	53	6%
<b>20% - 30%</b>	107	11%
<b>30% - 40%</b>	168	18%
<b>40% - 50%</b>	210	22%
<b>50% - 60%</b>	168	18%
<b>60% - 70%</b>	82	9%
<b>70% - 80%</b>	68	7%
<b>80% - 90%</b>	39	4%
<b>90% - 100%</b>	40	4%

### 7.3.5 Preliminary conclusion on geographic market

- 7.40 Having considered the above, it is ComReg’s preliminary view that some factors suggest that it may be appropriate to define sub-national geographic Modified Retail Broadband Markets, including the presence or absence at an EA of NG broadband, the competing number of SPs and market share differences between different geographic areas. However, other evidence such as uniformity of retail pricing and product functionalities and the capacity of retail SPs to purchase from multiple wholesale operators is not indicative of sub-national geographic markets.
- 7.41 Overall, ComReg does not discount the possibility that there may be separate geographic markets for the Modified Retail Broadband Market on the basis of sub-national Relevant WLA Markets, absent WCA regulation. However, ComReg proposes to leave this question open as it would not have a bearing on the regulatory outcome with respect to the retail market assessment, for the reasons set out at subsection 7.4 below, which suggest that any such distinction is, ultimately, rendered moot.

## 7.4 Modified Retail Broadband Market 3CT and Competition assessment

- 7.42 ComReg assesses competition on the Modified Retail Broadband Market by assessing indicators to determine whether, absent WCA regulation, the market would likely pass or fail a Three Criteria Test (**‘3CT’**). Since neither the WCA market nor the retail broadband market are included in the 2020 Recommendation as markets deemed susceptible to *ex ante* regulation, there is no presumption in favour of regulation of these markets, and a 3CT must first be carried out to assess whether, in light of national circumstances, regulation continues to be warranted.

- 7.43 The 3CT set out in Article 67(1) of the EECC (mirrored in Regulation 49(4) of the ECC Regulations) and described in the 2020 Explanatory Note is the mechanism which allows for this assessment to be carried out in a structured and objective way. The 3CT sets out the criteria that must be cumulatively satisfied in order to determine that a relevant market should be, or should continue to be, subject to *ex ante* regulation. The three criteria are:
- (a) the presence of high and non-transitory barriers to entry;
  - (b) a market structure which does not tend towards effective competition within the relevant time horizon; and
  - (c) the insufficiency of competition law alone to adequately address the market failure(s) concerned.
- 7.44 In doing so, ComReg assesses, *inter alia*, the number of networks available for the supply of retail broadband, and the availability of wholesale inputs capable of facilitating Access Seeker provision of retail broadband. If any of the criteria above fail, the 3CT as a whole fails, and the presumption in favour of regulation is not met. ComReg's 3CT findings are set out in paragraphs 7.80 to 7.82 below.
- 7.45 In this section, having set out the view that Eircom has SMP in the Commercial NG WLA Market and that no operator has SMP in the IA NG WLA Market or the CG WLA Market, consistent with the MGA, ComReg now carries out a 3CT of the Modified Retail Broadband Market assuming the presence of regulation, as appropriate, in the Commercial NG WLA Market, but absent regulation in the Relevant WCA Markets.

### **Criterion 1: Are entry barriers high and non-transitory?**

- 7.46 ComReg's view is that, over the five-year market review period, barriers to entry to the Modified Retail Broadband Market are likely to be low in the presence of regulation of the Commercial NG WLA Market (and the absence of regulation in the 2021 Revised Regional WCA Market, the CG WLA Market, and the IA NG WLA Market). Even in the total absence of WCA regulation (noting that the 2021 Revised Urban WCA Market has been deregulated), ComReg considers that retail broadband would continue to be widely available, both on a self-supply basis, and making use of merchant market wholesale inputs, as set out at paragraph 7.7 above.
- 7.47 The absence of barriers to entry appears to be confirmed by the large number of retail SPs offering retail broadband on the basis of wholesale inputs. According to their respective websites, 52 retail SPs currently offer retail broadband services on the basis of wholesale inputs delivered by NBI, SIRO and Eircom.

- 7.48 The provision of merchant market WCA on a regulated basis has, since the 2021 MTA Decision, been confined to the 2021 Revised Regional WCA Market. Accordingly, the absent WCA regulation assumption required under the MGA considers the implications for downstream retail broadband of the removal of regulation from the 2021 Revised Regional WCA Market.
- 7.49 In the footprint of the 2021 Revised Urban WCA Market, regulatory obligations on Eircom have been withdrawn by means of the 2021 MTA Decision, and Eircom is therefore entitled, should it so wish, to withdraw merchant market provision of WCA. Nevertheless, Eircom continues to make WCA available, although under varying commercial terms, depending on the specific WCA product in question. Eircom charges the same prices for NG WCA delivered over FTTP in the (currently regulated) 2021 Revised Regional WCA Market and the (deregulated) 2021 Revised Urban WCA Market. In most, but not all, cases, Eircom charges higher prices for CG WCA and NG WCA delivered over FTTC on the 2021 Revised Urban WCA Market, than on the 2021 Revised Regional WCA Market, as set out at Table 47 above. For the reasons set out at paragraphs 7.38 to 7.39 above, ComReg considers that the increased prices for CG WLA in the footprint of the (deregulated) 2021 Revised Urban WCA Market reflect an objective on the part of Eircom to encourage Access Seekers to migrate from CG technology to NG technology, in circumstances where CG technology appears to be in terminal decline. In this regard, ComReg notes that there is no price differential in the provision of FTTP NG WCA on the 2021 Revised Urban WCA Market and the 2021 Revised Regional WCA Market.
- 7.50 Additionally, regardless of WCA pricing differentials, alternative (WLA and WCA) wholesale inputs are available to Access Seekers. Subject to geographic availability, an Access Seeker providing retail broadband on the basis of regulated merchant market Eircom WCA will, absent regulation, be able to retain its retail broadband end users at a given premises if it purchases WLA delivered by Eircom, NBI or SIRO, or WCA delivered by NBI, BT or Enet instead. In the former case, an Access Seeker would incur the cost of providing backhaul to allow it to purchase WLA instead of WCA, as discussed earlier.
- 7.51 Despite the absence of WCA regulation in the 2021 Revised Urban WCA Market, barriers to entry to the Modified Retail Broadband Market in that WCA market footprint do not appear to be high. This is measured by the continued presence of retail SPs on the basis of wholesale inputs including WLA and WCA offered by Eircom, SIRO, NBI, BT, and Enet. On the same basis, ComReg would expect this to occur in the footprint of the 2021 Revised Regional WCA Market over the expected five-year lifetime of this market review. ComReg therefore considers that the complete removal of WCA regulation is, on balance, unlikely to result in the presence of high and non-transitory barriers to entry to the Modified Retail Broadband Market.

- 7.52 In order to determine whether the Modified Retail Broadband Market would be characterised by high and non-transitory barriers to entry, ComReg assesses what, if any, alternative wholesale options are available to Access Seekers who do not operate their own networks in the footprint of the 2021 Revised Regional WCA Market, absent WCA regulation (and therefore absent Eircom merchant market WCA provision).
- 7.53 Retail broadband may be provided by Access Seekers who do not operate their own network on the basis of upstream WLA or WCA inputs. In that regard, and having regard to ComReg's conclusions in Section 6, Eircom will be required to provide regulated VUA in the Commercial NG WLA Market. NBI VUA is made available in accordance with the NBP Contract and SIRO VUA is made available on a commercial basis. Similarly, in an absent regulation scenario, WCA is made available on a commercial basis by Eircom (in the footprint of the 2021 Revised Urban Market),<sup>550</sup> NBI, Enet and BT.
- 7.54 Accordingly, and in principle, Access Seekers may procure upstream inputs either on a regulated basis, or on a commercial basis, which suggests that barriers to entry on the Modified Retail Broadband Market are not likely to be high and non-transitory. If, absent regulation, Eircom withdrew regulated merchant market WCA supply in the footprint of the 2021 Revised Regional WCA Market, ComReg assesses how many premises would potentially be impacted and what, if any, alternatives would be available at those premises.
- 7.55 Based on Q2 2022 data, [redacted]<sup>551</sup> end users are provided with retail broadband on the basis of merchant market Eircom NG WCA inputs, split between [redacted]<sup>552</sup> in the footprint of the 2021 Revised Urban WCA Market, and [redacted]<sup>553</sup> in the footprint of the 2021 Revised Regional WCA Market. [redacted]<sup>554</sup> end users are provided with retail broadband on the basis of merchant market Eircom CG WCA inputs. Of those [redacted]<sup>555</sup> broadband subscriptions, [redacted]<sup>556</sup> are in the footprint of the 2021 Revised Regional WCA Market and [redacted]<sup>557</sup> are in the 2021 Revised Urban WCA Market. A total of [redacted]<sup>558</sup> retail broadband

<sup>550</sup> The parameters (measured by EA) of the 2021 Revised Urban WCA Market and the 2021 Revised Regional WCA Market are set out in Annex 3 of the 2021 MTA Decision.

<sup>551</sup> Between 190,000 and 200,000.

<sup>552</sup> Between 70,000 and 80,000.

<sup>553</sup> Between 110,000 and 120,000.

<sup>554</sup> Between 60,000 and 70,000.

<sup>555</sup> Between 60,000 and 70,000.

<sup>556</sup> Between 40,000 and 50,000.

<sup>557</sup> Between 20,000 and 30,000.

<sup>558</sup> Between 250,000 and 260,000.

subscriptions are provided over Eircom's CG and NG WCA merchant market inputs. Thus, of 1,501,550 fixed retail broadband subscriptions in the State, [redacted] are provided on the basis of Eircom merchant market WCA, and [redacted] are provided on the basis of regulated merchant market Eircom WCA in the footprint of the 2021 Revised Regional WCA Market.

7.56 In an absent regulation scenario, regulated Eircom merchant market WCA may no longer be available to those [redacted] NG broadband and [redacted] CG broadband end users in the 2021 Revised Regional WCA Market. Over a five-year time horizon, barriers to entry are not likely to be sufficiently high and non-transitory for Access Seekers in the Modified Retail Broadband Market to warrant Criterion 1 passing, due to the current and expected presence of alternative wholesale broadband inputs (subject to geographic availability) which would allow Access Seekers to offer retail broadband, even absent Eircom merchant market WCA:

- (a) Where the premises is passed by Eircom FTTx only, that premises is likely to fall in the Commercial NG WLA Market, on which ComReg proposes to designate Eircom with SMP. Accordingly, the Access Seeker can continue to provide retail broadband to end users at that premises by switching to VUA provided by Eircom on a regulated basis, if it was willing to incur the costs of procuring backhaul (or to WCA provided by BT or Enet which itself relies on Eircom VUA inputs);
- (b) Where the premises is also passed by a wholesale-only FTTP network (e.g. SIRO<sup>563</sup> or NBI), the Access Seeker can continue to provide retail broadband by switching to purchases of wholesale inputs from NBI or SIRO, or from an aggregator such as BT or Enet which provides or is capable of providing access to those networks;
- (c) Where the premises is passed by Eircom copper only, it is likely that the majority of CG broadband falls within the IA and, on a forward-looking basis, the Access Seeker can provide retail broadband by switching to VUA or NG Bitstream provided by NBI.

7.57 Table 49 below sets out the network coverage of alternative network operators providing wholesale inputs to Access Seekers in the footprint of the 2021 Revised Regional WCA Market (which would potentially be impacted by an

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<sup>559</sup> Between 10% and 20%.

<sup>560</sup> Between 5% and 15%.

<sup>561</sup> Between 110,000 and 120,000.

<sup>562</sup> Between 40,000 and 50,000.

<sup>563</sup> For the avoidance of doubt, SIRO is considered here, assuming regulation of the Commercial NG WLA Market.

absent regulation scenario). This includes SIRO and NBI's current network rollout and NBI's planned network rollout on a forward looking basis.

**Table 49: 2021 Revised Regional WCA Market – SIRO & NBI FTTP network coverage, Q2 2022**

Network Coverage <sup>564</sup>	Number of EAs	Premises	% of EAs
0% - 20%	58	130,884	6%
20% - 40%	267	341,305	28%
40% - 60%	383	370,084	40%
60% - 80%	159	113,444	17%
80% - 100%	84	39,746	9%
No networks passing	17	0	2%
<b>Total</b>	<b>968</b>	<b>995,463</b>	<b>100%</b>

- 7.58 Table 53 above shows there is substantial alternative network operator coverage in the Revised Regional WCA Market. The majority of EAs and premises fall within the 40-60% network coverage range.
- 7.59 ComReg therefore concludes that, absent regulation, over the five-year review period, the Modified Retail Broadband Market would be unlikely to be characterised by the presence of high and non-transitory barriers to entry. The impact of Eircom merchant market WCA withdrawal absent regulation would be small, since only [X █████ X]<sup>565</sup> (8%) of retail broadband subscriptions are, as of Q2 2022, delivered using regulated Eircom NG WCA and only [X █████ X]<sup>566</sup> of retail broadband subscriptions are, as of Q2 2022, delivered using regulated Eircom CG WCA.
- 7.60 Additionally, some Access Seekers would be able to continue to offer retail broadband using non-Eircom wholesale inputs where they are passed by SIRO or NBI. At served only by Eircom, Access Seekers would be able to rely on regulated Eircom VUA inputs in the Commercial NG WLA Market, and, on a forward-looking basis, on NBI inputs in the case of Eircom copper or FTTP in the IA.

<sup>564</sup> Currently passed or reasonably forecast to pass, as defined at paragraph A 8.50(a). Overlapped premises have been taken into account.

<sup>565</sup> Between 110,000 and 120,000.

<sup>566</sup> Between 40,000 and 50,000.

## Criterion 2: Tendency towards effective competition

- 7.61 In this subsection, ComReg considers the relative strength of any existing or potential competitors over the lifetime of the market review period, market shares, and pricing, in assessing levels of existing competition. ComReg considers that, absent WCA regulation, the Modified Retail Broadband Market would be likely to tend towards effective competition over the lifetime of this market review.<sup>567</sup>
- 7.62 In the footprint of the Commercial NG WLA Market, Access Seekers are likely to be able to offer retail broadband to end users using alternative wholesale inputs, as set out at paragraph 7.56 above, even in an MGA where Eircom supply of merchant market WCA is no longer regulated. In the footprint of the IA NG WLA Market, Eircom merchant market WCA provision is, on a forward-looking basis, likely to be less prevalent, and NBI will offer Access Seekers wholesale products in accordance with the NBP Contract.

### Market shares

- 7.63 A number of SPs provide retail broadband. While some SPs provide retail broadband on their own networks (Eircom, Virgin Media), others do so on the basis of wholesale inputs purchased from Network Operators (Vodafone, Sky etc.). Eircom operates the only CG network in the State, and the largest NG network, which, as of Q2 2022, extends to approximately 87% of premises.<sup>568</sup>
- 7.64 ComReg has identified 52 retail SPs which – entirely or partially - offer retail broadband on the basis of Eircom, SIRO or NBI WLA or WCA.<sup>569</sup> QKDR data indicate that, as of Q2 2022, and in the presence of WCA regulation, Eircom is the largest retail SP in the State, followed by Virgin Media, Vodafone and Sky. Collectively, these four SPs account for 86% of all retail broadband subscriptions in the State. Eircom and Virgin Media operate independent networks, while Sky and Vodafone purchase wholesale inputs from Eircom, SIRO, and NBI. As set out at paragraph 4.220 above, at least 20 other retail SPs purchase wholesale inputs from two or more of Eircom, SIRO, and NBI, without taking account also of Enet and BT WCA provision. Many of these operators are active only in local service provision. For example, Carnsore

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<sup>567</sup> A market may tend towards effective competition not only by means of new entry into the Modified Retail Broadband Market, but also by the deployment of alternative infrastructures by Access Seekers that would allow them to offer retail broadband.

<sup>568</sup> Eir Group Results, Q2 2022, at p.7. Available online at [https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022\\_2023/eir\\_Q2-22\\_results\\_presentation.pdf](https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022_2023/eir_Q2-22_results_presentation.pdf)

<sup>569</sup> Based on data set out at <https://siro.ie/>, <https://www.openeir.ie/open-eir-irelands-largest-wholesale-full-fibre-network/>, and <https://nbi.ie/where-can-i-buy/>, accessed on 24 August 2022.



Broadband is only available in south Wexford, while Tipp Broadband is only available in Tipperary.

- 7.65 Absent WCA regulation, some retail SPs may no longer be able to provide retail broadband on the basis of regulated Eircom merchant market WCA inputs currently available in the 2021 Revised Regional WCA Market. Unless alternative means of providing retail broadband are available, end users at those premises may need to switch to Eircom retail. ComReg therefore calculates market shares in the Modified Retail Broadband Market, absent WCA regulation in the 2021 Revised Regional WCA Market.
- 7.66 The market shares presented in Figure 28 above are in the presence of upstream WLA regulation, but absent WCA regulation. ComReg takes all retail broadband subscriptions, and then isolates those subscriptions which are reliant on regulated Eircom merchant market WCA inputs (in the footprint of the 2021 Revised Regional WCA Market). It then reassigns those subscriptions to Eircom retail. This gives a hypothetical maximum Eircom retail market share, assuming no alternative retail broadband service provision option is available. WCA in the footprint of the 2021 Revised Urban WCA Market has already been deregulated, such that the market share delta arising from the absent regulation assumption occurs only in the footprint of the 2021 Revised Regional WCA Market.
- 7.67 As described in Section 3 above, there has been a significant migration from the delivery of retail broadband over CG networks, to retail broadband delivered over NG networks, since the publication of the 2018 Decision. In Q4 2018, CG DSL retail broadband delivered over copper accounted for 21% of total retail broadband subscriptions, a number which has declined to 9%, as of Q2 2022. Over the same time period, NG retail broadband subscriptions (that is, over FTTC, FTTP, or CATV) have increased from 76% to 86% of all subscriptions. Accordingly, the vast majority of retail broadband subscriptions are now delivered over NG access technology. It is likely that a high proportion of CG retail broadband subscriptions fall within the footprint of the IA, on the assumption that, for the vast majority of premises, CG retail broadband is provided because FTTx networks capable of delivering NG retail broadband do not pass the premises.
- 7.68 Table 50 below outlines market shares in the retail broadband market (in the presence of WCA regulation) measured by subscriptions over time. While, as of Q2 2022, Eircom holds the highest market share at 27%, this is followed by Virgin Media, Vodafone and Sky, as well as a number of smaller SPs.

7.69 [REDACTED]<sup>570</sup> retail broadband subscriptions are provided in the footprint of the 2021 Revised Regional WCA Market on the basis of regulated Eircom merchant market WCA, [REDACTED]<sup>571</sup> provided over NG technology and [REDACTED]<sup>572</sup> provided over CG technology. If, in a MGA scenario, Eircom merchant market WCA were withdrawn and every one of those retail broadband end users reverted to Eircom retail, this would increase Eircom's retail market share on the (national) Modified Retail Broadband Market from 27% to [REDACTED]<sup>573</sup> in the NG broadband market and from 46% to [REDACTED]<sup>574</sup> in the CG broadband market. However, CG broadband numbers have been in decline since Q2 2013.

**Table 50: Modified retail broadband market shares, Q4 2018 - Q2 2022<sup>575</sup>**  
[REDACTED]

SP	Q4 2018	Q2 2022	% change
	% of Total	% of Total	
Eircom	[REDACTED]	[REDACTED]	[REDACTED]
Virgin Media	[REDACTED]	[REDACTED]	[REDACTED]
Vodafone	[REDACTED]	[REDACTED]	[REDACTED]
Sky	[REDACTED]	[REDACTED]	[REDACTED]
Pure Telecom	[REDACTED]	[REDACTED]	[REDACTED]
Digiweb	[REDACTED]	[REDACTED]	[REDACTED]
OAOs	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>	<b>100%</b>	<b>100%</b>	

7.70 Absent WCA market regulation, Eircom merchant market WCA is no longer available in the footprint of the 2021 Revised Regional WCA Market on a regulated basis. Eircom continues to provide WCA in the footprint of the 2021 Revised Urban WCA Market despite deregulation and may continue to do so in the 2021 Revised Regional Market. Table 46 above already set out retail broadband market shares as of Q2 2022, measured by subscriber lines absent WCA regulation and in the presence of partial WLA regulation. Market shares in that scenario are calculated by migrating all regulated Eircom merchant

<sup>570</sup> Between 150,000 and 160,000.

<sup>571</sup> Between 110,000 and 120,000.

<sup>572</sup> Between 40,000 and 50,000.

<sup>573</sup> Between 30% and 40%.

<sup>574</sup> Between 70% and 80%.

<sup>575</sup> ComReg QKDR data.

market WCA lines to Eircom's retail arm, thus maximising Eircom's hypothetical market share by assuming that no Access Seeker migrates to alternative wholesale service provision.

- 7.71 As set out above, absent regulation in the 2021 Revised Regional WCA Market, there may be implications for downstream Modified Retail Broadband Market shares, depending on whether SPs can self-supply retail broadband, or end users can switch to alternative SPs. Eircom's market share is estimated at ([X ██████████ X]), absent regulation.
- 7.72 Thus, in an absent WCA regulation scenario, it is unlikely that Eircom would have SMP and likely the WCA market would remain competitive. This is due to other network operators being present in the market, namely SIRO, NBI and on a forward-looking basis Virgin Media. It is also likely that in an absent regulation scenario, Eircom will not remove provision of WCA inputs entirely, as is already evident in the Revised Urban WCA Market.

## Pricing behaviour

### Retail prices

- 7.73 The development and extent of competition in a market over time may be evident in the pricing of retail broadband products. Four SPs (Eircom, Virgin Media, Vodafone, and Sky) account for 86% of retail broadband subscriptions. Table 51 below outlines a sample of retail broadband packages offered by these SPs. Prices of each of the SPs for residential/business broadband largely overlap, and prices advertised by Eircom fall within the range of prices advertised by other SPs in the market.

**Table 51: Residential and Business broadband packages, Q3 2022**

Residential retail broadband packages			
SP	Product	No. of Plans	Price Range inc. VAT p/m
Virgin Media	Standalone Broadband	4	€40 - €60
	Voice & Broadband Bundles	3	€43 - €53
Vodafone	Standalone Broadband	4	€35 - €65
	Voice & Broadband Bundles	4	€35 - €65
Eircom	Voice & Broadband Bundles	3	€35 - €50
Sky	Standalone Broadband	3	€35 - €45
	Voice & Broadband Bundles	3	€40 - €57.50
Business retail broadband packages			
SP	Product	No. of Plans	Price Range excl. VAT

Residential retail broadband packages			
Virgin Media	Standalone Broadband	2	€55 - €85
	Voice & Broadband Bundles	2	€109 - €129
Eircom	Voice & Broadband Bundles	2	€50 - €60
Vodafone	Standalone Broadband	4	€35 - €60
	Voice & Broadband Bundles	4	€40 - €65

- 7.74 In assessing retail broadband prices, ComReg has been unable to find instances of retail SPs charging different prices for retail broadband delivered over a particular network infrastructure, depending on the provider of the upstream wholesale input. Thus, for example, Sky charges the same price for its 'Sky Broadband Ultrafast' product, regardless of whether the upstream wholesale input is purchased from Eircom, BT, SIRO, or NBI, and regardless of whether that input is WLA or WCA.
- 7.75 Additionally, ComReg has not observed any price differentials at retail broadband level in the footprints of the 2021 Revised Urban WCA Market and the 2021 Revised Regional WCA Market since the 2018 Decision, or the 2021 MTA Decision, despite some differences in WCA prices charged by Eircom on those markets. Accordingly, and based on observations to date, ComReg considers it unlikely that the withdrawal of regulated Eircom merchant market WCA would, in and of itself, have a material impact on retail prices.

#### Preliminary conclusions on observable trends towards effective competition

- 7.76 Having regard to the assessment above, absent WCA regulation in the Modified Retail Broadband Market, ComReg's preliminary view is that all retail SPs and, in particular, Eircom, would likely be sufficiently constrained by existing and potential competition, suggesting a tendency towards effective competition over the 5 year time horizon of this market review.
- 7.77 This includes competition from vertically-integrated retail SPs (e.g. Virgin Media), competition from other operators providing WCA, and competition from other operators offering WLA, together with the obligations placed on Eircom (by virtue of its SMP position on the Commercial NG WLA Market) and NBI (by virtue of the NBP Contract) to offer WLA to Access Seekers.
- 7.78 ComReg's view is that the Modified Retail Broadband Market would likely tend towards effective competition on the basis, *inter alia*, of the presence of a high number of competing retail SPs which will continue to be able to deliver retail broadband on a national, regional, or local basis on the basis of access to wholesale inputs, even absent WCA regulation. ComReg has additionally identified, as set out at paragraph 7.7 above, that Access Seekers (dependent

on location) can access WLA or WCA inputs from at least five upstream operators (Eircom, NBI, SIRO, BT, and Enet). Accordingly, if, in an absent WCA regulation scenario, Eircom withdrew merchant market WCA, ComReg is of the view that retail SPs would still have sufficient capacity to source alternative wholesale inputs to continue supplying their own end users. ComReg also notes that Eircom's market share in the retail broadband market has declined since Q4 2018, and would be likely to continue to decline, even absent WCA regulation. Access Seekers are capable of procuring wholesale inputs from various Network Operators, and network rollout programmes are likely to increase the availability of such products for Access Seekers.

- 7.79 Accordingly, ComReg's view is that, within the relevant time horizon for this market review, the Modified Retail Broadband Market would likely tend towards effective competition. Given ComReg's view that Criterion 1 and Criterion 2 fail on the basis of lower barriers to entry and a general tendency towards effective competition, Criterion 3 (the insufficiency of competition law alone to adequately address the market failure(s) concerned) is therefore moot, as the outcome of that assessment cannot alter the overall 3CT findings. It is therefore not necessary to assess Criterion 3, as it cannot alter ComReg's overall conclusion on the application of the 3CT to the Modified Retail Broadband Markets.

## 7.5 Overall Conclusions on the Modified Retail Broadband Market

- 7.80 Having concluded on a preliminary basis in Section 6 that it is appropriate to impose SMP remedies on the Commercial NG WLA Market, but that a finding of SMP is not warranted on the IA NG WLA Market or the CG WLA Market, ComReg has further considered how this may impact the Modified Retail Broadband Market in the absence of WCA market regulation, per the MGA.
- 7.81 ComReg first notes that there are some grounds to support defining sub-national Modified Retail Broadband markets, in the presence of the Commercial NG WLA Market and the IA NG WLA Market. However, having carried out an assessment of competition on the Modified Retail Broadband Market, ComReg has formed the view that this preliminary conclusion is rendered moot, given that competition in the provision of retail broadband is likely to be sufficiently effective, both in the footprint of the Commercial NG WLA Market, and the footprint of the IA NG WLA Market, even absent provision of WCA on a regulated basis.
- 7.82 ComReg has formed the view that, over the lifetime of the market review, the Modified Retail Broadband Market is characterised by low barriers to entry and will exhibit a tendency towards effective competition, even in the absence of

upstream WCA market regulation. It follows from this finding that the 3CT is failed and that WCA market regulation does not appear to be necessary to safeguard effective competition on the Modified Retail Broadband Market.

## 7.6 Withdrawal of SMP finding on the 2021 Revised Regional WCA Market

- 7.83 ComReg has formed the view that the 3CT is failed on the Modified Retail Broadband Market, even in the absence of upstream WCA market regulation. This suggests that competition is likely to be sufficiently effective on the Modified Retail Broadband markets, even without the protections afforded by upstream WCA market regulation. The EC has noted in its 2020 Explanatory Note that SMP regulation of wholesale markets should only be applied in order to address a lack of effective competition at the retail level on downstream markets. It follows that, where a retail market can be shown to be effectively competitive absent wholesale market regulation, then wholesale market regulation becomes unnecessary. Accordingly, and as set out at pages 8 and 9 of the 2020 Explanatory Note, since ComReg concludes that the Modified Retail Broadband Market is likely to be effectively competitive in the absence of WCA market regulation (but assuming the presence of upstream WLA market regulation), it then follows that WCA regulation is no longer required, since it is no longer necessary to prevent the emergence and exercise of competition problems at retail level.
- 7.84 ComReg accordingly proposes to withdraw existing regulatory obligations imposed on Eircom in the 2021 Revised Regional WCA Market by means of the 2018 Decision and the 2021 MTA Decision, given its finding that the downstream Modified Retail Broadband Market would likely be effectively competitive in the absence of WCA regulation (but in the presence of WLA regulation). ComReg therefore proposes to withdraw existing SMP obligations on the 2021 Revised Regional WCA Market in accordance with the sunset periods discussed in Section 10.

**Q. 6. Do you agree with ComReg's market assessment for the Modified Retail Broadband Market, absent WCA regulation? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

# 8 Commercial NG WLA Market Competition Problems and Impacts

## 8.1 Overview

- 8.1 In this Section, ComReg identifies competition problems which, absent regulation,<sup>576</sup> could potentially arise in the Commercial NG WLA Market, noting that ComReg proposes to designate Eircom with SMP in this market. In Section 9 ComReg considers the imposition of appropriate remedies in order to address the identified competition problems.
- 8.2 In Section 5, ComReg defined the Commercial NG WLA Market and, as discussed in paragraph 6.203, ComReg considers on a preliminary basis that the Commercial NG WLA Market is not deemed to be effectively competitive, and, in accordance with Regulation 27(4) of the Framework Regulations (Regulation 49(8) of the ECC Regulations), proposes that Eircom be designated as having SMP, meaning that it has the ability to act independently of its competitors, customers, and ultimately, end users.
- 8.3 In accordance with Regulation 27(4) of the Framework Regulations (Regulation 49(8) of the ECC Regulations), where an undertaking is designated as having a position of SMP on a relevant market, ComReg is required to impose on that undertaking each of the remedies (or obligations) set out in Regulations 9 through 13 of the Access Regulations (Regulations 51 to 56 of the ECC Regulations), as ComReg considers appropriate to address identified competition problems.
- 8.4 It is ComReg's view that the underlying ability and incentive for Eircom to potentially engage in anti-competitive behaviour absent regulation is due to the lack of effective competition in the Commercial NG WLA Market, coupled with Eircom's position as a vertically-integrated supplier competing with its wholesale customers in downstream markets.

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<sup>576</sup> WLA has, to date, been provided by Eircom pursuant to the regulatory obligations imposed under the 2018 Decision. The assessment carried out in this Section applies the MGA to determine what competition problems could potentially and likely arise, assuming that such regulatory (SMP) obligations were not in place in the WLA Market and the downstream WCA markets.

- 8.5 ComReg notes that it is neither necessary to catalogue examples of actual abuse, nor to provide exhaustive examples of potential abuse. Rather, ComReg notes that the purpose of *ex ante* regulation is to prevent the possibility of such abuses arising, given that Eircom, as a vertically integrated undertaking (that competes with SPs in downstream market(s)) with, *inter alia*, control over infrastructure not easily duplicated, has been identified on a preliminary basis as having SMP in the Commercial NG WLA Market. ComReg considers that Eircom thus has both the ability and incentive to engage in specific anti-competitive practices, to the detriment of competition and, ultimately, end users.
- 8.6 In determining what form(s) of *ex ante* regulatory remedies are justified in the Commercial NG WLA Market, ComReg has carried out an assessment of a range of potential competition problems which are likely to arise in the absence of regulation, given the structure and characteristics of the Commercial NG WLA Market.
- 8.7 ComReg has identified the three types of competition problems which are likely to occur, absent regulation in the Commercial NG WLA Market:
- (a) **Exclusionary practices:** where an SMP SP acts in a manner which could prevent potential competitors from entering the market, restrain actual competitors from further growth in the market, or induce them to exit the market;
  - (b) **Leveraging:** where a vertically-integrated SP with SMP in one market leverages its SMP in order to exert undue influence in other adjacent markets, either at the same level (horizontal), or at a different level (vertical) in the distribution chain; and
  - (c) **Exploitative practices:** where an SP with SMP engages in exploitative behaviours, such as excessive pricing or practices leading to inefficiency and/or inertia, to the detriment of both competition and end users.
- 8.8 Each of the competition problems set out above is discussed in detail below with regard to the specificities of the Commercial NG WLA Market.

## 8.2 Exclusionary practices

- 8.9 Exclusionary practices refer to a specific set of actions carried out by an SMP SP in an attempt to defend or consolidate its position in a relevant market, by constructively or actively blocking potential competitors from entering (or expanding in) the market, or by inducing or forcing competitors to exit the market, where they are already present.
- 8.10 In ComReg's view, the exclusionary practices which could occur in the Commercial NG WLA Market include, but are not limited to:



- (a) Imposing a margin squeeze between WLA and downstream services which would reinforce entry/expansion barriers in the Commercial NG WLA Market and related markets and potentially foreclose entry or investment by other SPs, including having regard to the fact that, ultimately, retail SPs look to compete on a national basis;
- (b) Refusing to supply access to WLA products, services and associated facilities, applying unreasonable or discriminatory terms and conditions of access, and/or creating or exploiting information asymmetries;
- (c) Concluding exclusivity contracts with certain Access Seekers, and engaging in exclusionary conduct generally aimed at raising Access Seekers' or end users' switching costs, impacting on potential competition; and/or
- (d) Raising the costs of downstream competitors that rely on Eircom WLA inputs to provide downstream, wholesale and/or retail broadband services, making it more difficult for those SPs to expand their customer base and attain the economies of scale/scope necessary for deeper infrastructural investment.

### 8.3 Leveraging

- 8.11 Leveraging describes conduct in which a vertically-integrated SP with SMP in one market leverages its power to exert influence in other vertically or horizontally related markets, thereby enabling it either to strengthen its position in these markets, and/or further consolidate its position in the current market, in which it has SMP. Where a vertically-integrated SP which has SMP in one market also has close links with other adjacent markets, either at a similar (horizontal leverage), or different (vertical leverage) level in the production or distribution chain, the SMP SP may attempt to leverage its SMP into those related markets. This could enable the SMP SP to strengthen its position in those related markets and/or potentially reinforce its existing SMP on the market in question.
- 8.12 Given the close relationship between the Commercial NG WLA Market and other vertically-related markets (including the downstream WCA Market and the retail broadband market, absent regulation), there is likely potential for both means of leveraging to occur. Each type of behaviour has the ability to:
- (a) Raise Access Seekers' costs;
  - (b) Introduce barriers to accessing downstream products, services and associated facilities (which could lead to the creation of, or raising of, barriers to entry/expansion in related markets);

- (c) Reduce competitive pressures exerted on related wholesale and retail services; and
  - (d) Enable the SMP SP to extract additional revenues from its competitors, customers, and end users.
- 8.13 The leveraging described above could also have the effect of delaying entry through the use of upstream inputs (for instance, through SPs climbing the ladder of investment and using PIA to build their own networks and compete more independently in the WLA and/or downstream markets) and protecting or reinforcing Eircom's existing SMP in the Commercial NG WLA Market in an instance of 'defensive leveraging'.<sup>577</sup>

## Vertical Leveraging

- 8.14 Vertical leveraging arises where a vertically-integrated SP has the ability to leverage its SMP position at one level in the production or distribution chain into downstream markets, in which it is also active. This behaviour can take the form of either non-price-based or price-based vertical leveraging (as outlined below).
- 8.15 In the context of the Commercial NG WLA Market, ComReg is of the preliminary view that vertical leveraging could occur, given that Eircom, as a vertically-integrated SP with SMP, likely has both the ability and the incentive to use its market power to influence the competitive conditions in downstream wholesale and/or retail markets and, in particular, through its ability to control the key inputs used by Access Seekers which compete against Eircom in the retail broadband market. This could result in the distortion of, or a reduction in, competition in these downstream markets, which would ultimately result in harm to end users, potentially in the form of higher prices, lower output or sales, and reduced quality or reduced consumer choice.

## Non-Price Based Vertical Leveraging Behaviour

- 8.16 Absent regulation in the Commercial NG WLA Market Eircom could carry out vertical leveraging by way of the following:
- (a) **Restrictions on, or denial of, access:** where vertical leveraging manifests in an outright refusal to provide WLA inputs (by the SMP SP) to competitors in related downstream markets which rely on those inputs. In the less extreme case, the SMP SP applies disproportionate entry criteria or attaches unreasonable terms and conditions to access.

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<sup>577</sup> Defensive leveraging, in this case, refers to the possibility that Eircom uses leveraging as a behaviour to prevent the erosion of its current SMP in the NG WLA market, and not only for the purposes of reaping additional SMP in a related market.

- (b) **Delaying tactics:** this includes conduct such as protracted negotiations in respect of the supply of new or amendment to existing WLA products, services or associated facilities to downstream competitors, whilst also encompassing actions which seek to impair the smooth transition of Access Seekers, or end users, to a competitor's product, service, or associated facilities;
- (c) **Quality discrimination:** providing downstream competitors with WLA at a lower Quality of Service ('QoS') (or inferior information) to that which Eircom provides to its own downstream arm (or to certain other favoured competitors);
- (d) **Creating or exploiting information asymmetries, and the withholding of relevant information:** where downstream competitors are dependent on Eircom to provide WLA and require certain (quality or technical) information in order to effectively compete in the retail broadband market, a lack of transparency, or asymmetry in the provision of relevant information, can impede effective competition on the downstream retail broadband market;
- (e) **Unwarranted withdrawal of access already granted:** Eircom could seek to unreasonably withdraw access to facilities already granted; and
- (f) **Unreasonable product bundling/tying:** this could include the bundling/tying of WLA products in such a manner that impedes the ability of Access Seekers to compete in downstream markets.

### Restrictions on or denial of Access

8.17 A restriction on access may involve an SMP SP restricting the use of a WLA product to specific downstream retail or wholesale services. For instance, Eircom could restrict Access Seekers' use of its WLA products, services or associated facilities, to the provision of only certain services by Access Seekers (whilst Eircom's own self-supply is not subject to any such restrictions). This potentially has the effect of limiting Access Seeker investment, as they cannot benefit from the economies of scale and scope that would result from the ability to use WLA inputs across a range of downstream markets, such as retail and wholesale broadband access, RFTS or retail TV services.

- 8.18 In the instance where access is provided to Access Seekers, an SMP SP could impose capacity constraints<sup>578</sup> on an Access Seeker such that it hinders the Access Seeker's ability to provide a timely and quality service to its downstream customers. Such behaviour would serve to enhance the position of the SMP SP in the Commercial NG WLA Market and downstream markets by undermining Access Seekers' ability to have reasonable access to wholesale services and thereby compete effectively downstream.

### Delaying tactics

- 8.19 A vertically-integrated SMP SP could be incentivised to frustrate the retail or wholesale switching process, through which end users can ultimately switch to an alternative product, or an alternative SP. Access Seekers may wish to migrate to alternative wholesale products to provide WLA to their downstream customers and may need to carry out a single or bulk migration of their customer base, in order to do so. This should involve minimal disruption or delay from the end user's perspective, but the SMP SP may be incentivised to either delay or inhibit the switching and migration process. An SMP SP has the ability and incentive to engage in a 'first mover advantage' by offering a retail offering before an equivalent wholesale product is made available (either at all or effectively) to potential Access Seekers. This first mover advantage has the potential to raise the Access Seekers' costs relative to the SMP operator and restrict the Access Seekers potential future retail sales. Other examples of the types of conduct which fall under the category of delaying tactics include:
- (a) The use of retail contract terms to effectively dissuade a customer from moving to a competing SP in a timely manner, thereby undermining the effectiveness of access to WLA products, services and associated facilities; and
  - (b) Only agreeing certain contractual terms and conditions while prolonging negotiations on others. For example, agreeing to provide access to WLA services, but delaying negotiations on other terms and conditions such as SLAs.

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<sup>578</sup> Such as order limits or limits on Access Seekers' use of wholesale products (and services that can be offered over them) through restrictive contractual terms and conditions.

## Quality discrimination

- 8.20 Given that Eircom is vertically integrated, it may be difficult to compare the WLA products supplied to its own downstream arm, with those offered to other Access Seekers on a merchant market basis (to other downstream competitors). A lack of transparency surrounding any differences between those products might facilitate an environment where Eircom has both the ability and incentive to engage in a number of non-price-based means of leveraging its SMP. For instance, the SMP SP could give priority to its own retail customers when connecting customers, repairing faults or upgrading network assets, which, given Eircom is currently rolling out its FTTH network, is an important factor for consideration as it would give it an unfair first mover advantage.
- 8.21 In terms of product development, absent regulation in the Commercial NG WLA Market, Eircom, as a vertically integrated SMP-SP, could launch new downstream retail and/or wholesale products using WLA inputs, with which Access Seekers could not compete because no wholesale equivalent has been made available to them for purchase as an input. In terms of product implementation, if Access Seekers are not aware of all the features of the wholesale products which are available to Eircom's own downstream arm, they will be unable to request these features themselves, and, ultimately, may find themselves offering a product of inferior quality to end users. Eircom could also give preference to its downstream retail arm when designing products or associated features.
- 8.22 Absent regulation in the Commercial NG WLA Market, Eircom, as the SMP SP, has the ability and incentive to make more cost-efficient, NGA WLA products (or associated facilities) available to its own downstream retail arm, whilst either refusing access (whether actually or constructively) to, or charging higher prices for, the same products to other Access Seekers in the market. Regardless of whether equivalent products remained available to Access Seekers, this type of discriminatory conduct would still likely create a barrier to entry/expansion to downstream markets, by deterring investment from Access Seekers due to the competitive advantage gained by Eircom through raising its rivals' costs.

## Creating or exploiting information asymmetries and withholding relevant information

- 8.23 A vertically integrated SMP SP may also create or exploit information asymmetries to impede downstream competition. For example, this arises due to variations in IT system access rights for the SMP SP's downstream arm, compared to other Access Seekers in the market. As these IT systems support the infrastructure associated with Operational Support Systems ('OSS') and Business Support Systems ('BSS'), and are likely to evolve over time, Access Seekers who do not have visibility of (or input into) these systems are unlikely to be in a position to effectively contribute, make a request for service, or make the informed decisions necessary for future planning and investment. Furthermore, an issue could arise where operational changes are not implemented simultaneously, or to the same standard, for Eircom's downstream arm on the one hand, and Access Seekers, on the other hand.
- 8.24 A lack of transparency in the respective terms and conditions of supply of WLA on a self-supply basis, and on a merchant market basis, could also make it difficult for Access Seekers to make effective commercial or operational decisions, where those decisions involve the use of WLA inputs in the provision of their own downstream services. In this context, such a lack of transparency could fail to give Access Seekers any reasonable confidence and certainty that WLA is provided on a non-discriminatory basis.
- 8.25 Information asymmetries may also apply to future planning by the SMP SP. For example, changes by Eircom to its network topography, such as its FTTP rollout, or to points of interconnect,<sup>579</sup> may have implications for SPs using WLA inputs. Insufficient notice of network or process changes relevant to the delivery of downstream services could significantly impede the ability of SPs to launch equivalent retail or wholesale products which would enable them to compete with Eircom in downstream markets.

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<sup>579</sup> Access Seekers' use of WLA products depends on the extent of their backhaul network. Investing in backhaul depends on the location of Eircom's points of interconnection.

- 8.26 Another example of information asymmetries could include situations where Access Seekers require metrics on order processing, service delivery and fault repair to view the overall performance of Eircom's WLA products from a provisioning and service assurance perspective. Failure by Eircom to provide such data to its wholesale customers would likely impair their ability to compare the performance of Eircom's supply of wholesale products (including to itself). Uncertainty for Access Seekers (and their retail and/or wholesale customers) as to the performance and quality of their purchased WLA inputs relative to the services and information made available internally to Eircom's retail arm could potentially discourage investments in markets dependent upon Eircom's wholesale products (for example, through a lack of visibility of average WLA service fault repair time between Eircom retail and wholesale customer faults).
- 8.27 A lack of information, and associated uncertainty, could potentially discourage Access Seekers from investing in, or expanding upon, their downstream footprint. Furthermore, such information asymmetries may lead to delayed consideration of Access Seekers' wholesale requirements, as part of such network developments, which is likely to delay or impede their ability to respond to any new retail offerings by the SMP SP.

### **Unwarranted withdrawal of access already granted**

- 8.28 Absent regulation of the Commercial NG WLA Market, ComReg is of the view that Eircom could potentially withdraw access to current product offerings, including VUA, which it is currently obliged to make available to Access Seekers, pursuant to the 2018 Decision. If Eircom were to withdraw access to VUA, this would likely have a detrimental impact on the retail broadband markets, as Access Seekers could no longer offer broadband to end users on the basis of upstream VUA inputs.
- 8.29 ComReg is also of the preliminary view that the uncertainty alone, caused by the possibility of the withdrawal of access, is enough to negatively impact the investment incentives of Access Seekers due to the uncertainty this could create, therefore potentially impeding the competitiveness of the market.

### 8.3.1 Price-based Vertical Leveraging Behaviour

- 8.30 Vertical leveraging may also be evident in the pricing behaviour of vertically-integrated SMP SPs. In the context of the Commercial NG WLA Market, absent regulation, ComReg is of the preliminary view that Eircom could engage in this type of behaviour and utilise its SMP position in an attempt to foreclose competition in downstream markets, by offering WLA at a price that would prevent an efficient Access Seeker from deriving a sufficient margin to recover its incurred costs, ultimately resulting in the foreclosure of competition through a margin squeeze.
- 8.31 Price discrimination could be used by a vertically-integrated SP with SMP in the Commercial NG WLA Market to raise an Access Seekers' costs downstream and induce a margin squeeze. By charging a higher price above cost to downstream competitors than to its own retail arm, a margin squeeze between WLA prices and downstream prices for services provided on a standalone or bundled basis could undermine the effectiveness of a WLA product offering and harm competition in downstream retail and/or wholesale markets by eliminating competing SPs, distorting competition or discouraging the entry of new SPs (or expansion by existing SPs).
- 8.32 Any form of margin squeeze is likely capable of distorting competition across the supply chain, including at the wholesale and retail levels, to the detriment of end users, and reinforce Eircom's SMP position in the Commercial NG WLA Market. A margin squeeze could distort competition and have an adverse effect on end users in a number of ways;
- (a) Foreclosure of competitors, leading to higher prices;
  - (b) Setting higher prices for WLA products to mitigate rivals' competitive advantages;
  - (c) Raising the prices of WLA products to absorb the benefits of rivals' investments in the WLA and related downstream markets; and
  - (d) Raising rivals' uncertainty, through the threat of a margin squeeze to deter competition and/or investment.



- 8.33 A vertically-integrated SMP SP is likely to be better able to sustain a margin squeeze than its downstream retail competitors. This is because the wholesale charge the SMP SP's retail arm pays is simply an internal transfer price. Even where wholesale inputs are cost-oriented, a vertically-integrated SMP SP has a degree of operational latitude available to it. For example, it may make asset investment decisions, such that the cost it incurs in the short run may be lower than the cost-oriented price charged to its retail competitors. An SMP SP could use such savings to fund a retail margin squeeze in the short run, prior to the cost-oriented price being adjusted.
- 8.34 Another example of anti-competitive pricing behaviour is predatory pricing, whereby a vertically integrated operator with SMP seeks to sell a WLA product below the costs of production for a sustained period of time, with the intention of deterring market entry or expansion, or forcing a rival SP to exit the market, enabling the SMP SP to further increase its market power and raise prices at a later date. While end users may benefit in the short term from low prices, end user welfare is reduced in the long term due to the elimination of competition and choice in the market. For example, Eircom and SIRO are both present in certain geographic areas in the Commercial NG WLA Market. By engaging in predatory pricing, Eircom could distort/restrict competition from SIRO with the effect of deterring SIRO market expansion and potentially inducing exit, and also deterring entry by signalling to potential entrants that it will respond aggressively to market entry efforts.

## 8.4 Exploitative Practices

- 8.35 Economic theory suggests that, where a firm possesses market power, it is in a position to increase prices above, and/or reduce output below competitive levels, thereby enabling the accumulation of higher than normal profits. These higher profits effectively create a wealth transfer from the end user to the firm with market power. It is ComReg's preliminary view that Eircom, as an SP with SMP in the Commercial NG WLA Market, and, given its presence in a number of adjacent markets, would potentially have the ability and incentive to engage in exploitative practices, such as excessive pricing and some degree of inefficiency or inertia, to the detriment of end users.

### 8.4.1 Excessive pricing

- 8.36 Excessive pricing occurs where the price which a firm with SMP charges for a product or service is not closely related to its value to the end user and/or the cost of producing or providing the relevant service.<sup>580</sup> Concerns about excessive pricing arise where, absent regulation, price levels would likely be persistently high with no effective pressure (e.g. from new entry or innovation) to bring them down to competitive levels over the duration of the review period.
- 8.37 The Commercial NG WLA Market is characterised by a high and relatively stable incumbent market share, an absence of existing effective competition, high and non-transitory barriers to entry (associated with control over infrastructure not easily replicated), limited scope for potential competition, high sunk costs and insufficient CBP. Thus, there is insufficient pressure to constrain Eircom from behaving, “*to an appreciable extent, independently of its customers, competitors or consumers*”,<sup>581</sup> including its ability and incentive to engage in excessive pricing in the Commercial NG WLA Market.<sup>582</sup>
- 8.38 For example, raising the cost of WLA inputs above a competitive level would, in turn, raise input costs for those Access Seekers that purchase Eircom WLA (assuming Eircom were to continue supplying WLA inputs, absent regulation) in order to compete in the retail broadband market. Given that the extra costs incurred by Access Seekers, due to increased input prices, may then be passed on to their retail customers via higher broadband prices, it ultimately has the potential to harm the development of effective competition in the retail broadband market, as end users pay higher broadband prices, due to Access Seeker pass-through of increased WLA input costs. Thus, the exploitative conduct engaged in by the SMP SP at the wholesale level may ultimately be experienced at the retail level by end users, as Access Seekers attempt to avoid incurring the additional expenses arising from increased WLA prices by passing these cost increases through to their customers.

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<sup>580</sup> Case C 27/76 United Brands v. Commission, [1978] ECR 207, [1978] 1 CMLR 429, para. 250. In United Brands the Court of Justice of the European Union held that: “...charging a price which is excessive because it has no reasonable relation to the economic value of the product supplied would be... an abuse”.

<sup>581</sup> Judgment of the Court of 13 February 1979. Hoffmann-La Roche & Co. AG v Commission of the European Communities. Dominant position. Case 85/76. European Court Reports 1979 -00461. ECLI identifier: ECLI:EU:C:1979:36 Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61976CJ0085&from=EN>

<sup>582</sup> Eircom’s wholesale prices in the WLA Market is currently regulated under the 2018 Decision.

- 8.39 Excessive prices can also distort competition amongst SPs in a market, as the higher charges could create a cross-subsidy to the SMP SP, while simultaneously reducing other SPs' investment incentives. Absent regulation in the Commercial NG WLA Market, Eircom, as the SMP SP, is likely to have the ability to increase prices at the wholesale level, in order to extract supernormal profits from Access Seekers. If Access Seekers attempt to absorb these higher WLA costs but are restricted in raising their own prices due to competitive pressure in the retail broadband market, Access Seekers could be subjected to a margin squeeze, thereby reducing their own profit margins and restricting their ability to compete with the incumbent. Excessive pricing can also distort the investment signals for new entrants leading to an inefficient level of network deployment.
- 8.40 ComReg has formed the view that Eircom, as the SMP SP, has both the ability and incentive to engage in excessive pricing behaviour as, absent regulation, both Access Seekers and end users are restricted by the absence of effective demand-side substitutes or indirect retail constraints, enabling the SMP SP to act independently of competitive pressure.
- 8.41 Pursuant to the 2018 Decision, Eircom's WLA products are subject to a range of regulatory obligations, including price control obligations, on a national basis. Absent regulation in the Commercial NG WLA Market, ComReg considers that prices for such services may rise above a competitive level.

#### 8.4.2 Inefficiency and inertia

- 8.42 An SMP SP in a relevant market may, by virtue of the absence of effective<sup>583</sup> competitive pressure in that market, be insulated from the need to innovate and improve efficiency and QoS to stay ahead of rivals. This may limit the development of new technology or processes and/or lead to higher cost and less efficient methods of supply<sup>584</sup> and, consequently, higher prices for end users than would likely otherwise exist under competitive market conditions. The SMP SP may also decide to withhold investment in related markets to delay or impede the development of competition in those markets. For example, where the SMP SP has control over certain key inputs necessary for Access Seekers to compete in adjacent markets and delays upgrading those inputs or providing newer, potentially more cost-effective inputs in line with technological developments.

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<sup>583</sup> As noted in Section 5, regulated access to wholesale products in other upstream markets or indirect retail constraints from the retail market are likely insufficient to effectively constrain Eircom's behaviour in the Commercial NG WLA Market. However, Eircom's decision to invest and innovate may be at least partially influenced by the presence of independent retail competitors in the downstream retail broadband market.

<sup>584</sup> Such inefficiency could potentially be considered an abuse under competition law, specifically, Article 102(2)(b) of the TFEU.

- 8.43 ComReg has formed the preliminary view that Eircom has SMP in the Commercial NG WLA Market. Accordingly, ComReg is of the preliminary view that, absent regulation, Eircom would likely face limited competitive pressure to innovate and provide an efficient NG WLA service, enabling it to delay the implementation of new technology and systems, without being subject to sufficient competitive pressures. Eircom NG WLA customers are dependent on timely investment in technology and systems by Eircom and low levels of innovation and investment (resulting from a lack of effective competition in the WLA market), would likely and ultimately be to the detriment of end users. However, potentially mitigating a portion of this risk is Eircom's ongoing rollout of FTTP and recent upgrade from GPON<sup>585</sup> to XGS-PON<sup>586</sup> technologies.
- 8.44 ComReg recognises that Eircom's incentives to innovate may not be uniform throughout the State, with Eircom more likely to innovate where it faces a degree of competition, including in downstream markets, and in particular more likely to innovate in geographic areas in which SIRO (or taking a forward-looking approach, Virgin Media) are present.
- 8.45 Overall, ComReg is of the view in this case that Eircom, as SMP SP has the ability and incentive to delay its network upgrade in those parts of Commercial NG WLA Market where it faces a lower or no degree of competition.

## 8.5 Summary of Conclusions on Competition Problems

- 8.46 ComReg is of the view that, absent regulation, Eircom, as the proposed vertically integrated SMP SP in the Commercial NG WLA Market, has the ability and incentive to engage in the types of exclusionary practices, leveraging behaviour, and exploitative practices identified and outlined above, which is likely to negatively impact on competition and end users in related retail and/or wholesale markets, as well as having the potential to reinforce its SMP in the WLA market over time.
- 8.47 On the basis of the foregoing, ComReg considers that it is justified and proportionate to impose robust obligations on Eircom in the Commercial NG WLA Market relating to access, non-discrimination, transparency, price control, cost accounting, accounting separation, and Statements of Compliance ('SoC').

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<sup>585</sup> Gigabit-capable Passive Optical Network ('GPON')

<sup>586</sup> 10 Gigabit Symmetrical Passive Optical Network ('XGS-PON')

**Q. 7. Do you agree that the competition problems and the associated impacts on competition end users identified are those that could potentially arise in the Commercial NG WLA Market (and related markets)? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

# 9 Proposed Remedies in the Commercial NG WLA Market

## 9.1 Introduction

- 9.1 Section 6 sets out ComReg's proposed finding that Eircom has SMP in the Commercial NG WLA Market and Section 8 the competition problems that, absent regulation, could arise in the Commercial NG WLA Market and related downstream markets. For example, Eircom could potentially:
- (a) refuse to supply access to WLA products and thus continue to restrict competition in the provision of products and services in downstream markets;
  - (b) provide access on less favourable terms compared to those obtained by its own downstream businesses; and
  - (c) set excessive wholesale charges for access to WLA or engage in price squeeze behaviour.
- 9.2 Under Regulation 8(1) of the Access Regulations/Regulation 50(1) of the ECC Regulations, where an undertaking is designated as having SMP in a relevant market, ComReg is required to impose at least one obligation by way of remedy addressing the competition problems that have been identified, as set out in Regulations 9 to 13 of the Access Regulations/Regulations 51-56, 58 and 62 of the ECC Regulations.
- 9.3 According to Regulation 8(6) of the Access Regulations/Regulation 50(5) of the ECC Regulations, the obligation or obligations imposed must:
- (a) be based on the nature of the problem identified;
  - (b) be proportionate and justified in light of the objectives laid down in Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations/Regulation 4 of the ECC Regulations;<sup>587</sup> and
  - (c) only be imposed following public consultation.

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<sup>587</sup> Pursuant to Section 12 of the Communications Regulation Act 2002 (as amended), ComReg's relevant objectives in relation to the provision of electronic communications networks and services are: (i) to promote competition; (ii) to contribute to the development of the internal market; and (iii) to promote the interests of users within the Community. Regulation 16 of the Framework Regulations/Regulation 4 of the ECC Regulations further specifies ComReg's objectives and sets out a number of obligations in relation to the pursuit of its objectives.

## 9.2 Existing Remedies

9.4 Before considering the remedies which would best address the competition problems arising in the WLA Market, ComReg explains briefly the current remedies in place which were imposed in the 2018 Decision, that are directly relevant to WLA. They include obligations of access, non-discrimination, transparency, accounting separation, price control and cost accounting.

### 9.2.1 Access

9.5 Eircom is required to provide access to products, services and associated facilities in respect of Current Generation and Next Generation WLA including Virtual Unbundled Access ('**VUA**'), VUA combined with Geographic Number Portability ('**GNP**') where required, Interconnection services, co-location services, Associated Facilities related to VUA, and Migrations.<sup>588</sup>

9.6 Eircom is also required to meet certain conditions in respect of the provision of access, including requirements governing fairness, reasonableness and timeliness of access, including Service Level Agreements ('**SLAs**') and requirements regarding timeliness of product development.

### 9.2.2 Non-Discrimination

9.7 Eircom is subject to an obligation of non-discrimination in respect of WLA, which applies regardless of whether or not a specific request for products, services, associated facilities or information has been made by an Access Seeker to Eircom. The requirement for non-discrimination applies both as regards the treatment of Access Seekers by Eircom as between those Access Seekers, so that Eircom must apply equivalent conditions in equivalent circumstances. It also applies as regards the treatment of Access Seekers as between those Access Seekers and Eircom itself (including its subsidiaries, affiliates and partners).

9.8 The applicable standard of non-discrimination as regards pre-ordering, ordering, provisioning, fault reporting and repair for VUA and the Associated Facilities to VUA is the Equivalence of Inputs ('**EoI**') basis. In summary, products, services and information are provided to Access Seekers by means of the same systems and processes as Eircom provides to itself.

9.9 Eircom must offer and provide Migrations on at least an Equivalence of Outputs ('**EoO**') basis. Where the standard of equivalence applicable to the destination product, service or facility is EoI, Eircom must provide the Migration on an EoI basis.

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<sup>588</sup> See WLA Decision Instrument, 2018 Decision, Appendix 20.

### 9.2.3 Transparency

- 9.10 Eircom is subject to a general obligation of transparency in respect of the access that it is required to provide under the 2018 Decision. In addition, the 2018 Decision specifies a number of requirements which Eircom must meet in respect of the information that must be made available to Access Seekers, including in particular an Access Reference Offer ('**ARO**') setting out the terms and conditions applicable to access, including prices and a detailed description of the products and services available from Eircom, and SLAs. Specific timelines apply in respect of the provision of advance notification to Access Seekers and to ComReg of proposed changes to the ARO, prices and the introduction of products, services and associated facilities.
- 9.11 Other specific transparency requirements include requirements regarding clarity of billing, the publication of Key Performance Indicators ('**KPIs**') and report on actual performance achieved on an aggregate basis compared to the committed service levels contained in relevant SLAs and the publication of information with respect to the progress of Access requests through the Eircom product development process as well as information on that process.
- 9.12 Finally, Eircom is required to publish in advance of implementation, information regarding its Next Generation Access ('**NGA**') rollout plans, and information relating to wholesale products, services and associated facilities, such as the expected time for service availability.

### 9.2.4 Price Control

- 9.13 Under the 2018 Decision the provision of access to WLA services and associated facilities (e.g. FTTC VUA, co-location, fault repair, etc.) is subject to an obligation of cost orientation with the exception of FTTH rental, for which pricing flexibility was permitted. Eircom is also subject to an obligation not to margin squeeze. The 2018 Pricing Decision<sup>589</sup> and the 2018 Bundles Decision<sup>590</sup> further specified this obligation into three Margin Squeeze Tests, namely the Wholesale FTTH Bitstream to Wholesale FTTH VUA MST, the bundles MST, and the standalone FTTH MST. The cost orientation of FTTC prices is currently determined by reference to the Access Network Model (the '**ANM**') which calculates costs based on both Top-Down HCA and BU-LRAIC+ cost methodologies, as described in ComReg Decision D11/21.

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<sup>589</sup> ComReg Document No. 18/95, ComReg Decision D11/18: Pricing of wholesale broadband services, Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets, Response to Consultation Document 17/26 and Final Decision, dated 19 November 2018.

<sup>590</sup> ComReg Document No. 18/96, ComReg Decision D12/18: Response to Consultation and Decision on price control obligations relating to retail bundles: Further specification of the wholesale price control obligation not to cause a margin squeeze in the WLA, and WCA Markets - Response to Consultation and Decision, dated 19 November 2018.



### 9.2.5 Other obligations

- 9.14 Eircom is also required to produce a Statement of Compliance. Under this obligation, in summary, Eircom is required to set out the measures and policies that it has in place in order to ensure regulatory compliance (regulatory governance) and to identify and mitigate compliance risks.

## 9.3 Remedies for the Commercial NG WLA Market

- 9.15 In the sections below ComReg sets out the remedies that it is proposing to impose upon Eircom in the Commercial NG WLA Market to address the competition problems, identified in Section 8, bearing in mind the requirement set out in Regulation 50 of the ECC Regulations, to act proportionately and use the least intrusive way.
- 9.16 As explained in detail below, in light of the competition problems arising or likely to arise in the Commercial NG WLA Market, ComReg proposes to impose the full set of remedies (including obligations of access, transparency, non-discrimination, price control and cost accounting and accounting separation) and they are considered in turn below.

### 9.3.1 Access Remedies

#### Statutory requirements and criteria

- 9.17 Regulation 12(1) of the Access Regulations/Regulation 55(1) of the ECC Regulations provide that ComReg may impose on an operator obligations to meet reasonable requests for access to, and use of, specific network elements and associated facilities where ComReg considers that the denial of such access, or the imposition on operators of unreasonable terms and conditions having a similar effect, would:
- (a) hinder the emergence of a sustainable competitive retail market;
  - (b) not be in the interests of end users; or
  - (c) otherwise hinder the objectives set out in Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations/Regulation 4 of the ECC Regulations.
- 9.18 According to Regulation 12(5) of the Access Regulations/Regulation 55(6) of the ECC Regulations, when imposing obligations of access, ComReg may lay down technical or operational conditions to be met by the provider or the beneficiary of the access where necessary to ensure normal operation of the network. Conditions covering fairness, reasonableness and timeliness may also be attached to obligations of access under Regulation 12(4) of the Access Regulations/Regulation 55(3) of the ECC Regulations.

- 9.19 In determining whether access obligations imposed under Regulation 12 of the Access Regulations are appropriate and proportionate, ComReg must also have regard to the following:
- (a) the technical and economic viability of using or installing competing facilities, in light of the rate of market development, taking into account the nature and type of interconnection and access involved;
  - (b) the feasibility of providing the access proposed, in relation to the capacity available;
  - (c) the initial investment by the facility owner, bearing in mind the risks involved in making the investment;
  - (d) the need to safeguard competition in the long-term;
  - (e) where appropriate, any relevant intellectual property rights; and
  - (f) the provision of pan-European services.
- 9.20 The equivalent of Regulation 12 of the Access Regulations under the ECC Regulations, Regulation 55, adds the following criteria:
- (a) The expected technological evolution affecting network design and management;
  - (b) The need to ensure technology neutrality enabling the parties to design and manage their own networks; and
  - (c) In respect of the need to safeguard competition in the long term, the requirement to give attention not only to economically efficient infrastructure-based competition but also to innovative business models that support sustainable competition, such as those based on co-investment in networks.
- 9.21 For the reasons set out below and in respect of each of the specified access remedies, ComReg notes that only an obligation of access is capable of addressing the competition problems identified in the market analysis and, in ComReg's view, there is no other less intrusive obligation available capable of achieving the same outcome.
- 9.22 In particular and in general terms, as noted in Section 6, ComReg does not consider that existing or potential competition would effectively constrain Eircom's market power within the next five years. On the contrary, access to WLA will continue to be necessary to allow Retail Service Providers ('RSPs') to purchase upstream inputs in the Commercial NG WLA Market and provide products to their customers in the downstream retail market(s). As set out in Section 8, as a vertically integrated undertaking with SMP in the Commercial NG WLA Market, Eircom has the ability and incentive to refuse to supply WLA

to Access Seekers, either actually or constructively, and to delay and prevent the development of sustainable infrastructure-based competition. There are likely to continue to be differences in bargaining power between Eircom and Access Seekers, particularly given the absence of widely available and appropriate alternative sources of supply within the timeframe of this review period. In this respect, imposing an obligation of access on Eircom in respect of WLA products, services and associated facilities is necessary to ensure the development of sustainable and effective downstream competition and to minimise exploitative and/or foreclosure concerns that could arise absent regulation and there is no other obligation which would achieve the same outcome.

9.23 Against this background, ComReg proposes to maintain (subject to amendments and clarifications as discussed below) Eircom's existing obligations of access to WLA, and notes the following as regards the criteria listed in Regulation 12 of the Access Regulations/Regulation 55 of the ECC Regulations:

- (a) In terms of the **technical and economic viability of using or installing competing facilities**, given the barriers to entry in the Commercial NG WLA Market (related to control of infrastructure/resources not easily duplicated, economies of scale and scope), using or installing competing facilities to avail of WLA throughout the Commercial NG WLA Market is not likely to be feasible within the period of this review. This is evidenced by Eircom's high and persistent market share within the Commercial NG WLA Market, and ComReg does not consider Eircom's competitive position is likely to materially alter within the Commercial NG WLA Market within the period of this review. Eircom has to date been providing WLA products, services and associated facilities. Furthermore, no issue arises with access to WLA, as regards expected technological evolution affecting network design and management. Eircom continues its roll out of FTTP XGS-PON technology with the handover of FTTP-based VUA traffic on the Access Seeker's Wholesale Ethernet Interconnect Link ('WEIL'), which is entirely consistent with handover of FTTC-based VUA<sup>591</sup> (including Exchange-launched VUA<sup>592</sup>) traffic and the need to ensure technology neutrality enabling the parties to design and manage their networks;

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<sup>591</sup> Active VDSL equipment required to provide the broadband service is housed in an Eircom street cabinet.

<sup>592</sup> The active VDSL equipment required to provide the broadband service is housed in an Eircom exchange building or equivalent.

- (b) There is also no question as regards the feasibility of providing access in relation to **capacity available**. WLA products, services and associated facilities are currently provided by Eircom, and ComReg is not aware that there would be any material capacity constraints that would give rise to Eircom facing difficulties in meeting the proposed access obligations in the future. Eircom has signalled that it may proceed over the forthcoming years with switching off its copper network<sup>593</sup> which will result in a migration from FTTC-based VUA to FTTP-based VUA;
- (c) ComReg does not see that Eircom's (and its predecessors') **initial investment** in WLA constitutes a reason not to impose an obligation of access and notes that Eircom benefitted for many years from protection from competition and that the price control proposed allows for a reasonable return on Eircom's investment;
- (d) By contrast, ComReg is of the view that an obligation of access is required having regard to the **need to safeguard competition** in the long term. Of particular concern is the risk of actual or constructive denial of access which could damage the development of sustainable competition in retail markets;
- (e) Intellectual property rights are not a concern in the context of the provision of WLA products, services and associated facilities and ComReg cannot see that they constitute a reason not to oblige Eircom to provide such access;
- (f) ComReg considers that obligations of access to WLA should facilitate the provision of pan-European services on the basis that ComReg's proposed approach is consistent with the policies of the European Commission and other NRAs. Consistent regulation of WLA across the EU will help to support a seamless provision of pan-European services by allowing SPs in other Member States to provide electronic communications services in Ireland. For example, by using Eircom's WLA products, services and associated facilities potentially combined with other wholesale services, to compete within Ireland; and
- (g) Finally, for the purpose of Regulation 55 of the ECC Regulations specifically (when effective), no issue of relevance arises in terms of the expected technological evolution affecting network design and management from a WLA perspective.

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<sup>593</sup> [https://www.openeir.ie/wp-content/uploads/2021/03/White-paper\\_Leaving-a-Legacy.pdf](https://www.openeir.ie/wp-content/uploads/2021/03/White-paper_Leaving-a-Legacy.pdf)

- 9.24 Accordingly, it is necessary, proportionate and justified to impose on Eircom an obligation of access pursuant to Regulation 12 of the Access Regulations/Regulation 55 of the ECC Regulations.
- 9.25 In addition to an obligation to meet reasonable requests for access under Regulation 12(1) of the Access Regulations/Regulation 55(1) of the ECC Regulations, ComReg proposes to require Eircom to provide specified forms of access under Regulation 12(2)(a) of the Access Regulations/Regulation 55(2)(a) of the ECC Regulations. These include:
- (a) an obligation to negotiate in good faith under Regulation 12(2)(b) of the Access Regulations/Regulation 55(2)(c) of the ECC Regulations,
  - (b) an obligation not to withdraw access to facilities already granted under Regulation 12(2)(c) of the Access Regulations/Regulation 55(2)(d) of the ECC Regulations,
  - (c) an obligation to provide co-location and other forms of associated facilities sharing under Regulation 12(2)(f) of the Access Regulations/Regulation 55(2)(g) of the ECC Regulations; and
  - (d) an obligation to provide access to operational support systems or similar software systems under Regulation 12(2)(h) of the Access Regulations/Regulation 55(2)(f) of the ECC Regulations.
- 9.26 ComReg also proposes to attach conditions to those obligations in order to ensure fairness, reasonableness and timeliness of access. Details of the obligation being proposed are set out below.

### **Obligation to meet reasonable requests for access**

- 9.27 On the basis that access to Eircom's WLA is necessary to ensure the development of sustainable and effective downstream competition and to minimise exploitative and/or foreclosure concerns arising from Eircom's position of SMP, ComReg proposes to impose on Eircom an obligation to meet reasonable requests for access, as provided for under Regulation 12 of the Access Regulations/Regulation 55 of the ECC Regulations.
- 9.28 There are a number of corollaries to the obligation to meet reasonable requests for access. First, that any refusal must be objectively justified; second, that access granted ought not to be withdrawn; and third, that negotiations for access must be conducted in good faith.

### **Justification for refusal to grant of access limited to objective criteria**

- 9.29 The obligation on Eircom to meet reasonable requests for access means that Eircom may only deny requests that are not reasonable. In practice, ComReg expects that circumstances giving rise to a legitimate denial of access would

be exceptional and limited to those situations where objectively, it is not technically feasible to meet the request for access, or there are concerns regarding the protection of Eircom's network integrity which may not be mitigated otherwise than through denying access. This is consistent with the Code which states at Recital 191 that:

*"...[access] requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity."*

- 9.30 ComReg notes in this regard that Eircom's commercial strategy, whether wholesale or retail or both, in terms of product or technology, and whether an access request aligns with such, or Eircom's understanding and assessment of market trends and market needs, do not constitute objective reason for denying or refusing an access request.
- 9.31 In considering whether requests for access are reasonable, in addition to ascertaining where necessary the technical feasibility of the requests, Eircom may, negotiating in good faith (refer to paragraphs 9.36 to 9.38), set out those terms and conditions that it proposes to attach to the product or features required to meet the Access request. It may do so having regard to the requirements which ComReg proposes to impose on fairness, reasonableness and timeliness of access (refer to paragraphs 9.91 to 9.136). Conversely, requests for new forms of access (new products/variations on existing products) may only be refused where Eircom's reasonable concerns cannot be addressed by way of reasonable terms and conditions.
- 9.32 Once a form of access is reasonable and a product is made available, there is no basis to decline or refuse orders for access which meet the reasonable terms and conditions associated with the product concerned.

#### **Requirement not to withdraw access to facilities already granted**

- 9.33 Given that access to Eircom's WLA products, services and associated facilities is found to be necessary to address the competition problems arising from Eircom's position of SMP, once granted, there ought to be no reason for withdrawal. However, ComReg does not believe that it would be proportionate to force Eircom to maintain access to facilities once granted in all cases and regardless of circumstances. Instead, ComReg proposes that Eircom must seek ComReg's prior approval before any withdrawal of access. ComReg considers that the proposed remedy will promote regulatory certainty for all parties without unduly restricting investment incentives.
- 9.34 More specifically, ComReg proposes that Eircom is required to notify ComReg, in writing, of any proposal to withdraw access to facilities already granted, giving reasons borne out of a detailed analysis of the proposal for

access withdrawal, to include the impacts that the withdrawal of access is likely to have on existing Access Seekers who purchase Eircom's WLA products, services and associated facilities and end users.

- 9.35 Where Eircom proposes to withdraw access, ComReg may consult with relevant parties, prior to making a decision on whether to grant or to withhold its approval to any such request.

#### Requirement to negotiate in good faith

- 9.36 Absent regulation, Eircom has the ability and incentive to expressly or constructively refuse to provide access to WLA and therefore an obligation to negotiate in good faith regarding requests for access (including for improvements, variations or other amendments to an existing product) makes it more difficult for Eircom to do so. The obligation will also somewhat address imbalances between the bargaining powers of the respective parties in the negotiation process by reducing incentives to unnecessarily prolong negotiations. Negotiating in good faith includes in this regard Eircom assisting Access Seekers in formulating, for instance, technical aspects and specifications of their requests for access, in light of its knowledge and expertise of its own network and systems.
- 9.37 ComReg notes that the obligation to negotiate in good faith encompasses the way in which Eircom conducts the negotiations as well as the positions that it takes in them. In investigating an allegation of a failure to negotiate in good faith, ComReg might draw inferences from Eircom's behaviour and from the adequacy of the processes and controls it has put in place to assure compliance with this obligation. For example, ComReg might draw adverse inferences from the following:
- (a) a failure on the part of Eircom to behave in the way that a willing seller would behave when negotiating with a willing buyer;
  - (b) a failure by Eircom to respond to proposals made by Access Seekers in a timely and constructive manner;
  - (c) a failure by Eircom to deploy participants in the negotiations who have the appropriate knowledge and authority, so that negotiations could proceed in a timely manner;
  - (d) the absence of effective controls to assure that decision-making processes within Eircom in relation to the negotiations could not be influenced by concerns about the commercial impact on Eircom's downstream business; and

(e) the presence of incentives for individuals within Eircom who participated in or influenced the negotiations that might lead them to receive greater financial or other benefits if the negotiations were to be delayed, or to result in an outcome other than that which might have been freely negotiated between a willing buyer and a willing seller.

9.38 The precise nature of any investigation and the degree to which inferences might be drawn from behaviour would need to be assessed in the context of the actual circumstances of any particular case.

### Access to Eircom's Operational Support Systems

9.39 Access to Eircom OSS (or similar software systems) ('OSS') plays an important role in Eircom's provisioning of wholesale services to Access Seekers and its downstream arm. This includes access to OSS for the purpose of pre-ordering, ordering, provisioning, repair (including service assurance) and in-service management. Access to OSS is therefore essential to the effectiveness and efficiency of the operational aspects of the supply of WLA products, services and associated facilities that are used as inputs to the supply of service(s) to end users.

9.40 Without effective and efficient access to Eircom's OSS, Access Seekers are at a significant competitive disadvantage relative to Eircom's downstream arm.

9.41 Having regard to the competition problems discussed in Section 8, ComReg considers that this obligation is needed to support Eircom's general access obligation because absent regulation Eircom has the ability and the incentives to impede access to its OSS (in order to leverage its market power into downstream and adjacent markets).

### Specified forms of access

#### Overview

9.42 In addition to the general obligation to meet reasonable requests for access to WLA products, services and associated facilities, ComReg proposes to impose access requirements upon Eircom to provide a specific range of WLA products, services and associated facilities. The details of those access remedies are described below.

9.43 For the avoidance of doubt ComReg's proposed access obligations do not preclude Eircom developing, or Access Seekers requesting, additional functionality or features, in accordance with Eircom's obligation to meet reasonable requests for access, as set out above. In doing so, Eircom will act in a non-discriminatory manner in line with the obligations proposed in Section 9.3.2 of this Consultation.



- 9.44 ComReg proposes to impose the following access requirements upon Eircom to provide a specific range of WLA products, services and associated facilities:
- (a) to provide access to VUA<sup>594</sup> (including FTTP-based VUA and FTTC-based VUA) and VUA combined with GNP where required (refer to paragraphs 9.49 to 9.56);
  - (b) to provide access to co-location, co-location resource sharing and co-location rack interconnection (refer to paragraphs 9.57 to 9.69);
  - (c) to provide access to interconnection services,<sup>595</sup> namely In-Building Handover ('IBH'),<sup>596</sup> In-Span Handover ('ISH'),<sup>597</sup> Customer-Sited Handover ('CSH')<sup>598</sup> and Edge Node Handover ('ENH')<sup>599</sup> (refer to paragraphs 9.70 to 9.73);
  - (d) to provide access to an interconnection sharing service<sup>600</sup> (refer to paragraphs 9.74 to 9.77);
  - (e) to provide access to migrations<sup>601</sup> (refer to paragraphs 9.78 to 9.82);
  - (f) to provide access to Associated Facilities,<sup>602</sup> including Multicast,<sup>603</sup> traffic-based and circuit-based Class of Service ('CoS')<sup>604</sup> and 1:1 VLAN tagging (refer to paragraphs 9.83 to 9.89); and

<sup>594</sup> Virtual Unbundled Access ('VUA') means the wholesale active access product provided by Eircom. It is an enhanced Layer 2 product which allows the handover or interconnection of aggregate end users' connections at the Metropolitan Point of Presence ('MPoP'). It allows a level of control to the Access Seeker similar to that afforded to the Access Seeker connecting their own equipment to an unbundled Local Loop.

<sup>595</sup> Interconnection Services is the term used to collectively refer to ISH, CSH, IBH and ENH.

<sup>596</sup> In-building handover ('IBH') means the connection from the Eircom network to the Access Seeker's equipment within the exchange, or equivalent facility.

<sup>597</sup> In-Span Handover ('ISH') means the connection between the exchange and the Access Seeker's nominated Point of Handover.

<sup>598</sup> Customer Sited Handover ('CSH') means the connection from the Eircom network to the Access Seeker's equipment in the Access Seeker's premises, which includes the installation of an Eircom NTU at the Access Seeker's premises.

<sup>599</sup> Edge Node Handover ('ENH') means the connection from the Eircom network through a dedicated aggregation node interface to the Access Seeker's equipment.

<sup>600</sup> Interconnection Sharing Service means a facility whereby an Access Seeker has an agreement with another Access Seeker for access to its Interconnection Services.

<sup>601</sup> Migration(s) means where the upstream NG wholesale input used to supply a retail service is changed whilst maintaining services to the end user, irrespective of whether or not the supplier at the retail level changes.

<sup>602</sup> Associated Facilities shall have the same meaning as under Regulation 2 of the Framework Regulations, as may be amended from time-to-time.

<sup>603</sup> Multicast means a service that accepts a single copy of a designated data stream from the Access Seeker and distributes these data streams within the Eircom network to multiple end users.

<sup>604</sup> Class of Service ('CoS') means a network traffic management technique that involves the autonomous treatment of traffic at a single router, switch or equivalent equipment using classes to group and manage traffic that have common forwarding characteristics. Class of service can be applied on traffic basis or circuit basis.

- (g) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services (refer to paragraph 9.90).
- 9.45 ComReg proposes that certain conditions should apply to the provision of access namely: requirements governing fairness, reasonableness and timeliness of access, including SLAs and requirements regarding timeliness of product development.
- 9.46 ComReg considered also whether to require Eircom to make available access to its Optical Distribution Network ('ODN') via other forms of ODN sharing,<sup>605</sup> which could allow Access Seekers to use Eircom's existing ODN to offer WLA services to their end users. ComReg engaged third-party consultant Analysys Mason, to consider and to report on the potential for ODN sharing. In October 2022, Analysys Mason produced a report for ComReg setting out its findings on the matter (Analysys Mason, ODN sharing Report), a copy of which is attached at Annex 10 to this Consultation.
- 9.47 In summary, ComReg understands that there are several potential approaches to non-active ODN sharing in the local access network. These approaches align with global technical standards and are part of major vendor capabilities and roadmaps. The implementation of ODN sharing in local access networks appears, however, to be limited at this stage.
- 9.48 ODN sharing, using one or more of the mechanisms detailed in the report, could be technically and economically feasible in local access networks during the lifetime of this market review. However, due to the current technical, operational and commercial limitations (refer to Figure 1.3 of the report), ComReg does not propose to specify at this time non-active ODN sharing among the access remedies which Eircom must make available. This does not preclude and is without prejudice to future requests for access based on technological developments during the lifetime of this market review.

### Access to VUA and VUA combined with GNP

- 9.49 ComReg proposes to maintain Eircom's obligation to provide access to VUA, including FTTC-based VUA, FTTH-based VUA and Exchange-launched VUA, on a standalone basis. Eircom currently meets this obligation by way of a standalone<sup>606</sup> wholesale Layer 2<sup>607</sup> access product that enables the handover

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<sup>605</sup> In addition to VUA which is Layer 2 active ODN sharing.

<sup>606</sup> The supply of a VUA service without a Plain Old Telephone Service ('POTS') included. Also referred to as standalone VUA.

<sup>607</sup> Layer 2 Ethernet-only access – As the service is offered at Layer 2 this allows Access Seekers to differentiate their services above Layer 2 of the OSI reference model i.e., at Layer 3, the Internet Protocol Layer, and above.

of aggregate end user traffic at the Access Seeker's Metropolitan Point of Presence ('**MPoP**').<sup>608</sup>

- 9.50 The VUA product includes two product variants:
- (a) FTTP-based VUA;<sup>609</sup> and
  - (b) FTTC-based VUA<sup>610</sup> (which includes exchange launched VUA<sup>611</sup>).
- 9.51 The primary difference between the two VUA variants in paragraph 9.50 (a) and (b) is the attainable bit rate<sup>612</sup> achievable and that symmetric profiles can only be provided with the FTTP variant. Access Seekers generally purchase these wholesale input VUA variants to enable them to develop and sell broadband services which will meet the requirements of the residential and small to medium business sector.<sup>613</sup>
- 9.52 The demarcation points at the end user's premises and at the point of interconnection, the Network Termination Unit ('**NTU**')<sup>614</sup> and the Wholesale Ethernet Interconnect Link ('**WEIL**')<sup>615</sup> respectively are the same for all VUA variants.
- 9.53 ComReg also proposes to maintain Eircom's obligation to provide VUA combined with GNP. When GNP is combined with a service such as VUA, the end user's telephone number can be transferred from Eircom to the Access Seeker at the same time as the VUA service is delivered (and vice versa). GNP facilitates the Access Seeker to provide the end user with a Voice over Internet Protocol ('**VoIP**') service together with a NGA broadband service. This facilitates an efficient switching process that is to the benefit of competition and ultimately end users.

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<sup>608</sup> Metropolitan Point of Presence or MPoP means the point of inter-connection between the access and core networks of an operator.

<sup>609</sup> Fibre to the Premises or FTTP means an access network architecture consisting of optical fibre lines in both the feeder and the drop segments i.e., the network segments connecting a customer's premises (the home or in multi-dwelling units the apartment) to the Exchange or other similar facility by means of optical fibre.

<sup>610</sup> Active VDSL equipment required to provide the broadband service is housed in an Eircom street cabinet.

<sup>611</sup> The active VDSL equipment required to provide the broadband service is housed in an Eircom exchange building or equivalent. The term EVDSL is used to signify that the VDSL equipment is housed in an Eircom exchange building or equivalent.

<sup>612</sup> Bit rate means the number of bits per second that can be transmitted along a network path.

<sup>613</sup> See Open eir NGA VUA Product Description, Version 9.0, 5 August 2021.

<sup>614</sup> Network Termination Unit or ('**NTU**') means the equipment that resides at the demarcation point between the access network and End Users' network or Customers Premises Equipment ('**CPE**'). FTTP-based VUA requires an Optical Termination Unit ('**ONT**') at the demarcation point at the end user's premises.

<sup>615</sup> WEIL is the interconnection service provided by Eircom which provides a handover for various wholesale products including its Next Generation Access ('**NGA**') and Next Generation Ethernet ('**NGN**') wholesale products.

- 9.54 ComReg proposes to mandate VUA (combined with GNP as required) as the least intrusive remedy. ComReg does not propose to mandate more intrusive forms of access, such as fibre unbundling, at this stage.

#### Emulated FTTC-like service on the FTTH network

- 9.55 Eircom may during the next five years wish to withdraw copper-based services from part or all of the network and ultimately, any impacted customers using FTTC-based VUA services who have not elected to migrate to the FTTH network will be required to undertake a migration to FTTH if they wish to maintain service on the Eircom network. Any such withdrawal of service by Eircom will be treated as a proposal to withdraw access to services already granted and thereby require prior ComReg approval.
- 9.56 In order to maintain consumer choice and having regard to the potential price differences between FTTC-based VUA services and FTTH-based services, and without prejudice to any decision that ComReg may adopt more generally for the purpose of Regulation 63 of the ECC Regulations in respect of Copper Switch-Off, ComReg proposes that among the conditions that it may impose to such withdrawal Eircom will be required to make available an “emulated”, FTTC-like, service on its FTTH network in those areas where FTTC-based VUA services are being withdrawn, details of which may be notified by Eircom as part of its application for approval. Although such an emulated FTTC VUA service is to be provided on the FTTH network, it is to be designed to deliver at least an equivalent level of service typical of a FTTC-based VUA, and priced at no more than the relevant regulated maximum price for FTTC based VUA.

#### Co-location: access to accommodation/power facilities

- 9.57 ComReg proposes that Eircom continues to be required to offer access to Co-location. Co-location is necessary in order that an Access Seeker can receive VUA traffic at its Point of Handover (**‘PoH’**)<sup>616</sup> within an Eircom Exchange building or similar facility. Co-location services provide serviced space and ancillary services (including both Alternating Current (**‘AC’**) and Direct Current (**‘DC’**) – power, and air conditioning)<sup>617</sup> in an Eircom exchange building or similar facility.
- 9.58 The serviced space or co-location equipment rack is used for equipment racks which accommodate the Access Seekers’ electronic equipment which is required to offer a retail or wholesale product or service offering. The co-location equipment rack contains the WEIL and the Access Seekers’ fixed

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<sup>616</sup> The physical point at which two networks are interconnected to allow traffic to pass between these networks.

<sup>617</sup> Air conditioning is available in selected Exchanges.

backhaul service. Co-location facilitates the fixed PoH, providing the complete path from the NTU/ONT to the Access Seeker's network.

- 9.59 In addition to existing Co-location options, ComReg proposes to require that the physical co-location product offering also includes a wireless PoH option so that Access Seekers can use wireless backhaul. ComReg notes that in some circumstances, wireless backhaul may be a viable alternative to fixed backhaul where it is not technically and/or economically feasible for the Access Seeker to use fixed backhaul services. To facilitate wireless backhaul, different co-location facilities are necessary i.e., access to the building roof, access to an existing mast, a connection from the co-location rack to the antenna, etc.

### Co-location Resource Sharing

- 9.60 ComReg proposes that Eircom continues to be required to offer access to Co-location Resource Sharing whereby an Access Seeker ('**Guest Access Seeker**') uses the co-location resources of an existing Access Seeker ('**Host Access Seeker**') under a commercial agreement between Host Access Seeker and Guest Access Seeker. Such resource sharing allows Access Seekers to lower the cost of Co-location and optimise returns on investment, thereby lowering entry and/or expansion costs and allowing them to achieve greater efficiencies and economies of scale.
- 9.61 It may also facilitate greater optimisation of space within the Eircom exchanges as unused Co-location space is minimised. By contrast, refusing Co-location Resource Sharing may raise Access Seeker costs above what they could be, including decreasing their economies of scale and hurting their ability to compete with Eircom which is likely to have greater economies of scale (and scope).

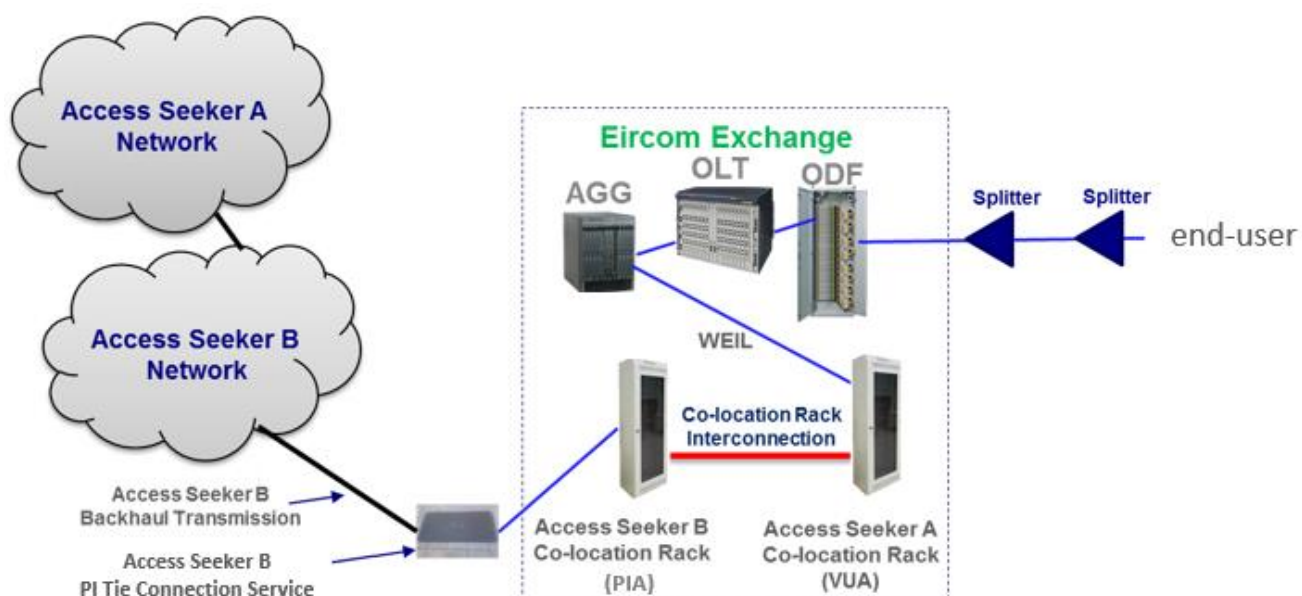
### Co-location Rack Interconnection

- 9.62 ComReg proposes that Eircom continues to be required to allow Access Seekers to interconnect their co-located equipment in exchange buildings or similar facilities. This will enable Access Seekers to share services or to offer wholesale services to other Access Seekers. For example, this would enable Access Seekers to share backhaul resources efficiently.
- 9.63 Access Seekers' equipment racks are normally adjacent or in close proximity within the exchange. Access Seekers could route their fibre cables directly between their adjacent equipment racks, or route their fibre cables using cable trays between racks of equipment or by other means, as appropriate.
- 9.64 Co-location rack interconnection enables and supports the provision of WLA products and services and is an Associated Facility within the meaning of the Framework Regulations and the ECC Regulations. In particular it is a facility

associated with an Electronic Communications Network ('**ECN**') or an Electronic Communications Service ('**ECS**') which enables or supports, via exchange cable trays, conduits and wiring, the provision of WLA products and services via that network or service.

- 9.65 As depicted in [Figure 29](#), in order to provide services to end users, Access Seeker 'A' ('**AS-A**') may install equipment in a rack on a co-location footprint within an Eircom Exchange (or equivalent). Connectivity is then required between the equipment in AS-A's co-location footprint and Access Seeker A's network in order to route traffic to and from the end user, thus enabling the provision of WLA services to end users.
- 9.66 Access Seeker B ('**AS-B**') is also co-located in the same Exchange (or equivalent) and has infrastructure that allows connectivity between AS-B's co-location (in Eircom's Exchange) and AS-B's network. Using co-location rack interconnection, AS-A can establish a connection between its equipment in its co-location footprint (in Eircom's Exchange) to equipment in AS-B's rack (also within its co-location footprint within the Eircom exchange) using co-location rack interconnection.
- 9.67 In this way, connectivity from equipment in AS-A's co-located rack to AS-A's network can effectively be achieved via a backhaul service offered by AS-B. In that way co-location rack interconnection enables and supports the take-up of WLA services and the provision of downstream services to end users. co-location rack interconnection can result in lower costs for Access Seekers as they may be able to avail of an alternative backhaul service from other co-located Access Seekers. Allowing Access Seekers to share backhaul increases their economies of scale and scope thereby reducing barriers to WLA take-up and encouraging deeper infrastructure competition.

Figure 29: Co-location Rack Interconnection



9.68 When considering the regulatory burden for Eircom of implementing co-location rack interconnection, ComReg considered the following three deployment scenarios.

- (a) **Scenario 1:** The racks are immediately adjacent to each other and the Access Seeker's technician connects a fibre or copper cable between the Access Seekers' racks.
- (b) **Scenario 2:** The racks are not adjacent to each other, but there is a cable tray to enable the routing of fibre between the two racks by the Access Seeker's technician.
- (c) **Scenario 3:** The racks are not adjacent to each other and there is no cable tray to facilitate co-location rack interconnection. In this case, construction work may be required e.g., Eircom installs a cable tray between co-location racks.

9.69 In the case of deployment Scenario 1 and Scenario 2 above, the burden on Eircom is likely to be minimal as the work to facilitate co-location rack interconnection could be completed by the Access Seeker's technician. In the case of Scenario 3 above, Eircom implements Quote for Infrastructure Build ('QIB') and Provide Infrastructure Build ('PIB') wholesale processes<sup>618</sup> that are available to facilitate the construction of cable trays and the installation of fibre/copper connectivity, if required.

<sup>618</sup> <https://www.openeir.ie/products/data/physical-co-location/>

## Access to Interconnection Services

- 9.70 ComReg proposes to maintain Eircom's obligation to provide Interconnection services and facilities. Interconnection is the physical and/or logical connectivity between networks required to enable the handover of traffic between an Access Seeker's network at the PoH. Eircom currently provides Interconnection Services using the WEIL product set including the following variants (together, '**Interconnection Services**')
- (a) In-Span Handover ('**ISH**');
  - (b) Customer-Sited Handover ('**CSH**');
  - (c) In-building Handover ('**IBH**'); and
  - (d) Edge Node Handover ('**ENH**').
- 9.71 Interconnection is necessary to connect the Access Seekers' networks with Eircom's network. Without interconnection, competition in the downstream markets would be restricted to resale of services which limits scope for product differentiation by Access Seekers, thereby undermining consumer choice and competition in the market. Access to Interconnection Services allow an Access Seeker to purchase VUA. and the variant forms of Interconnection are required to provide flexibility for Access Seekers requiring interconnection.
- 9.72 Access to Interconnection Services allow an Access Seeker to purchase VUA. Interconnection Services are essential for Access Seekers to be able to provide ECS and ECN services. The range of Interconnection Services (outlined in paragraph 9.70) are required to provide flexibility for Access Seekers requiring interconnection.
- 9.73 For example, not all Access Seekers have sufficient infrastructure of their own that is close enough to Eircom's network, in order to be able to economically or commercially avail of Eircom's IBH or ISH services. Conversely, if CSH were the only interconnection type available, then larger scale Access Seekers would not be in a position to take advantage of their own infrastructure deployments to lower their costs of interconnection. Access Seekers could end up paying for products, services and associated facilities which are unnecessary for the services that they require. Therefore, the full suite of interconnection services is required (outlined in paragraph 9.70) to ensure that there is sufficient flexibility as Access Seekers will have invested in building out network infrastructure to varying degrees.

## Access to Interconnection Sharing Service

- 9.74 ComReg proposes to require Eircom to provide access to an Interconnection Sharing Service, a service which Eircom already is required to provide as part of its obligation of access in the Modern Interface Wholesale High Quality



Access ('**MI WHQA**') Markets. An Interconnection Sharing Service allows an Access Seeker ('**Guest Access Seeker**') the opportunity to negotiate a commercial agreement with another Access Seeker ('**Host Access Seeker**') for access to their Interconnection Services to allow the Guest Access Seeker to gain access to VUA-based products. Interconnection Sharing Service can allow for a more efficient and effective use of interconnection and ensure the Guest Access Seeker can rapidly rollout its VUA-based services and will ultimately benefit competition and end users.

- 9.75 ComReg notes that there is little burden involved for Eircom and in particular, it minimises the provision/build of new Interconnection Services given that Interconnection Sharing Service is implemented using Interconnection Services which are already in place (or on order).
- 9.76 Interconnection Sharing Service provides the Guest Access Seeker with the facility to request Eircom to terminate its VUA traffic on a WEIL which is owned by the Host Access Seeker in circumstances where the Host Access Seeker agrees commercially to allow the Guest Access Seeker to use its WEIL(s).
- 9.77 ComReg notes that some Access Seekers may wish to maintain exclusive use of their Interconnection Services while other Access Seekers may wish to share their Interconnection Services especially where their Interconnection capacity greatly exceeds their own requirements (e.g., 10 Gbps and 100 Gbps WEILs).

### Access to Migration Services

- 9.78 ComReg proposes to maintain Eircom's obligation to facilitate migrations. A migration process is essential to allow an Access Seeker to migrate an end user between wholesale access products and between SPs. It provides the ability for an Access Seeker to change wholesale inputs in response to demand-side requirements or for optimization of supply-side inputs with the minimum possible disruption to end users.
- 9.79 The ability of an Access Seeker to migrate between wholesale inputs is a fundamental requirement for properly functioning downstream markets. If an Access Seeker cannot seamlessly and efficiently switch between wholesale access products, competition in wholesale and/or retail market(s) would be severely hampered, because an Access Seeker would not be able to freely choose between the wholesale access products that best meets their business needs and the needs of their end users.
- 9.80 For example, if an Access Seeker is consuming standalone FTTC services and that Access Seeker wishes to consume FTTP services, then a Migration service would be required to migrate the end users from standalone FTTC to standalone FTTP services.

- 9.81 If Access Seekers are unable to efficiently change between wholesale inputs, this could artificially raise their costs and inhibit them from evolving their business strategy or restrict sales.
- 9.82 ComReg also proposes to require Eircom explicitly to offer the option to combine Migration Services with GNP. GNP facilitates the retention of existing telephone numbers by an Access Seeker and their end users. When GNP is combined with a Migration Service such as standalone FTTC-based VUA service to standalone FTTP-based VUA service, the end user's telephone number (from the current service provider) can be transferred to the Access Seeker at the same time as the standalone FTTP-based VUA service is delivered. This facilitates an efficient switching process that is to the benefit of competition and ultimately end users.

### **Access to Associated Facilities including Multicast, Class of Service ('CoS') and 1:1 VLAN tagging**

- 9.83 ComReg proposes to maintain Eircom's obligation to provide access to Associated Facilities including in particular access to Multicast and CoS, which enable or support the provision of Access Seeker's services via VUA. ComReg proposes further to require Eircom to provide access to 1:1 VLAN tagging which allows an end user to tag specific traffic which it can use to identify specific traffic when transported across the Access Seeker's ECN.
- 9.84 All three specified Associated Facilities are key to Access Seekers' ability to support and differentiate their product offerings. Multicast is a key technical feature required to support IPTV on VUA services and is accordingly necessary to allow Access Seekers offer bundles including TV and Internet Protocol Television ('IPTV') services. As of January 2022, an estimated 104K premises availed of IPTV services.<sup>619</sup> While IPTV services can also be provided using unicast, a unicast IPTV solution is not scalable, because of the burden of supporting data streams for each IPTV session across the network infrastructure.
- 9.85 As such, access to Multicast features is essential for Access Seekers to technically and economically provide a viable IPTV service. The absence of a VUA Multicast capability would require a significant upscaling of the Access Seeker's network infrastructure, would be inefficient, and would be barrier to entry unduly raising Access Seeker costs.
- 9.86 Similarly, the availability of CoS parameters is key to the provision on managed Voice over Internet Protocol ('VoIP') based telephony services. Voice services are delay and time sensitive from the end user's perspective.

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<sup>619</sup> <https://www.comreg.ie/industry/electronic-communications/data-portal/tabular-information/>

In providing VoIP telephony services, Access Seekers must ensure a minimum standard for Quality of Service ('QoS') parameters such as jitter,<sup>620</sup> latency<sup>621</sup> and frame loss<sup>622</sup> are maintained. These service quality parameters are equally important for other types of services, for example Video-on-Demand ('VoD'), that an Access Seeker may wish to offer using regulated wholesale inputs such as VUA.

- 9.87 CoS traffic markings is a method to identify the priority that should be attached to end user's traffic when being processed by network components such routers and switches. Traffic markings must be applied at the CPE/NTU and transparently transported in the access network. This enables the Access Seeker to manage application specific traffic appropriately as traffic is transmitted across the Access Seeker's core network.<sup>623</sup> CoS features (both traffic and circuit) are necessary to ensure that Access Seekers can innovate and differentiate their service offerings in both the residential and non-residential end users.
- 9.88 Finally, ComReg proposes to require Eircom to make available a new associated facility, namely a 1:1 Virtual Local Area Network ('VLAN') tagging feature which allows the use of C-VLAN ID range (i.e., 1 – 4096) by end users to tag their traffic. This in turn will allow an end user to identify traffic marked with specific C-VLAN IDs as all C-VLAN IDs are carried transparently across the Access Seeker's ECN. ComReg notes that Eircom provides access to the 1:1 VLAN tagging feature<sup>624</sup> on its FTTC-based VUA and FTTC-based Bitstream Plus VEA products. Using this feature, an Access Seeker can innovate and differentiate its service offerings to their residential and non-residential end users.
- 9.89 ComReg proposes to allow Eircom up to seven months to make this associated facility available to Access Seekers from the effective date of the final Decision (including a prior notification period of one month to ComReg).

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<sup>620</sup> "Jitter" means the variation in the time, generally measured in milliseconds (ms), between packets arriving at a destination, which can be caused by network congestion, timing drift, or route changes.

<sup>621</sup> "Latency" means the time it takes, generally measured in milliseconds (ms), for a source to send a packet of data to a receiver. The key causes of latency tend to be propagation delay, serialisation, data protocols, routing and switching, and queuing and buffering.

<sup>622</sup> "Frame Loss" means the failure of one or more transmitted frames to arrive at their destination. This occurs when frames are damaged and discarded, or when the capacity of an intermediate network component is exceeded, which results in frame being discarded.

<sup>623</sup> Traffic markings associated with CoS features are appropriate in the context of ensuring delay sensitive traffic, such as voice or VoD related traffic, is managed appropriately. For the avoidance of doubt, ComReg notes that CoS features or traffic management should not be implemented such that concerns are raised with respect to Net Neutrality.

<sup>624</sup> The feature is available on a product known as Virtual Ethernet Access ('VEA').

## Grant open access to technical interfaces, protocols and other key technologies

9.90 ComReg proposes to maintain Eircom's obligation to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of WLA services.

## Conditions to ensure fairness, reasonableness and timeliness of access

### Overview

9.91 Regulation 12(3) of the Access Regulations/Regulation 55(3) of the ECC Regulations permits ComReg to attach to obligations and requirements for access, conditions covering fairness, reasonableness and timeliness. ComReg proposes, in order to ensure fair but effective and timely access to the Commercial NG WLA Market, to attach conditions to Eircom's obligations of access discussed above.

9.92 In order to ensure that Eircom provides access on fair and reasonable terms, ComReg proposes that Eircom:

- (a) Is required to seek approval from ComReg for changes to the rules or technical standards for the deployment of telecommunications equipment in the access network, including changes to the access network's design, topology and the Copper Loop Frequency Management Plan ('**CLFMP**');
- (b) Is required to negotiate in good faith and offer meaningful Service Level Agreements (SLAs), that is, legally binding contracts between Eircom and Access Seekers committing Eircom to defined service levels, as further described below;
- (c) May only impose restrictions on access that are intended for the protection of the integrity of the network to the extent that they are justified, reasonable and proportionate;
- (d) May not refuse access by way of new product development or amendments to an existing product, unless the request is unreasonable and objective reasons have been provided to the Access Seeker;
- (e) May not decline orders for an existing product where the order meets the terms and conditions for the product; and,
- (f) Is required, where an order is declined, to provide specific and clear reason text and codes to the Access Seeker at the closure of the order. The use of generic reason codes should be exceptional.

- 9.93 In order to ensure that access is provided on a timely basis, ComReg proposes that Eircom is required to:
- (a) Adhere to specified processes and timelines as regards the development of new products or amendments to existing products;
  - (b) Adhere to specific processes and timelines as regards the negotiation of SLAs in respect of new products or amendments to existing products; and,
  - (c) On a quarterly basis, provide to ComReg a report listing all Access requests which have been accepted or refused\declined in the previous quarter and the reasons therefor.

**Changes to the rules or technical standards governing the deployment of access network equipment and network topology including changes to the Copper Loop Frequency Management Plan ('CLFMP')**

- 9.94 ComReg proposes to maintain Eircom's obligation to seek approval from ComReg in writing for changes to the rules or technical standards for the deployment of telecommunications equipment in the access network, including changes to the access network's design and topology, and to clarify further how approval is to be sought and granted as the case may be. ComReg is of the view that a pre-approval requirement is an appropriate and proportionate mechanism to ensure that to the rules or technical standards do not unnecessarily or excessively impact on services already available and that Access Seekers' requirements are taken into account by Eircom when adopting changes.
- 9.95 Eircom defines rules and sets the technical standards which network equipment must comply with in order to ensure that services offered over Eircom's access network operate correctly. The rules and standards also ensure that the introduction of new network equipment does not adversely affect equipment already installed or services already being availed of by end users. They also include the CLFMP which defines the spectral rules that all Access Seekers' equipment must comply with if such equipment is to be deployed on Eircom's copper access network.
- 9.96 Rules and standards accordingly allow for the efficient running of the access network. Having such rules and standards represents best practice for network operators and is a key component of good network management.

- 9.97 Details of the design and topology of the access network are also made available by Eircom to Access Seekers in a number of files (for example, Advanced Prequal File, Network Deployment Plan, etc.) so that Access Seekers may plan, design and deploy their own network equipment. For example, an Access Seeker may choose to deploy equipment in a 'parent' exchange to avail of VUA for their end users in that exchange and any 'child' exchanges.
- 9.98 Eircom has the ability to make changes to the access network technology or technical standards which may be designed or have the effect of affecting or restricting access including access already granted. Examples of access network topology changes include (noting that this list is not exhaustive and is provided for guidance):
- (a) Rehoming of 'child' exchanges from one 'parent' to another;
  - (b) Rehoming of FTTP end users from one exchange to another;
  - (c) Redesignation of a 'child' exchange to a 'parent' exchange;
  - (d) Redesignation of a 'parent' exchange to a 'child' exchange; and
  - (e) Changes to exchange designations.
- 9.99 Examples of changes to the rules and technical standards include Eircom's roll out of fibre in the access network, which required new rules and technical standards for the deployment of optical equipment. ComReg expects that the rules and standards for the deployment of network equipment on Eircom's access networks will likely continue to evolve as new developments in access network technology result in the deployment of new equipment. Similarly, changes/enhancements to copper-based services may require changes to the CLFMP in order to accommodate the frequencies that will need to be injected into the copper access path by the associated network equipment, thus allowing new services to be delivered to end users.<sup>625</sup>
- 9.100 All such changes to the rules, technical standards and access network topology have the potential to impact on existing services already being provided to end users, and they need to be managed in an orderly manner and an approval process allows ComReg to ensure that proposed changes to rules, or technical standards for the deployment of telecommunications equipment, including changes to access network topology, do not prevent or hamper the development of sustainable and effective downstream competition. ComReg sees as an essential aspect of the process that Access

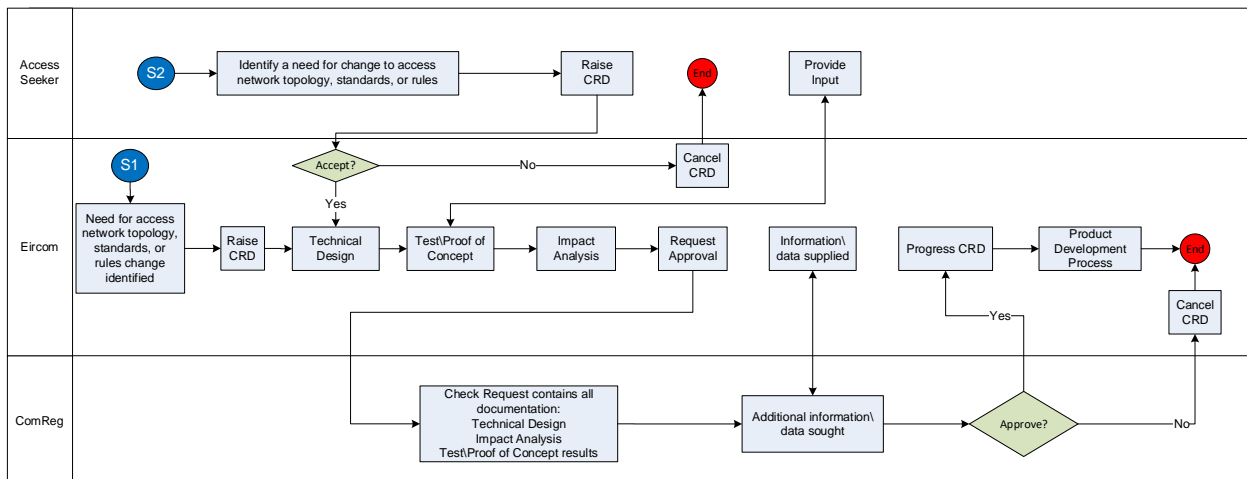
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<sup>625</sup> Given Eircom's announcement of its intention to switch off its copper network, and the increased investment in the industry in modern infrastructure networks, it is likely that development and changes on the copper access network will be minimal over the period of this market review. However, for as long as the copper network is in service, the CLFMP shall be maintained and kept up-to-date by Eircom.

Seekers are aware of the nature of the change(s) proposed, the benefits accruing to Access Seekers and end users and the interference risks associated with deploying new equipment in the access network. This requires a change process that is rigorous and implemented with a high degree of transparency in order for Access Seekers to fully understand the implications of the proposed change to the rules and technical standards.

- 9.101 In addition, Access Seekers should be afforded equal opportunity to propose changes to the rules, technical standards, and access network topology, when necessary. This should be available via Eircom’s product development process and Eircom should provide support to Access Seekers, as required.
- 9.102 ComReg proposes that accordingly that ComReg assess the proposed changes to any rules, technical standards, or access network topology, from the perspective of potential impacts on end users and Access Seekers and either approve or not approve the proposed change, as appropriate, subject to any conditions to be met. In order to facilitate the assessment by ComReg, Eircom shall provide to ComReg all relevant documentation and data pertaining to the proposed change including the:
  - (a) Technical Design;
  - (b) Test/Proof of Concept results; and
  - (c) Impact Analysis.
- 9.103 More particularly, ComReg proposes the change process outlined in Figure 30 which includes a requirement on the part of Eircom to carry out a detailed impact analysis of the proposed change on end users and Access Seekers.

**Figure 30: Change process for Access Network rules, standards, or topology**



- 9.104 Scenario 1 ('S1') is the start point when Eircom identifies a need for change, while Scenario 2 ('S2') is the start point when an Access Seeker identifies the need for change. A Customer Requirements Document ('CRD') shall be raised

by Eircom for S1 and Access Seeker for S2 detailing the proposed change. The technical design describes in detail how the proposed change will be made and how it will function. The test/proof of concept is carried out by Eircom with assistance from Access Seekers, if necessary, to verify and validate the technical design. Access Seekers should have the opportunity to provide input to the test and trial and the test results should be made available to Access Seekers and ComReg.

- 9.105 Only when ComReg's approval is granted to the requested change to the rules, technical standards or access network topology, may changes be progressed using Eircom's standard product development process with all associated document updates and notifications.

### Product Development

- 9.106 A properly functioning product development process<sup>626</sup> is particularly important for ensuring the development of effective competition in downstream markets and to allow Access Seekers to plan for and provide innovative services to downstream customers, including end users. Uncertainty regarding the content and timing of product updates creates uncertainty in the market and can potentially lead to increased costs across the industry and to concerns regarding the availability of information to Eircom's downstream arm in advance of competing retail operators. Conversely, increased clarity and certainty with respect to product developments and process changes should enable Access Seekers to plan for such changes more effectively and, where necessary, to implement consequential changes to their own systems and processes. Any resulting improvement in resource allocation across the industry may lead to lower costs and improved speed to market for product innovations, ensuring the development of effective competition to the ultimate benefit of end users.
- 9.107 Eircom's current product development process is complex. ComReg acknowledges that complexity arises in part from the need to accommodate a number of competing priorities using finite resources. In order to ensure that Access Seekers' requests for access are processed in a manner that is fair, reasonable and timely, however, there should be full clarity as regard key decision gates and development stages, so that Access Seekers may fully exercise their right to make requests for access to Eircom. In turn, the key decision gates and development stages should allow for active Access Seekers' participation.
- 9.108 In particular, clarity is required as regards the following:

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<sup>626</sup> The Eircom Regulated Access Product ('RAP') Product Development Process is a series of steps undertaken to bring a product idea from conception through to product launch.



- (a) The **stages** of the product development process, including the times at which Access Seekers may provide inputs;
- (b) The **making of a request for access**: the **information** that needs to be provided in order for an Access request to be processed by Eircom in respect of both new access products or for a change to an existing access product;
- (c) The process regarding **prioritisation** of product development and the criteria used to assess this prioritisation including the criteria and associated weightings used by Eircom for such prioritisation, generically, and for each product development.

9.109 ComReg proposes to require Eircom to ensure that the product development process provides for adequate interaction and engagement with the Access Seeker making the Access request but also, other Access Seekers, and the provision of certain information throughout the product development process, as follows:

- (a) Request for access, be it for a new product, service, or associated facility or an amendment to an existing product, service, or associated facility, including in both cases requests for SLAs, to be acknowledged in writing to the requestor within three (3) working days of receipt and providing the requestor with a unique reference to identify the Access request;
- (b) All Access Seekers to be informed of receipt of a request for access, as soon as possible and in any event within fifteen (15) working days of the receipt of the request, to include details of the request's allocated unique reference number (to allow tracking of the request), a copy of the request, and a description of the key features and functionality requested;
- (c) Within fifteen (15) working days of the receipt of the request, on a per request basis, Eircom shall publish an engagement plan outlining:
  - (i) How and when it will consult and seek design input from the requestor and other Access Seekers (for example, workshops, meetings, Eircom's Product Development Workshop ('**PDW**'), etc.);
  - (ii) How and when it shall consult and seek views from the requestor and other Access Seekers with regard to SLA requirements;
  - (iii) What timelines will be used for design input; and,

- (iv) When it will issue its status update (see below), which should be as soon as possible but no later than eighty-five (85) working days after receipt of the request;
  - (d) Eircom to publish a status update as soon as practicable and in any event within eighty-five (85) working days of receipt of the request, with the following information:
    - (i) A description of the solution to be provided including any aspects of the proposed solution which do not reflect or are inconsistent with the request, and the objective reasons therefor, including in particular differences in key features, functionality, or any other limitations;
    - (ii) The development timelines including proposed notification, publication and launch dates;
    - (iii) What timelines will be used for SLA negotiations; and,
    - (iv) The priority level granted to the request and any impact on the priority granted to other Access request, including any input values and calculations used by Eircom in the determination of the prioritisation of the request, and where other Access requests are being reprioritised as a result (whether granting a lower or higher priority), the reasons for same.
- 9.110 ComReg's proposals in respect of the requirements to be met by Eircom in terms of product development differ from the proposals made in the PIA Consultation. In particular in contrast to ComReg's proposals for PIA, ComReg does not propose to impose a maximum product development timeline. This reflects the wider variation in complexity of Access requests which may arise in the Commercial NG WLA Market, as compared to the PIA Market. Access requests in the Commercial NG WLA market are more likely to require IT development both on Eircom's external facing OSS systems and on Access Seekers' integrated Business Support Systems ('**BSS**'). Hence, it is more difficult to require Eircom to deliver all Access requests in a one size fits all finite timeline.
- 9.111 By allowing Eircom to propose the development timelines, ComReg is giving Eircom the flexibility to assess each Access request individually and plan its delivery in the most efficient and time effective manner. This is balanced by the requirement that once set by Eircom, the product development timelines proposed by Eircom in 9.109 (d) must be adhered to and may only be deviated with ComReg's consent.

- 9.112 Moreover, in the case where an Access Seeker believes that Eircom is unduly delaying the development of an Access request, it may seek ComReg's intervention by way of dispute resolution under Regulation 31 of the Framework Regulations/Regulation 67 of the ECC Regulations. Furthermore, ComReg may independently intervene in the case where Eircom proposes a timeline which is unreasonable or unduly long by directing Eircom to deliver the request within a specific timeline and ensure that the Access request is met in a timely manner.
- 9.113 ComReg notes that trials may be required as part of the development process for products, services or associated facilities, including in particular to test technical or operational readiness including in certain circumstances, with end users. ComReg proposes to maintain Eircom's obligation to provide information to Access Seekers with respect to conducting trials. In essence the regime which is proposed to be maintained means that standard notification and publication timelines do not apply to trials provided that a number of conditions are met and procedural steps followed, subject always that in any event a trial should not be conducted in such a way that the product or process being trialled is effectively being launched. This could be the case for example where a fully operational system is trialled for a prolonged period. Trials accordingly are permitted only for a reasonable period sufficient only to achieve the objectives of the trial, and they should terminate at least one month prior to the launch of the new or amended product, service or facility being trialled save as otherwise agreed with ComReg.
- 9.114 A key condition is that all Access Seekers have the opportunity to participate in trials. To that end, ComReg proposes that Access Seekers be informed of a trial at least three months in advance by way of a written invitation to each operator that has signed a contract with Eircom on the basis of the ARO and publication of a general invitation on Eircom's publicly available wholesale website, ComReg having been notified one month in advance of Eircom informing Access Seekers of the trial. The notification to both ComReg and Access Seekers should include sufficient information with respect to any proposed trials that Access Seekers can make an informed decision as to their participation or otherwise in the trial. This includes a statement of the objectives of the trial and the requirements for participation and information on any relevant interoperability tests.

### Service Level Agreements ('SLAs')

- 9.115 ComReg proposes to attach to Eircom's obligation of access a requirement that Eircom make available in respect of all its WLA products services and associated facilities, SLAs setting out the level of services which Access Seekers are entitled to expect from Eircom, and the service credits to apply

where these service levels are not met by Eircom. ComReg notes that SLAs are essential in ensuring Access Seekers' ability to rely on access to Eircom's network in delivering products in downstream markets, including in ensuring Access Seekers' ability to commit to service levels to their own customers.

- 9.116 In addition to demanding higher quality and more innovative products and services, end users expect efficient and timely provision of services, including a high degree of reliability and effective fault management and repair. As such, Access Seekers are reliant on efficient delivery, service quality and after-sales support from Eircom in order to be able to compete effectively in downstream markets. In this regard, ComReg notes that the expected level of service, both at the point of delivery and in-life, are key selling points which can influence an end user when coming to a decision to purchase a product or service or to switch service providers. This means that the SLAs supporting regulated WLA wholesale products are an extremely important component of the wholesale input and are integral to the wholesale offering.
- 9.117 Furthermore, the information provided to Access Seekers by Eircom to facilitate the operation of their business in the Commercial NG WLA Market, particularly relating to FTTH due to the ongoing network rollout, is a key component to enabling delivery of service to end users. Unreliable or incorrect information can result in poor outcomes for end users in their attempts to obtain a connection to the FTTH network, which can have a negative impact on Access Seekers' reputation. Therefore, to ensure the quality of FTTH information provided by Eircom to Access Seekers, ComReg considers that a condition of access should be that, upon request, an SLA be put in place regarding the accuracy of FTTH related information.
- 9.118 The nature of an effective, fit-for-purpose SLA will depend on many factors, including the nature of the wholesale services provided by Eircom and the nature of the downstream retail or wholesale services to be provided by Access Seekers. An SLA could be based on a commitment to achieve specified service levels, or on the occurrence of particular events such as service outages, or both, or indeed other circumstances. The precise nature of a particular SLA is best settled in negotiations between Eircom and Access Seekers (subject always to the condition that Eircom and/or Access Seekers may seek ComReg's intervention by way of dispute resolution under Regulation 31 of the Framework Regulations/Regulation 67 of the ECC Regulations).
- 9.119 While recognising the very important role that negotiations have to play in reaching fit-for-purpose SLAs, ComReg notes that both sub-standard SLAs and delays in negotiating and agreeing SLAs may have a significant detrimental impact on Access Seekers, in particular those who are trying to

enter the market or grow market share and win customers from established SPs such as Eircom. Sub-standard SLAs, for example may include, *inter alia*, inadequate repair times, or service credits at a level which do not incentivise Eircom to meet the service levels committed to. Delays in the development and availability of suitable SLAs can have an adverse impact on competition and on end users, as the absence of suitable SLAs ultimately lowers certainty regarding the timeliness and quality of access being provided.

- 9.120 In light of those risks and having regard to Eircom's incentives in delaying negotiations or only agreeing sub-standard levels of service, ComReg is of the view that it is justified and appropriate to set down detailed requirements as regards the conduct of negotiations and the content of SLAs, as discussed in the following paragraphs.
- 9.121 Furthermore, if new SLAs or amendments to existing SLAs are required as a result of obligations arising from this Decision, these SLAs shall be available to Access Seekers at the launch date for these obligations, i.e., within 7 months of the Effective Date of the final Decision. Eircom may carry out expedited SLA negotiations to achieve the implementation of the updated or new SLAs within the timeline required

### **SLA Negotiation Period and Conclusion in respect of a Request for new SLA or amended SLA for existing products**

- 9.122 Prolonged discussions on the details of the SLA or prolonged deliberation by Eircom only serve to delay the availability of SLAs, and for the reasons set out above, this is not in the best interests of Access Seekers, competition, or end users. It can also amount to an effective refusal of access.
- 9.123 ComReg proposes to avert this risk by setting a maximum period of time of **six months** for discussions to take place as regards an amendment to an existing SLA or a new SLA (the '**SLA Negotiation Period**') in respect of an existing product, service, or associated facility. During the SLA Negotiation Period, Eircom must discuss and negotiate in a proactive manner, and in good faith, with Access Seekers. The SLA Negotiation Period is to end no later than six months from the request for SLA, either by agreement between the relevant parties or, in the absence of agreement, on the expiry of the six-month period or on any date prior where all parties agree that the negotiations are at an end, with Eircom making its Best and Final Offer ('**BAFO**').
- 9.124 ComReg further proposes that Eircom's BAFO becomes effective within three months of its being made, save where Eircom has applied, setting out reasons therefor, for an extension of the three-month period and ComReg, at its sole discretion, has granted same.

## SLA Negotiation Period and Conclusion in respect of new product development or amendment to existing product

- 9.125 Specific issues arise in respect of new product development (to include amendments to existing products) where Eircom may have the incentive to delay SLA negotiation until after the completion of the product development and/or only provide an insufficient/basic SLA which does not meet Access Seeker requirements, thereby undermining the timely and effective use of the products in question. ComReg considers in this regard that SLAs are, in general, an integral part of a product offering. While not all amendments to products, services or associated facilities will require changes to the associated SLA, Access Seekers are likely to have a view as to whether proposed amendments to existing products, services or associated facilities will also require an associated SLA amendment. For these reasons, the 2018 Decision introduced an obligation on Eircom that new or amended SLAs for new or amended products, services or associated facilities be available at time of launch to avoid any restriction or distortion on competition. This obligation will continue.
- 9.126 In order to ensure that this is the case, ComReg proposes that Eircom should notify the SLA at the same time as the notified new or amended product documentation. Eircom shall publish dates for the SLA Negotiation period, including the start date, with the status update (no later than 85 days from receipt of the request) to ensure that the SLA can be notified with the new or amended product documentation. This will ensure that the SLA Negotiation Period runs alongside the product development timelines and ensures that SLA requirements are included and taken into account in the development of the Access request. The SLA Negotiation Period is to end no later than six months from the start date of the SLA Negotiation period, either by agreement between the relevant parties or, in the absence of agreement, on the expiry of the six-month period or on any prior date where all parties agree that the negotiations are at an end, with Eircom making its Best and Final Offer ('BAFO'). This should limit the risk of delays caused by requiring the SLA to be ready for the new or amended product launch.
- 9.127 The agreed SLA or Eircom's BAFO shall become effective following the advance notification timeline requirements,<sup>627</sup> save where Eircom has made an application setting out its reasons for an extension and ComReg has used its discretion to grant the extension.
- 9.128 The alignment of the SLA negotiation process with the existing product development timelines does not, in ComReg's preliminary view, add any

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<sup>627</sup> Outlined in Transparency, section 9.3.3 below.

significant burden on Eircom. This obligation will provide certainty for Eircom and Access Seekers on when new or amended SLAs relating to Access requests for new or amended products, services or associated facilities will be negotiated. In ComReg's view, this proposed obligation is justified and proportionate for the reasons outlined above.

## Service Levels

- 9.129 Fit-for-purpose SLAs will achieve two main objectives: (i) they will set agreed service levels between Eircom and Access Seekers ensuring that access is provided in a manner that is fair, reasonable, and timely; and (ii) they will ensure that Access Seekers are compensated where service levels are not met. The two go hand in hand as Eircom will only have adequate incentives to deliver on agreed service levels where there is meaningful compensation provided where those service levels are not met. Meaningful compensation means that Access Seekers recoup through compensation at a minimum the direct costs and any other loss of value arising from Eircom's failure to meet the agreed level of service.
- 9.130 There should be clarity as regards the circumstances where a right to compensation arises, and the methodology used by Eircom to calculate the amount of compensation due to Access Seekers. Access Seekers will then be able to understand how Eircom arrived at the calculated amount of service credit and have assurances that Eircom is appropriately incentivised to deliver the agreed level of service. Appropriately incentivised means that it should not be cheaper for Eircom to pay the SLA service credits than meet the agreed service levels. ComReg proposes that clarity can be achieved as follows:
- (a) By requiring that Eircom provide Access Seekers during the SLA Negotiation Period with an explanation of the proposed levels of service credits by reference to the costs of Eircom to meet SLA committed service levels. This will also include expected direct and indirect losses (estimated by Eircom) likely to be incurred by Access Seekers where services are not met. The elements of the expected losses will be itemised (e.g. lost rental cost, work crew redeployment cost) with their estimated amount; and
  - (b) By requiring that Eircom make available to Access Seekers during the SLA Negotiation Period, worked examples of use cases where SLA payments are triggered and service credits are due, to allow Access Seekers to reconcile service credit payments with the requirements of the SLA and with the service provided by Eircom over the relevant period.

- 9.131 As not all Access Seekers may be involved in SLA negotiations and there may be a new entrant to the Commercial NG WLA Market, the SLA documentation needs to be detailed enough to allow any Access Seeker to fully understand all aspects of the SLA, including the information at paragraph 9.130 above.
- 9.132 SLA service credits should be fair and reasonable. It is reasonable that Access Seekers should not have to bear any administrative burden relating to the payment of service credits as such payments arise from Eircom not meeting committed service levels.
- 9.133 The calculation and justification regarding the value of service credits and how they, firstly, incentivise Eircom to deliver an efficient level of service and secondly, cover costs incurred by operators in the event of metrics not being met, does not impose any significant burden on Eircom. However, appropriate levels of service credits should benefit Access Seekers in providing further assurance that they will not be at a loss due to Eircom failing to meet SLA committed service levels.
- 9.134 It is accordingly important that Eircom provides the methodology for calculating the quantum of service credits within the SLA documentation and justification for same, including how they incentivise Eircom to deliver an efficient level of service and allow Access Seekers to recoup direct costs and other loss of value, along with associated supporting evidence. The SLA documentation should contain an itemised list of direct costs and other losses of value contributing to the service credit and the associated monetary value as well as worked examples of use cases where SLA payments are triggered and service credits are due. Furthermore, Eircom should seek input on all aspects of service credits during the SLA Negotiation period and discuss same with Access Seekers.

### Suspension on an SLA

- 9.135 ComReg understands that there are some circumstances under which an SLA may need to be suspended. Suspension of an SLA should be an exceptional occurrence and should not have the effect of neutralising the SLA. ComReg proposes that where Eircom wishes to provide for the possibility of suspending the SLA, as part of the terms and conditions of the SLAs, such terms and conditions should be agreed with Access Seekers during the SLA Negotiation Period. ComReg proposes further to require that in negotiating, and providing for, the terms and conditions governing the circumstances when the SLA can be suspended, and the process to be applied for the suspension of the SLA, Eircom ensures that they are reasonable, transparent, clear and detailed, and based on objectively defined and measurable parameters. This information will be included in the SLA documentation. Eircom shall include each instance



of an exclusion from the SLA and the parameters upon which the exclusion is based in their monthly report to Access Seekers.

- 9.136 ComReg notes in this regard that SLA suspensions, particularly where they are prolonged or unexpected, can have a significant impact on the effectiveness of the underlying levels of access being provided. It is essential that any suspension of an SLA is based on objective measurable criteria. Access Seekers should have an opportunity to input into the development of these objective criteria.

### 9.3.2 Non-Discrimination

- 9.137 Regulation 10 of the Access Regulations/Regulation 52 of the ECC Regulations provide that ComReg may impose on an SMP operator obligations of non-discrimination in relation to access or interconnection in order to ensure that the SMP operator concerned:
- (a) applies equivalent conditions in equivalent circumstances to other operators providing equivalent services; and
  - (b) provides services and information to others under the same conditions and of the same quality as the SMP operator provides for its own services or those of its subsidiaries, affiliates, or partners.
- 9.138 Regulation 52(3) of the ECC Regulations provides further that ComReg, “*may impose on an SMP operator obligations to supply access products and services to all undertakings, including to itself, on the same timescales, terms and conditions, including those relating to price and service levels, and by means of the same systems and processes, in order to ensure equivalence of access*”.
- 9.139 As noted in Recital 184 of the Code, the principle of non-discrimination ensures that operators with SMP do not distort competition, in particular, where they are vertically integrated operators that supply services to operators with whom they compete on downstream markets. Non-discrimination obligations also play an important role in ensuring the effectiveness of other obligations such as those relating to access, transparency, and price control. In turn, obligations of transparency, for example those relating to KPI metrics and performance metrics, support non-discrimination obligations.

- 9.140 In light of Eircom's vertical integration and Eircom's ability and incentive to discriminate between itself and Access Seekers in relation to pre-ordering, ordering, provisioning, and service assurance of WLA, ComReg proposes to impose an obligation of non-discrimination on Eircom. This covers discrimination between Eircom's wholesale customers and also discrimination between Eircom's wholesale customers and its own services or those of its subsidiaries, affiliates, or partners. An obligation of non-discrimination will ensure that Eircom does not favour itself, or unduly favour any particular Access Seeker in the provision of WLA products, services and information, such that it might otherwise restrict or distort competition in any downstream market, ultimately impacting on the development of sustainable retail and/or wholesale competition.
- 9.141 The European Commission notes in its Non-Discrimination and Cost Methodologies Recommendation<sup>628</sup> that one of the main obstacles to the development of a true level playing field for Access Seekers is the preferential treatment of the downstream businesses of a vertically integrated SMP operator (for example, discrimination regarding quality of service, access to information, delaying tactics, undue requirements and the strategic design of essential product characteristics). The Commission emphasises that
- “it is particularly difficult to detect and address non-price discriminatory behaviour through the mere application of a general non-discrimination obligation. It is, therefore, important to ensure true equivalence of access by strictly applying non-discrimination obligations and employing effective means to monitor and enforce compliance”.*
- 9.142 Eircom supply WLA services, such as VUA and NG migrations to undertakings, and self-supply, such as NG broadband and migrations, to itself. ComReg proposes accordingly to maintain Eircom's non-discrimination obligation to provide access and information to all undertakings including itself, its subsidiaries, affiliates or partners, on the same timescales, terms and conditions, including those related to prices and service levels, using the same systems and processes.

### 9.3.3 Transparency

#### Overview

- 9.143 Regulation 9 of the Access Regulations/Regulation 51 of the ECC Regulations provide that ComReg may impose obligations to ensure transparency in relation to access or interconnection. This requires an SMP operator to make

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<sup>628</sup> Commission Recommendation 2013/466/EU of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment, OJEU [2013] L251/13. ([NDCM recommendation](#))

public specific information such as accounting information, technical specifications, network characteristics, prices, and terms and conditions for supply and use, including any permissible conditions limiting access to, or use of, services and applications. Regulation 51 makes it clear that the information that an operator may be required to make public includes network characteristics and expected developments.

- 9.144 Regulation 9(2) of the Access Regulations/ Regulation 51(2) of the ECC Regulations provide that requirements may be imposed in respect of the publication of a reference offer that is sufficiently unbundled to ensure that operators are not required to pay for associated facilities which are not necessary for the service requested. Such reference offer shall include a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions including prices. ComReg may also specify the precise information to be made available, the level of detail required and the manner of publication.
- 9.145 Transparency obligations can be standalone but can also support other obligations being imposed and usually relate to requirements to make specified information publicly available. In this regard, ComReg is of the view that a transparency obligation is necessary in order to monitor and ensure the effectiveness of the obligations of access, non-discrimination and price control obligations being proposed. ComReg also notes that, as set out in Recital 182 of the Code, transparency of terms and conditions for access and interconnection, including prices, also serve to speed up negotiations between operators, avoid disputes and give confidence to market players that a service is not being provided on discriminatory terms. In addition, transparency provides the means for Eircom to demonstrate that access to products, services and associated facilities in the Commercial NG WLA Market is being provided in a non-discriminatory manner.
- 9.146 For the purpose of meeting transparency obligations, clear and unambiguous wording must be used in all material published or to be provided to Access Seekers. In accordance with general principles governing contracts, vague or ambiguous terms will be construed in the favour of Access Seekers.
- 9.147 ComReg proposes to continue to apply the transparency obligations as they apply under the 2018 Decision, subject to a number of adjustments, as discussed below. The obligation includes the following:
- (a) A requirement to publish a Reference Offer setting out the terms and conditions including prices on which WLA is available to Access Seekers;
  - (b) A requirement to publish information on product development;

- (c) A requirement to publish an NGA rollout plan;
- (d) A requirement to publish Key Performance Indicators; and
- (e) A requirement to publish performance with respect to Service Level Agreements.

9.148 Each of these categories is considered in further detail below.

### Reference Offer

9.149 Section 51(5) of the ECC Regulations provides that where an operator is subject to obligations concerning wholesale access to network infrastructure, ComReg is required to ensure the publication of a reference offer takes utmost account of the BEREC guidelines on the minimum criteria for a reference offer issued in accordance with Article 69(4) of the Code. BEREC issued such guidelines<sup>629</sup> on 5 December 2019. The BEREC Guidelines set out four categories of information to be included in a reference offer, as follows:

- (a) Terms and conditions for the provision of network access;
- (b) Details of operational processes;
- (c) Service supply and quality conditions; and
- (d) General terms and conditions of the agreement.

9.150 ComReg proposes in this regard to maintain Eircom's obligation to publish an Access Reference Offer ('**ARO**') setting out the products, services and Associated Facilities offered on a regulated basis. This, in general, involves removing from the ARO the relevant information that is specific to PI products, services and associated facilities as well as products, services and Associated Facilities that are no longer regulated.

### Terms and conditions for the provision of network access

9.151 A reference offer contains a description of the offer of contract for access broken down into components according to market needs. ComReg notes that this requirement will be satisfied by the ARO taking the form of a draft contract setting out a description of the specific contractual terms and conditions, including prices, associated with each of the network access products, services and associated facilities provided in the Commercial NG WLA Market, as well as the technical characteristics of the products, services and associated facilities offered in terms of WLA.

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<sup>629</sup> BEREC Guidelines on the minimum criteria for a reference offer, BoR (19) 238, 5 December 2019.

- 9.152 For the avoidance of doubt this includes each of the specified products and services that Eircom is required to make available as part of its obligation of access.
- 9.153 Also required to be published is information on any relevant ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing), including their technical usage restrictions and procedures to access those services; the relevant charges, terms of payment and billing procedures; and applicable requirements and processes for operator accreditation and audit.
- 9.154 As regards billing, Eircom is required to ensure that invoices for WLA are sufficiently disaggregated, detailed and clearly presented so that an Access Seeker can reconcile the invoice to Eircom's ARO and the ARO Price List. This is to ensure that Access Seekers may monitor the wholesale charges being levied on them and facilitate an auditable means of detecting any billing anomalies and/or non-compliance with regulatory obligations.

### Details of operational processes

- 9.155 Eircom is required to publish details of all relevant operational processes, including in terms of:
- (a) The process and requirements applicable to product development including information requirements; timelines; prioritisation and criteria; and decision making processes;
  - (b) The Product Development Roadmap, namely the list of all proposed, planned and in progress developments for regulated products, services and associated facilities, and related information, ensuring that such Roadmap remains up-to-date;
  - (c) Pre-ordering, ordering, provisioning and service assurance;
  - (d) Information on reason codes for declined orders. Such information must be provided in sufficient detail so as to allow operators clearly understand the reason why an order was declined;
  - (e) Rules of allocation of space between the parties when co-location space is limited;
  - (f) Repair and maintenance;
  - (g) IT systems and changes to such systems to the extent that they impact Access Seekers and publish such changes in sufficient detail to allow Access Seekers to perform independently any development that may be required to adapt to such changes;

- (h) Details of any necessary interoperability tests for service establishment;
  - (i) Specification of cables and equipment to be used on the network.
- 9.156 ComReg notes in particular that transparency as regards Eircom's product development process and the rules used by Eircom to prioritise product developments and meet Access requests in a fair, timely and reasonable manner is a key aspect of Access Seekers' ability to rely on access to Eircom's WLA. ComReg proposes to require that Eircom publish the process and criteria, including the input values and calculations, used by it for the purpose of prioritisation.
- 9.157 Access Seekers also need to be able to plan for the introduction of new products, services or associated facilities and therefore need information, with a reasonable degree of certainty, regarding the characteristics, timing and the availability of developed products, services or associated facilities.
- 9.158 Access Seekers must:
- (a) be provided with sufficient information relating to the contents of proposed product developments;
  - (b) be provided with sufficient information to understand the criteria and process used by Eircom for prioritising developments; and
  - (c) be made aware of the proposed launch dates of any new products or changes to existing products.
- 9.159 ComReg proposes, that Eircom publish, and keep updated, on its publicly available wholesale website, a description of its product development process, including a description of all process steps and activities and identifying all key points in Eircom's product development process, to include the points where Eircom decides to advance, delay or terminate the development of a product, service or facility (the '**Product Development Decision Points**') and any key stages in the analysis, design, development and launch, and the date on which the product, service or facility will be made available (together, '**Milestones**') from receipt of a written request for access to the launch of a new or amended wholesale product, service or facility.
- 9.160 ComReg also proposes that Eircom is required to publish the list of all proposed, planned and in progress developments for regulated products, services and associated facilities (hereafter, the '**Product Development Roadmap**') on its publicly available wholesale website and keep such Product Development Roadmap up-to-date on an ongoing basis, including the following details for each Access request, which are to be provided as soon as possible and in any event no later than within 15 working days of receipt of the request:

- (a) the unique reference to identify the Access request; and
- (b) a description of the request and copies of or links to all relevant documentation.

9.161 In addition, the Product Development Roadmap is to be kept up-to-date with the priority given by Eircom to each request.

### **Service supply and quality conditions**

9.162 In line with the BEREC Guidelines, ComReg proposes that Eircom is required to publish on its wholesale website the SLAs that it negotiates and agrees as part of its obligation of access and the requirement to ensure fair, reasonable and timely access.

### **General terms and conditions of the agreement**

9.163 Finally, the draft contract offer published as part of the ARO should contain all applicable general terms and conditions, including (without limitation):

- (a) Eircom's dispute resolution procedures to be used between it and Access Seekers;
- (b) Definition and limitation of liability and indemnity;
- (c) Glossary of terms relevant to wholesale inputs and other items concerned; and
- (d) Details of duration, renegotiation and causes of termination of agreements.

### **Form of publication**

9.164 The information to be made available by Eircom under the proposed transparency obligations is, by default, to be published on Eircom's publicly available wholesale website.

9.165 ComReg proposes that in exceptional circumstances, in respect of information that is required to be made available under the proposed transparency obligations, but is commercially sensitive such that it would not be appropriate to share such information beyond the Access Seekers availing of WLA, or with a demonstrable intention to avail of WLA from Eircom, Eircom restrict access to such information. For example, this could be done by requiring a password to access a section of Eircom's wholesale website and/or subject its provision to reasonable terms and conditions such as the requirement to enter into a Non-Disclosure Agreement. ComReg reserves the right to intervene, as appropriate, including to require Eircom to make certain information publicly available where it cannot provide appropriate justification for not doing so.

## Changes to the ARO

- 9.166 Publication or the making available of information by way of an ARO as described above will only meet the objective of transparency if the published/available documentation remains up-to-date and Access Seekers may easily ascertain what changes have been made. The provision of clear information on what changes are made to the ARO and when such changes are made also supports monitoring and enforcement of compliance with SMP obligations. ComReg proposes that the following requirements apply:
- (a) Publish and keep updated on its publicly available wholesale website both clean (or unmarked) and tracked changes (or marked) searchable versions of the ARO and ARO Price List. The tracked change version must be sufficiently clear to allow Access Seekers to clearly identify all actual and proposed amendments from the preceding version of the ARO/ARO Price List;
  - (b) Publish and keep updated on its publicly available wholesale website an accompanying change matrix which lists all of the amendments incorporated, or to be incorporated, in any amended ARO/ARO Price List (the 'ARO/ARO Price List Change Matrix'); and
  - (c) Publish and maintain on its publicly available wholesale website, a copy of historic versions of its ARO, ARO Price List, ARO Change Matrix and ARO Price List Change Matrix.

## Advance notification timeframes

- 9.167 In order that changes are made transparently and are clear to all, allowing Access Seekers to factor changes into their commercial decision-making activities and make any necessary adjustments or developments to systems or operational processes, ComReg proposes that changes to the ARO and associated documentation are subject to prior notice to ComReg and separately, Access Seekers.
- 9.168 Proposed amendments to the ARO Price List relating to new or amended products, services or associated facilities shall be made available at the same time to Access Seekers as the relevant proposed amendments to the ARO. Having such information available at the same time will facilitate Access Seekers in not just making any technical or operational preparations that may be needed but also allow Access Seekers to assess the potential business case of investing in such a new offering from Eircom and take any necessary business decisions related to such an offering in sufficient time in advance of launch, including for example the sourcing and purchase of any new equipment that may be needed.



- 9.169 ComReg proposes that by default, amendments to existing products, services or associated facilities or the introduction of new products, services or associated facilities should be given to ComReg at least three months in advance of changes coming into effect, and to Access Seekers at least two months in advance. ComReg is to be notified one month in advance of notification to Access Seekers ('the 1 + 2 advance notification rule').
- 9.170 As an exception to this 1 + 2 advance notification rule, ComReg also proposes that Access Seekers must be provided with an appropriate period of notice with regards to specific changes that would require Access Seekers additional time in order to effectively compete with Eircom in downstream markets using new or amended products, services or associated facilities. The specific exceptions to the 1 + 2 notification rule are with respect to changes to Eircom's IT systems or where an Access Seeker would need to source or purchase any new equipment or update existing equipment in order to avail of the new or amended product, service or associated facility. In these circumstances, ComReg proposes that the associated changes to the ARO and ARO Price List should be given to ComReg at least seven months in advance of changes coming into effect, and to Access Seekers at least six months in advance. In other words, ComReg is to be notified one month in advance of notification to Access Seekers ('the 1 + 6 advance notification rule'). ComReg considers that such an approach is appropriate and proportionate and provides Access Seekers with the necessary information and notice relating to such changes.
- 9.171 With respect to changes to Eircom's IT systems that would trigger the 1 + 6 advance notification rule, these are changes to the extent that would require Access Seekers to carry out development work without which it would not be possible for Access Seekers to continue to order existing, products, services or associated facilities or to be able to order new or amended products, services or associated facilities.
- 9.172 The documentation to be included at notification should include the information relevant to Access Seekers with respect to the proposed IT changes. The introduction of an IT change that can impact Access Seekers, in the manner described above should only arise in exceptional circumstances. Eircom will therefore be required to set out objective reasons in this documentation as to why such an IT change is considered necessary.
- 9.173 Access Seekers may need to source or purchase new equipment or update existing equipment that may be required to effectively compete as a result of a new or amended product, service or associated facility. Such scenarios may arise where Eircom's wholesale products, services or facilities are being introduced or amended, as a result of which they will provide for profile speeds

or functionality that can only be utilised by Access Seekers introducing new end user equipment or replacing or updating existing equipment.

- 9.174 As regards advance notification to ComReg, such advance notification before publication facilitates compliance monitoring by ComReg and allows ComReg to ensure, in advance of publication, that the changes are sufficiently clear and readily understandable to Access Seekers. However, this is not an approval process and publication accordingly does not imply compliance.
- 9.175 Changes which trigger an obligation to notify and publish include for instance:
- (a) Where changes are made to the terms and conditions, including prices, associated with each of the products, services and associated facilities provided in the Commercial NG WLA Market, or to their technical characteristics including relevant engineering or technical standards for network access;
  - (b) Where changes are made to the operational processes described in the ARO (e.g., in the IPM);
  - (c) Where an existing product is amended or a new version introduced;
  - (d) Where a new product or service is introduced;
  - (e) Where changes are made to the general terms and conditions offered by Eircom to Access Seekers.
- 9.176 Finally, for the avoidance of doubt, in relation to existing contracts, text changes proposed by Eircom to the general terms and conditions will not be automatically incorporated into existing contracts. Amendments of existing contracts will require agreement of the parties to the contract as changes to Access Seeker contractual obligations. Eircom can negotiate with Access Seekers regarding any such changes. In the absence of agreement, in appropriate cases, one party or both may refer their disagreement for dispute resolution by ComReg under Regulation 31 of the Framework Regulations/Regulation 67 of the ECC Regulations.

### **Timeline variation with respect to advance notification timelines**

- 9.177 While clear mandatory notification timelines are an essential aspect of transparency and ensuring certainty, it is also important to ensure a degree of flexibility so that the timeline may be amended in appropriate circumstances. It may be, for instance, that there is a case for immediate availability of a new or amended product, or that a two or six month publication timeline, as appropriate, is insufficient owing to the operational and/or technical adjustments required in order to avail of an amended products or associated with a change of operational processes.

- 9.178 ComReg proposes in this regard to maintain the approach followed to date, allowing notification timelines to be varied, either on Eircom's application or on ComReg's own initiative, where justified and appropriate.

### Transparency requirements with respect to NGA rollout plans

- 9.179 ComReg also proposes to maintain Eircom's obligation to provide information to Access Seekers with respect to Next Generation Access ('**NGA**') roll out plans. This ensures that Access Seekers are provided with up-to-date and accurate information with respect to network rollout allowing them to efficiently and effectively plan for and deliver products and services on a wholesale basis or to end users.
- 9.180 Eircom's NGA rollout plans are an essential tool to aide Access Seekers' marketing and sales process and so trust and certainty regarding the data included in these files is vital. ComReg is concerned however that Eircom's NGA rollout plans may not be accurate and where inaccuracies are identified, how quickly they are remediated. ComReg proposes in this regard to impose a requirement on Eircom to ensure that the data included in its NGA Rollout Plan is accurate, clear and current. This means that Eircom is expected to proactively monitor the files included in its NGA Rollout Plan in order to identify any inaccuracies and to correct such inaccuracies at the earliest opportunity, and to reconcile the data contained in its NGA Rollout Plan files with as-built information at the earliest opportunity. It also means that the meaning of all fields contained within the files included in Eircom's NGA Rollout Plan should be fully documented and published by Eircom in a manner that allows Access Seekers to interpret the intended purpose of each field.
- 9.181 ComReg proposes further to mandate that additional fields are included in the NGA rollout plans comprising the Deployment Plan, the Order of Magnitude File and Advanced PreQual File as described below. The additional fields are to be introduced by Eircom in a manner that would not require Access Seekers to carry out development work without which it would not be possible for Access Seekers to continue to process files included in the NGA Rollout Plan.

#### **Deployment Plan**

- 9.182 ComReg proposes to require that for the EAs included in Eircom's NGA rollout plan the following details must be made available, by way of a Deployment Plan data file, issued monthly, at least six months in advance of the expected Ready for Order Date ('**RFO**'):
- (a) list of cabinets with their associated geographic coordinates;
  - (b) the location and name of the exchange which houses the MPoP for each cabinet and for each OLT from which it is proposed that premises will be served from;

- (c) for each EA the number of premises that Eircom forecasts will be passed by FTTP and the expected RFO date.

9.183 ComReg proposes further to require that the Deployment Plan is to be amended with respect to fibre Distribution Points ('DP') so that this plan is updated to include information on the identity, geographic coordinates, capacity, installation status, the expected Ready for Order Date and whether the RFO has been passed for DPs, as such information is determined by Eircom, and at least 3 months from the expected RFO when the Order of Magnitude File is updated.

#### **Order of Magnitude File**

9.184 ComReg proposes that Eircom make available at least three months in advance of the expected RFO, sufficient information to enable operators to identify the addresses to be passed by FTTP. Such information is to be made available by way of an Order of Magnitude File, issued quarterly, which must provide:

- (a) The Exchange Area;
- (b) the expected RFO for the premises to be passed;
- (c) the Eircode of each expected premises;
- (d) identities of the DPs from which the premises are expected to be served; and
- (e) in respect of each entry, the date it was first included and the date it was last amended.

9.185 Furthermore, ComReg proposes to require that in order to ensure that the Order of Magnitude File is kept up to date, Eircom does the following:

- (a) Remove entries to the Order of Magnitude File from the time that they are assigned an actual RFO and included in Eircom's Advanced PreQual File and in any event prior to publication of the next iteration of the file; and
- (b) Remove entries to the Order of Magnitude File that are older than 12 months and which Eircom does not plan to pass within three months prior to publication of the next iteration of the file.

#### **Advanced PreQual File**

9.186 ComReg proposes to require Eircom to make available 28 calendar days in advance of the actual RFO the following information in relation to premises passed by NGA by way of an Advanced PreQual File issued weekly:

- (a) The RFO for each premises;

- (b) The EA for each premises;
  - (c) List of all premises, as uniquely identified, that are capable of receiving FTTC and the associated Pre-Qualification Value for each such line/premises;
  - (d) List of all premises passed by FTTP categorised by the EA showing the MPoP for each address and the identity of the fibre DP to which each premises is indexed;
  - (e) where available and in all cases for FTTP, the Eircode of each premises that is passed and whether or not the premises is connected.
- 9.187 In order to enhance the accuracy and usefulness of the Advanced PreQual File, ComReg also proposes to require that Eircom may only add addresses that have been passed by FTTP by way of 9.186. Premises passed are those premises for which:
- (a) the DP installation has been completed so that the DP is ready for the drop cable to the premises to be installed; and
  - (b) testing has been carried out by Eircom to verify light is being transmitted between the port on the installed DP and serving OLT.

### Key Performance Indicators

- 9.188 Regulation 51(5) of the ECC Regulations provides that where an undertaking has obligations concerning wholesale access to network infrastructure, NRAs shall ensure that KPIs are specified where relevant, as well as corresponding service levels, and closely monitor and ensure compliance with them. While for the time being ComReg does not propose to intervene by way of setting applicable service levels and proposes to leave levels of service for negotiation between Eircom and Access Seekers, ComReg does reserve the right to intervene in accordance with the requirements of Regulation 51 of the ECC Regulations where SLAs prove inadequate in ensuring an appropriate level of service.
- 9.189 However, ComReg proposes to continue to require Eircom to publish Key Performance Indicators ('KPI's) on its publicly available wholesale website. ComReg proposes to specify further this obligation for the time being by reference to the requirements set out in ComReg Decision D04/22.<sup>630</sup>

### Performance with respect to Service Level Agreements

- 9.190 ComReg proposes that Eircom shall publish, on a quarterly basis, a Performance Metric Report setting out, by reference to the service levels the

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<sup>630</sup> Key Performance Indicator (KPI) Metrics, Decision D04/22, ComReg reference 22/49, published 29 June 2022.

subject of SLAs, the actual service levels achieved in each of the three previous months in respect of all operators on an aggregate basis. This Performance Metric Report should include at a minimum the following parameters:

- (a) the name and relevant identifiers of the service metrics that will allow Access Seekers to identify the specific activities and processes, along with associated process times, for the products being reported on; and
- (b) the performance targets and actual performance achieved for each activity.

9.191 ComReg proposes further that the report details the methodology and the source data used to determine the actual performance achieved. It should also describe how the source data was processed by Eircom and include worked examples as to how the processed source data relates to the actual performance achieved.

### 9.3.4 Price Control and Cost Accounting Remedies

#### Overview

9.192 In this sub-section ComReg set out its proposals with regards to the pricing remedies that should apply in the Commercial NG WLA Market in order to address the competition problems identified in Section 8. ComReg has considered recommendations from Oxera, ComReg's expert economic advisor, and where relevant, ComReg references the report ('**Oxera Part 1 Report**') prepared by Oxera. The Oxera Part 1 Report is included at Annex 11 to this Consultation.

9.193 This remainder of this section is structured as follows:

- (a) Objectives of the price control, the competition problems the proposed price controls will address and a summary of ComReg's proposals;
- (b) Options for price controls - the various forms of price control;
- (c) The services ComReg is proposing price controls for and why;
- (d) Other regulatory measures - which sets out ComReg's proposals related to price change notifications and wholesale promotions and discounts from Eircom;
- (e) Proposals in respect of cost accounting remedies; and
- (f) Proposals in respect of accounting separation remedies.

#### Objectives of the price control

9.194 Having regard to the competition problems identified in the market analysis as set out in Section 8, the purpose of the price control obligation is to:

- (a) Incentivise efficient network investment by Eircom and other operators;
- (b) Ensure that Eircom cannot price excessively;
- (c) Ensure Eircom cannot foreclose other operators from the market; and
- (d) Ensure Eircom recovers its actual efficient investment together with an appropriate rate of return,

bearing in mind the objectives set out in Article 3 of the EECC<sup>631</sup> namely:

- (a) promoting connectivity and access to, and take-up of, very high capacity networks;
- (b) promoting competition in the provision of electronic communications networks and associated facilities;
- (c) contributing to the development of the internal market by removing remaining obstacles to, and facilitating convergent conditions for, investment in, and the provision of, electronic communications networks, electronic communications services, associated facilities and associated services throughout the Union; and
- (d) promote the interests of the citizens of the Union, by ensuring connectivity and the widespread availability and take-up of very high capacity networks.

9.195 ComReg's strategy statement for 2021 - 2023<sup>632</sup> sets out ComReg's aims when making pricing decisions so as to strike a balance between:

- (a) Encouraging investment in VHCN by the network operators. It is important that regulated access prices are not set so low that investment that would otherwise be commercially viable is choked off;
- (b) Encouraging viable investment in own infrastructure by those who purchase access from other networks, particularly those who use regulated access to Eircom's network;
- (c) Ensuring that regulated prices reflect efficient practice and that excessive recovery by the SMP operator does not happen;
- (d) Ensuring that wholesale prices do not lead to price squeezes;
- (e) Wholesale prices do not lead to excessive end user prices; and

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<sup>631</sup> Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code.

<sup>632</sup> Paragraph 4.45 of ComReg's Strategy Statement 2021 – 2023. Available at: <https://www.comreg.ie/media/2021/12/ComReg-ECS-Strategy-Statement-English-Dec-7-Final-Web.pdf>

- (f) Wholesale prices ensure a timely and efficient migration to new infrastructure over time.
- 9.196 Regulation 13 (3) of the Access Regulations 2011 (Regulation 56(5) of the ECC Regulations) also requires that ComReg:
- “... ensure that any cost recovery mechanism or pricing methodology that it imposes under this Regulation serves to promote efficiency and sustainable competition and maximise consumer benefits.”*
- 9.197 In identifying the appropriate price control against this background, ComReg considers that any price control imposed needs to strike a balance between three forms of efficiency, which are:
- (a) allocative efficiency: where prices of different products result in an optimum allocation of resources to end users;
  - (b) productive efficiency: where the cost of producing the products is minimised; and
  - (c) dynamic efficiency: this refers to the efficiency of investor and end user behaviour over time.
- 9.198 Allocative and productive efficiency are static concepts taking into account the level of costs to deliver products at a particular point in time, whereas dynamic efficiency takes account of improvements in efficiency over time as innovation and new investments enables new/improved technology/services to be provided at lower cost.
- 9.199 In ComReg’s view, end users are best served over the medium to long term where competition is dynamically efficient as well as allocatively efficient. This is best achieved where competition is based on the deepest level of investment in infrastructure which is economically viable. Control over their own infrastructure means that competing operators can more easily make their own technological choices, manage their own service portfolios and control their efficiency levels as compared to placing reliance on the SMP operator’s wholesale product portfolio. This is because SPs offer greater differentiation in services and products which are based on their own infrastructure, and where their reliance on the SMP operator’s wholesale infrastructure is reduced.
- 9.200 Promoting dynamic efficiency also involves setting the correct “build/buy” price signal to help inform efficient investment decisions. This means not setting wholesale access prices so low that the operator would rent access even though it could have viably invested in its own infrastructure. Conversely prices should not be set so high that the operator is effectively priced out of the market at the retail level (because it cannot trade profitably at prevailing retail price levels) or that the SMP player makes excessive returns.



- 9.201 There is a tension between the short-term benefits of lower prices for consumers and the need to encourage investment by Eircom and other operators which may imply somewhat higher prices, at least in the short term. ComReg's preference over the longer term is to achieve an outcome whereby the market is effectively competitive which would allow these decisions to be made by market players themselves together with their investors rather than by regulation. However, ComReg's view is that given the proposed finding of SMP it is not yet possible to leave these choices to the market and regulatory intervention is still required.
- 9.202 In light of the proposed designation of Eircom with SMP, and the potential competition problems of excessive pricing, price discrimination, exclusionary behaviours, and leveraging as discussed in detail in Section 8 ComReg considers that forbearance as regards a price control is not an appropriate option at this time as the risk of excessive pricing, exclusionary pricing (for example by way of a margin squeeze) or discriminatory pricing is too great.

### Forms of price control

- 9.203 In addressing the pricing related competition problems, a range of price control options are available to ComReg including benchmarking, retail minus, Margin Squeeze Test ('**MST**'), and cost orientation.
- 9.204 ComReg expects that ultimately all electronic communications services will migrate from legacy copper and cable networks onto VHCNs. ComReg's approach strives to strike a balance during the transition period between at times conflicting objectives including ensuring cost recovery (e.g. of the legacy copper network), consumer protection (e.g. promoting service choice and innovation, supporting a timely and efficient migration, and protecting from excessive prices) and supporting investors in deploying fibre (e.g. sending appropriate 'build-or-buy' signals so as not to deter efficient investments while avoiding potential inefficient investment in those areas with little scope for competitive entry).
- 9.205 In assessing the impact on stakeholders and choosing the form of the price control, in accordance with ComReg's objectives and statutory obligations and its Strategy Statement, where there is scope for competing investment, ComReg gives priority to considerations of dynamic efficiency in order to promote the deployment of VHCNs, including viable investment by new entrants.
- 9.206 Against this background, neither benchmarking nor retail minus appear appropriate forms of price control.

- 9.207 Benchmarking is a form of control whereby regulated prices for wholesale access services are set with reference to the prices of comparable services, including, potentially, comparable services in other countries. It can be used, for example, where there is an absence of sufficient cost data. A risk with this approach is that the benchmark does not reflect the conditions actually faced by the SMP operator. This is because different service providers, and especially providers in different jurisdictions face different topographic, demographic or cost factors to those in Ireland. These could include different network typologies, terrain, population density or labour costs. Correcting for such differences can be complex and overly subjective, and often infeasible. As a consequence, this approach does not ensure that correct investment signals are provided.
- 9.208 In a retail-minus price control the price of the wholesale service is derived from the associated downstream retail price, based on the proportion of avoidable retail and other downstream costs the Access Seeker reliant on the SMP SP's wholesale input would need to incur to effectively replicate its retail price.
- 9.209 A retail-minus price control provides the SMP operator with the flexibility to experiment with different retail and wholesale price points thereby facilitating its understanding of end user demand relative to price which can help inform its own investment plans. However, the wholesale price may not align with the efficient costs of the SMP operator. There is also the risk of increased uncertainty for Access Seekers. It also requires a one to one relationship between a retail and a wholesale service. This is not always possible. The approach can also be inflexible in that industry players will always know what the differential between retail and wholesale prices is going to be, thereby reducing the effectiveness of price-based competition in retail markets.
- 9.210 ComReg is of the view that continuing in general terms with the current price flexibility combined with a MST for FTTH VUA rental, while applying a price cap of 'CPI-0' annually to the currently cost oriented FTTC VUA prices post 30 June 2024 is appropriate.

### Margin squeeze test

- 9.211 For Access Seekers reliant on the wholesale inputs of a vertically integrated SMP SP to compete in downstream markets, a margin squeeze can occur when the SMP SP sets upstream wholesale prices high enough and/or downstream prices low enough, such that Access Seekers are unable to cover their downstream costs (e.g. sales, marketing, etc.). A margin squeeze test ('MST') aims to ensure that sufficient margin is available to Access Seekers to prevent foreclosure in downstream markets, that is, that the "gap" is sufficiently large to permit a user of an access service to trade profitably as compared to the SMP operator's own downstream prices.

9.212 An MST, however, will not address the risk that the SMP operator could set prices at an excessive level to the detriment of end users and conversely, that it may set prices so low that competing platforms are unable to compete. This latter is a particular risk where such competing platforms do not enjoy the same economies of scale as the incumbent or their entry into the market or roll out of new technology is relatively nascent. ComReg is of the view that both of these factors are an issue at this time in the Irish market, and therefore, an MST will not be sufficient on its own and should be accompanied by some form of cost orientation obligation in respect of FTTC VUA.

### Cost orientation

9.213 A cost-orientation price control obligation requires that prices are based on the cost of providing the services ensuring in principle that only efficient costs are recovered. It can also constrain the SMP operator from making excessive returns on its wholesale services and ensures that consumers are not at risk of facing excessive prices. If the appropriate cost methodology is used it can also set correct investment and build/buy signals. Setting wholesale access prices using cost orientation helps ensure greater predictability of access price levels for Access Seekers, thereby allowing them to make investment decisions and develop business plans with a greater degree of confidence. It also prevents the foreclosure of competing networks.

9.214 Cost orientation may be used to support the prospect for viable network investment by Access Seekers by using a current cost accounting ('CCA') approach to model cost oriented prices, thereby prioritising dynamic efficiency by setting prices that can better inform build or buy decisions. The CCA approach values assets at the current market value and reflects evolving changes in asset prices. This approach can be implemented to reflect the costs that a hypothetical entrant would incur when investing at any particular point in a Modern Equivalent Asset ('MEA'). A CCA approach can be combined with the use of a Bottom-Up ('BU') model, which can be developed to reflect the choices of a hypothetical efficient operator ('HEO') from both a technical and an operational point of view. A BU model is a data intensive process of dimensioning the network assets to meet an assumed level of demand, as if the network were being built (either as it stands, or with improvements to the topology). Such a cost model aims at promoting efficient entry, since such a cost model can consider how a network would be built today using modern technology by a reasonably efficient operator. Such an approach, by linking the value of the assets to a newly deployed network, promotes efficient investment incentives. ComReg has to date used BU CCA-based models to inform the prices of FTTC.

- 9.215 In contrast, a cost model that is based on the costs on the incumbent's TD HCA Separated Accounts is less suited to informing build or buy decisions as it might not produce outputs that are consistent with the costs of deploying network assets today. For example, copper networks are long established with the result that many copper cable assets may be fully depreciated but still in use. Consequently, a TD HCA approach is suitable where efficient cost recovery by the incumbent operator is prioritised over the need to inform efficient build-buy decisions for network entrants. This will be the case where there is little prospect for viable network competition in respect of a particular service or geographic area.
- 9.216 The principal drawback to cost orientation, especially in the form of fixed prices underpinned by detailed cost modelling, is that it may be too inflexible where new networks are being rolled out or where there is uncertainty about future demand volumes or cost levels. This is a material concern in the case of FTTH at this time.
- 9.217 Rather than cost modelling an alternative is to use a price cap. Price cap regulation is sometimes called **CPI – X**, after the basic formula employed to set price caps.
- 9.218 A CPI-X price cap can be used to set a limit on the extent that prices are allowed to increase over the period of the price control. This rate of change is derived with reference to the rate of inflation, measured by the Consumer Price Index ('CPI'), adjusted for expected efficiency gains that can reasonably be achieved by the regulated operator. The 'X' in the 'CPI-X' formula is intended to capture the difference between the level of efficiency that is reflected in current prices and the level of efficiency that could reasonably be achieved by the end of the price control period after allowing for inflation in input costs and the reasonable gains in productivity that can be achieved by the regulated entity.
- 9.219 While a price cap approach does not necessarily rely on the outputs of a cost model to determine the specific price level that should apply in each year of the price control period, a cost model may be used to inform the appropriate value of 'X' to include in the 'CPI-X' formula. For example, if the cost modelling indicates that the existing operator is relatively inefficient when compared to the target level of efficiency in that industry, a relatively high 'X' value would be included. However, if the current prices are already consistent with an efficient level of operation, as they would be if the current prices are derived with respect to a model of a HEO, then an 'X' value at zero or close to zero could be appropriate.
- 9.220 In light of the above ComReg proposes the following:

- (a) To allow FTTH VUA rental continue to be priced on a flexible basis as FTTH roll out is still ongoing. Eircom will be free to set FTTH VUA rental prices as it chooses but subject to an MST to mitigate the risk of margin squeeze, leverage and foreclosure, and also subject to a price floor to mitigate the risk to competing networks of excessively low prices
  - (b) To apply a price cap of 'CPI-0' to the currently cost oriented FTTC VUA prices post 30 June 2024. This approach, referred to as "pricing continuity",<sup>633</sup> allows for changes to underlying costs to be reflected in prices while mitigating the risk to end users of excessive prices, both directly for FTTC and indirectly for FTTH
- 9.221 ComReg proposes no MST for FTTC on the basis that FTTC VUA prices are capped and the incentive to foreclose competition by way of a margin squeeze through retail price cuts is low.
- 9.222 Other price controls in the form of cost orientation obligations in relation to ancillary facilities and services in the WLA Market (for example, FTTH connection and migration charges) are also proposed.

### Proposed Price Control Obligations

- 9.223 In this section ComReg sets out the proposed price control obligations to be imposed to address the potential for competitive harms to arise from excessive pricing of:
- (a) FTTH VUA Rental (paragraphs 9.224 to 9.241);
  - (b) FTTC VUA Rental (paragraphs 9.242 to 9.266);
  - (c) Emulated FTTC-like service on the FTTH network paragraphs 9.267 to 9.279);
  - (d) Ancillary facilities and services in the WLA Market (e.g. FTTH connections and migrations, Interconnection Services, etc.) (paragraphs 9.280 to 9.321).

### FTTH VUA Rental

- 9.224 ComReg proposes to continue in place its policy of allowing pricing flexibility to Eircom in respect of FTTH, and in particular, proposes not to impose an obligation of cost orientation as regards FTTH. In 2018 ComReg allowed Eircom pricing flexibility in respect of FTTH-based VUA, subject to the obligation not to cause a margin squeeze. ComReg considered that, given the prevailing cost and demand uncertainties evident at that time, FTTH prices,

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<sup>633</sup> 'Pricing continuity' is a pricing approach whereby the proposed price is set by reference to an existing modelled price. ComReg considers that pricing continuity warrants particular consideration at this time, in light of the transition off copper (onto fibre) and ComReg's statutory objectives and obligations.

set with reference to a BU-LRAIC+ cost model, were likely to be very sensitive to the penetration rate of FTTH, such that an incorrect forecast of penetration rates could distort future FTTH investment incentives. It was considered that cost orientation may result in too high prices deterring actual or potential purchasers of FTTH from purchasing FTTH, or in too low prices reducing or deterring investment by Eircom or other infrastructure investors in FTTH.

9.225 The Oxera Part 1 Report notes that allowing pricing flexibility on FTTH, as ComReg permitted in 2018 is:

*“consistent with sound economic principles in favour of pricing freedom, particularly during the early stages of FTTH roll-out, including:*

- *operators investing in these networks may face a number of risks (due to demand, cost and regulatory uncertainty);*
- *in this case, it may be appropriate for regulators to allow for a period of pricing flexibility. Such pricing flexibility may enable operators investing in NGA networks to test price points and wait for the period of demand and cost uncertainty to play out;*
- *not imposing strict price controls in the early stages of roll out will also allow a period for clarity on the impact of (or emergence of) competition from alternative technologies and any pricing constraints caused by other elements of the regulatory regime itself, such as anchor pricing or copper services regulation;*
- *in this regard, pricing flexibility could support regulatory objectives with respect to fostering investment in VHCNs;*
- *in contrast, early regulation of FTTH through price caps that may be set at the ‘wrong’ level (at a level that significantly reduces the expected returns on the investment below the WACC) can undermine the investment incentives for FTTH.”<sup>634</sup>*

9.226 The policy of pricing flexibility for FTTH meant that there has been no direct price control on FTTH services to mitigate against the risk of excessive prices. However, ComReg considered that the risk of excessive prices for FTTH services was sufficiently mitigated by cost oriented FTTC prices acting as “an anchor” providing an indirect retail pricing constraint on FTTH, on the basis that FTTC and FTTH services are part of the same relevant market. This means that any attempts by Eircom to increase FTTH VUA prices would have been constrained by the availability of an alternative lower-speed FTTC

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<sup>634</sup> Paragraph 4.19 of the Oxera Part 1 Report.

service, with the result that the cost controlled FTTC price acted as an anchor for FTTH prices.<sup>635</sup>

- 9.227 ComReg's approach to the price control for FTTH also sought to protect through MSTs downstream competition from the potential leverage of SMP from the wholesale market into the downstream wholesale and/or retail markets. This was achieved through an MST requiring that Eircom's retail offers were replicable on the basis of the applicable FTTH VUA price and an MST between the price for FTTH VUA and FTTH Bitstream so as to avoid the risk that the pricing flexibility for FTTH services by Eircom could not be used to undermine Access Seekers who had built out into the network.
- 9.228 This pricing flexibility for FTTH services that ComReg adopted in the 2018 Pricing Decision was also consistent with the 2013 EC Recommendation,<sup>636</sup> which advocates pricing flexibility for NGA products where sufficient competitive safeguards are in place (non-discrimination, economic replicability test, pricing constraints from the regulated legacy product e.g. the so called 'copper anchor') or alternative networks retail constraint.<sup>637</sup>
- 9.229 ComReg's approach to price regulation of FTTH was intended to support network investment and the success of this approach is evidenced by the increased deployment of FTTH networks by commercial operators in recent years and the consequent level of take-up of FTTH services by consumers, as indicated by recent market statistics and developments:
- (a) FTTH retail subscriptions, continue to grow and as at Q2 2022 stood at circa 430k, an increase of 377% since 2018.
  - (b) Eircom, SIRO and NBI provide wholesale FTTH services, and Virgin Media recently announced it will do so.<sup>638</sup>
- 9.230 As further FTTH deployments occur (e.g., Eircom's IFN<sup>639</sup>), migration from copper to fibre is likely to continue and will accelerate when copper switch off occurs, which is expected to begin towards the end of this price control.

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<sup>635</sup> For further details see paragraphs 6.60 and 6.131 in the 2018 Pricing Decision, as well as A3.11 to A3.18 of the 2018 Market Review Decision.

<sup>636</sup> COMMISSION RECOMMENDATION of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (2013/466/EU)

<sup>637</sup> The 2013 EC Recommendation, recitals 49-69.

<sup>638</sup> <https://www.virginmedia.ie/about-us/press/2022/virgin-media-announces-wholesale-deal-with-vodafone-ireland/>

<sup>639</sup> Eircom plans to overbuild all of its FTTC network with FTTH so that it will ultimately pass a total of 1.9 million premises by 2026.

- 9.231 Notwithstanding this progress, the fact that commercial FTTH deployment is expected to continue for a number of years (Eircom and SIRO have still to complete a significant proportion of their planned FTTH footprints, while Virgin Media has still to commence its GPON-based FTTH deployment) indicates that significant risks (e.g. increasing infrastructure competition could impact both the level and speed of take up of Eircom's FTTH service) may still remain for investors in commercial FTTH networks. This in turn means that there is a continuing need to ensure that ComReg's pricing approach is consistent with ComReg's aims, particularly the need to support dynamic efficiency by encouraging viable network investment in competing infrastructures.
- 9.232 It is against this background that ComReg considers whether the most appropriate pricing approach for this review period remains pricing flexibility on FTTH VUA, or whether a more restrictive price control in respect of FTTH is now warranted. Oxera Part 1 Report notes that ComReg must be mindful that any pricing option chosen for FTTH should *"give due regard to the consideration of downside risks of an investment in FTTH and consider the allowable returns over the lifetime of an investment"*,<sup>640</sup> while also recognising that *"strict cost-based price caps should be considered only once the major risks have crystallised, and Eircom continues to have SMP"*.<sup>641</sup>
- 9.233 Despite ComReg having access to more information on the demand for FTTH-based VUA services and FTTH deployment costs than at the time of the last market review, there is still significant uncertainty in respect of forecasting FTTH-based VUA volumes and costs across the price control and beyond, as the deployment of FTTH networks is incomplete and will continue for the duration of this review period. This uncertainty is further compounded by potential long term price distortions brought about by recent events, such as Covid related supply chain constraints and disruptions to energy supplies. Consequently, there is a risk that basing cost oriented prices on the outputs of a BU cost model that is populated with incorrect forecasts could affect future market developments by setting FTTH VUA prices at levels that distort investment decisions.
- 9.234 In light of this and given the level of uncertainty that persists in respect of future input prices and demand levels during this period of network transition and economic turbulence, ComReg proposes to continue permitting pricing flexibility for FTTH VUA subject to maintaining a pricing anchor based on a regulated FTTC VUA price. Such an approach provides investors in FTTH VUA with the possibility of earning a return from their investments by not

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<sup>640</sup> Paragraph 4.26 of the Oxera Part 1 Report.

<sup>641</sup> Paragraph 4.28 of the Oxera Part 1 Report.



directly capping FTTH VUA prices while investment risk and uncertainty over the speed of transition to FTTH VUA remains.

9.235 While no direct price control is therefore proposed for FTTH VUA, ComReg considers that the risk of excessive pricing, as identified in Section 6 is nevertheless appropriately addressed by the constraint arising from price controlled FTTC VUA (which continues to be a substitutable product for lower bandwidth FTTH). In addition, pricing flexibility for FTTH supports dynamic efficiency which may enable a competitive constraint to emerge in future due to the increased availability of alternative FTTH services from rival platforms.

9.236 The proposal to maintain pricing flexibility for FTTH VUA is also subject to maintaining an obligation not to margin squeeze and the application of an “Economic Replicability Test”), which is discussed in detail below (paragraphs 9.379 to 9.600). This is consistent with recital 50 of the 2013 Recommendation, which set outs that

*“(...) to prevent such pricing flexibility leading to excessive prices in markets where SMP has been found, it should be accompanied by additional safeguards to protect competition. To this end, the stricter non-discrimination obligation, i.e., EoI and technical replicability, should be complemented by guaranteed economic replicability of downstream products in conjunction with price regulation of copper wholesale access products.”*

9.237 Similar views are provided in the Oxera Part 1 Report, which notes that

*“the anchor pricing approach will strike the most appropriate balance between:*

- offering protection to customers from the risk of excessive prices (due to the fact that FTTC and FTTH services are in the same market and will be substitutable, and hence will act as a constraint on the pricing of FTTH services), and*
- providing investors in FTTH networks with an opportunity to earn fair returns by not directly capping FTTH prices too early, which could undermine the investment incentives, especially if there remains uncertainty over the speed of transition from FTTC to FTTH.”*<sup>642</sup>

9.238 Therefore, ComReg considers that continuing to provide Eircom with pricing flexibility for FTTH VUA is the most appropriate approach to adopt for this review period, as the risk to do otherwise appears unacceptable at this time, especially considering that FTTH deployment is still ongoing and any decisions that risk undermining viable investment decisions could have implications that continue to distort the competitive environment beyond the

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<sup>642</sup> Paragraph 4.106 of the Oxera Part 1 Report.

time horizon of this review period.

- 9.239 This is supported by the EECC. In particular recital 193, which states that “*it is important in order to promote efficient investment and innovation to allow those operators investing in new or upgraded networks a certain degree of pricing flexibility*”. Further, recital 193 acknowledges that it is for NRAs “*to decide to maintain or not to impose regulated wholesale access prices on next-generation networks if sufficient competition safeguards are present*” and that in markets where there is SMP, “*flexibility should be accompanied by additional safeguards to protect competition and end user interests*” including non-discrimination obligations and measures to ensure the technical and economic replicability of downstream products, and a demonstrable retail price constraint from infrastructure competition or an anchor price product).
- 9.240 Notwithstanding ComReg’s proposal to continue with pricing flexibility for FTTH VUA, ComReg considers that, even in the absence of a need to set cost oriented prices, there are still potential benefits to be gained from developing a suitable FTTH cost model, as it can provide information that can help support ComReg in ensuring that outcomes are consistent with its general objectives. Consequently, ComReg, with the assistance of advisers Axon Partners, has commenced the development of a BU-LRAIC+ network cost model to assess the costs of a FTTH passed premises network.<sup>643</sup>
- 9.241 In that model, costs and demand are modelled on the basis of a HEO with Eircom’s market share and network footprint. As a result, it can only offer limited guidance as to cost and demand characteristics of the other commercial operators that are deploying FTTH networks in Ireland. Adding to this, ComReg is mindful that uncertainty in respect of FTTH demand and costs is likely to persist over the market review period, which increases the risk of modelling inaccuracies. This uncertainty is further compounded by the general economic outlook and recent inflation surges. Therefore, while ComReg will continue to develop the FTTH network cost model, it does so with the understanding that pricing flexibility continues to be the most appropriate option for FTTH VUA pricing for the duration of this review period.

### FTTC VUA Rental

- 9.242 The pricing flexibility approach to FTTH VUA pricing is predicated on a price controlled FTTC VUA service acting as an anchor price to constrain the risk of excessive prices for FTTH VUA.

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<sup>643</sup> For this purpose ComReg, with assistance of its advisers Axon, pursuant to ComReg’s information gathering powers under Section 13D(1) of the Act, requested from operators a suite of cost and volume data. ComReg also hosted an initial workshop on the FTTH cost model with operators on 25 May 2022 (workshop meeting minutes and presentation materials are available upon request).

- 9.243 The price control for FTTC VUA is currently in the form of an obligation of cost orientation with costs being the BU-LRAIC+ costs of those assets that cannot be reused for NGA services (Non-reusable Assets) and the costs in Eircom's Indexed RAB for those assets that can be reused for NGA services (Reusable Assets).
- 9.244 In the 2018 WLA/WCA Market Review Decision ComReg considered that the imposition of cost orientation for FTTC services was proportionate and justified based on a number of reasons including: the stabilisation of FTTC demand and costs, previous price increases by Eircom providing evidence that FTTC prices were not effectively constrained, and to give greater certainty to market participants in respect of the prices being set when compared with the level of certainty that would be available under an MST approach.<sup>644</sup> ComReg considered that the imposition of cost orientation was appropriate to encourage infrastructure investment while ensuring that prices for Access Seekers were reasonable, and that the use of the BU-LRAIC+ costing methodology would strike the right balance between preventing excessive prices and informing the correct 'build-or-buy' signals based on an 'anchor technology' approach.<sup>645</sup>
- 9.245 FTTC continues to be the most widely available broadband technology on Eircom's network and ComReg is of the view that applying a 'CPI-0' price cap to the currently cost oriented FTTC VUA prices is appropriate for the period of this market review. In particular, the absence of cost oriented price controls on alternative broadband services such as CGA or FTTH, means they are not expected to provide a retail pricing constraint on FTTC VUA prices. There is also insufficient competition from rival network operators to impose a constraint at the wholesale level. In light of this, only cost based FTTC VUA prices might adequately restrict Eircom's ability to exploit its SMP in the Commercial NG WLA market to make excessive returns on its wholesale services and in turn protect consumers from potential excessive FTTC pricing emerging at the retail level. Cost orientation also preserves the ability of FTTC VUA to remain an anchor price that can safeguard against excessive prices for Eircom's FTTH VUA services, while continuing to inform the build or buy decisions for network operators.
- 9.246 To inform the cost oriented prices for FTTC-based services up to June 2024 ComReg has relied on three related cost models:

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<sup>644</sup> Paragraph 7.1230 of the 2018 Decision.

<sup>645</sup> The anchor technology approach to setting NGA prices is one whereby the prices being set act as a reference point to anchor the investment decisions of commercial operators deploying NGA networks in Ireland.

- (a) The ANM, described in the 2021 ANM Decision, estimates the costs of all links between the local exchange and the customer premises, including LLU (the full copper loop from the local exchange to the customer's premises), SLU (the sub-loop from the FTTC cabinet to the customer's premises) and the NGA Link (the fibre connection between the FTTC cabinet and the local exchange);<sup>646</sup>
- (b) The NGN Core Model models the costs of the fibre link between the local exchange and the aggregation node for FTTC VUA, as well as the core backhaul costs between this aggregation node and the handover point for FTTC Bitstream; and
- (c) The NGA Cost Model derives the costs of the FTTC specific assets such as DSLAMs, FTTC cabinets and FTTC connections<sup>647</sup> as well as the associated planning and operating costs and combines these with the relevant outputs from the ANM and NGN Core models to derive the prices for FTTC VUA and FTTC Bitstream services.

9.247 These cost models primarily use a BU costing approach to derive the current costs of providing FTTC-based services predicated on the assumption that the HEO will continue to use FTTC in the provision of NGA broadband services for the duration of the price control period and beyond. The use of bottom-up cost models was intended to set appropriate 'build-or-buy' signals for investment and to therefore support ComReg's objective to prioritise dynamic efficiency gains over productive or allocative efficiency concerns and, in particular, to encourage new entrants in those areas where network competition is viable. This approach is also consistent with the 2013 EC Recommendation.

9.248 ComReg proposes to rely on the current outputs from the existing cost models as the starting point for the setting of future prices for FTTC VUA rental, without any material updates. This is because, for the reasons set out below, ComReg is of the view that, in this transition period, any benefit of undertaking updates of the existing Bottom Up cost models are outweighed by the risk of potential errors leading to prices that over-estimate or under-estimate the appropriate level of wholesale prices in the future and that developing an alternative RAB-WACC cost model is not appropriate as it would not be

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<sup>646</sup> The ANM model from the 2021 ANM Decision replaced the Revised CAM which was the source of the LLU, and SLU inputs used in the 2018 Pricing Decision.

<sup>647</sup> FTTC connections include activities that are specific to FTTC, such as connecting circuits at the cabinet and MDF and installing the NTU in the customer's premises. It does not include activities that are related to the provision of the local copper loop, such as work on the service lead/drop wire, as these costs are modelled separately as part of the SLU/LLU copper loop costs.

consistent with ComReg's objectives related to promoting dynamic efficiency and investment in VHCN.

- 9.249 First, existing models are based on the costs and service volumes of a HEO that is assumed to operate a steady state copper-based FTTC network. As such, it is not necessary to undertake regular updates of the cost and demand parameters in the BU models to the same extent that it would be if they were based on the costs and service volumes that are reported in Eircom's TD accounts.<sup>648</sup>
- 9.250 Second, it is also the case that significant practical difficulties with obtaining the cost data for many of the assets that are used in the BU model are starting to emerge. The BU costing approach used in the models is predicated on the assumption that the modelled HEO is continuing to invest in copper cables and FTTC equipment. However, as copper networks are continuing to be replaced by fibre networks, investment in copper related assets has declined to an extent that there is no longer any demand at scale for these assets. As a consequence, it is becoming increasingly difficult to source reliable cost data to inform possible updates of key copper-specific components of the BU models. Even obtaining data for non-copper specific components has been complicated by recent events, e.g., it is unclear to what extent recent increases in power costs are the result of short-term supply issues or indicative of more long-term price trends.
- 9.251 Third, the demand assumptions in the BU cost models are premised on the assumption that the HEO continues to rely on FTTC to provide broadband services. However, the number of broadband services that are provided over FTTC has recently started to decline, with the result that FTTC is not expected to be the dominant broadband technology on Eircom's network in a number of years. Currently, Eircom remains the only wholesale provider of FTTC and FTTC subscriptions peaked on the Eircom network in 2020. Further, Eircom's ongoing overlay of FTTC by FTTH could see FTTH emerging as the dominant broadband technology on its network by 2025. Nonetheless, updating the BU cost models to reflect these recent demand trends would jeopardise regulatory consistency and require abandoning the existing BU costing approach as an HEO would not deploy a new copper network in parallel with a fibre network, only to then cannibalise the demand on that new copper network.
- 9.252 In fact, in order that the cost model reflects actual FTTC and FTTH service volumes on Eircom's network, the modelled costs would need to be based on Eircom's Top Down costs. This in effect would require the development of a

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<sup>648</sup> For example, the HEO is assumed to continue to invest in and maintain a copper based FTTC network, while the majority of network investment in Eircom's TD accounts will be fibre related.

new cost model using a regulatory asset base ('**RAB**') approach that would be focused on ensuring Eircom would make a reasonable level of return (the appropriate WACC rate) on all of its efficiently incurred expenditure, over the lifetime of the network.

- 9.253 Such a top-down RAB-WACC model would involve pooling all of Eircom's NGA assets into one regulated asset base and estimating the allowed revenues that can be earned based on the regulated WACC.<sup>649</sup> Such an approach, which would use Eircom's actual capital expenditure (Capex) and operating expenditure (Opex), would reduce the risk of inaccurate costs compared to a BU-based approach, as all of the historical cost and demand information could be derived from Eircom's TD HCA accounts.
- 9.254 It is also the case that a RAB-WACC approach that is designed to include both FTTC and FTTH assets could allow the incumbent operator to recover some of the costs of its FTTH investment from FTTC services and may therefore encourage it to speed up FTTH investment and allow it to better manage the adoption of FTTH services.<sup>650</sup> This is the approach that the UK NRA, Ofcom, has recently adopted to cost NGA services in that part of the UK where it determined there was no prospect for future infrastructure competition.<sup>651</sup>
- 9.255 However, the risk of modelling inaccuracies would not be eliminated as future expenditure and demand would still have to be based on estimates, albeit they could possibly be linked to Eircom's budget plans. Even if the issues and risk of error associated with forecasting the future levels of demand and costs that are necessary to ensure overall cost recovery over the lifetime of the network could be overcome, there would remain significant practical challenges in implementing a RAB-WACC approach. In particular it would require significant informational and modelling demands to ensure the asset register accurately captures past expenditure, keeping it up to date with ongoing Capex, monitoring that revenues earned by Eircom are in line with the allowed revenues of the RAB-WACC model and taking remedial action when that is not the case. For example, to better ensure cost recovery, the RAB-WACC model might need to consider the extent that the costs of some network assets

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<sup>649</sup> ComReg adopted a RAB approach for CEI assets (ducts and poles) but not for NGA specific assets. This means in setting FTTC prices in the 2021 ANM Decision (and previously in the 2018 Pricing Decision), the costs of making the pole and duct network fully NGA ready were set to be recovered from the combined modelled FTTC and FTTH volumes.

<sup>650</sup> Both the Revised CAM and the ANM cost models adopted a RAB approach for ducts and poles that meant that some of the investments in renewing ducts and poles for an NGA Ready network could be recovered from FTTC VUA prices, even if the investment was ultimately undertaken to support an FTTH deployment.

<sup>651</sup> Ofcom (2021), 'Promoting competition and investment in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26: Volume 4: Pricing remedies', para 2.25, p. 44.

- were over- or under-recovered in the past<sup>652</sup> as well as the potential terminal value of some copper assets that might be realisable after copper switch off.
- 9.256 Furthermore, Top Down models are typically best suited to situations where the regulated assets have natural monopoly characteristics and hence, where no or very limited competition is expected. While ComReg does not expect that there is a prospect for significant competition in respect of Eircom's duct and pole assets, this is not the case for all NGA assets and Eircom is currently facing or expected to face competition in the provision of NGA services in some areas of the Commercial NG WLA market from SIRO and Virgin Media. Consequently, switching to a RAB-WACC approach for all NGA assets would not be consistent with ComReg's objective to promote dynamic efficiency by encouraging the development of network competition where and when viable.
- 9.257 Therefore, ComReg is of the view that, in this transition period, developing an alternative RAB-WACC cost model is not appropriate and, furthermore, that any potential benefits from undertaking updates of the existing Bottom Up cost models are outweighed by the risk of potential errors leading to prices that over- or under-estimate the appropriate level of wholesale prices in the future.
- 9.258 Consequently, in the absence of updated cost models, rather than fixing regulated FTTC VUA prices at the level of the cost model outputs for each year of the review period, ComReg proposes to use the cost oriented prices that were determined in the 2021 ANM Decision<sup>653</sup> up to 30 June 2024 (€19.12), and thereafter allowing increases of no more than the level of inflation using a 'CPI-0' formula. Such an approach will mean that FTTC VUA prices continue to be based on costs, even though the evolution of costs in the later years of the review period are based on the 'CPI-0' formula rather than on detailed updates to cost models. The CPI value is the annual CPI value for the previous calendar year.<sup>654</sup> Capping price increases annually to 'CPI-0' in any year also means that, should Eircom choose to not fully implement a 'CPI-0' increase in one year, there will be no carry over of 'unused increases' into subsequent years.
- 9.259 Adopting this "pricing continuity" approach that allows future prices to increase by the level of inflation experienced in the economy (should provide

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<sup>652</sup> As most of the investment is incurred in building the initial premises passed network, operators tend to report losses in the early years after a new network is deployed, when take-up is low. These losses are then offset by higher reported returns as service take-up matures and as the residual value of the initial network investment is eroded by straight-line depreciation. In recent years Eircom's HCA Separated Accounts have continually reported levels of return in excess of the regulated WACC.

<sup>653</sup> ComReg Document 21/130, ComReg Decision D11/21: Regulated Wholesale Fixed Access Charges Review of the Access Network Model, dated 17 December 2021.

<sup>654</sup> CPI Inflation Calculator interactive comparison app by CSO Ireland, <https://visual.cso.ie/?body=entity/cpicalculator>

reasonable predictability of prices, which is an important aspect of creating the right environment for operators to make investment decisions<sup>655</sup> and is consistent with Regulation 56(4) of the ECC Regulations.

9.260 A similar approach to the pricing of NGA services has been adopted by Ofcom for those areas where there is a prospect of network infrastructure competition in the UK.<sup>656</sup> The Oxera Part 1 Report also favours such a pricing approach as it avoids the need for re-running and updating a hypothetical FTTC BU-LRIC+ model. It is particularly appropriate where current FTTC prices are already cost oriented (as is presently the case) and general inflation trends are deemed to be a reasonable predictor of how the costs in a hypothetical FTTC model could be expected to evolve.

9.261 The Oxera Part 1 Report highlights that a flat real pricing continuity approach could produce a slightly higher price path for FTTC prices than would be derived from an updated BU-LRIC+ model, given that no future efficiency assumptions would be built into this approach. In this regard, the Oxera Part 1 Report notes that slightly higher FTTC prices:

*“would tilt the balance slightly towards incentivising investment between competing network infrastructures, while still providing protection for consumers by limiting the extent to which prices can rise to general inflation levels. For similar reasons, a pricing continuity approach may also incentivise a speedier migration towards FTTH services, provided that FTTH prices stay constant or increase at a lower rate than general inflation”.*<sup>657</sup>

9.262 However, incentivising investment has been and continues to be a primary concern for ComReg when regulating FTTC VUA prices. This is reflected in the fact that ComReg adopted a BU-LRAIC+ approach to the costing of those assets that are required to provide FTTC services, which includes valuing the copper cable network on the basis of the costs of deploying such a network today and ensures that RAB for ducts and poles includes the future investment that is required to make all poles and ducts NGA ready. ComReg is satisfied accordingly that existing market prices for FTTC VUA provide appropriate “build-or-buy” price signals and reflect a reasonable level of operator efficiency as they are based on a BU cost model of a HEO. Consequently, setting the ‘X’ component in the ‘CPI-X’ price trend formula to zero should ensure that the HEO’s level of efficiency continues to be reflected in future prices. It is also

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<sup>655</sup> Virgin Media’s national fibre network upgrade; Siro’s investment to upgrade bandwidth; Siro’s network expansion; and Eircom’s deployment passes 800,000 premises.

<sup>656</sup> Ofcom, Statement: Promoting investment and competition in fibre networks Wholesale Fixed Telecoms Market Review 2021-26, 18 March 2021, available at: <https://www.ofcom.org.uk/consultations-andstatements/category-1/2021-26-wholesale-fixed-telecoms-market-review>

<sup>657</sup> Paragraph 4.43 of the Oxera Part 1 Report.



the case that the current FTTC price modelling derives FTTC VUA prices that increase over time, and the prices established in the 2021 ANM Decision allow for an increase of circa 3% in the FTTC VUA price on the 1 July 2023 (€18.54 to €19.12).<sup>658</sup> While these price increases are not directly linked to inflation, nonetheless, it is not unreasonable to assume that market players would expect that, beyond June 2024, future FTTC VUA prices would continue to increase to some extent.

- 9.263 Therefore, the pricing continuity approach that ComReg is proposing for FTTC VUA prices facilitates the maintenance of relatively stable and predictable FTTC prices in real terms. The same level of pricing stability would not be guaranteed if ComReg opted to either update the existing BU-LRAIC+ models or attempted to develop an alternative RAB-WACC model that tried to reflect the actual network costs and demand characteristics evident on Eircom's network during the current period of network transition between FTTC and FTTH. The application of a (CPI-0%) price trend also means that the prices in the later years of the review period continue to have some degree of cost orientation as prices can evolve in line with a general cost trend.
- 9.264 A pricing approach that ensures a degree of pricing stability for FTTC VUA prices while maintaining pricing flexibility for FTTH VUA should also help to incentivise all commercial network operators to maintain the recent momentum evident in FTTH network investment.
- 9.265 ComReg acknowledges that the pricing continuity approach could see FTTC VUA prices trending upwards. However, just as ComReg considers that reducing the FTTC VUA price from €20.36 to €18.36 on the 1 March 2022, as part of the 2021 ANM Decision, was appropriate on the basis that the unit costs associated with FTTC services had reduced (primarily due to the application of a lower WACC), so it would also be appropriate if prices were to increase above €19.12 after the 1 July 2024, on the basis that those increases reflected underlying cost pressures as captured by CPI.
- 9.266 Therefore, having considered the level of uncertainty that currently exists in respect of cost and demand forecasts due to the ongoing transition from copper to fibre networks, and recognising the extent that this uncertainty is further compounded by the continuing economic uncertainty in respect of future cost trends, ComReg is of the view that its proposed pricing continuity approach (applying CPI-0 price cap annually to the currently cost oriented FTTC VUA prices post 30 June 2024) is the most appropriate form of price

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<sup>658</sup> The observed increase in the modelled prices is primarily due to lower overall demand on eircom's network increasing unit costs as well as reduced use of e-side copper as CGA service volumes decline, partly due to migration to FTTC. The decrease in demand is also due to some legacy copper based services, such as ISDN, being ceased. The copper demand scenario in the ANM also allows for some overall line loss on Eircom's network to rival platforms such as SIRO.

control for a review period where investment by network operators in the expansion of their FTTH network footprints is expected to continue.

### Emulated FTTC-like service on the FTTH network

- 9.267 The effectiveness of the FTTC VUA service acting as an ‘anchor product’ providing a competitive constraint on FTTH pricing is dependent on FTTC services continuing to be available in the market, thus allowing consumers to opt for an FTTC service as an alternative to the FTTH services.
- 9.268 However, should Eircom’s plan to overlay its copper-based FTTC network with FTTH proceed as planned, Eircom may be in the position to start a copper switch off process in relation to all copper-based FTTC and CGA broadband, during this market review period and as part of the process, new customers may no longer have the choice of a copper-based service, reducing the overall effectiveness of the FTTC VUA ‘anchor product’ as a competitive constraint on FTTH pricing. It is expected that Eircom will ultimately proceed to copper switch-off (**CSO**) in the future, and any remaining copper-based customers will ultimately have no option but to migrate to an FTTH-based service should they wish to retain a broadband service.
- 9.269 In order to mitigate against this, ComReg proposes that Eircom be required to make an “emulated”, FTTC-like, service available on the FTTH network in those areas where FTTC is being withdrawn for example as part of CSO. The emulated FTTC VUA service would be provided on the FTTH network but priced at the same level as the FTTC VUA service and designed to deliver an equivalent typical level of service as FTTC VUA.
- 9.270 Introducing the emulated service at the same time as FTTC is being withdrawn in an exchange area will help maintain the retail price constraint (i.e., the anchor) on the standard FTTH prices that were previously provided by the availability of the FTTC VUA service, and supports the ‘pricing flexibility’ approach used in respect of FTTH, as only the emulated, FTTC-like, service would be subject to a price control based on the FTTC price. By the time FTTC withdrawal or CSO is implemented in an exchange area it is expected that there will have already been significant migration from FTTC onto FTTH. Consequently, ComReg expects that most broadband customers on Eircom’s network will already have migrated to FTTH.
- 9.271 Such an approach also has the additional benefit of providing some protection to those copper-based customers who, in the absence of an emulated FTTC-like service, would have been resistant to the prospect of being force-migrated onto a higher price / higher speed FTTH product that they may not wish to purchase. It will also facilitate their migration off the copper network and onto the FTTH network, thereby helping to expedite FTTC withdrawal (for example

as part of a CSO process). Also customers who do value higher speed services would still be able to upgrade to higher bandwidth FTTH services at prices that are subject to a retail price constraint as a result of the anchor approach.

- 9.272 Key to the realisation of these benefits is not only dependent on the price of the emulated service but also on the service speed. As set out in paragraph 9.56, ComReg proposes that the emulated service has a speed profile designed to deliver, at least, an equivalent level of service typical of FTTC VUA.
- 9.273 Presently, there is a single wholesale price for a FTTC VUA service, notwithstanding the fact that the speeds provided can vary significantly (e.g., depending on the length of the copper loop the service is provided on). However, the maximum attainable speed tends to be c.100 Mbps. Consequently, a speed that is significantly below 100 Mbps (e.g., a 30 Mbps service) is likely to be less effective as a constraint on FTTH prices and would be a reduction in the service speed experienced by most existing FTTC customers, while setting the speed too high (e.g. 200 Mbps) could significantly affect the take-up of standard FTTH services and undermine the returns and investment incentives of FTTH operators.
- 9.274 Therefore, ComReg considers that the speed profile designed to deliver, at least, an equivalent level of service typical of FTTC VUA should ensure that existing FTTC customers are no worse off after FTTC withdrawal compared to their current position. ComReg considers that it may be necessary for Eircom to set the speed profile such that it should also be sufficiently below the average speeds that will be available on the standard FTTH services to ensure that customers are not inadvertently discouraged from migrating to standard FTTH services, thereby safeguarding the returns and investment incentives of FTTH operators.
- 9.275 ComReg has also considered whether to require Eircom to make the emulated FTTC-like service available wherever FTTH is present, regardless of whether FTTC is available. In this regard, Eircom has already completed a Rural FTTH network that is passing c.340k premises with FTTH, most of which, given their rural location, would never have been in a position to avail of a viable FTTC-based service. This means that only an FTTH service is available to this subset of customers as a direct upgrade from CGA and FTTC VUA does not act as a direct pricing constraint.

- 9.276 In light of these issues, the Oxera Part 1 Report recognises that the effectiveness of the retail price constraint on FTTH would be enhanced if the emulated FTTC-like service was offered immediately in those areas where FTTH is present but where FTTC is not available, i.e., the Rural FTTH footprint. Currently, most<sup>659</sup> broadband customers in the Rural FTTH footprint can only avail of a CGA broadband service, in the form of CG SABB or an FTTH service. The current CG SABB wholesale price is €23.73 with regional handover (and €25.33 with national handover). The nearest equivalent standalone FTTC Bitstream service in the Regional WCA exchanges is €22.48 per port,<sup>660</sup> and the nearest available equivalent FTTH service is the 150 Mbps FTTH Bitstream service, which is priced at €29.72 per port.
- 9.277 There are however practical difficulties in implementing such an approach. In particular, the Rural FTTH footprint is spread across c.900 exchange areas ('EA(s)') and no EA is entirely within the Rural FTTH footprint. This means that the Rural FTTH footprint does not align with Eircom's EAs and the majority of EAs will include premises that are in Eircom's IFN (that are currently passed with a viable FTTC service), premises that are in the Rural FTTH footprint (c.85% of which cannot receive a viable FTTC service) and premises that are in the NBP IA (that will depend on the NBP to receive NGA broadband).
- 9.278 Therefore, to target the FTTC-like service to those premises in the Rural FTTH footprint in advance of, for example, CSO would require Eircom to identify those premises that are passed by Eircom's FTTH network but cannot avail of a viable FTTC service in each EA, and then make the emulated service available to that specific cohort of customers in each of c.900 different EAs.
- 9.279 In light of this complexity, ComReg proposes that Eircom should only be required to introduce, and then keep available, the emulated FTTC-like service on FTTH to all premises passed by its FTTH network<sup>661</sup> in an exchange area from the time that Eircom initiates the withdrawal of FTTC in that exchange area. ComReg is concerned in this regard that it may not be proportionate to require Eircom to offer the emulated FTTC-like service to a sub-set of its FTTH customer base in advance of CSO given the administrative burden associated with introducing the emulated FTTC-like service on FTTH for sub-sets of customers in each EA and in circumstances where a significant proportion of these customers already avail of an FTTH service. For example, ComReg understands that that there are over 500 EAs where the Rural FTTH footprint

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<sup>659</sup> ComReg understands that less than 15% of Rural FTTH services could be served with viable NGA service using VDSL.

<sup>660</sup> Additional usage charges also apply for FTTC and FTTH.

<sup>661</sup> ComReg is aware that some premises will only be passed by the NBP FTTH network but are not proposing to apply any controls on the NBP provider.

accounts for less than 10% of the premises in that EA, while average take-up of FTTH to date by the premises passed by Eircom's Rural FTTH network is circa [X ██████████ X].

### **Ancillary services and facilities**

- 9.280 Ancillary services and facilities in the WLA Market include CG and NG services and facilities such as connections and migrations, co-location, multicast, Class of Service, VLAN tagging, and interconnection (including edge-node handover, in-building handover, in-span handover and customer sited handover).
- 9.281 The existing price control for CG and NG ancillary services and facilities in the WLA Market is in the form of an obligation of cost orientation designed to prevent pricing in an excessive and/or discriminatory manner and ensure that there was a level playing field between all operators to compete. The obligation of cost orientation also ensured that Eircom could recover the cost of provision of these services and facilities as well as a reasonable return.
- 9.282 As NG ancillary services and facilities continue to be required to support a level playing field amongst operators and there are practical difficulties associated with replicating them, ComReg proposes to maintain the obligation of cost orientation for next generation ancillary services and facilities in the Commercial NG WLA Market. ComReg considers that cost orientation is the most appropriate form of price control obligation to address the risk of excessive prices emerging.

### **FTTH connections and migrations**

- 9.283 Under the policy adopted in the 2018 Pricing Decision, Eircom is subject to an obligation of cost orientation in respect of connections and migrations with applicable charges equalised between connection and migration. The requirement that Eircom make wholesale charges for FTTH connections and migrations the same was designed to strike the right balance between addressing retail demand uncertainty; ensuring cost recovery for Eircom's investment; reducing a barrier to entry (in the form of high up-front connection charges) for retailers; avoiding distortion of incentives for retailers in connecting customers (targeting already connected customers versus unconnected customers); and providing better predictability in the market for retailers in relation to charges.
- 9.284 There are at this juncture, as set out in the Oxera Part 1 Report, two possible policy options available to ComReg:

*“Option 1: continue with the existing approach of requiring connections and migrations to be equalised and not (together)*

*increase to levels that would lead to over-recovery of connection costs;*

*Option 2: take steps to limit migration charges above cost, to avoid distortions to the migration decision as a larger number of customers are already connected to the network, and place limits on connection charges to ensure that new connections remain affordable and are not adversely affecting the take-up of FTTH services.”<sup>662</sup>*

- 9.285 For the reasons set out below, ComReg proposes to maintain the existing requirement that connection and migration costs are recovered by way of equalised connections and migration charges, but subject to an overall price cap, in order to provide stakeholders with greater certainty in respect of the future level of connection/migration charges than currently exists, and to limit any distortions arising from migration charges exceeding the incremental cost of the migration. This is discussed in further detail below.
- 9.286 Prior to the 2018 Pricing Decision, wholesale FTTH connection charges and FTTH migrations charges (the fee payable by a Retail Service Provider ('RSP') on gaining an end user from a connected competitor) were subject to a cost orientation obligation. However, there was (and is) a significant difference in the incremental cost of an FTTH connection and the incremental cost of a subsequent FTTH migration. Consequently, Eircom was charging a fee of €270 per connection and a fee of €2.50 for a migration, while still being compliant with the cost orientation obligation.
- 9.287 Establishing an FTTH connection has a much higher cost than a FTTH migration as connection requires a technician to undertake a number of activities, including the deployment of a drop wire/service lead from the local FTTH distribution point to the customer's premises, installing an Optical Network Termination ('ONT') within the customer premises, establishing the FTTH service, and updating all relevant records. The customer specific connection costs can also include the costs of any ducts and/or poles on public roads that are dedicated to a single customer, which can be a significant cost in rural areas. As a result, the average incremental cost of a connection in 2018 was significantly higher than the €270 connection fee that Eircom applied at that time. In contrast, a FTTH migration primarily involves a reconfiguration of the FTTH service and manual update to a database, which means that the average incremental cost of a migration would have aligned with the €2.50 migration charge.
- 9.288 However, ComReg was of the view that having a charge for connecting a new customer that is significantly higher than the charge for migrating an existing customer to another service provider could be a deterrent to encouraging take-

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<sup>662</sup> Paragraph 6.17 of the Oxera Part 1 Report.

up of FTTH services by new end users as it could incentivise RSPs to develop a discriminatory pricing measure, differentiating between those end users in premises that already have an FTTH connection and those who have no connection.

- 9.289 To comply with the 2018 Pricing Decision, Eircom implemented a maximum national wholesale FTTH Connection / Migration Charge of €170 from 1 January 2019 (thereby reducing connection charges down from €270, and increasing migration charges up from €2.50). Eircom subsequently reduced the charge for FTTH connections / migrations to €100 from 1 July 2020. More recently, Eircom set charges for FTTH connections / migrations to €0 from 1 October 2022 until 31 March 2023. On 1 April 2023 these charges are planned to revert to €100.
- 9.290 In adopting the equalised charging policy for FTTH connections and migrations, ComReg recognised that it could result in a migration charge that was significantly higher than the incremental cost of migrating a connected customer. This factor was also highlighted by a number of respondents to ComReg's Call for Input seeking stakeholders' views as to the market impact of the existing FTTH connection and migration charges, that was issued as part of the 2020 ANM Consultation.<sup>663</sup>
- 9.291 In its response to this Call for Input, Vodafone argued that a wholesale FTTH migration charge that is significantly above cost may constrain consumer choice and that the migration charge should reflect the true cost of migration. BT was also of the view that the FTTH market was growing rapidly and that it was time to align wholesale FTTH migration charges with its costs. BT also considered that a 42-month period provides sufficient time to recover the cost of a connection. Sky's response argued that the equalisation of the wholesale FTTH migration charge was distortionary to competition as it weakened retail competition/options for already connected customers.
- 9.292 Sky's response included a report by Analysys Mason, which argued that the equalised connection/migration charges do not reflect the distribution of benefits, as the benefits of a FTTH connection are not instantaneous but rather are on-going (use of fibre enabled services for the consumer, and profit for the retailer). Analysys Mason also argued that the evidence of connection charges being set to zero by Eircom Retail and other retailers would appear to align with that view. Analysys Mason concluded that pricing which does not follow the distribution of benefits is uneconomic since it distorts economic decisions by wholesale buyers and retail consumers, and, as such, all

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<sup>663</sup> ComReg Document No 20/101: Regulated Wholesale Fixed Access Charges, Review of the Access Network Model and Specification of the Price Control for Public Switched Telephone Network Wholesale Line Rental – Consultation and Draft Decision, dated 22 October 2020.

connection costs should be recovered over time through rental charges rather than through once-off charges.<sup>664</sup>

- 9.293 Having considered the submissions versus the data that was available in 2021 and the original rationale behind the equalisation of charges, ComReg did not consider that there was sufficient justification for reopening the price control on equalised charges that had just been established at the start of the price control period. In particular, it was ComReg's view that, in any assessment of the pricing approach taken in the 2018 Pricing Decision,

*“recognition needs to be given to the highly inter-related nature of the decided-upon charging methodology. ..., requiring Eircom to equalise the charges for connection and migration was [adopted] to remove the disincentive for retailers to connect new customers to the FTTH platform. The equalised charging regime recognises that the benefit to a retail service provider (**RSP**) is the same regardless of whether the customer being acquired is a new connection or an existing connection being migrated”.*<sup>665</sup>

- 9.294 As of Q2 2022, overall FTTH subscriber numbers have now reached circa 430k (with the majority of these [X █████ X] on Eircom's network) and future growth over the market review period is expected to continue as operators expand their FTTH footprints. Demand on the FTTC network appears to have peaked in 2020 and it is expected that FTTH will overtake FTTC as the predominant broadband technology on Eircom's network by 2025 due to the ongoing migration from FTTC to FTTH.

- 9.295 The growing active FTTH base on Eircom's network means that the opportunity for an RSP to acquire a new customer through a migration event rather than as a result of a new connection will increase. Initially, the volume of customer migrations is inevitably constrained by the low level of active customers on a newly deployed network as it takes a number of years to establish a significant customer base that is available to churn between RSPs. Consequently, the majority of customer acquisitions during the recent phase of FTTH deployment required Eircom to incur the cost of a new physical connection, with the result that, to date, only a very limited number of customers would have been affected by above-cost migration charges under the equalised connection/migration charge policy adopted in November 2018. For example, Eircom recorded no customer migrations in the 2018 financial year, even though the migration charge was only €2.50 and the FTTH connection charge was €270. However, in the most recent accounts for the 18

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<sup>664</sup> Further details on the issues and ComReg's consideration of those issues can be found in section 8.3.3 of the 2021 Pricing Decision.

<sup>665</sup> 2021 Pricing Decision, paragraph 8.68.



month period ending on 31 December 2021, recorded migrations accounted for [X █████ X] of the total of all FTTH connections and migrations, during a period when the connection / migration charges were €100.

9.296 In this context, Oxera's Part 1 Report recognises that, in light of the objective of encouraging take up of FTTH services, an equalised connection/migration charge approach has been an appropriate policy to date. Given the nascent stage of FTTH roll out at that time, low migration fees and high connection fees could have had the effect of discouraging operators from taking up FTTH services, and ComReg's policy would result in lower connection charges, which could increase the demand for FTTH services.

9.297 The Oxera Part 1 Report also recognises that any potential distortions to competition caused by setting wholesale migration charges significantly above cost (to facilitate some cross-subsidisation of connection charges) are likely to have been minimal during the early stages for FTTH as a limited number of customers would have been affected by above-cost migration charges when the overall connected base remained small. However, Oxera's Part 1 Report is concerned that,

*“as the number of customers connected to the FTTH network increases, any migration charges significantly above cost could result in a reduction in migrations to competitors if the end-user were to face higher switching costs as a result (i.e. if the RSP were to pass on the migration costs to customers)”.*<sup>666</sup>

9.298 ComReg notes that the extent of any potential distortion will be dependent on RSPs' pricing approach. In this regard, data available to ComReg indicates that major RSPs are not passing on the wholesale connection/migration charges to end users in the form of once-off charges at the retail level, or else have been levying a retail connection charge that is significantly below the €100 wholesale connection/migration fee that they would have been charged by Eircom to acquire the customer. If this commercial pricing behaviour by RSPs were to continue during the market review period, the Oxera Part 1 Report considers that

*“concerns about the level of connection charges affecting customers' decisions to take up FTTH, and any potential distortions to competition that would come from above-cost migration charges, would also be unwarranted.”*<sup>667</sup>

9.299 The actual level of the wholesale connection/migration charge can also mitigate the potential distortion as, even if the RSP chose to pass through all the wholesale acquisition charges in the form of up-front connection charges

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<sup>666</sup> Paragraph 6.10 of the Oxera Part 1 Report.

<sup>667</sup> Paragraph 6.16 of the Oxera Part 1 Report.

at the retail level, the level of any distortion in retail behaviour will depend on the extent that the equalised wholesale charges diverge from the incremental cost of the migration. For example, given that migration costs are considered to be in or around €2.50, a wholesale connection/migration charge that was set at zero (as it is currently the case until 31 March 2023) would not lead to any material distortions.

9.300 The Oxera Part 1 Report considers that continuing with the existing approach could be appropriate if Eircom were expected to continue to set wholesale connection and migration charges to zero. In that case, maintaining equalised charges would act as a safety cap, to ensure that should prices rise in future, they cannot (together) increase to levels that would result in over-recovery of connection costs. Any distortions might also be limited, given that a large number of new connections are still to be made, and migrations may continue to be a small share of total connections and migrations in the coming years.

9.301 However, if there is an expectation that the connection/migration charge will increase, the Oxera Part 1 Report considers that setting migration charges to incremental cost would be warranted where:

- *“RSPs pass through any increases in wholesale migration costs to end-users;*
- *the number of customers connected to Eircom’s FTTH network increases such that the large majority of customers changing RSP would face migration charges.”<sup>668</sup>*

in which case a cap on the level of wholesale connection charges, for instance at the level of €100 applied by Eircom to connection and migration charges for the period 1 January 2019 – 30 September 2022) might also help mitigate any concerns that a connection charge that is too high could lead to lower take up of FTTH services.

9.302 Such a cap could be set at €100, that is, at the level of the charge that was in place between 1 January 2019 - 30 September 2022. Although a €100 connection charge may be below the incremental cost of delivering a new connection, Eircom would be in a position to recover any shortfall through the monthly rental charge, where it continues to be subject to pricing flexibility. The Oxera Part 1 Report notes that

*“The recovery of costs from alternative sources is the approach that Eircom must be taking currently, given its observed commercial behaviour and previous behaviour whereby the connection charge was set below the costs of the connection.”<sup>669</sup>*

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<sup>668</sup> Paragraph 6.22 of the Oxera Part 1 Report.

<sup>669</sup> Paragraph 6.27 of the Oxera Part 1 Report.

- 9.303 Oxera's concern that setting wholesale migration charges significantly above incremental cost could distort competition in the retail market echoes many of the concerns raised by the respondents to the Call for Input in 2020. ComReg also accepts that the potential for such a distortion will increase as FTTH becomes the dominant broadband service and customer acquisition at the retail level is increasingly facilitated by migrations rather than a new FTTH connection. Nonetheless, available evidence indicates that RSPs have not been passing these through to consumers in the form of once-off charges at the retail level in any material way but rather have elected to recover them as part of the customer rental charges.
- 9.304 It is also unclear if the adoption of a differentiated connection/migration charge regime at the wholesale level would lead to a situation where retail customers would face a different connection charge depending on whether the RSPs acquired that customer as the result of a migration (e.g., retail connection charge = €2.50) rather than a new connection (e.g., retail connection charge = €100). As outlined in the Analysys Mason response to the Call for Input referred to in paragraph 9.292, RSPs appear to have adopted an economically rational pricing policy which recognises that the benefits of a FTTH connection to the retail customer are not instantaneous but rather garnered over the customer lifetime as retailers tend to recover acquisition and promotion costs as part of the ongoing rental charges rather than as upfront connection costs.
- 9.305 Should RSPs continue to recover all customer acquisition costs in the form of ongoing rental charges over the customer lifetime, it means that end users do not face a once off migration charge, thereby mitigating the potential for an above cost migration charge to distort the retail customer's behaviour.
- 9.306 In imposing equalised charges for connection/migrations in the 2018 Pricing Decision, ComReg provided Eircom with the ability to fund any deficit in customer connection costs from both ongoing rentals and future migration charges over the lifetime of the connection. The adoption of the equalised connection/migration charges policy did help reduce connection charges further below the incremental cost of the connection than might otherwise have been the case, as it gave Eircom some assurance that it could recover the costs in future migration charges. To change this policy by requiring the migration charge to be set to incremental cost after one price control period could undermine regulatory certainty, particularly if, at the same time, imposing a €100 price cap on new connection charges.
- 9.307 It is also the case that FTTH take-up is still at a relatively early stage, and the majority of customers is yet to be connected to a FTTH network. Having low migration fees and high connection fees could still be a deterrent to encouraging take-up of FTTH services by new end users as it could incentivise

RSPs to target those end users in premises already connected ahead of unconnected end users.

- 9.308 For these reasons, ComReg believes that the equalisation policy should be maintained but subject to a cap on connection/migration charges in order that stakeholders benefit from greater certainty in respect of the future level of connection/migration charges than currently exists and also address any possible distortion that might arise from having a migration that is above the incremental cost of the migration. ComReg in this regard proposes to cap the equalised connection/migration charge at €100 (the rate that Eircom has applied since 1 January 2019 to 30 September 2022 and is expected to reintroduce on 1 April 2023) and notes as follows.
- 9.309 Firstly, the information available to ComReg in respect of Eircom's annual average FTTH connection costs<sup>670</sup> indicates that the average cost has been declining in recent years. In fact, the average customer specific connection cost has declined by c.20% between Eircom's 2018 financial year and its 2021 financial year. One reason for this decline is that urban FTTH connections tend to be lower cost than rural FTTH connections and the proportion of urban FTTH connections has been increasing in recent years, as Eircom has been expanding its FTTH deployment in urban areas. As a result, the average FTTH connection costs are now at a level where imposing a price cap of €100 per connection/migration event would allow Eircom to recover all FTTH connection costs over the lifetime of the connection asset<sup>671</sup> based on the average customer life ('**ACL**') of 42 months that is used in the MSTs.
- 9.310 Although a €100 connection/migration charge could lead to a distortion if RSPs opt to recover it from customers in the form of a once-off charge, the evidence to date indicates that RSPs tend not to do so and to recover all wholesale connection/migration charges as part of the service rental charges, and such a distortion appears unlikely to arise. Indeed, analysis by ComReg indicates that when wholesale charges are assessed over the ACL, there would appear to be relatively little difference in the overall level of wholesale charges faced by the RSP between recovery by Eircom of all connection related costs in the form of a series of connection/migration charges or recovery through the recurring rental charges over the 20 year asset life of the connection.
- 9.311 That is to say, from a cost recovery perspective, the RSP would face the same overall level of wholesale charges if Eircom's pricing approach involved the

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<sup>670</sup> As part of its separated accounting obligations, Eircom are required to provide ComReg with Additional Financial Information pertaining to the costs and volumes of FTTH connections.

<sup>671</sup> For the purposes of this analysis, ComReg based the asset life of an FTTH connection on the asset life used by Eircom in the HCA Separated Accounts, which is 20 years.

RSP incurring an upfront migration charge of €100 each time it acquires a new customer through a migration event (the 42 month ACL means that, on average a customer will migrate every 42 months) and lower monthly rental charges, or of Eircom's pricing approach was to recover connection costs by way of an allowance in the monthly rental charges to recover those connection costs over the 20 year asset life of the customer connection.

9.312 Consequently, maintaining an equalised connection/migration charge regime for FTTH, where the maximum individual charge is capped at €100, is not expected to lead to a distortion of competition that could materially constrain consumer choice. ComReg believes, however, that Eircom's pricing flexibility should be further limited by a requirement that charges for FTTH connections/migrations remains in effect for a period that is not shorter than 6 months. This is necessary to give all RSPs on Eircom's FTTH network the time to execute retail strategies and tailored marketing campaigns that take account of the price changes. ComReg is also of the view that the prices need to be effective for at least 6 months as that is the minimum period necessary to give all RSP's the chance to benefit from the price changes. The price changes also need to be in effect long enough for Eircom to test the potential effectiveness of such price changes at the wholesale level.

9.313 In summary, ComReg proposes that Eircom should have the flexibility to recover the costs of the customer specific connection related investments from a combination of an initial upfront connection charge, a charge for migration to another service provider and recurring rental charges,<sup>672</sup> subject to the following conditions:

- (a) The charges for new connections and migrations to another service provider should be the same;
- (b) The combination of a new connection charge and a charge for migration to another service provider should not exceed the level that would allow Eircom to recover its customer specific connection related investment over the lifetime of the underlying assets, given the same assumptions about customer churn that are used in the MSTs;
- (c) The charge for each new connection or migration should not exceed €100; and
- (d) Any charge for new connection and migration must be in place for at least six months.

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<sup>672</sup> An assessment of the price floor for FTTH VUA rental services, can also consider the extent to which Eircom is not fully recovering the costs of FTTH connections through once-off charges. See 9.322 to 9.346 for more details on ComReg's proposals related to price floors.

- 9.314 As previously explained in the 2021 ANM Decision (paragraph 8.43) ComReg continues to consider that the migration charge should only be levied where there is a change in RSP selling the FTTH service on Eircom's network; where the retail customer is being migrated from a different network; or where the retail customer is being connected to Eircom's FTTH service for the first time. Thus the charge may be levied where a retail customer switches to FTTH from, for example, an FTTC-based service on Eircom's network without changing RSP. But the charge should not be levied if an RSP merely makes a change to the way it gains access to Eircom's FTTH network (e.g., by switching from one intermediate wholesale provider to another, or by switching between using an intermediate wholesale provider and purchasing services directly from Eircom). Such changes involve neither a change of underlying network nor churn at the retail level.
- 9.315 Finally, as €100 is a ceiling, it is possible for Eircom to charge less than €100 for the connection/migration charge and still comply with its obligations in respect the pricing of FTTH services. Eircom continues to have the option to recover FTTH connection related expenditure as part of the FTTH line rental and a reduction to the connection/migration charge would require that a larger proportion of the connection related expenditure is recovered in the line rental charge. This type of pricing flexibility is consistent with Recital 49 of the 2013 EC Recommendation, which stated that *"it is important in order to promote efficient investment and innovation, in accordance with Article 8(5)(d) of Directive 2002/21/EC, to allow those operators investing in NGA networks a certain degree of pricing flexibility to test price points and conduct appropriate penetration"*.
- 9.316 However, ComReg is also of the view that it is important that any changes to connection/migration charges do not create uncertainty for Access Seekers or lead to distortions in respect of the price for products and services that are subject to cost orientation. The fact that the charges for FTTH Rental services are not cost oriented means that it is difficult for ComReg to determine to what extent connection costs are recovered in the existing FTTH rental charges or if the introduction of a lower connection/migration charge would necessitate an increase to the existing FTTH Rental charges. Therefore, ComReg proposes that Eircom continue to provide the existing AFIs in respect of FTTH connections and migrations so that ComReg can track the level of expenditure that Eircom incurs in respect of FTTH connections and migrations each year in addition to the level of connection and migration related revenues.

### **FTTC connections and migrations**

- 9.317 Eircom's provision of FTTC connections and migrations supports both the connection of end users and also the migration of end users between

competing RSPs. It is essential to ensure that these services are not priced in an excessive and/or discriminatory manner, and that the charges set for these services enable a level playing field for efficient operators to compete. ComReg accordingly proposes to maintain the obligation of cost orientation in respect of FTTC connections and migrations, whereby Eircom is permitted to recover no more than its actual incurred costs (adjusted for efficiencies) plus a reasonable rate of return associated with the provision of FTTC connections and migrations.

- 9.318 In the 2018 Pricing Decision ComReg maintained the pre-existing price control approach for FTTC connections and migrations, which was one of cost orientation. ComReg also imposed a cost orientation obligation on FTTC rental services for the first time as part of the 2018 Pricing Decision. The cost orientation of FTTC VUA rental meant that ComReg could explicitly recognise the extent to which FTTC specific connection costs<sup>673</sup> were recovered in the FTTC VUA rental charge to ensure no double-recovery of connection costs between the ongoing monthly FTTC rental charge and the upfront FTTC connection charge. ComReg did this by calculating the deficit between the average FTTC specific connection costs and the average FTTC connection revenues that Eircom was incurring at that time. This connection deficit was then included as an annuity in the FTTC rental charge. The annuity was based on the asset life of the FTTC connection and the regulated WACC.<sup>674</sup>

**Pricing of associated facilities: Interconnection services; Co-location; Multicast; Class of Service ('CoS') traffic tagging; and 1:1 Virtual Local Area Network ('VLAN')**

- 9.319 In Section 9.3.1, ComReg proposes to require Eircom to provide a range of Associated Facilities to Access Seekers, including Interconnection Services, Co-Location, Multicast, Class of Service ('CoS') traffic tagging and 1:1 Virtual Local Area Network ('VLAN'). These are described in further detail in paragraphs 9.42 to 9.44, and 9.57 to 9.88. All such Associated Facilities are required to support the development of infrastructure competition and continue to be essential to existing investments (Interconnection), to enable and support the provision of WLA and other services (Co-Location), to allow Access Seekers provide and differentiate their service offerings to end users and promote effective downstream competition (Multicast, CoS traffic tagging and 1:1 VLAN). In order that these services are not priced in an excessive and or discriminatory manner, and that the charges set for this price control for

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<sup>673</sup> FTTC specific connection costs include the costs of FTTC related jumpering at the cabinet and the exchange but exclude any costs associated with the provision of the service lead into the customer's premises as these costs are already recovered as part of the SLU/LLU cost inputs into the FTTC rental charge.

<sup>674</sup> See Section A 1.8 of the 2018 Pricing Decision for more details.

these services enable a level playing field for efficient operators to compete, ComReg proposes to maintain in place Eircom's existing obligation of cost-orientation.

- 9.320 In respect of Interconnection Services, ComReg proposes also to continue to require Eircom to set cost oriented prices by reference to a BU-LRAIC+ methodology on the basis that LRAIC+ includes appropriate amounts of variable, fixed and common costs, which is the calculus faced by any operator when deciding to enter or expand. It is accordingly suitable to promote efficient infrastructure investment by alternative operators who may want to replicate the assets in question. In addition, the use of LRAIC+ ensures consistency with the approach already used for WEIL charges in the context of NGN Ethernet Leased Lines.
- 9.321 In respect of Co-location, Multicast, CoS traffic tagging and VLAN, ComReg proposes that Eircom should recover no more than its actual incurred costs (adjusted for efficiencies) plus a reasonable rate of return associated with the provision of each of these services.

### **Regulatory approval mechanism for price decreases, price floors**

#### **Introduction**

- 9.322 ComReg proposes that Eircom may continue to be allowed, in exceptional circumstances, subject to ComReg's prior approval, to reduce its wholesale FTTC VUA price below the regulated price in specific geographic areas subject to a price floor. ComReg proposes further that the FTTC VUA price act as a price floor for FTTH VUA, and that the ban as regards wholesale promotions and discounts be relaxed for FTTH VUA.

#### **Approval mechanism to lower price of VUA services**

- 9.323 The 2018 Pricing Decision provided for the possibility that, in exceptional circumstances, ComReg may allow Eircom to set the FTTC VUA price in a geographic area below the regulated price level provided the price remained above a price floor and any decrease was reflected in the price for FTTC Bitstream, subject to ComReg's approval. The same principle applied in respect of FTTH VUA where ComReg could allow Eircom to price FTTH VUA below its average costs.
- 9.324 This allowed Eircom, in exceptional circumstances, to reduce the price it charged for FTTC-based VUA below the regulated price, or for FTTH-based VUA below average costs, so that it could compete with another operator's price in a specific geographic area, in particular as regards services provided over an alternative platform.



- 9.325 Insofar as FTTC VUA was concerned, geographic reductions were subject to a price floor set at the level of Eircom's BU-LRAIC+ costs for non-reusable assets and TD-HCA for reusable assets in the geographic area concerned, or at an alternative operator's VUA price or equivalent (retail price minus retail and network costs). This sought to *"prevent the risk that Eircom could set wholesale access prices too low which could be detrimental to efficient infrastructure investment in networks by other operators."*<sup>675</sup> The requirement that any price reductions to FTTC VUA would also be reflected in other FTTC prices followed from the fact that FTTC VUA is an essential input for all FTTC services, and that the economic space between FTTC VUA and FTTC Bitstream ought to be maintained in order that geographic price reductions in FTTC VUA did not distort competition on the downstream WCA market.
- 9.326 Since 2018, no request has been received by ComReg from Eircom seeking approval of a price reduction for FTTC VUA rental, or FTTH VUA rental, in any geographic area. However, ComReg proposes to allow this option to remain, subject to approval in exceptional circumstances. Network platform expansion or technology upgrades by rival operators could lead to more aggressive price competition in the WLA market. Should this level of competition emerge, providing Eircom with the necessary flexibility to compete fairly could be to the benefit of Eircom's wholesale customers and ultimately end-users in the form of lower prices.
- 9.327 Different levels of competition emerging in different areas of the country could also require geographic deaveraging of national prices. ComReg notes in this regard that price differentiation between different geographic areas, which is supported by difference in costs, can lead to more efficient outcomes. There are, however, significant risks involved in allowing Eircom introduce geographic differentiation for FTTC VUA, or FTTH VUA and for this reason, ComReg believes that it is appropriate and necessary to maintain a pre-approval mechanism in order to ensure that any geographic price differentiation of FTTC VUA, or FTTH VUA, will not have distortionary effects.

### **FTTC VUA**

- 9.328 Since 2018, the FTTC VUA rental price has acted as a price anchor that has helped inform network investment decisions. The approval mechanism for FTTC VUA price reductions introduced in 2018 with the aim of maintaining network investors' confidence and ensuring that FTTC VUA price reductions below the regulated price in a given geographic area would not result in foreclosing competitors in the WLA market or in downstream markets, including both at the wholesale and retail levels, and in respect both of

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<sup>675</sup> Paragraph 12.88 of the 2018 Pricing Decision.

- operators using an alternative platform and Access Seekers relying on Eircom's FTTC VUA and/or Bitstream services.
- 9.329 Maintenance of the approval mechanism for FTTC VUA price reductions means that wholesale prices will be more predictable for Access Seekers as they will know they will be charged the same price for the FTTC VUA element of an FTTC service, regardless of whether it is purchased as a standalone VUA service or in conjunction with upstream elements such as additional backhaul (as part of an FTTC Bitstream service) or voice (as part of a POTS-based FTTC service).
- 9.330 Therefore, in light of these considerations, ComReg proposes that Eircom may be allowed to reduce the wholesale access price for FTTC VUA rental, provided that Eircom can demonstrate that it is losing market share and evidence of the presence of an aggressive pricing strategy of another operator. Consequently, Eircom would need to be able to demonstrate to ComReg's satisfaction that the loss of market share is as the result of price competition and that the proposed price reduction is necessary to allow it to compete with the prices from other operators.
- 9.331 ComReg recognises that Eircom is the only operator selling wholesale FTTC VUA services. However, it is also the case that Eircom's FTTC VUA service is in competition with the broadband services offered by other network operators that are in the same market and it is possible that another commercial operator has a more efficient network topology or has lower costs than is modelled in the cost models used by ComReg to inform FTTC VUA prices. As a result, other operators may be able to set wholesale (or retail) prices at a level that means Eircom cannot compete on the basis of the regulated FTTC VUA price. Hence, an FTTC VUA price that is lower than the regulated FTTC price may be justified.
- 9.332 The regulated FTTC price is set based on an assessment of the average national costs and Eircom may be able to support a lower price by demonstrating that the costs in a specific area are lower than the national average. While the price modelling in the ANM was not developed with the intention of mandating geographic deaveraged prices it does, nonetheless, model costs across 1,148 exchange areas. As a result, the cost modelling that underpins the regulated prices for national FTTC VUA prices can provide some level of insight as to how cost might vary between substantial geographic areas. Consequently, a pricing proposal for a reduction below the regulated FTTC VUA price can be informed by the cost modelling that has underpinned the national FTTC VUA price.
- 9.333 As set out in the Oxera Part 1 Report, the fact that Eircom's FTTC VUA price may be at a level above that of an alternative platform operator's does not

mean that, in and of itself, that Eircom should be allowed to lower its price on a geographic basis to meet that competition:

*“If the alternative network operator is setting prices below the FTTC anchor price because the operator faces costs which are lower than the FTTC anchor, then it should be allowed to take advantage of these efficiencies. If Eircom would have to price below its own costs to match the rival’s price, this would negate the efficiency advantage of the alternative network operator and thus have an impact on the operator’s investment case and its ability to establish itself in the market. Eircom’s pricing below its own costs would not constitute competition on the merits and, in such a case, Eircom should not be allowed to match the rival’s price. Hence, in this scenario, Eircom should only be allowed to match the rival’s prices if it can provide evidence that its own costs are also lower than the FTTC anchor, as well as being lower or equal to the rival’s prices.”<sup>676</sup>*

- 9.334 ComReg proposes in this regard that Eircom in applying for approval of FTTC VUA price reductions on a geographically limited basis, demonstrates that:
- (a) it is not in the position to compete on the basis of applicable prices, providing evidence of loss of market share in the geographic area concerned; and
  - (b) that its proposed price reduction of FTTC VUA price in the area concerned is not less than the higher of either (i) An alternative operator’s wholesale VUA price or equivalent VUA price (e.g., its retail price minus retail costs and relevant network costs) or (ii) Eircom’s full deployment costs for FTTC VUA in the specific geographic area concerned, calculated on the basis of a BU-LRAIC+ costing methodology and with Eircom’s RAB applied to Reusable Assets.
- 9.335 This is consistent with ComReg’s objective of supporting network competition. It is also possible that Eircom may seek a price increase in Commercial Areas excluding the geographic area where the price reduction is sought. ComReg will consider whether this is justified having regard to the level of costs in the geographic area concerned and the remainder of the Commercial Area, Eircom’s ability to recover costs in the latter and taking into account the impact on downstream markets of any price increase, including any impact on Access Seekers and “ladder of investment” strategies.
- 9.336 Finally, ComReg notes that an inability to compete on the basis of applicable prices in a specific area implies that that area – and the area where the price reduction is to apply – is not limited to a select number of cherry-picked exchange areas. It also means that the price reductions sought by Eircom

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<sup>676</sup> Box 5.1 of the Oxera Part 1 Report.

would not be temporary in nature and/or limited in time as regards their application.

### **FTTH VUA – Price Floor**

- 9.337 Since 2018, Eircom has been subject to a price floor in respect of FTTH VUA services, in the form of a requirement not to reduce the wholesale access price for FTTH VUA in a specific geographic area below the lower of either:
- (a) Eircom's full deployment costs<sup>677</sup> for the provision of FTTH VUA in the specific geographic area concerned; or
  - (b) The FTTH VUA or VUA equivalent price of an alternative operator (e.g., an alternative operator's retail price minus retail costs and relevant network costs).
- 9.338 In proposing to maintain Eircom's pricing flexibility as regards FTTH VUA, ComReg has noted the constraint that FTTC VUA plays in respect of FTTH VUA. ComReg proposes to formalise further this constraint in the form of a general, market-wide, price floor equal to the FTTC VUA price (which is also the same as the price of the proposed emulated FTTC-like service discussed above.)
- 9.339 While it is possible that Eircom's FTTH VUA costs might ultimately be lower than Eircom's FTTC VUA costs, there is still significant uncertainty in respect of FTTH network costs and service demand. This is particularly the case in respect of those specific geographic areas where rival network build has the prospect to be economically efficient, as it is expected to be a number of years until Eircom has completed its own network build (the IFN) in those areas.
- 9.340 Adopting a price floor for FTTH VUA that references FTTC VUA prices, which have formed the basis of build or buy decisions for FTTH investment since the 2018 Pricing Decision, should better support the objective of promoting competition and encouraging investment by commercial operators than would be the case if the price floor was based, in a context of significant uncertainty, on an estimate of future FTTH costs and demand derived from Eircom's own business case for FTTH. ComReg notes that to date, Eircom's FTTH VUA price has been set at a premium to FTTC VUA and therefore, adopting the regulated FTTC VUA price as the price floor should provide some assurance that Eircom cannot lower FTTH VUA prices to levels that undermine the ability to compete of an efficient alternative network operator.

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<sup>677</sup> Eircom's full FTTH VUA deployment costs, absent a cost orientation obligation, could be calculated by reference to Eircom's own business case (or business plan), and checked against ComReg's cost models to ensure that all the relevant cost categories were included.

9.341 The Oxera Report also recognises that, absent a robust FTTH cost model, the FTTC VUA price is a reasonable basis to use as a price floor for FTTH VUA:

*“We understand that ComReg is in the early stages of developing a draft cost model for FTTH, but that this is not sufficiently developed at this stage to provide a reasonable reference point for the costs of FTTH deployment. Therefore, ComReg may wish to consider setting a reference point for FTTH VUA price floors against the FTTC anchor price point. This is because, absent any reliable benchmark of what the FTTH costs are, it would be reasonable to assume that these costs could not be (much) lower than the FTTC anchor price, which is itself derived from a FTTC BU LRIC model. In this sense, the FTTC anchor price point is taken as a proxy for the costs faced by Eircom in providing the FTTH wholesale service.”<sup>678</sup>*

9.342 ComReg appreciates that allowing FTTH VUA prices reduce below the FTTC VUA price could be part of a strategy to encourage migration from copper-based to fibre-based services and facilitate CSO.

9.343 However, other than in the exceptional circumstances that Eircom can demonstrate that a lower FTTH VUA price is necessary to allow Eircom to compete with rival operators, ComReg does not believe that Eircom should be allowed to introduce a FTTH VUA price in a specific geographic area below Eircom’s FTTC VUA price in the specific geographic area concerned. Consequently, ComReg proposes that the principle set out above in respect of FTTC VUA applies also to FTTH VUA. Hence, in applying for approval to lower the price floor for FTTH VUA services on a geographically limited basis, Eircom should demonstrate that:

- (a) it is not in the position to compete on the basis of applicable prices, providing evidence of loss of market share in the geographic area concerned; and
- (b) that its proposed reduction of the FTTH VUA price floor (including any Connection/Migration Charges) in the area concerned is not less than the higher of either (i) An alternative operator’s wholesale VUA price or equivalent VUA price (e.g., its retail price minus retail costs and relevant network costs) or (ii) Eircom’s full deployment costs for FTTH VUA in the specific geographic area concerned (including, for the avoidance of doubt, customer specific connection costs), calculated on the basis of a BU-LRAIC+ costing methodology and with Eircom’s RAB applied to Reusable Assets.

9.344 It is also possible that, at some point in the market review period, Eircom may wish to introduce an FTTH VUA price that is lower than the equivalent FTTC

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<sup>678</sup> Paragraph 5.21 of the Oxera Part 1 Report.

VUA price in order to encourage migration from copper-based to fibre-based services and facilitate CSO. However, as noted in paragraph 9.271, migration off copper should be already facilitated to some extent by the introduction of an emulated FTTC-like service on the FTTH network. It is also the case that FTTH is generally considered to be a more reliable technology than FTTC as FTTH tends to have lower fault rates than FTTC and is less prone to variations in achieved speeds. This reliability would support the view that having an emulated FTTC-like Service on FTTH that provides at least an equivalent level of service typical of a FTTC-based VUA service for the same price as the regulated FTTC VUA service on copper should be an attractive option for both end users and RSPs without the need for a lower relative price for the FTTH-based service. Consequently, ComReg considers that it should not be necessary to price the emulated FTTC-like service on FTTH below the regulated FTTC VUA price that applies to the copper-based service.

- 9.345 In the absence of a robust cost model for FTTH VUA, ComReg would accept FTTC VUA cost modelling, calculated on the basis of a BU-LRAIC+ costing methodology and with Eircom's RAB applied to Reusable Assets in a significant geographic region, to be an acceptable proxy for the costs of the FTTH VUA service.
- 9.346 ComReg's assessment of Eircom's proposed amendment to the national FTTH VUA price will be on a case-by-case basis and will be subject to a number of pre-conditions including the following:
- (a) The reduction to the price for FTTH VUA is not to be a short-term measure;
  - (b) The reduction to the price for FTTH VUA is unlikely to dissuade new investment by alternative operators;
  - (c) The reduction to the price for FTTH VUA should apply to a substantial geographic region and not just to a very select number of exchanges chosen by Eircom; and
  - (d) The FTTH VUA price will continue to be the wholesale input used by all FTTH services that are provided in the specific geographic area.

### **Regulatory approval mechanism for wholesale promotions and discounts**

- 9.347 Under ComReg's proposals, Eircom will continue to have pricing flexibility to set the wholesale prices for the other FTTH VUA profiles at levels that are above the FTTC-based price floor. To date, Eircom have offered wholesale FTTH VUA services at national prices that have always been above the price of the FTTC VUA service. While the 2018 Pricing Decision provided Eircom with pricing flexibility for FTTH services, it also imposed a ban on all wholesale promotions and discounts for FTTH. ComReg recognised that, although

wholesale promotions and discounts could help stimulate demand and benefit end users in the form of lower prices, they could also create uncertainty for Access Seekers and could give rise to difficulties in terms of compliance with other regulatory obligations (e.g. the non-discrimination obligation).

- 9.348 In particular, ComReg had concerns that such wholesale promotions and discounts could be implemented in a way that could discriminate in favour of some Access Seekers more than others or that would, for reasons that are not cost related, result in lower prices being targeted at one geographic area in such a way as to foreclose economically efficient alternative investment by other operators that are either investing or planning to invest in very high capacity networks in specific areas.
- 9.349 However, since 2018, there has been material FTTH network deployment in competition with Eircom, and this is expected to continue during this market review period. In this context, maintaining an outright prohibition on wholesale promotions and discounts may no longer be appropriate. In particular, the fact that rival operators are themselves able to offer wholesale promotions and discounts may leave Eircom at an unfair commercial disadvantage or limit price competition to the detriment of Access Seekers in downstream markets and ultimately end-users.
- 9.350 However, while the ban on wholesale promotions and discounts does not appear to have hampered Eircom's ability to compete for FTTH subscribers (Eircom's FTTH market share has been extremely stable since Q3 2019 [X ██████████ X] standing at Q2 2022 at [X ██████████ X]. After adjusting for NBI, Eircom's market share of FTTH services has been increasing steadily from [X ██████████ X] in Q3 2019 to [X ██████████ X] as at Q2 2022), discounts and promotions may also have a role to play in encouraging future network investments.
- 9.351 The EC in the 2013 Recommendation sees discounts and promotions as allowing risk sharing which in turn may boost investment, as opposed to protect market positions. The 2013 EC Recommendation notes thus that permitting pricing flexibility in the form of discounts *"would allow SMP operators and access seekers to share some of the investment risk by differentiating wholesale access prices according to the access seekers' level of commitment. This could result in lower prices for long-term agreements with volume guarantees, which could reflect access seekers taking on some of the risks associated with uncertain demand."*
- 9.352 Wholesale promotions and discounts from Eircom could be of benefit in supporting a timely transition off copper and onto fibre, which is one of ComReg's objectives.

- 9.353 Against this background, ComReg proposes to revisit the prohibition on wholesale discounts and promotions for FTTH<sup>679</sup>. ComReg is, however, conscious of the competitive concerns which arise with their use, given Eircom's position of SMP. As result, ComReg proposes to subject wholesale discounts and promotions to its prior approval in order to ensure that they do not enable foreclosure strategies, e.g., a geographic differentiation of FTTH prices that would materially impact existing and/or emerging competition.
- 9.354 BEREC<sup>680</sup> reflecting on the aims of the 2013 EC Recommendation (noting Recitals 19, 49, but also 62), considered that it is important that, in allowing wholesale commercial offers, that NRAs do not permit SMP operators to abuse such pricing flexibility in order to exclude potential competitors from the market. The Oxera Part 1 Report also considers that a total ban on promotions and discounts may be too restrictive as reductions to wholesale prices could be welfare-enhancing for consumers, but they could also undermine alternative investment. Oxera is of the view in this regard that granting Eircom complete freedom to offer targeted discounts, promotions and/or geographic pricing subject only to an *ex post* assessment under competition law would not strike the right balance to achieve ComReg's objectives.
- 9.355 ComReg agrees with Oxera's conclusion *"that it would be more proportionate to have an approach whereby changes to Eircom's wholesale pricing proposals must first be assessed and approved by ComReg on an ex ante case-by-case basis, in line with a number of key principles"*,<sup>681</sup> to be *"informed by the objectives of promoting competition and encouraging investment, including by ensuring that existing and prospective investment by alternative network operators is not jeopardised."*<sup>682</sup>
- 9.356 ComReg proposes accordingly to adopt Oxera's recommendations and require Eircom, prior to introducing any wholesale discounts or promotions in respect of FTTH, to obtain ComReg's prior approval, which shall only be granted where ComReg is satisfied, on the basis of the information provided by Eircom, that the promotions or discounts, individually and in aggregate, are unlikely to have a material impact on economically efficient alternative investment by alternative network operators that are either investing or planning to invest in VHCNs.<sup>683</sup>

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<sup>679</sup> ComReg considers that wholesale promotions and discounts are not appropriate for a cost based price such as FTTC VUA.

<sup>680</sup> BoR (14) 190: BEREC Guidance on the regulatory accounting approach to the economic replicability test.

<sup>681</sup> Paragraph 5.12 of the Oxera Part 1 Report.

<sup>682</sup> Paragraph 5.13 of the Oxera Part 1 Report.

<sup>683</sup> See Paragraph 5.13 of the Oxera Part 1 Report.



9.357 While Oxera's Part 1 Report does not attempt to specify all possible factors that may be relevant to an *ex ante* assessment of a future wholesale offer from Eircom, it does note that pricing strategies which have a loyalty inducing effect are more likely to undermine the investment case of alternative network operators. For example, in respect of loyalty rebates, Oxera notes that retroactive rebates, which are granted on all purchases ('back to unit-one')

*"have greater potential to harm competition, as they make it less attractive for customers to switch incremental amounts of demand to alternative sellers given that the customers would 'lose' the discount on all other volumes. The alternative operator would therefore need to offer a much larger discount on the incremental demand, which may not be sustainable, particularly if the level of discount required is below the costs of provision."*<sup>684</sup>

9.358 Similarly, Oxera notes that:

*"exclusivity discounts (which are available only if the customer buys exclusively or quasi-exclusively from the dominant firm) would incentivise access seekers to avoid multi-supplier arrangements, with potentially significant detrimental effects on alternative wholesale network operator investment. Such discounts are harder to justify for cost reasons and raise stronger potential concerns about foreclosure of new/smaller competitors."*<sup>685</sup>

9.359 As the promotion of viable investment is a key policy objective, in any future case-by-case assessment of Eircom's wholesale offers, ComReg intend to pay particular attention to ensuring that promotions and discounts are only permitted when it is clear that they do not prevent new investment by alternative operators or undermine competition through any conditional or loyalty enhancing offers that would undermine an efficient operator's incentive to compete. In particular, any wholesale offers including discount and rebates that have the effect of discouraging off-net migration by RSPs would not be permissible.

9.360 Oxera also highlights the potential for wholesale promotions and discounts to result in prices that are discriminatory. For example, the Oxera Part 1 Report notes that:

*"while volume-related discounts result in lower prices to customers and may have cost-based efficiency justifications, the conditions through which these discounts can be obtained should be carefully considered as there may be a risk that they impede effective competition. In particular, as the discount is linked to the volume purchased by the customer, it can have loyalty-enhancing effects-the larger the volumes required to achieve a given level*

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<sup>684</sup> Paragraph 5.34 of the Oxera Part 1 Report.

<sup>685</sup> Paragraph 5.31 of the Oxera Part 1 Report.

*of discount, the greater the loyalty-enhancing effect. This could strengthen Eircom's market power at the wholesale level by making it harder for alternative network operators to acquire wholesale customers to their networks.*

*Any Eircom wholesale discounts should be non-discriminatory and transparent (e.g. available to all retailers on its network) in line with other regulatory obligations. Therefore the volume thresholds at which the discounts apply should not be targeted such that, in practice, they can be met only by Eircom's downstream arm. If Eircom were able to favour its downstream arm (for example, by setting the volume threshold to obtain a discount at a level that only Eircom's retail arm is able to achieve), it could leverage its wholesale market power at the retail level, which could adversely affect competition to the detriment of consumers.”<sup>686</sup>*

- 9.361 ComReg agrees that for a wholesale promotion or discount offer to be acceptable, it must not favour Eircom's retail arm and must be accessible in practical terms to other Access Seekers. In addition, a wholesale offer should not be predicated on volume thresholds that can only be achieved if the Access Seeker switches all of its demand on to Eircom's network as such offers would make it more difficult for rival networks to compete. ComReg also considers that long-term volume discounts that have the purpose or potential effect of restricting migration between networks risk undermining competition and would not be in the long term interests of end users.

***No geographically differentiated wholesale discounts and promotions***

- 9.362 To date, Eircom's prices for FTTH VUA services have always been set as national prices. However, different economies of scope and scale can exist across the access network, which could give rise to differences in the average cost per line across different geographic areas. In light of these potential cost differences, the Oxera Report notes that,

*“it would not be unreasonable for Eircom to set geographically different prices for FTTC VUA or FTTH VUA services in those different areas. We recognise that where the costs of provision differ, it would be legitimate to have different prices. Pricing in this way could be efficient and could lead to good outcomes for consumers if lower costs lead to lower prices.”<sup>687</sup>*

- 9.363 Nonetheless, the Oxera Part 1 Report also cautions that there is still a risk that Eircom could target promotions and discounts in relatively low cost areas where there may also be the prospect of competition, while leaving prices higher elsewhere. Such an outcome would deter alternative network rollout,

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<sup>686</sup> Paragraphs 5.29 and 5.30 of the Oxera Part 1 Report.

<sup>687</sup> Paragraph 5.36 of the Oxera Part 1 Report.

which would not be in the long term interest of consumers in terms of choice, innovation and price.

- 9.364 Consequently, Oxera proposes that Eircom would only be allowed to set different prices in different geographic areas on the basis that *“it can justify that the price differences are not larger than the difference in the costs of provision between the two areas. In the absence of a fully specified and agreed BU LRIC cost model, Eircom would need to justify its strategy with reference to the costs it is facing.”*<sup>688</sup> Oxera also notes that this would be a necessary (but not sufficient) condition for the approval of any such geographically differentiated wholesale offer of Eircom and other factors should also be considered, for example, in respect of how the differentiated price levels compare to a price floor.
- 9.365 While ComReg accepts the premise that different costs in different areas can justify geographic differentiated prices, there are also reasons to suggest that making the robust case that would be necessary to demonstrate the level of cost differences that would justify introducing differentiated FTTH VUA prices during the course of the market review will be challenging. For example, the fact that Eircom is still in the process of deploying its FTTH network means that there is still uncertainty in respect of the future costs and demand for FTTH services on Eircom’s network, such that any estimate of Eircom’s FTTH costs and demand would still be heavily reliant on forecasts.
- 9.366 It is also the case that there are number of factors that are specific to Ireland that mean that any cost differential between different geographic areas may not be as significant for future FTTH services on Eircom’s network as it would have been in the past for Eircom’s copper-based services.
- 9.367 A key factor in this regard is that the implementation of the NBP will see the most expensive FTTH lines being provided on NBI’s FTTH network rather than on Eircom’s. This means that the sub-set of FTTH lines with the highest average cost will not be provided by Eircom. Therefore, even though Eircom’s rural FTTH network is still likely to have a higher capex per premises passed than will be the case for Eircom’s non-rural FTTH network, this cost differential is much lower than it would have been in the absence of the NBP.
- 9.368 It is also the case that service pricing is ultimately dependent on the relative cost per active premises connected rather than the cost per premises passed, as it is active premises that determine prices and drive revenues. Having a higher market share in an area can help reduce the cost per premises connected in that area, which should help reduce the key cost differences for

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<sup>688</sup> Paragraph 5.40 of the Oxera Part 1 Report.

Eircom between its higher cost rural FTTH network and lower cost non-rural FTTH network.

- 9.369 For instance, it is reasonable to expect that Eircom will have a higher proportion of premises connected in rural high cost areas than in the more urban areas where there is a greater prospect for rival network competition. Eircom has already established first mover advantage in the more costly rural areas for commercial FTTH deployment (it completed its Rural FTTH build in 2019), which significantly reduces the prospect of other commercial operators deploying rival FTTH networks to compete with Eircom's existing FTTH network in these areas. While NBI is deploying FTTH infrastructure in the rural FTTH footprint, NBI faces a number of constraints in terms of using its state-subsidised network to provide FTTH services outside the NBP-IA footprint, which will limit its ability to compete with Eircom's commercial deployment in rural areas. Consequently, Eircom can expect to connect a higher proportion of the premises passed by its rural FTTH network than it might in the non-rural areas. This should help reduce the difference in terms of cost per premises connected between rural and non-rural areas, which in turn will reduce the differential in cost based prices.
- 9.370 ComReg also notes the significant extent of NBI's reliance on Eircom's ducts and poles to deploy its FTTH network throughout the NBI IA. Given that the NBI IA area is contiguous with Eircom's rural FTTH network footprint, there is a significant degree of sharing of Eircom's ducts and poles between NBI's FTTH network and Eircom's rural FTTH network, as NBI is having to traverse Eircom's Rural FTTH network as it deploys fibre to the serve the premises in NBI IA footprint. Indeed, it is possible that NBI could end up sharing c.80% of Eircom's poles in the Rural FTTH network footprint with Eircom's FTTH network. As a result, PIA revenues from NBI could ultimately fund most of the incremental investment in PIA that Eircom originally incurred when deploying its Rural FTTH network.
- 9.371 In contrast, NBI's network's concentration in rural areas (NBI is not expected to make any material use of poles in urban areas) means that PIA revenues from NBI in the urban areas are not expected to be a significant factor. As a result, the contribution of the PIA revenues from NBI to the funding of Eircom's rural FTTH investments will further reduce any cost differential between rural and urban areas for Eircom's FTTH services.
- 9.372 Given the cumulative effect all these factors are likely to have in terms of reducing cost differences between rural and non-rural areas, ComReg considers that it is reasonable to expect that Eircom should be able to maintain its existing policy of national FTTH VUA prices for the market review period without compromising Eircom's ability to recover the efficient costs it incurs in

providing those services. Therefore, ComReg proposes that Eircom should not be allowed to introduce wholesale geographically differentiated promotions and discounts that target specific areas.

- 9.373 ComReg recognises that, due to the application of the FTTC VUA price as the cost floor for FTTH VUA services, there is a possibility that the price of the FTTH VUA speed profiles that are priced at the FTTC VUA-based price floor being deaveraged, should ComReg approve a price reduction in the regulated FTTC VUA price in a geographic region, subject to the conditions set out in paragraph 9.346. This could mean, for example, that the emulated FTTC-like service on the FTTH network is priced on the basis of a deaveraged FTTC VUA price. However, apart from these exceptional circumstances, ComReg is of the view that there should be no geographic differentiation in the wholesale prices for FTTH VUA services that are priced above the price floor.

### **Conclusion**

- 9.374 The extent of recent FTTH network investment by commercial operators indicates that the regulatory regime in place since 2018 has been reasonably successful in promoting competition by encouraging rival network deployment. Throughout this period Eircom has had pricing flexibility for FTTH rental services, which meant that it could amend the level of FTTH rental prices provided the prices were above a price floor. At the same time, Eircom was prevented from offering wholesale promotions and discounts. However, ComReg now considers that maintaining the outright ban on wholesale promotions and discounts for FTTH over the period of this market review may be overly restrictive, particularly as viable network competition evolves and rival networks become more established and start to gain market share.
- 9.375 Therefore, in light of these developments and having considered the findings in the Oxera Part 1 Report, ComReg proposes to relax the outright ban on wholesale promotions and discounts and to allow Eircom to introduce wholesale promotions and discounts for FTTH services. However, this is subject to case-by-case prior approval by ComReg, to be granted where ComReg is satisfied that the proposed discount or promotion will not have a detrimental impact on actual or potential economically efficient alternative investment in very high capacity networks, which ComReg will assess having regard in particular to the following.
- (a) The cumulative effect of the wholesale promotions and discounts should not result in a price that is lower than the 'price floor' namely for FTTH VUA, the FTTC anchor regulated price.
  - (b) The promotions and discounts for FTTH VUA should not prevent new investment by alternative operators or undermine competition through any conditional or loyalty enhancing effects arising from offers such as

retroactive rebates, exclusivity discounts, long-term commitments or volume thresholds undermining an equally efficient operator's incentive to compete or prevent offnet migration;

- (c) The promotions and discounts for FTTH VUA are not targeted at Eircom retail and can be achieved by a range of Access Seekers; and
- (d) The promotions and discounts for FTTH-based VUA are not targeted at a specific geographic area. In particular, the wholesale promotions and discounts should not give rise to a geographic differentiation of prices.

9.376 In relation to notifications by Eircom of proposed wholesale promotions and discounts, ComReg proposes that a similar process should be followed to that set out in paragraphs 9.377 to 9.378, however ComReg's assessment period should be at least three months. ComReg is interested in stakeholders' views as to whether there may be merit in ComReg consulting with industry on any proposed wholesale promotions and discounts as part of ComReg's assessment.

#### **Pre-notification and publication requirements in respect of pricing**

9.377 The notification of price changes to ComReg and industry is essential to the proper functioning of the wholesale market and is necessary in order to protect competition. ComReg proposes to maintain in place the current regime whereby Eircom is required to give Access Seekers advance notice of any price amendment, having pre-notified ComReg of same one month in advance of publication and submitted a pricing statement of compliance including a full and true disclosure of all material facts and demonstrating compliance with the applicable price control. ComReg also proposes that the advance publication timelines to industry, should be two months for both a price decrease or a price increase to align with the timelines specified in paragraph 9.169, and six months where 'the 1 + 6 advance notification rule' set out in paragraph 9.170 applies. As discussed earlier a longer notification period is needed to protect competition, for example, when a new service is offered by Eircom, Access Seekers may need sufficient time, to prepare IT systems, or source and purchase new equipment so as to avail of the new service. With this proposal any previous variation of timelines between pricing and non-pricing notifications is removed.

9.378 Insofar as notifications related to the approval mechanism for lowering the price floors in a geographic area or wholesale promotions or discounts are concerned, ComReg proposes that its prior approval must be sought at least three months in advance of Eircom's proposed publication date, given the assessment required by ComReg. Following ComReg's assessment, where approval is granted, ComReg proposes a two month advance publication

period to industry. This should give industry sufficient time to prepare for the wholesale promotion or discount for example by altering their retail offers / advertising.

### 9.3.5 Margin Squeeze Tests

- 9.379 ComReg proposes to maintain in place Eircom's obligation not to cause a margin squeeze by reference to a specified Margin Squeeze Test ('**MST**') but to amend the MST that has applied under the 2018 Bundles Decision so that it applies only in respect of Eircom's FTTH 'flagship' products. ComReg proposes further that 'flagship' products are the highest volume FTTH retail offerings which together account for at least 75% of total FTTH retail product volumes. Given the proposed continuation of pricing flexibility at the wholesale level for FTTH VUA rental, an MST between FTTH wholesale inputs and FTTH Retail Services will guard against the potential adverse effects for both downstream competition and retail customers that could arise from a margin squeeze. The proposed imposition of an *ex ante* MST in the presence of wholesale price flexibility for FTTH is consistent with the 2013 EC Recommendation.
- 9.380 The market analysis assessment at Section 8 has identified that there is a concern that Eircom could inhibit sustainable competition in the Commercial NG WLA Market by increasing wholesale access prices, or decreasing retail prices, or a combination of both actions creating a margin squeeze, such that SPs in the downstream retail market are not in a position to replicate the services provided by Eircom and are forced out of the market.
- 9.381 ComReg, in reaching its proposals, has considered the recommendations of its consultant Oxera, as set out in its report ('**Oxera Part 3 Report**'), document number 23/03e. The remaining part of this sub-section is set out as follows:
- (a) Margin Squeeze and Competition Problems,
  - (b) Existing Price Control for Bundles and Standalone Broadband,
  - (c) Assessment of the need for a margin squeeze test for specific retail services,
  - (d) Components of the Margin Squeeze Obligation for FTTH Retail Offerings,
  - (e) Details of FTTH MST,
  - (f) MST on Bitstream prices, and
  - (g) *Ex ante* and *ex post* assessment of offers.

## Margin Squeeze and Competition problems

### What is a Margin Squeeze?

9.382 In defining a Margin Squeeze, the BEREC Guidance<sup>689</sup> (in referencing an ERG report<sup>690</sup>) states that:

*“..a margin squeeze takes place when the difference between the retail and wholesale price imposed by a vertically integrated undertaking for a given product is not sufficient to cover the product’s retail cost by an efficient competitor, thus making it not possible for the competitor to recover all of its retail costs if it wants to compete profitably in the same retail market.”*

9.383 A margin squeeze occurs when an SMP operator, active in both the wholesale and retail markets, sets prices in such a way as to prevent an RSP from replicating the retail service provided by the SMP operator at the same price (which covers their downstream costs and generates a profit).

9.384 A margin squeeze can flow not only from the setting of the wholesale price, but it can also result from the retail price set by the SMP operator. The concern is not with the absolute wholesale or retail price but rather with the difference created by an SMP operator between such prices, i.e. the price or margin squeeze.

9.385 There are three ways in which a margin squeeze can be achieved by a dominant operator:

- (a) increasing the wholesale charge to OAOs for its access product (in the upstream market),
- (b) decreasing the price of its retail product (in the downstream market), or
- (c) A combination of both.

### **No Wholesale or Retail Price Controls**

9.386 In the absence of regulation, where no wholesale price control is imposed for certain wholesale inputs (particularly in areas where there is no alternative network operator), the SMP operator would be free to implement a margin squeeze through increasing wholesale charges to OAOs seeking access to its wholesale services – see Figure 31.

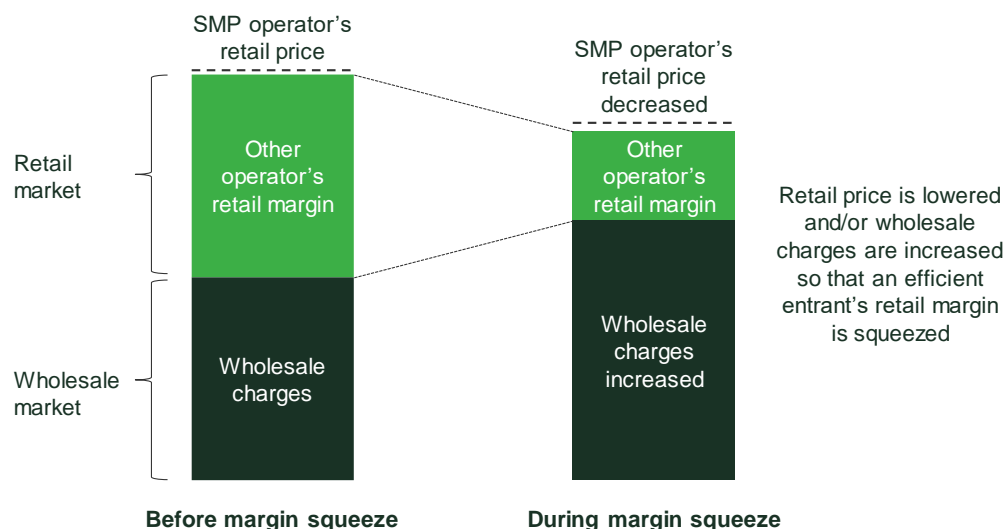
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<sup>689</sup> BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e., *ex ante*/sector specific margin squeeze tests – BOR 14 (190) 2014 (the ‘BEREC Guidance’).

<sup>690</sup> ERG Report on the Discussion on the application of margin squeeze test to bundles (March 2009). ERG being BEREC’s predecessor.



**Figure 31: Mechanics of a Margin Squeeze Test with No Wholesale Price Controls**



Source: Oxera Figure 3.1 of its Part 3 Report (ComReg document 23/03e)

9.387 Oxera notes (in Section 3.12 of its Part 3 Report) that if Eircom has the flexibility to implement a margin squeeze through an increase in its wholesale prices, it would allow it to:

*“...engage in a squeeze without incurring losses on an end-to-end basis. This is because any margin lost at the retail level would be covered through excess profits at the wholesale level, provided that retail prices are set at or above total end-to-end costs. In this regard, the margin squeeze can be said to be ‘costless’ for Eircom.”*

9.388 This margin squeeze (created by an increase in wholesale charges) is said to be ‘costless’ to Eircom as any change in the wholesale price does not affect the profitability of the service on an end-to-end basis (as an increase in margin in the wholesale market, due to increase wholesale prices, will be offset by a reduction in margin in the retail market due to an increase in the wholesale input costs). This is on the assumption that Eircom Retail relies on Eircom’s wholesale access product and not another network infrastructure provider.

9.389 From the perspective of Access Seekers, an increase in the wholesale charges will raise the costs associated with providing a retail (standalone or bundled) service in the downstream market. Assuming a fixed retail price, this may lead to a tightening of their margin to a level that they are unable to compete with Eircom/Eir and may be forced out of the market.

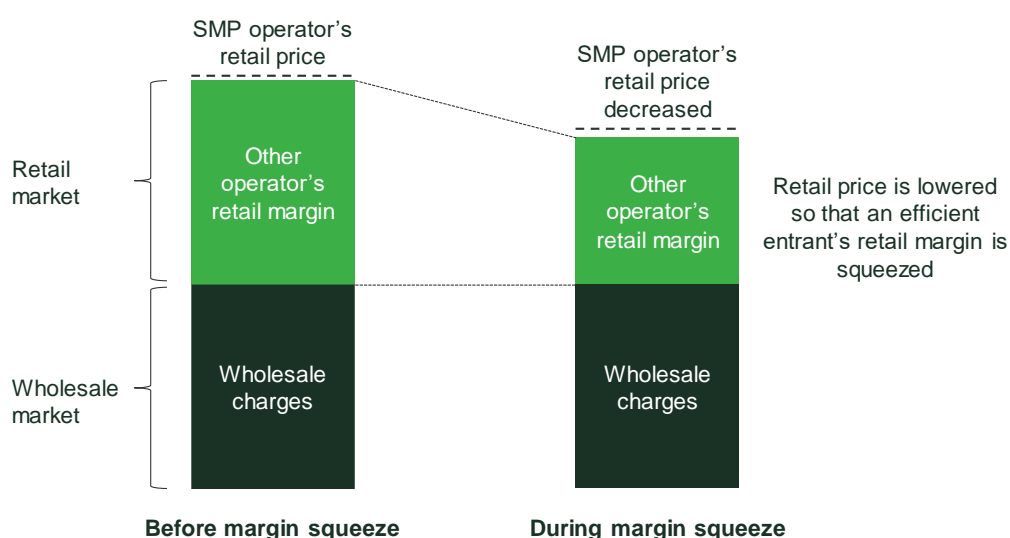
9.390 Oxera concludes (in Section 3.1.6 of its Part 3 Report) that all else being equal, compared with a scenario with a wholesale price control in place *“Eircom will have a stronger ability and incentive—or weaker disincentives—to impose a margin squeeze without a wholesale price control in place.”*

- 9.391 In other words Eircom can foreclose RSPs that are dependent on Eircom's wholesale products by preventing them from profitably replicating Eircom's retail offerings. In addition to increasing wholesale access prices, Eircom can reduce its retail prices (through promotions and discounts for example) which can lead to a margin squeeze. See Figure 31 above.
- 9.392 The lack of retail price controls could also have the impact of tightening the margins of RSPs to such a level that they are forced out of the market as they cannot compete with the SMP wholesale operator in the downstream market.
- 9.393 In the long term this practice will create consumer harm through lack of competition and excessive retail prices. As noted by Oxera (in Section 5.6 of its Part 3 Report) it "...could enable Eircom to secure an entrenched position of market power at the retail level with potentially significant negative effects on consumers, in terms of reduced consumer choice, less innovation, lower quality of service (e.g. regarding customer service), and reduced price competition, among other aspects."

### **Wholesale Price Control but no Retail Price Control**

- 9.394 In circumstances where a wholesale price control exists (such as cost orientation) but there is no requirement to ensure replicability in the downstream market by means of a MST, a margin squeeze may be brought about through a reduction in retail prices by the SMP operator – see Figure 32 below.

**Figure 32: Mechanics of a margin squeeze: with wholesale price control**



Source: Oxera Section 3.2 of its Part 3 Report (ComReg document 23/03e)

- 9.395 Assuming all underlying wholesale and retail costs remain unchanged, a reduction in retail prices will result in a reduction in the associated margin,

which could lead to a margin squeeze. The SMP operator will only have an incentive to engage in such a squeeze (as it reduces retail revenues and profits) if there is potential to recoup such losses after successfully implementing the margin squeeze (through for example an increase in its subscriber base).

9.396 For the RSP, a reduction in the retail price charged by the SMP operator could lead to the RSP exiting the market as it cannot achieve a positive margin (at such prices) on the retail services, whether they are sold on a standalone basis or as part of a bundle.

9.397 Oxera also notes (in Section 3.21 of its Part 3 Report) that.

*“Eircom could in theory sustain a margin squeeze by pricing down to the level of its variable costs, as it continues to earn profits (or, at a minimum, recover its variable costs) during the squeeze. Translating this to the LRIC+ price control, this means that Eircom could set its retail price below its LRIC+ (and even below its LRIC) plus its incremental downstream costs, and continue to earn end-to-end (short-run) profits on each and every sale.”*

9.398 As a result, an SMP operator has the ability to engage in a squeeze, at least in the short run, recovering its variable costs and earning a profit.

### **The existence of competing NGA networks**

9.399 The potential for SMP operators to create a margin squeeze may however be influenced by the presence of alternative network operators. The BEREC Guidance states in this respect that:

*“The roll-out of NGA networks by alternative operators, or the signing of co-investment agreements, could in this regard lead to increased infrastructure competition in some areas and thus, ultimately, to effective competition on the retail markets”*

9.400 In circumstances where there are alternative network infrastructure providers present, the incentive of the SMP operator to engage in a margin squeeze at the wholesale and retail level may be weakened. The way in which the presence of alternative network infrastructure operators affects the SMP operator will be dependent on whether they are wholesale providers of access services or whether they are providers of an end-to-end service (including a retail service) and also on the margin squeeze strategy employed by the SMP operator, i.e., whether it is through an increase in wholesale access charges or a decrease in the retail prices (of standalone and bundled products).

9.401 If the SMP operator engages in a margin squeeze by increasing its wholesale access prices, Access Seekers may switch to an alternative network operator who is offering an access service at a lower price. The success of this in preventing the SMP operator from engaging in a margin squeeze will be

dependent on the presence and scale of the alternative network and the services offered. The greater the substitutability of the alternative network infrastructure is to the SMP network, the lower the incentive for the SMP operator to apply a margin squeeze by increasing wholesale access prices.

9.402 If the SMP operator engages in a price squeeze by reducing its retail price (given the existence of a wholesale price control), the alternative network infrastructure provider may try to compete with the SMP provider for Access Seekers by offering a lower priced (wholesale) access service compared with that offered by the SMP operator and so offset the impact of the reduction in the retail margin (if the alternative network operator considers that this would be beneficial in the longer term).

9.403 The success of the alternative network operator in minimising the impact of a squeeze by an SMP operator will, as noted by Oxera (in Section 3.31 of its Part 3 Report) be dependent on a number of factors, including the ability of the alternative wholesale network operator to offer:

*“... a credible substitute to Eircom’s network; ....meet the technical needs of the access seekers and/or if the network coverage is unsuitable....., if the alternative network operator has sub-national coverage, the access seeker may be able to switch only in certain areas and would still need to rely, in part, on Eircom’s wholesale inputs to maintain the same coverage..... Access seekers must also be able to easily switch away from Eircom’s network; this may not be the case if switching is technically complex, slow and/or costly.”*

9.404 While Eircom does face competition from alternative wholesale network operators e.g., SIRO, Oxera (in Section 3.33 of its Part 3 Report) is of the opinion that, *“...not all access seekers are likely to have a credible alternative to Eircom to fully undermine its incentives to engage in a margin squeeze.”*

9.405 Operators who self-supply wholesale services and compete at the retail level may also affect the incentive and ability of the SMP operator to engage in a margin squeeze. As noted by Oxera (in Section 3.34 – 3.36 of its Part 3 Report) while this will not change an SMP operator’s incentives and ability to engage in a squeeze at the wholesale level, through an increase in wholesale prices, its incentives and ability to margin squeeze at the retail level through a reduction in retail prices would be weakened as it could lead to a retail price war with the alternative end-to-end network operator. This could impede the SMP operator’s ability to capture the retail customer of the Access Seekers disadvantaged by the margin squeeze, as those retail customers may instead divert to the alternative end-to-end network operator that lowers its retail prices on equivalent services to match the SMP operator’s lower retail prices.

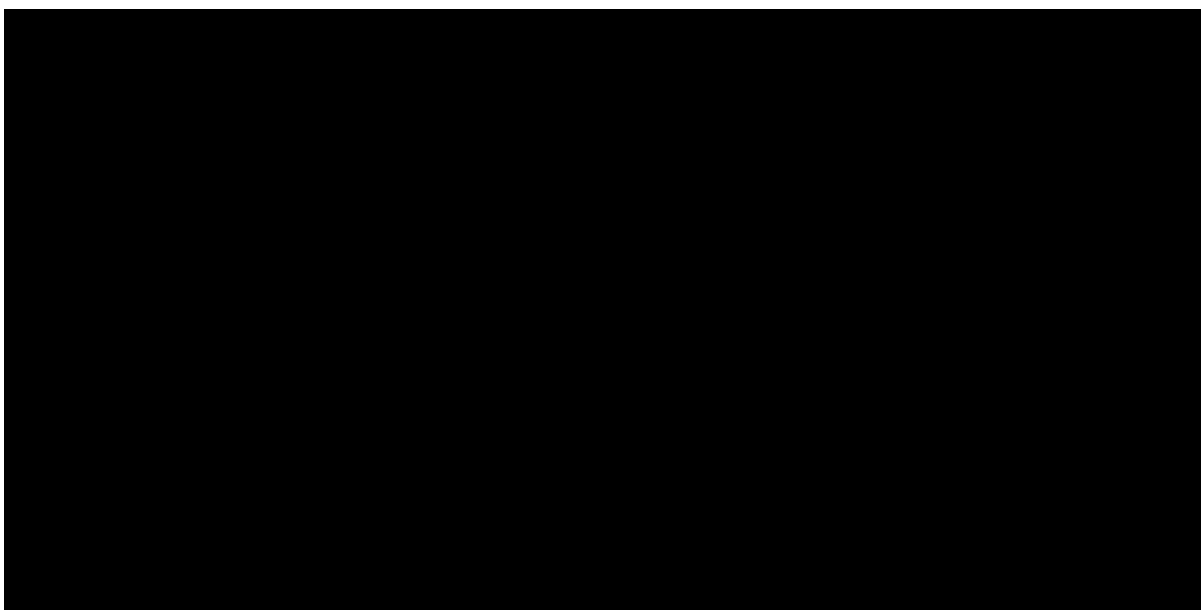
9.406 However, for the reasons set out in Section 6, ComReg does not believe any alternative end-to-end network operator over the market review period will constrain Eircom to a sufficient level and therefore that it is necessary to maintain Eircom's obligation not to cause a margin squeeze and specify such an obligation by reference to an MST.

### Existing Price Control for Bundles and Standalone Broadband

9.407 Under the 2018 Decision, Eircom is subject to an obligation not to cause margin squeezes<sup>691</sup> in the WLA Market and Regional WCA Market, and this obligation was further specified by way of MSTs set out in the 2018 Pricing Decision<sup>692</sup> and the 2018 Bundles Decision.<sup>693</sup>

9.408 Figure below sets out the market share of Eircom and OAO's for the retail broadband market (sold in a bundle or on a standalone basis). For Quarter 2 2022, Eircom held a [X ██████████ X] market share, followed by Virgin Media at [X ██████████ X], Vodafone at [X ██████████ X], Sky at [X ██████████ X] and the rest of OAO's accounting for [X ██████████ X].

Figure 33: Operator market share 2018-2022 [X REDACTED X]



<sup>691</sup> In accordance with Regulation 13 of the Access Regulations.

<sup>692</sup> Pricing of wholesale broadband services Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets Response to Consultation Document 17/26 and Final Decision D11/18. Link - [ComReg-1895.pdf](#)

<sup>693</sup> Response to Consultation and Decision on price control obligations relating to retail bundles Further specification of the wholesale price control obligation not to cause a margin squeeze in the WLA, and WCA Markets (Decision D12/18, document no 18/96). Link - [ComReg-1896.pdf](#)

- 9.409 The relatively stable market shares on the retail broadband market (sold on a standalone basis or bundled with other services) over the 2018-2022 period suggest that SPs have been able to replicate Eircom's retail offerings in the presence of the existing MSTs.
- 9.410 ComReg propose to adopt an MST that is similar to that in place under the 2018 decisions but subject to certain amendments in order to acknowledge market developments that have intervened in the meantime.

#### **Assessment of the need for a margin squeeze test for specific retail services**

- 9.411 Access Seekers who purchase FTTC VUA or FTTH VUA at the wholesale level (from Eircom or another network infrastructure provider) can offer a variety of retail services. These services include Standalone Broadband (FTTC or FTTH at varying speeds) and Bundled services which include Broadband plus another service e.g., Fixed Voice, Mobile and TV.
- 9.412 Based on recent QKDR data for Quarter 2 2022, retail customers who purchase Broadband alone account for [X ■■■ X] of the market, customers who purchase Broadband and Fixed Voice (i.e., a dual play bundle) account for [X ■■■ X] whereas customers who purchase Broadband, Fixed Voice and TV (i.e., a triple play bundle) account for [X ■■■ X] and customers who purchase Broadband, Fixed Voice, Mobile and TV (i.e., a quad play bundle) account for [X ■■■ X]. BEREC Guidance recognises that non-regulated costs "... given the importance of bundles, they can represent a material proportion of downstream costs and therefore should be considered a relevant parameter in the margin squeeze test."<sup>694</sup>
- 9.413 ComReg proposes accordingly that the costs (and revenues) associated with any unregulated service(s) included in a bundle should be included in the MST assessment. Paragraphs 9.560 to 9.566 below discusses this in greater depth.

#### **Risk of Margin Squeeze for retail services using FTTC VUA**

- 9.414 As set out in paragraph 9.258 above, ComReg proposes to maintain Eircom's obligation of cost orientation for FTTC VUA, specified by reference to applicable regulated price for FTTC VUA at the time of the final decision subject to maximum annual increases in line with CPI. This means that the only option for Eircom to create a squeeze for FTTC services would be by a reduction in the FTTC retail price.

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<sup>694</sup> At p.123.

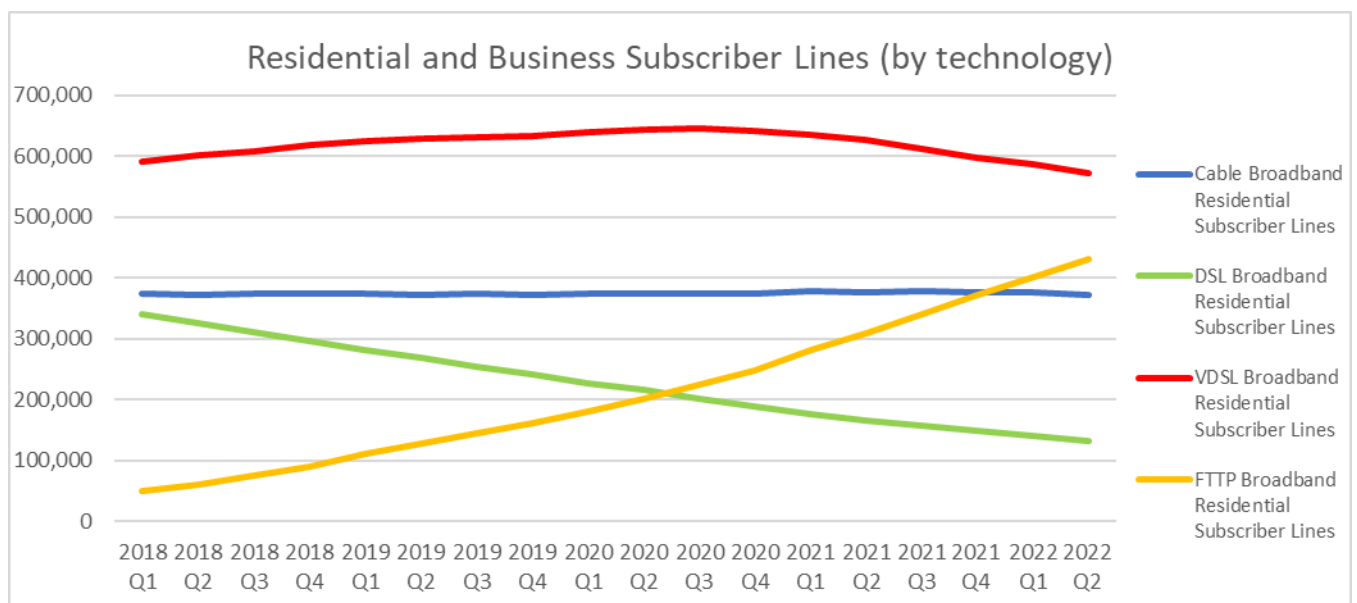
9.415 However, as discussed below, given the ongoing migration from FTTC to FTTH, Eircom’s motivation to encourage this migration, and the resultant difficulty in recouping the related costs, the risk of a margin squeeze on FTTC has diminished to the extent that ComReg is proposing not to impose an MST on FTTC.

**Migration from FTTC to FTTH**

9.416 While FTTC remains the most popular form of broadband service, there have been signs of decline as subscribers move from FTTC to FTTH. Figure 34 below highlights that the FTTC service (labelled as VDSL) peaked at 645,000 subscribers in Q3 2020 and has since declined to 571,000 subscribers at Q2 2022. In contrast there has been a steady growth in FTTH (labelled as FTTP) for the same period (i.e. from 224,000 subscribers in Q3 2020 to 431,000 subscribers in Q2 2022).

9.417 This trend is expected to continue over the review period given the deployment plans of network operators, e.g., Eircom has the objective of bringing full fibre broadband to 1.9m houses and businesses (by 2026), with 900,000 homes and businesses<sup>695</sup> already passed and SIRO expected to reach 770k homes and premises.<sup>696</sup>

**Figure 34: Subscriber Lines by Technology (2018-2022)**



Source: QKDR - Internet Data

Note: This analysis excludes satellite, fixed wireless access and mobile.

<sup>695</sup> In October 2022.

<sup>696</sup> NBI is deploying FTTH infrastructure in the rural FTTH footprint and is expected to reach 450k+ homes and businesses.

- 9.418 As Eircom continues to build out FTTH in the footprint it currently serves with FTTC over the review period, there will be, as identified by Oxera (in Section 4.7 of its Part 3 Report), *“strong incentives to encourage subscribers to migrate to its FTTH service offerings, and thereby to contribute to the recovery of the fixed and sunk costs associated with the investment.”*
- 9.419 A policy of engaging in a margin squeeze of FTTC based retail services (by lowering FTTC based retail prices) would be in conflict with this strategy as it could delay the migration of customers onto FTTH. Oxera (in Section 4.7 of its Part 3 Report) identified that a key driver of migration from FTTC to FTTH will be the relative prices of FTTC based and FTTH based retail services. A high price differential would deter customers from switching from FTTC to FTTH (where services are available in parallel). Eircom will be motivated to encourage customers to upgrade to FTTH and may set the retail prices of FTTH and FTTC to stimulate such migration.
- 9.420 Furthermore, and as noted by Oxera (in Section 4.10 of its Part 3 Report), imposing a margin squeeze through a reduction in retail prices would mean that Eircom would incur short-run losses, relative to the scenario in which it does not engage in a margin squeeze. Eircom would have difficulty recouping these losses following a squeeze as customers migrate to FTTH. This, as noted by Oxera, will act as further disincentive on Eircom to engage in a margin squeeze on FTTC.

### ***Cost of a Margin Squeeze***

- 9.421 If Eircom did decide to engage in a squeeze by reducing the price of FTTC based retail services, the cost of the squeeze would have to be recouped at some stage. The size of the cost to be recouped would be determined by the size of the price reduction and the period over which the reduced price is offered (so as to foreclose downstream competitors). Larger and well-established operators are more likely to be able to withstand a margin squeeze compared with smaller new entrants. Oxera (in Section 4.14 of its Part 3 Report) identified that well-established providers of retail FTTC services
- “...may require less protection against a margin squeeze given the relatively low risk of them quickly exiting the market in response to Eircom’s strategy”.*
- 9.422 On the other hand, while Eircom may be able to successfully squeeze out smaller and less-established operators more easily, the potential benefits to Eircom are likely to be small. Oxera (in Section 4.15 of its Part 3 Report) notes that given the focus of competition will be on FTTH based retail services (over the review period), *“...on a forward-looking basis the foreclosure of smaller FTTC providers is of less concern due to the limited impact this would have on competitive dynamics over the review period.”* As explained by Oxera,



there are two ways for Eircom to recoup losses (see Section 4.17 and 4.18 of its Part 3 report).

- 9.423 Firstly, Eircom could try and leverage the position it has acquired through the margin squeeze in the retail market and increase the price of the FTTC retail services. The ability of Eircom to recoup such losses may be challenging as RSPs may re-enter the market and resume providing FTTC retail services. The ability of Eircom to maintain such high prices may be eroded and /or customers may decide to switch to FTTH Retail Products (offered by Eircom or another RSP). In addition, Oxera noted that if copper switch-off takes place, the timeframe within which Eircom can recoup its losses through higher FTTC prices will be limited, as FTTC would be withdrawn.
- 9.424 Secondly, if Eircom were successful in gaining an increased share of FTTC retail services, it could seek to recoup losses and upgrade such customers to its FTTH Retail Products. The challenge here (as identified by Oxera) is whether Eircom faces competition for such services which inhibits it from earning higher margins than FTTC Retail Services. In addition, the size of the price differential between FTTC and FTTH Retail Products (even after FTTC retail prices have increased) may dissuade customers from migrating to FTTH, particularly in the short term.

#### ***The existence of alternative network operators***

- 9.425 While Oxera (in Section 4.22 of its Part 3 Report) notes that the only alternative end-to-end network operator in Ireland with a material presence is Virgin Media, covering [X ██████████ X] of the total premises in Ireland, it could however potentially weaken Eircom's incentives to engage in a margin squeeze of FTTC services given the risk that Virgin Media may respond by reducing its prices. Oxera however noted that, consistent with the provisional conclusions from the market review, the competitive impact of Virgin Media may be immaterial.
- 9.426 While the existence of alternative network operators could discourage Eircom from engaging in a margin squeeze, ComReg notes that there is no alternative network providing an FTTC service, so any attempt by Eircom to engage in a squeeze of FTTC is not restricted in this way. Also even though there is an alternative network operator, i.e. SIRO providing a wholesale FTTH service, Oxera (in Section 4.24 of its Part 3 Report) notes that it may be unlikely to offer a sufficiently strong substitute that enables Access Seekers to mitigate Eircom's attempted margin squeeze by quickly transferring a large share of their FTTC customers to an FTTH service provided on an alternative wholesale network.
- 9.427 In light of above, Oxera (in Section 4.25 of its Part 3 Report) notes that the despite the presence of alternative network operators they are unlikely to

reduce Eircom's incentives "to engage in a squeeze". However for the reasons outlined in the sections above the incentive to margin squeeze on FTTC is "...likely to be low".

### **Conclusion**

- 9.428 In light of the above discussion, ComReg is of the view that Eircom is unlikely to engage in a margin squeeze for FTTC retail offerings (in the presence of the proposed price continuity for FTTC VUA services). It is proposed therefore that it should not be subject to an *ex ante* MST. Eircom would however continue in any event to be subject to *ex post* competition law obligations.

### **Risk of Margin Squeeze for retail services using FTTH VUA**

- 9.429 As set out in paragraphs 9.224 to 9.241 above, ComReg proposes to continue to allow Eircom price flexibility for FTTH VUA services
- 9.430 Considered below is whether there is a risk that Eircom could, in the absence of a wholesale price ceiling, leverage its position into the downstream market in the provision of FTTH retail offerings (Broadband services sold on a standalone or bundled basis) and create a margin squeeze.

### **Migration from FTTC to FTTH**

- 9.431 The trend of increasing FTTH subscribers and declining FTTC and copper (as set out in Figure 36 above) is expected to continue over the review period.
- 9.432 As Eircom rolls out its FTTH network, it will be expected that Eircom may rely on RSPs to assist in the transition from FTTC VUA to FTTH VUA – such RSPs can, as identified by Oxera (in Section 5.16 of its Part 3 Report), "offer a valuable route to gaining FTTH subscribers and generating the associated wholesale revenues for Eircom." Oxera suggests in the short term, as the FTTH network is rolled out, Eircom may have little incentive to foreclose such RSPs by creating a margin squeeze.
- 9.433 As further noted by Oxera (in Section 5.17 of its Part 3 Report) there does not appear to be any attempt by Eircom to squeeze RSPs' margins at present and a significant share of Eircom's wholesale FTTH lines are sold to Access Seekers. This is evident firstly in the market shares of FTTH, with Vodafone holding [X ██████████ X] of FTTH lines, Sky, [X ██████████ X] and Eircom, [X ██████████ X] in Q2 2022. This suggests that under the existing MSTs (as per the 2018 Pricing Decision and the 2018 Bundles Decision) Access Seekers have the ability to replicate Eircom's FTTH retail offerings. While this may be attributed to the fact that Eircom has an obligation not to margin squeeze, Eircom is earning ATC margins on both standalone and bundled FTTH products, in excess of [X ██████████ X] in Q3 2022. This, as noted by Oxera (in Section 5.18 of its Part 3 Report), indicates that

Eircom's margins are *“above the level that would indicate a desire to squeeze margins to the minimum allowed amount.”*

- 9.434 Secondly, it is also evident in the proportion of FTTH lines sold by Eircom to Access Seekers, with almost [X ██████████ X] of FTTH lines being sold to Access Seekers (between Q2 2021 and Q 2 2022) and the remainder being self-supply to Eircom's retail arm. This, as noted by Oxera (in Section 5.19 of its Part 3 Report), suggests that wholesale access volumes are currently a key part of Eircom's FTTH portfolio and therefore in the short-run Eircom may not have the incentive to margin squeeze.
- 9.435 While it is uncertain that Eircom would engage in a margin squeeze during the review period, the potential adverse effects on RSPs, network operators and customers could be significant. Oxera notes (in Section 5.36 of its Part 3 Report) that, *“If such a situation were to arise, the significant benefits from decades of promoting retail competition through ex ante regulation could be lost, as the SMP operator's position becomes entrenched and re-monopolisation of the retail market during the transition to the next generation of technology becomes a real possibility.”* This is discussed further at paragraphs 9.443 to 9.450 below.
- 9.436 In the longer term and as the network fills up and Eircom becomes less reliant on Access Seekers to achieve payback on its investment cost, Eircom's incentive to engage in a margin squeeze to foreclose Access Seekers and increase its retail market share may increase. It is unclear how quickly this may happen but Oxera (in Section 5.23 of its Part 3 Report) is of the opinion that this *“...may happen within the market review period and has the potential to do so reasonably quickly”* and would be dependent *“..on the extent to which Eircom is able to migrate a critical mass of its own downstream retail customers onto its FTTH network, and, more generally, how quickly customers migrate to FTTH, such that Eircom is no longer reliant on the support from access seekers to aid the migration.”*

### **Cost of a Margin Squeeze**

- 9.437 As noted by Oxera (in Section 5.10 of its Part 3 Report), it is also the case that Eircom could engage in a 'costless' margin squeeze by increasing its FTTH wholesale prices (and leaving its retail prices unchanged). Unlike the position with FTTC, Eircom would not incur losses that would need to be recouped following the implementation of the margin squeeze. This increases the risk of Eircom engaging in a margin squeeze.
- 9.438 ComReg also notes that an *ex ante* MST can have a role in providing additional safeguards for Access Seekers where there is pricing flexibility on some key wholesale inputs, in line with the EC Recommendations. Recital 50 of the EC Recommendation notes that:

*“...to prevent such pricing flexibility leading to excessive prices in markets where SMP has been found, it should be accompanied by additional safeguards to protect competition.”*

and should also include an “...economic replicability of downstream products”, the purpose being, as set out in Recital 62:

*“to ensure, in combination with the other competitive safeguards introduced such as EoI, the technical replicability test, and a demonstrable retail price constraint resulting from a copper anchor or alternative infrastructures, that **SMP operators do not abuse this pricing flexibility in order to exclude (potential) competitors from the market**”.*

### **The existence of alternative network operators**

- 9.439 As set out in paragraphs 9.425 to 9.427 above, the incentive of the SMP operator to engage in a margin squeeze will be weakened by the presence of alternative network infrastructure providers. If Access Seekers are able to switch to an alternative network provider quickly and at a low cost and at a wholesale access price which is more favourable to them (compared with that offered by the SMP operator) and allow them to generate a reasonable margin at the retail level, any attempt by Eircom to increase its wholesale access charges (leading to a margin squeeze) would be therefore hindered.
- 9.440 ComReg in Section 6 above concluded that the presence of rival wholesale FTTH infrastructure operators including Virgin Media and SIRO in the Commercial NG WLA Market over the review period will not sufficiently constrain Eircom’s behaviour in the Commercial NG WLA Geographic Market so as to prevent it from acting independently.
- 9.441 As set out in paragraphs 9.399 to 9.406 above providers of an end-to-end service i.e., operators who self-supply wholesale services and compete with RSPs at the retail level may also affect the ability of the SMP operator to engage in a margin squeeze. As noted by Oxera (in Section 5.27 of its Part 3 Report), there are no end-to-end operators offering wholesale access at a material scale other than Eircom, at Q2 2022 Eircom had [X ██████████ ██████████ X]<sup>697</sup> FTTH lines (supplying to Access Seekers and self-supplying to its retail arm) whereas Virgin Media had [X ██████████ X] (all self-supply) lines.
- 9.442 Accordingly, while Eircom’s incentive to engage in a margin squeeze may be reduced by the presence of alternative network operators, such presence is not sufficiently ubiquitous as to deter Eircom once it has gained volume on its FTTH network.

<sup>697</sup> Source: Operators Quarterly Submissions to ComReg.

## Conclusion

- 9.443 While the risk that Eircom would engage in a margin squeeze on FTTH retail offerings during the review period is uncertain, the potential adverse effects on network infrastructure operators, RSPs and customers could be significant. This is because a margin squeeze could have a negative impact on network investment and sustainable competition which could lead to consumer harm (due to less choice, less incentive to provide good quality of service and less price competition for example).
- 9.444 ComReg is of the view that an *ex post* competition law enforcement will be insufficient as it will be limited to protecting remaining competition and may be too late as alternative Access Seekers may have already left the market.
- 9.445 Oxera (in section 5.39 of its Part 3 Report) notes with respect to the risk of waiting to see if a competition issue arises before opening an *ex post* investigation, that “*..the SMP operator could already have secured an entrenched position before any resolution can be imposed, which would be difficult and time-consuming to unwind.*”
- 9.446 Recital 61 of the EC Recommendation suggests that:
- “to establish whether alternative access seekers can **economically replicate a downstream offer provided by the SMP operator** with the regulated wholesale input available, in cases where wholesale price regulation should not be imposed, an NRA should undertake an ERT” [ComReg emphasis]*
- 9.447 The BEREC Guidance also sees *ex ante* MSTs as a safeguard for competition, allowing efficient market entry and promoting efficient investment in NGA networks.
- 9.448 Oxera (in Section 5.38 of its Part 3 Report) noted for FTTH that “*The consequences of errors from choosing not to impose an MST and later observing a squeeze compared to imposing an MST and finding it may not have been necessary would suggest that, on balance, it would be proportionate to impose margin squeeze obligations, given the risks of not doing so.*”
- 9.449 ComReg accordingly proposes to require that Eircom meets an *ex ante* MST for FTTH retail offerings (including both FTTH sold on a standalone basis or included in a bundle with one or more unregulated products). To clarify, the MST would not apply to an Emulated FTTC-like service on the FTTH network to be introduced by Eircom were it to withdraw FTTC in an Exchange. As this FTTC-like service is to replace FTTC, Eircom has little incentive to squeeze for the same reasons as outlined above for FTTC.

- 9.450 The margin squeeze obligations aim to ensure a sufficient gap between retail and wholesale prices to allow Access Seekers to compete at the downstream market. This can also indirectly regulate the level of wholesale prices, to the extent that one way in which an MST can be passed is through reductions in the wholesale price. An MST can be thought of as a transmission mechanism of retail constraints to the wholesale level. For example, if an RSPs retail price for FTTH is €40 per month then Eircom Retail will be unlikely to charge above €40 for FTTH per month as they would lose retail market share. Thus, in the presence of a Retail MST, the FTTH wholesale price may be restricted at the level of the retail price less retail margin.
- 9.451 Please see paragraphs 9.502 to 9.520 below which discusses the relevant FTTH retail offerings further and paragraphs 9.583 to 9.600 which discusses the administration aspects associated with the proposed an *ex ante* (and *ex post* monitoring) test.

## Components of the Margin Squeeze Obligation for FTTH Retail Offerings

### Overview

- 9.452 The MST is passed if the relevant retail revenues are greater than or equal to the relevant wholesale input (access) costs plus the downstream costs. These components are considered in depth in this subsection.

### Parameters to be applied in an *ex ante* test

- 9.453 Paragraph 56 of the 2013 EC Recommendation sets out the parameters that should be applied by an NRA in an *ex ante* economic replicability test (an MST), i.e.,
- (a) relevant downstream costs,
  - (b) relevant cost standard,
  - (c) relevant regulated wholesale inputs concerned and the relevant reference prices,
  - (d) relevant retail products, and
  - (e) relevant time period.
- 9.454 In addition to the above, Oxera (in Section 6.2 of its Part 3 Report) identifies that the following need also to be considered:
- (a) the level of aggregation of the tests;
  - (b) the benchmark operator;
  - (c) revenue; and

(d) profitability approach.

9.455 Each of the above are now discussed in turn below.

### The relevant downstream costs

9.456 The 2013 EC Recommendation defines downstream costs as “...*the costs of retail operations, including marketing, customer acquisition, billing, and other network costs, incurred in addition to those network costs already included in the wholesale access service.*”<sup>698</sup> The Recommendation goes on to recommend that such costs be estimated on the basis of the SMP operators own downstream business (an Equally Efficient Operator or ‘**EEO**’ test) noting that adjustments for scale to the SMP operator’s downstream costs can be made in order to ensure that economic replicability is a realistic prospect.

9.457 In considering the relevant downstream costs that need to be included in the proposed **FTTH MST**, ComReg notes that all relevant costs should be included so that all RSPs who purchase a wholesale access product from Eircom (i.e., FTTH VUA) can replicate the retail service provided by Eircom in the downstream market and earn a sufficient margin.

9.458 The downstream costs can be analysed under the following categories:

- (a) Retail costs;
- (b) Own network costs;
- (c) Common costs;
- (d) Promotional and discount costs; and
- (e) Other costs.

### **Retail Costs**

9.459 Retail costs are the costs needed to be incurred by the SMP operator and RSPs so as to provide a specific service in the retail (downstream) market (e.g., FTTH, Fixed Voice, Mobile and TV). The BEREC Guidance indicates that most NRAs use the SMP operator’s categorisations as they are audited and therefore are a reliable base for determining the appropriate breakdown of retail costs. BEREC goes on to identify that the retail cost categories that NRAs generally include are:

- (a) Customer acquisition and retention,
- (b) Customer care,
- (c) Marketing and advertising,

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<sup>698</sup> Definitions Section 6(f).

- (d) Billing,
- (e) Sales personnel salary/Sales commission,
- (f) Bad debt,
- (g) CPE/Distribution of CPE,<sup>699</sup>
- (h) Product development/management, and
- (i) Common costs.

9.460 As noted by BEREC, the relevant cost categories may depend on the specific retail offer, e.g., a bundle that includes a number of retail products may include additional cost categories compared with a Standalone Retail FTTH Product.

### **Own network costs**

9.461 An RSP may incur additional network costs (over the wholesale access charges, discussed below) so as to enable it to provide a retail service in the downstream market. These would include, for example, co-location, backhaul and in-home costs (i.e., cost of broadband installation at customer premises) that would be incurred when using the FTTH VUA wholesale input to provide a FTTH Retail Offering. As noted by Oxera (in Section 6.90 of its Part 3 Report) a *“failure to include such costs would risk leaving insufficient headroom for the access seekers to compete at the retail level...”*.

9.462 ComReg proposes accordingly that all relevant network costs needed by the Access Seeker to provide the retail service should be included in the FTTH MST. With regard to the suitable source of such costs, Oxera (in Section 6.91 of its Part 3 Report) notes that the relevant costs may be obtained from Eircom’s regulated accounts.

### **Common costs**

9.463 ComReg regards common costs as costs incurred across the whole organisation regardless of the product or service so that the cost cannot be directly attributed to a particular product or service e.g., general finance function costs, personnel and administration costs, general corporate services costs, CEO salary, regulatory licence fees, redundancy costs/cost of voluntary leaving programmes.

9.464 Similarly, ComReg considers that there may be additional common costs associated with certain product related cost categories such as billing and sales and marketing costs which may not be incremental to a specific Eircom product/service. However, it would be necessary for Eircom to demonstrate

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<sup>699</sup> Consumer Premises Equipment.



why it considers such costs to be a common/ indirect cost rather than a direct cost on a case-by-case basis.

- 9.465 Equi-proportional mark-up ('**EPMU**') is generally the approach used to calculate the ratio of total common costs to total incremental costs. Using this method, costs are evenly distributed across the costs of all relevant services using a percentage that is calculated as the ratio of total common costs to total service costs.

### **Promotional and Discount costs**

- 9.466 The costs associated with retail promotions and retail discounts also need to be included in the FTTH MST. Promotions and discounts on retail offering (Standalone or bundled products) should be recovered from the revenues generated by the associated retail offering, over its lifetime. Please see paragraphs 9.521 to 9.426 below for a further discussion on this.

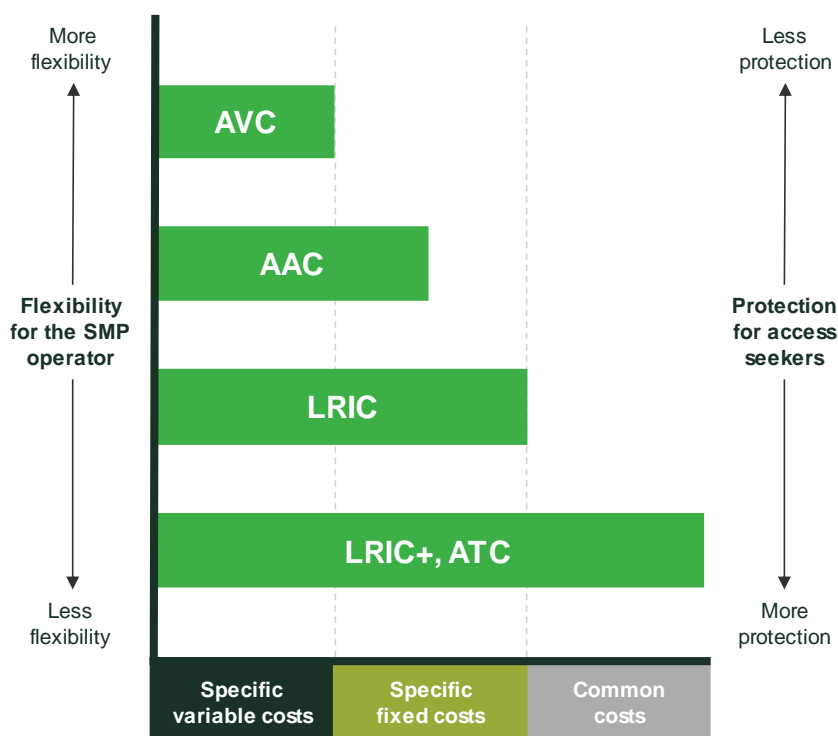
### **Other costs**

- 9.467 The costs of unregulated services (i.e., fixed voice, mobile and TV) that are included in any bundle should also be included in the FTTH MST. As noted by Oxera (in Section 6.98 of its Part 3 Report) since no SP has SMP in respect of these unregulated services and so are deemed to be competitive, the costs of these services should be included at the LRIC cost standard (this is discussed further at paragraphs 9.560 to 9.566). This is consistent with the existing MST requirements.
- 9.468 ComReg proposes that the FTTH MST include the downstream costs as set out above.

### **The relevant cost standard**

- 9.469 The cost standard refers to the approach used to measure the costs that are included in an MST to calculate the margin. As set out below, a range of cost standards can be adopted.

**Figure 35: Cost Standard choice and the level of flexibility**



Source: Oxera; European Commission (2009), 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings', 2009/C 45/02, 24 February.

- 9.470 The **Average Variable Cost ('AVC') approach** measures the variable cost of producing an additional unit of output. AVC does not consider fixed costs. Fixed costs can however represent a significant cost component of the RSP costs that are relevant to the MST.
- 9.471 The **Average Avoidable Cost ('AAC') approach** measures the costs that could be avoided if the company concerned had not produced a discrete amount of extra output. It may include avoidable fixed cost elements in addition to variable costs, depending on the timescale over which AAC is assessed.
- 9.472 A **Long Run Incremental Cost ('LRIC') approach** measures the costs that can be avoided in the long run if a given increment (e.g., fibre broadband) is not produced. It includes all fixed costs associated with the increment, as all costs are assumed to be variable in the long run.

- 9.473 A **'LRIC+' approach** comprises LRIC plus an allowance for the recovery of common costs (LRIC+ is a proxy for ATC/FAC) and allocates costs to a given increment (e.g. a product) based on whether such costs are directly caused by the provision of that increment in question. Top-down models can be used to calculate LRIC+.
- 9.474 An **Average Total Cost ('ATC') approach** is a Fully Allocated Cost ('FAC') approach in that it allocates all variable and fixed costs to the service, including common costs. ATC can be extracted directly from the regulatory accounts.
- 9.475 Oxera (as per Section 6.30 of its Part 3 Report) notes that consideration of the regulatory objectives is very important for this aspect of the MST and that the choice of cost standard will reflect the presence of competitive pressures.
- 9.476 **AVC** - As this cost standard does not consider fixed costs, ComReg believes that applying a cost standard on this basis could significantly constrain the potential for entry by efficient entrants, and could lead to a medium to long term exit of operators who cannot sustain an entry strategy that may, for example, not include recovery of their fixed costs. ComReg is of the view accordingly that AVC would not be an appropriate measure of cost to be applied as it is too low a cost standard.
- 9.477 **AAC** - While the avoidable and incremental fixed costs of the additional sales of the product in question are included in an AAC approach, general fixed and overhead costs are excluded. ComReg believes that this may provide the SMP operator with an advantage given the broad range of products and services over which it could conceivably recover such fixed and common costs. Entry/expansion by efficient OAOs, albeit with lower economies of scale and scope than Eircom, could therefore be impeded.
- 9.478 Furthermore, the level of sunk cost in Eircom's financial profile means that in the short run Eircom's cash outgoings may be lower than entrants paying monthly rentals to Eircom. Critically, ComReg believes that the decision to enter, and remain in, the market depends on the expectation that fixed and common costs will be recovered; not only additional avoidable costs incurred by the SMP operator. This is because an entrant would enter a market only if it considered that it would be profitable to do so, taking into account all the costs that it would have to incur in order to enter the market and sustain a competitive position i.e., the fixed, common, joint and variable costs. Cost measures such as AAC do not ensure this as the total full costs of an operator are not covered.

- 9.479 While noting Oxera's comment (in Section 6.30 of its Part 3 Report) that the choice of AAC "...ensures that the firm's profits are not reduced as a result of the sale of the increment incurring losses in the short run", ComReg is of the opinion that the application of an AAC cost standard in an MST context could lead to sub-optimal entry/expansion conditions with little entry/expansion occurring, this would be to the detriment of competition and, in turn, consumers which would be in conflict with ComReg's statutory objective to promote competition.
- 9.480 **LRIC** - This approach is more consistent with that applied in competitive markets, where operators make decisions on marginal retail offerings based on the avoidable costs of that retail offering. Since LRIC includes all costs (including costs that are not included in AAC as they are fixed in the short run) related to the additional output it enables an analysis of incremental cost recovery and allows operators to make an informed business decision on that additional individual retail offerings.
- 9.481 Oxera, in discussing LRIC (in Section 6.30 of its Part 3 Report) in the context of competitive implications, concludes that "...adopting LRIC as the cost standard would ensure that equally efficient competitors cannot be foreclosed in the long run."
- 9.482 **LRIC +** - This approach is regarded as a proxy for ATC/FAC. In addition to the LRIC cost, it includes a mark-up for common costs.
- 9.483 **ATC/FAC** - An ATC approach is considered appropriate by ComReg in circumstances where the promotion of efficient entry is a key *ex ante* regulatory objective. In areas where competition is more developed, regulators may opt for LRIC, in areas where competition is not mature or effective, regulators may opt for ATC. LRIC generally provides a higher cost benchmark than AAC but, as inter service common costs are not taken into account, provides a lower cost reference than ATC where multiple services are at issue.
- 9.484 An ATC approach requires an operator with SMP to price at levels that include correct amounts of variable, fixed and common costs, which is the equation faced by any operator when deciding to enter or expand. For example, an operator will consider the current and future potential competitive environment (including price) when formulating its business plan when deciding to enter or expand in the market. Oxera in discussing LRIC + approach (at Section 6.30 of its Part 3 Report) concludes that "A LRIC + would ensure multi-product firms cannot be foreclosed across the portfolio of products in the long run", and (at Section 6.33 of its Part 3 Report), notes that the regulator does not necessarily need to mandate the precise way in which these common costs are recovered across the range of products offered and concluded the choice of cost standard will be dependent on the level of product aggregation in the MST.

- 9.485 Given the proposed 'product-by-product' tests and 'portfolio' tests (as detailed in the section below entitled 'Level of aggregation of the Tests'), there is a need to consider the appropriate cost standard that should be applied.
- 9.486 ComReg notes that the 2013 EC Recommendation, in relation to the economic replicability test states that:
- “The incremental cost of providing the relevant downstream service is the appropriate standard. A LRIC + model should be used to calculate the incremental cost (including sunk costs) and to add a mark-up for common costs related to the downstream activities.”<sup>700</sup>*
- 9.487 While the 2013 EC Recommendation does not specify the aggregation level of the MSTs, ComReg believes that a LRIC+ or ATC approach (as in the 2018 Bundles Decision) is appropriate at the portfolio level given its statutory objectives under Section 12 of the Communications Regulation Act 2002 (as amended) to promote entry, competition and protect the interests of end users. This approach will ensure that all costs (variable, fixed and common) are covered.
- 9.488 A lighter cost standard (LRIC) is proposed for the calculation of downstream retail costs on a 'product-by-product' basis. ComReg considers that this approach would be more consistent with that produced in competitive markets - where operators make decisions on marginal retail offerings based on the avoidable costs of that retail offering. Since LRIC includes all costs related to the additional output it enables an analysis of incremental cost recovery and allows operators to make an informed business decision on that additional individual retail offering.

### **The relevant regulated wholesale inputs concerned and the relevant reference prices**

- 9.489 The 2013 EC Recommendation specifies that national regulatory authorities should identify “...*the most relevant regulated inputs used or expected to be used by access seekers at the NGA based wholesale layer...*”. Given the proposed FTTH MST is focused on ensuring that sufficient margins exist for RSPs purchasing FTTH VUA as an input to FTTH Retail offerings, ComReg is of the opinion that the FTTH VUA wholesale product will be the wholesale input. Eircom will therefore be required to include in the FTTH MST the cost to an Access Seeker of buying the wholesale FTTH VUA access product. In considering how this cost should be determined, ComReg notes that for Oxera (Section 6.89 of its Part 3 Report):

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<sup>700</sup> Annex II (ii).

*“...the cost included in the test should be the wholesale input price published in Eircom’s price list (or provided separately to ComReg as part of Eircom’s regulatory obligations).”*

9.490 ComReg proposes that the cost that should be included in the FTTH MST for the wholesale FTTH VUA product are those set out in the published Reference Offer of the SMP operator at the time the FTTH MST is being tested. This effectively requires Eircom to charge an equivalent wholesale input price to both its own downstream arm and Access Seekers. This equivalence is important to ensure the effectiveness of the FTTH MST and ensure that the downstream retail services can be replicated by the RSP.

9.491 In identifying the relevant wholesale access cost to be included in the FTTH MST, the EC Recommendation notes that NRAs should also give due weight to the presence of volume discounts and/or long-term access pricing agreements between the SMP operator and Access Seekers. This would:

*“...ensure the right balance in national circumstances between incentivising efficient and flexible pricing strategies at the wholesale level and at the same time ensuring a sufficient margin for access seekers to maintain sustainable competition...”.<sup>701</sup>*

9.492 In considering whether discounts should be included in the wholesale FTTH VUA cost (included in the FTTH MST), ComReg notes that there are advantages and disadvantages associated with each option (for Eircom, Access Seekers and customers), as summarised below.

#### **Option 1 - Undiscounted Wholesale cost of FTTH VUA in MST**

9.493 While the FTTH MST will be simpler to run for Eircom, as no discounts are accounted for, it will have a negative impact on short term retail prices and Eir Retail, as the costs included in the FTTH MST will be higher for any relevant FTTH retail offering. There would therefore be less scope for Eir Retail to offer promotions or discounts (due to a tightening of margins) in response to offers from RSPs who may be in receipt of a discount on the wholesale FTTH VUA product purchased from Eircom.

9.494 At the same time smaller RSPs who may not be in a position to avail of discounts (due to insufficient volumes for example) would be protected from competition from Eir Retail as the non-inclusion of wholesale discounts in the FTTH MST forces Eir Retail to ensure prices maintain margins.

9.495 Retail customers would not benefit by the omission of the discount as the associated margin would be lower leaving less scope for Eir Retail to offer promotions and discounts in compliance with the FTTH MST.

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<sup>701</sup> See Annex II (iii).

9.496 This approach, as noted by Oxera (in Section 6.94 of its Part 3 Report)

*“..would take away Eircom’s incentive to offer wholesale discounts as it would create a situation where it was rendered uncompetitive at the retail level. This would lead to the potential efficiency gains from discounts being foregone”*

### Option 2 - Discounted Wholesale cost of FTTH VUA in MST

9.497 The inclusion of discounts would mean that the calculation of the wholesale cost of FTTH VUA may be more complex given that different Access Seekers may obtain different levels of discounts. As set out in Section 5 of the Oxera Part 1 Report however, Eircom should not be able to access discounts that no other RSP can achieve. This is also consistent with the 2013 EC Recommendation which notes that any volume discounts and/or long-term access pricing agreement discounts received by the downstream arm of the vertically integrated operator should not exceed the highest volume discount offered to Access Seekers. Without this limitation in place, Eircom could, as noted by Oxera (in Section 6.93 of its Part 3 Report) *“undermine the effectiveness of the MST if it were to offer its downstream arm lower wholesale prices than it offers to other access seekers, and thus were able to set retail prices that no access seeker could replicate”*.

9.498 A recent study conducted by Visionary Analytics<sup>702</sup> (on behalf of the European Commission) discussed, amongst other things, the inclusion of long-term discounts or volume discounts in the wholesale input charge. This study identified that the inclusion of wholesale discounts would imply a lower wholesale price for analysis, which means that some plans may pass the ERT (i.e., MSTs) that otherwise might fail (due to lower costs). This, Visionary Analytics noted, may lead to an inability of smaller alternative operators to replicate the offerings of the SMP operator and operate profitably. Visionary Analytics however concluded that there is a need for a case-by-case analysis to determine the appropriate approach. It identified that in circumstances where the discount structure is imposed by the NRA as a price control measure, or the market is such that most alternative operators achieve some level of wholesale discounts it would be appropriate to reflect the discounts in the wholesale access charge used in the ERT or MST.

9.499 From the consumer perspective, the inclusion of any wholesale discount is regarded as pro-consumer as Eircom Retail should be able to pass on this saving to its customers via promotions /discounts.

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<sup>702</sup> Study on Regulatory Incentives for the Deployment of Very High Capacity Networks in the Context of the Revision of the Commission’s Access Recommendations.

- 9.500 While noting that it would be simpler in most cases to base the FTTH MST on the non-discounted price of the wholesale access services, ComReg, in light of the above discussion and given the objective of the FTTH MST to promote sustainable competition and replicability of downstream operations, ComReg proposes that all applicable wholesale input costs, based on the published price list of Eircom (i.e., the reference offers) including any long-term or volume discounts should be used in the FTTH MST. In line with the EC Recommendation requirement (noted above) that discounts received by the downstream arm of the vertically integrated operator should not exceed the highest volume discount offered to Access Seekers, ComReg proposes that the FTTH MST should be conducted using the discounted price paid by the retail (downstream) arm of Eircom. This approach as noted by Oxera (in Section 6.93 of its Part 3 Report) “...*would be in line with the principles of the EEO test, under which the downstream arm of the incumbent is treated as though it were a separate company purchasing wholesale inputs on the same basis as competing downstream operators.*” (see paragraphs 9.544 to 9.553 below for further discussion of efficiency levels).
- 9.501 In reaching this conclusion, ComReg notes that the omission of such discounts would be inconsistent with the proposed relaxation of the ban on wholesale promotions and discounts (as discussed in paragraphs 9.347 to 9.375 above) and would mean that one of the benefits of the relaxation of the ban, i.e., lower prices being passed on to end user, would not materialise.

### The relevant retail products

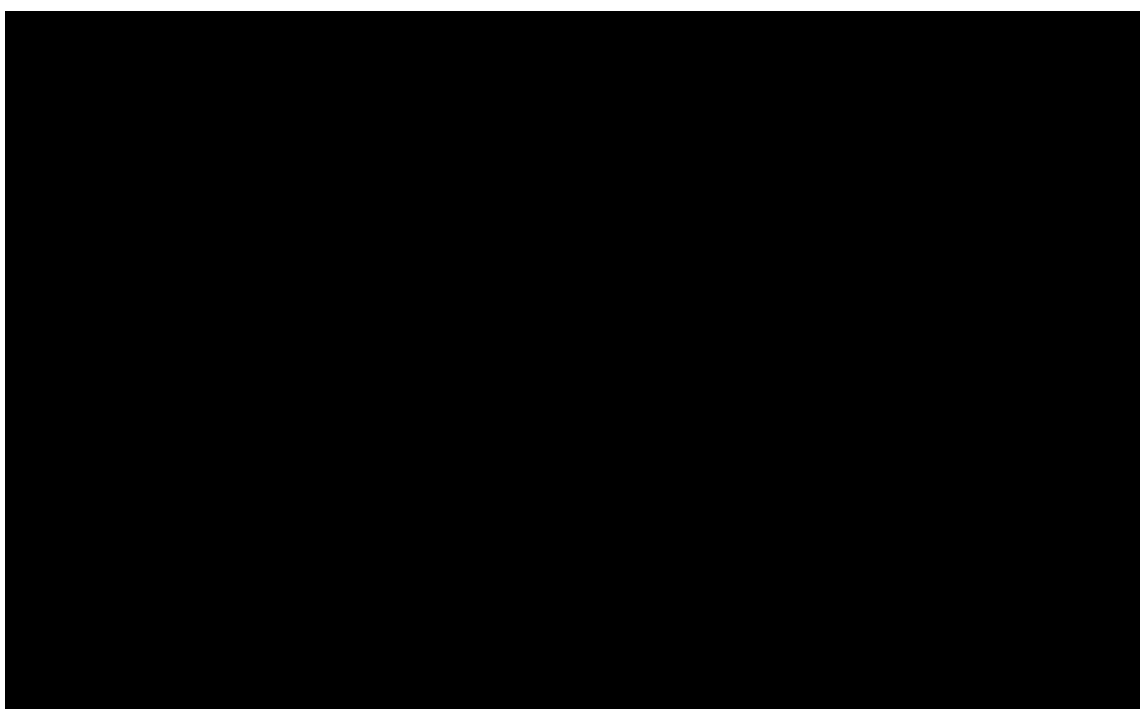
- 9.502 Following on from ComReg’s conclusion that an *ex ante* MST should be imposed for FTTH Retail offerings, the next step is to consider whether this test should be applied to only Standalone FTTH retail products, bundled FTTH retail products or both.
- 9.503 In circumstances where an RSP offers a standalone FTTH retail product at the retail level using FTTH VUA purchased from Eircom, there is a need for a FTTH MST so as to ensure that Eircom (who is also offering a standalone FTTH broadband product in the downstream market) cannot create a squeeze leading to foreclosure of the RSPs and consumer harm (i.e., less choice, lower quality and potentially higher prices).
- 9.504 Similarly, if an RSP offers a bundled FTTH retail product, i.e., an FTTH retail service with other services (regulated or unregulated, such as fixed voice, mobile and TV) using FTTH VUA, then as noted by Oxera (in Section 6.8 of its Part 3 Report) “...*in the absence of a MST on bundled services, ComReg would have no way of determining whether the combination of FTTH VUA wholesale price offered by Eircom and Eircom’s FTTH retail bundle prices*”



*would provide sufficient economic headroom for access seekers to offer bundled FTTH products at the retail level”.*

- 9.505 While a large share of FTTH retail offerings are bundled products (with one or more unregulated services, such as Fixed Voice, mobile and TV), there is also a significant percentage of customers with a standalone FTTH retail product. Figure 36 below highlights that the split between SA and bundled FTTH retail products have remained fairly static since Q1 2021, with standalone plans accounting for [X ■ X] of all FTTH retail offerings (and bundled plans accounting for [X ■ X] of all FTTH retail offerings) in Q2 2022.

**Figure 36: FTTH Distribution (Standalone v Bundled FTTH) Q1 2021- Q2 2022**  
[XREDACTEDX]

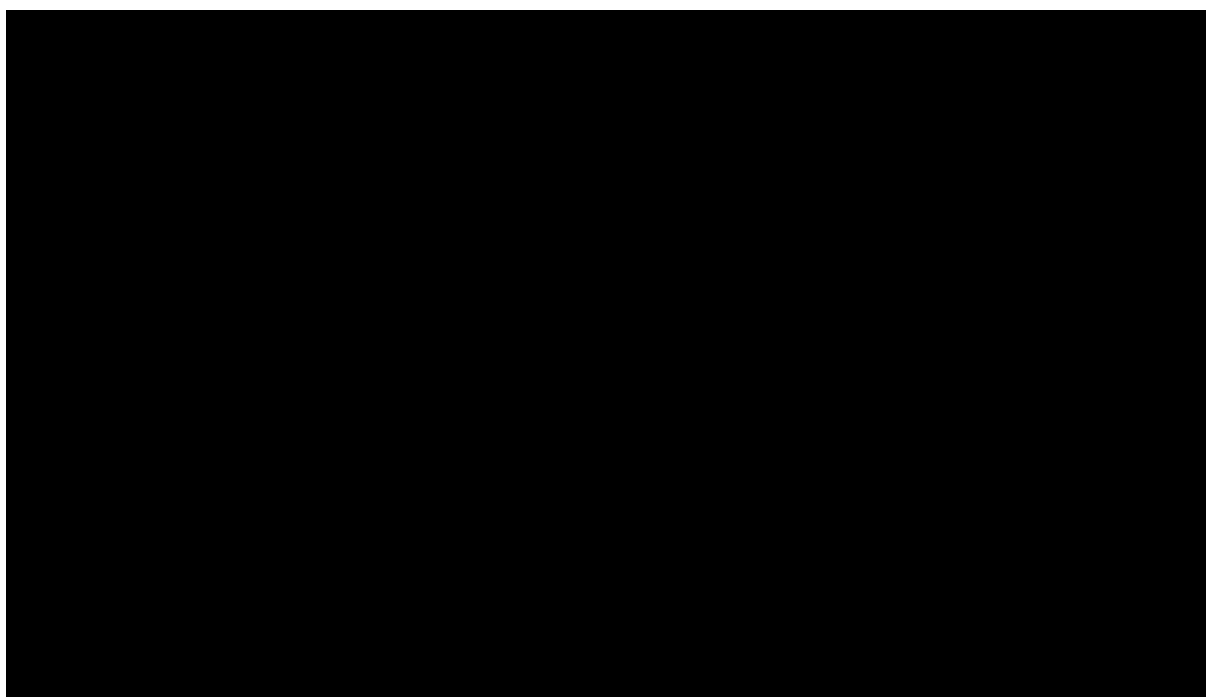


Source: ComReg Quarterly Reports 2021-2022

- 9.506 Given FTTH is at an early stage of growth in the market, it is unclear how the importance of standalone FTTH and bundled FTTH retail products will evolve over the review period. In such circumstances, it is reasonable for ComReg to conclude that both standalone and bundled FTTH retail products should be included in the MSTs.

- 9.507 Oxera, at Section 6.1 of the Part 3 Report, notes that in addition to examining the popularity of standalone and bundled FTTH retail products, there is also a need to consider the mix of such services across different operators in the market. This, as explained by Oxera (in Section 6.11 of its Part 3 Report) can be *“informative in terms of assessing the competitive dynamics and the relative risk of Eircom seeking to engage in a margin squeeze on either type of product to undermine competition”*.
- 9.508 An analysis of the FTTH services for Q2 2022 provided by the various operators, as summarised in Figure 37 below highlights the importance of the standalone FTTH retail service to a number of operators.

**Figure 37: Analysis of FTTH (Standalone/Bundled) by Operator - Q2 2022**  
[REDACTED]



Source: ComReg Quarterly Reports Q2 2022

- 9.509 Three operators, Vodafone, Eircom and Sky account for [REDACTED] of the total FTTH subscriber lines (standalone and bundled) market share in Q2 2022, Vodafone accounting for [REDACTED] subscriber lines, Eircom accounting for [REDACTED] subscriber lines and Sky accounting for [REDACTED] subscriber lines (of a total of [REDACTED] subscriber lines).
- 9.510 Vodafone - Of the [REDACTED] subscriber lines, [REDACTED] are standalone FTTH retail products and the remainder are bundled FTTH retail products (with FV and/or TV).



- 9.516 ComReg recognises that this is a departure from its existing approach, where all retail offerings (including all FTTH Retail offerings) are included in one or more MSTs. While ComReg understands the concerns of Oxera (as set out in Section 6.23 of its Part 3 Report) that a flagship approach would exclude certain FTTH products (e.g., a standalone FTTH service or a FTTH service bundled with other unregulated services) which could leave these products/plans exposed to a risk of margin squeeze by Eircom leading to possible foreclosure of competitors (depending on the importance of the retail offering), ComReg is of the opinion that its proposed approach (detailed below) would mitigate such concerns. ComReg is of the opinion that applying a MST for hundreds of retail offerings, with very low volumes, would be excessive and would generate a considerable burden for both Eircom and ComReg. The choice of flagship products should therefore, in ComReg's view, be based on those which are most relevant to the market and competition.
- 9.517 In determining which of Eircom's FTTH retail offerings should be considered as "flagship products", it is proposed that Eircom identify the highest volume FTTH retail offerings, which together account for at least 75% of Eircom's total retail FTTH volumes. In addition, the flagships must include the highest volume standalone FTTH retail offering and the highest volume bundled FTTH retail offering if not identified as part of the 75%.
- 9.518 It is proposed that the flagship products be determined on a quarterly basis with the submission by Eircom of its quarterly monitoring statements and modified monitoring statements (see paragraphs 9.598 to 9.600), as this will identify any movements in volume and revenue on all FTTH retail offerings. This, in ComReg's opinion, will ensure that the most commercially attractive products are included in the FTTH MST assessments going forward (i.e., for current and subsequent quarters).
- 9.519 ComReg recognises that the portfolio (group) of flagship products may change over time and from one quarter to the next (based on the quarterly monitoring statements). In addition, however (and in accordance with the European Commission Recommendation), ComReg may identify other FTTH retail offerings which should be regarded as flagship products (and existing flagship products which should be excluded from any MST) if for example:
- (a) there has been a downward/upward trend in subscriber numbers e.g., switching of subscribers from lower speed (150/300MB) to faster speed (500MB+) FTTH broadband products/plans,
  - (b) a new FTTH retail product/plan is launched or launched with promotions and is expected to have a significant impact on the market, and

- (c) an FTTH retail product/plan which (is not a flagship) but is nevertheless relevant to another operator.

9.520 In addition to the above, ComReg also proposes that where complaints have been received from RSPs regarding the compliance with the MSTs of specific FTTH retail offerings (other than the Top 75% FTTH retail offerings and other offerings specifically identified for inclusion in MST), ComReg can request that Eircom demonstrate its compliance with the MST.

### The relevant time period

9.521 According to the 2013 EC Recommendation, NRAs should identify an appropriate reference timeframe for the MST. The Recommendation identifies that the relevant period “*should be set in accordance with the estimated average customer lifetime*”.<sup>703</sup>

9.522 The 2013 EC Recommendation (based on the proposed multi-period profitability assessment - see paragraphs 9.567 to 9.575 below for further discussion) goes on to clarify that this period of time is one over which the customer contributes to the recovery of the:

- (a) downstream costs that are annualised according to a depreciation method that is appropriate to the asset in question and the economic lifetime of the corresponding assets required for the retail operations (including network costs that are not included in the wholesale NGA access service), and
- (b) other downstream costs that are normally not annualised (typically the subscriber acquisition costs) and which the operator incurs to gain customers and should seek to recover over the latter’s average lifetime.

9.523 It goes on to state that when estimating the Average Customer Lifetime (**ACL**), NRAs should recognise the different characteristic and competitive conditions in the provision of services over NGA networks compared to legacy copper networks which can impact the length of ACL.

9.524 Under the 2018 Bundles Decision, the ACL is used as the time period over which to amortise costs such as promotions/discounts, connection and acquisition costs etc. In the context of the MST, the ACL is the length of time a customer remains on a specific retail offering (i.e. standalone or bundled product) rather than how long a customer stays with a particular operator. For this Consultation ComReg proposes that the ACL will be the period used in the FTTH MST to determine the net present values of the FTTH Flagship Products.

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<sup>703</sup> Annex II (v).

- 9.525 While noting that the 2013 EC Recommendation does not specify how the ACL is to be calculated and recognising that it is difficult to determine the ACL for fibre-based services, ComReg proposes that the ACL set at 42 months as set out in the 2018 Bundles Decision, should continue to be used over the next review period. ComReg notes that this is consistent with the WLA/WCA Market Research which identified that customers stay an average of 3.68 years with their broadband provider (equating to 44 months).
- 9.526 In the case of retention offers, ComReg proposes that the ACL should be consistent with the 2018 Bundled Decision i.e., it should reflect the re-contracting period or the expected remaining ACL of customers on the relevant standalone or bundled product) at the time of the retention promotion.
- 9.527 As set out above, Oxera (in Section 6.2 of its Part 3 Report), identified that the following additional parameters need also be considered in designing an MST:
- (a) The level of aggregation of the tests;
  - (b) The benchmark operator;
  - (c) Revenue; and
  - (d) Profitability approach.
- 9.528 These are now discussed in turn below.

### Level of Aggregation of the Tests

- 9.529 While the 2013 EC Recommendation is silent on the level of aggregation when carrying out the MST, the BEREC Guidance however suggests that each NRA should determine what the appropriate level of aggregation should be in the light of the assessment of competition problems identified in the market analysis.
- 9.530 An MST can be conducted on a product-by-product (i.e., standalone and bundled) basis or on a group of products (i.e., portfolio basis) or a combination of both.
- 9.531 A product-by-product approach will ensure that each bundle or standalone FTTH product does not generate a negative margin. ComReg recognises that a product-by-product approach may be appropriate in circumstances where it may not be realistic to require a new entrant to replicate all, or a large part, of Eircom's retail product mix or, at the extreme, its entire product portfolio. Oxera note (in Section 6.37 – 6.38 of its Part 3 Report) that while this approach will provide the operator with less flexibility, it may be suitable when the NRA considers it appropriate to ensure the economic replicability of every product offering.

- 9.532 A portfolio approach will ensure that the portfolio/group of products does not generate a negative margin overall. This approach would however allow individual products to generate a negative margin. Oxera, (in Section 6.38 of its Part 3 Report) while noting that this approach may be appropriate where the SMP operator faces greater competition at the retail level, it identifies that there is a concern that it provides too much flexibility for the SMP operator.
- 9.533 A combinatorial approach combines both the product-by-product test and the portfolio test. BEREC noted that the flexibility of this approach is determined by the parameters of the product-by-product approach and stated that:
- “...some NRAs use a lower cost standard when assessing the product-by-product than compared to that used in assessing the replicability of the aggregation of all products. This approach provides some pricing flexibility at the product level while ensuring that the overall “portfolio” is replicable.”*
- 9.534 Oxera (in Section 6.39 of its Part 3 Report) noted this and stated that *“...under a typical combinatorial approach, the LRIC cost standard is applied to the product-by-product tests, and the LRIC+/ATC cost standard is applied to the portfolio-level test”*. This would therefore allow the SMP operator the flexibility in the allocation of common costs across the products in different proportions, while limiting cross-subsidisation between products as they must still cover their incremental costs.
- 9.535 The level of aggregation will be dependent on the level of competition in the market; the greater the competition, the greater the level of flexibility. Given the level of competition in the market for FTTH Retail Products (as set out in paragraph 9.508 above), a portfolio assessment may be sufficient. However, as noted above, take-up of FTTH Retail Products is at a very early stage and the relative importance of different FTTH products could therefore vary across the period of the market review. There is therefore a risk (as noted by Oxera, in Section 6.42 of its Part 3 Report) that providing Eircom with too much flexibility could allow it to engage in a margin squeeze on products that are important to competitive dynamics.
- 9.536 In light of the above, ComReg is of the preliminary opinion that a combinatorial approach (consistent with existing MSTs as per the 2018 Bundles Decision) should continue to be applied (for the FTTH Flagship products only), that is:
- (a) Product-by-product tests (based on LRIC cost standard), and
  - (b) Portfolio test (based on a LRIC+/ATC cost standard).

- 9.537 Under the flagship approach, all products that are included in the portfolio should receive an appropriate allocation of common costs. This should not be based on only the costs that are common across the set of flagship products, but rather based on Eircom's total common costs. As noted above, these common costs would typically be allocated to the relevant services based on an EPMU approach.
- 9.538 With regard to the Portfolio test, the existing MSTs require a separate portfolio test for Standalone FTTH-based VUA to Retail services (see the 2018 Pricing Decision) and Bundled FTTH-based VUA to Retail Services (see the 2018 Bundles Decision), including FTTC SA and bundled retail services). ComReg considers whether there should be:
- (a) Separate portfolio tests for Standalone FTTH and for bundled FTTH products (consistent with existing approach), and
  - (b) One portfolio (termed as 'grand portfolio' by Oxera) for all Standalone FTTH and bundled FTTH products.
- 9.539 Oxera, (in Section 6.50 of its Part 3 Report) identified that a key factor in deciding which option to choose depends on whether there is a concern about cross-subsidisation between standalone and bundled FTTH products, if all FTTH products are included in one portfolio.
- 9.540 This, Oxera explained (in Section 6.51 of its Part 3 Report), could arise for example in the way in which common costs are allocated between SA FTTH products and Bundled FTTH products, with for example more costs being allocated to say higher margin SA FTTH products and less to say lower margin Bundled FTTH products. So, while the FTTH MST at the portfolio level (based on ATC/LRIC+) is positive, the margin on bundled FTTH products is low. If the focus of competition was on such bundled FTTH products, OAOs may find it hard to replicate such a strategy and compete effectively with lower priced bundled products. In such circumstances separate portfolio tests (for SA FTTH products and Bundled FTTH products) may be more appropriate.
- 9.541 There is no evidence however, to suggest that there is an increasing trend in the share of one group of products over the other, to justify the need for separate portfolio tests or that this might change over the review period. In fact, Figure 36 'FTTH Distribution Q1 2021 - Q2 2022' above demonstrates that the share of standalone and bundled FTTH products has remained stable over the period.



- 9.542 In addition (and discussed by Oxera in Section 6.55 of its Part 3 Report) Eircom is earning positive margins on both standalone and bundled FTTH retail products - based on Eircom's Quarterly Monitoring Reports at Q3 2022, the weighted average ATC margins were [X ██████████ X] for standalone and [X ██████████ X] for bundled FTTH retail products. While Eircom has the ability to cross-subsidise the recovery of common costs, based on the high positive margins for both types of product Eircom does not appear to have utilised this opportunity.
- 9.543 ComReg is therefore of the view that the one portfolio approach (combined with a product-by-product test) is appropriate as it provides a balance between the need to protect Access Seekers while allowing some flexibility for Eircom.

### The Benchmark Operator

- 9.544 In designing a MST there is a need for ComReg to consider the choice of the level of efficiency of the alternative operator that will be used to calculate the downstream costs (as detailed above, and include retail costs and other network costs etc.) that are included in the MST. Three different approaches have been considered by ComReg:
- (a) Equally efficient operator ('**EEO**'),
  - (b) Similarly efficient operator ('**SEO**'), and
  - (c) Reasonably efficient operator ('**REO**').
- 9.545 The **EEO approach** assumes that the alternative efficient operator has the same efficiency as the SMP operator (i.e., same scale and scope). The data of the SMP operator would therefore be used in the test.
- 9.546 The **SEO approach** (or an adjusted EEO approach) uses the EEO approach as a starting point but allows for adjustment of the SMP operator's data. The adjustment could for example reflect differences in the scale and scope of an efficient alternative provider compared to the SMP operator. This may be due to OAOs serving fewer customers and/or offering fewer services, so that their unit retail costs may be higher than the SMP operator.
- 9.547 The **REO approach** is similar to the SEO standard given that they both reflect the fact that OAOs have not achieved the same economies of scope and scale as the SMP operator. The main difference however is the market share that is used in the test.

- 9.548 As noted by Oxera (in Section 6.64 of its Part 3 Report) “...*the choice of benchmark operator has implications for the degree of flexibility afforded to Eircom*”. It goes on to explain that in moving from an EEO basis to an SEO basis (due to lower economies of scale and scope of the efficient alternative operator compared to Eircom), the estimated costs will be greater, so a larger margin will be available than is needed by Eircom to recover its own downstream costs.
- 9.549 The 2013 EC Recommendation recommends an EEO approach using the SMP operator’s audited downstream costs for *ex ante* replicability tests. It does however note where market conditions do not favour the acquisition of scale by alternative operators, e.g., where market entry or expansion has been frustrated in the past or where there is very low volumes of lines and limited geographic reach (compared to the SMP operator’s network), an EEO approach would not be appropriate.
- 9.550 Oxera (in Section 6.67 of its Part 3 Report) notes that there may also be justification from departing from an EEO approach in circumstances where, for example, the NRA has an objective to promote entry of Access Seekers with smaller scale and lower efficiency at the retail level (and so ensure they generate sufficient margin).
- 9.551 Regulation 13(3) of the Access Regulations provides that ComReg “...*shall ensure that any cost recovery mechanism or pricing methodology that it imposes under this Regulation serves to promote efficiency **and sustainable competition** and maximise consumer benefits*”. ComReg has the objective to promote ‘sustainable competition’ to the benefit of end users without compromising efficient entry, and this means promoting new efficient entrants rather than all entrants. An EEO benchmark would therefore be more in line with ComReg’s objectives.
- 9.552 ComReg also notes the observations from Oxera regarding the appropriateness of an EEO (as set out in Section 6.70 of its Part 3 Report):
- “Eircom is competing with well-established access seekers that are active in the retail market, are present across Ireland, and have material market shares which have been stable or increasing since the previous market review..... Many of these access seekers are offering a range of FTTH products ....., and therefore should also be benefiting from economies of scale and scope. The MST is not intended to protect inefficient entry by smaller operators. Given the efficiencies (i.e., economies of scale and scope) that access seekers are in a position to enjoy, the EEO cost benchmark is appropriate.”*
- 9.553 Having considered the above, ComReg proposes that an EEO approach should continue to be applied in the calculation of downstream costs for the *ex ante* MSTs for the relevant FTTH flagship products.

## Revenue

- 9.554 The MSTs must include the effective revenues generated by the relevant retail products.
- 9.555 ComReg considers that the retail revenue which should be taken into account in the FTTH MST is the retail monthly price (for the standalone or bundled FTTH Retail Product) as published by Eircom (net of VAT). In addition, any out of bundle revenue (e.g., charges associated with excess broadband usage) or associated revenues directly attributable to the FTTH Retail Offering (e.g., broadband connection/activation fees) should also be included if they can be replicable by other RSPs. Discounts/promotions can be recognised as either a reduction in revenues or an increase in the downstream costs included in the FTTH MST.
- 9.556 As noted by Oxera (in Section 6.75 of its Part 3 Report), operators can generate additional revenues over and above the retail price from the sale of out of bundle service. For example, a dual play bundle of fixed voice and broadband could be sold with a cap on the number of calls and/or the amount of data is sold with a data cap. If the customer exceeds these caps, additional charges will be levied on the customer which will generate additional revenue for the operator. This revenue (and any associated costs) should be included in the FTTH MSTs.
- 9.557 Unlike the monthly retail price, there is uncertainty around the value of out of bundle ('**OOB**') revenues and there is therefore a need for the operator to estimate such costs. The existing MSTs include revenues and costs for such services based on the most recent Quarterly Monitoring Report (see section below entitled 'Monitoring statement'). If actual revenues and costs are significantly different, it will be evident in the next Quarterly Monitoring Report, and this would also identify if there is any risk to compliance with the FTTH MST for any product offering. If non-compliance with the FTTH MSTs is identified, Eircom would be required to remove the product offering, increase retail price and/ or reduce wholesale input charge.
- 9.558 Once-off revenues, such as the broadband connection/ activation fees should also be included in the FTTH MSTs as a revenue item. Under the existing MST, once-off revenues are distributed over the ACL.
- 9.559 ComReg proposes that the relevant FTTH flagship products MSTs include the effective revenues generated by the product offering including out of bundle revenues and once-off revenues (as set out above). Discounts and promotional costs should also be included in the FTTH MST (as either a reduction in revenues or an increase in downstream costs).

### **Unregulated Services**

- 9.560 ComReg recognises that in addition to regulated services, unregulated services can also be sold as part of a bundle e.g., TV, mobile and fixed voice. The BEREC Guidance, while recognising that the 2013 EC Recommendation is silent on the treatment of unregulated services included in a bundle, states that “..., given the importance of bundles, they can represent a material proportion of downstream costs and therefore should be considered a relevant parameter in the margin squeeze test”.<sup>704</sup>
- 9.561 BEREC in its response<sup>705</sup> to the consultation on the revision of the Commission’s Access Recommendation, noted that sometimes, information on the non-regulated components included in a bundle are essential to determine whether a broadband bundle is replicable and to identify (unfair) cross-subsidies between regulated and non-regulated services or some other anticompetitive practices affecting the regulated service. Given the reluctance of some SMP operators to provide solid information on the non-regulated component of bundles, including arguing that they are not obliged to do so, BEREC:
- “... would welcome the Commission to provide explicit support for the gathering of information (especially the information related to the costs of the non-regulated components) ....., as this is essential to carry out the replicability analysis of broadband bundles.”*
- 9.562 ComReg also notes the comments made by Visionary Analytics<sup>706</sup> that the successor access recommendation should clarify that information needed to allocate the price of a flagship retail bundle across regulated elements and any non-regulated elements of the retail bundle for purposes of the ERT constitutes “information, necessary for national regulatory authorities, other competent authorities and BEREC to ensure conformity with the provisions of...” the EECC, and thus falls within the scope of Art. 20(1) EECC. It goes on to clarify that the SMP operator must respond to these information requests, even where they involve non-regulated services.
- 9.563 While recognising that Eircom has provided cost models for unregulated services (i.e., mobile and TV) to support the margin squeeze assessment of relevant retail offerings which included (one or more of such) unregulated services, ComReg may ask for more evidence relating to assumptions used by Eircom to derive non-regulated costs/revenues (where relevant).

<sup>704</sup> BEREC Guidance, paragraph 2.2.5.2

<sup>705</sup> BEREC Response to the Targeted consultation on the revision of the Commission’s access recommendations / BoR (20) 169.

<sup>706</sup> STUDY ON REGULATORY INCENTIVES FOR THE DEPLOYMENT OF VERY HIGH CAPACITY NETWORKS IN THE CONTEXT OF THE REVISION OF THE COMMISSION’S ACCESS RECOMMENDATIONS Final Report.

- 9.564 ComReg in the 2018 Bundles Decision set out that LRIC was the most appropriate cost standard given the unregulated services represent markets where competition has evolved sufficiently that an approach similar to competition law was warranted.
- 9.565 As regards the issue of cross subsidisation within a bundle, the 2018 Bundles Decision set out that cross-subsidisation is allowed within a bundle between the regulated services and the unregulated services. ComReg determined that once the bundle covers or exceeds the LRIC cost of the bundle with or without unregulated services included, the bundle-by-bundle MST would be satisfied.
- 9.566 ComReg proposes that the position regarding unregulated services, as outlined above and set out in detail in the 2018 Bundles Decision, should continue to apply, i.e., costs at LRIC and the headline price for the bundle including unregulated services (plus other add on and out of plan revenues separately disclosed).

### Profitability approach

- 9.567 The profitability approach refers to the way in which the MSTs will be conducted, i.e., a period-by-period approach or a multiple period approach.
- 9.568 A **period-by-period approach** compares actual revenues and costs as they arise for separate periods e.g., a specific month or year (generally obtained from the most recent accounts of the SMP operator). Non-recurring costs, such as broadband connection costs will be included in the period when the cost is incurred regardless of whether such costs are relevant to several periods. Under this approach, the test is performed when a new product or promotion/discount offer is launched.

- 9.569 The BEREC Guidance notes the main advantage of a period-by-period approach is that it is based on actual data which means the reliance on forecasts and assumptions is limited and that it shows whether or not the SMP operator's offerings have been profitable in the short-run. One drawback identified by BEREC is that irrespective of the development stage of the market, it doesn't discount cash flows in future periods and so does not take into account the time value of money. Costs such as subscriber acquisition costs are typically allocated on a straight-line basis over the life of the customer. This, it says, can lead to distortions where profitability is being assessed in fast growing markets as larger costs are being allocated to initial years than in later years due to lower subscriber volumes in earlier years and the failure of this option to consider the time value of money. There is also a concern around the lack of transparency if customers leave a bundle (but stay with the SMP operator) as it is no longer contributing to the recovery of the promotional costs on the original standalone/bundled product. While the 2018 Bundles Decision set out specific post-launch monitoring requirements to ensure on-going compliance with the MSTs, ComReg is of the opinion that a multi-period/DCF approach may however be able to capture such movements and ensure that the bundle recovers all relevant costs.
- 9.570 A multi-period approach using a discounted cash flow ('**DCF**') calculates the Net Present Value over a period of time usually the ACL.
- 9.571 Unlike the period-by-period approach, a **DCF approach** discounts the expected or forecasted future cashflows of a relevant retail offering (i.e., a FTTH flagship product) to present day terms, to derive a Net Present Value ('**NPV**'), NPV being the future revenues less costs. The time value of money, as recommended by Oxera (in Section 6.83 of the Part 3 Report), can be achieved by the use of an appropriate discount factor, equal to Eircom's WACC. This, as identified by Oxera, will ensure that Eircom is able to earn a reasonable rate of economic return. While a DCF approach allows a negative margin in any period /periods, the overall NPV (over the ACL) must be positive (when all the cashflows over the ACL have been aggregated) for the FTTH flagship product to pass the MST.
- 9.572 The 2013 EC Recommendation recommends that NRAs should evaluate the profitability of the flagship products on the basis of a dynamic multi-period analysis, such as the DCF approach, and that NRAs should identify an adequate reference time period in accordance with the estimated ACL. This, as discussed by Oxera (in Section 6.83 of the Part 3 Report), will ensure that a sufficient margin can be generated across the average lifetime of a customer. As explained by Oxera, if a period different to the ACL is used, it may allow a margin that is larger or smaller than is necessary to ensure economic replicability.

- 9.573 The BEREC Guidance, in discussing the DCF approach, notes that its main advantage is that it recognises changes in unit costs and revenues (i.e., profitability) over an appropriate period of time. This, as identified by Oxera (in Section 6.80 of the Part 3 Report), could arise due to introductory discounts and promotions or other acquisition costs. BEREC explains that the DCF approach can be useful in assessing profitability in growing markets where it is considered reasonable for a firm to set prices that do not cover the full costs of serving early customers, but which would be economically sustainable over the longer term as cost reductions materialise. On the other hand, it notes that a potential drawback of the DCF approach is that it requires forecasts and assumptions, the primary source of which is the SMP operator. In addition (and as noted above), the DCF approach allows the SMP operator to incur losses in earlier years (which would be recovered in later years), which competitors may not be able to absorb and may lead to foreclosure. The NPV must not however be negative over the entire period under review for it to pass the FTTH MST.
- 9.574 Eircom, under the 2018 Pricing Decision and the 2018 Bundles Decision, is required to demonstrate compliance with the MSTs for the relevant retail products on a period-by-period basis, with revenues and costs being obtained from Eircom's annual Regulatory Accounts and Quarterly Monitoring Statements. While this approach does spread non-recurring costs e.g., acquisition, broadband connections and promotional costs over the ACL on a straight-line basis, it does not recognise the time value of money (i.e., by discounting). ComReg notes the concerns of Oxera (in Section 6.82 of its Part 3 Report) that an approach which does not reflect the time value of money could be more favourable to the SMP operator in the presence of introductory promotions and discounts as it doesn't recognise that earlier revenues and costs should receive a greater weight than revenues and costs incurred later in the ACL due to the time value of money. This will mean that the lower revenues (and lower margin) due to for example an introductory promotion or discount for example should receive greater weight under a DCF approach compared to a test without discounting.
- 9.575 In light of the above discussion and the 2013 EC Recommendation, ComReg proposes that a DCF approach should be used by Eircom to demonstrate compliance of the flagship FTTH products (as detailed above) with the *ex ante* MST (e.g., in advance of proposed launch of new products, promotions and discounts).

### Details of FTTH MST

- 9.576 The tables below set out ComReg's proposals as to the revenues and costs that should be included in the DCF Model to demonstrate compliance with the

proposed MSTs for the FTTH flagship products (product and portfolio tests). The revenues and costs listed shall be forecasted over the ACL, i.e., 42 months.

- 9.577 In advance of the final Decision, ComReg proposes that a workshop be scheduled with Eircom to discuss and finalise the full list of revenues and costs that should be included in the DCF Model (for the product and portfolio tests). In this regard, it is proposed that the DCF Model be developed by Eircom in consultation with ComReg.

## Assessment of Relevant FTTH Retail Offerings

**Table 52: FTTH Flagship Products - Revenues**

Reference	Title	Description
R1	Forecasted monthly headline price of the standalone and bundled FTTH flagship product(s).	<p>This is the full monthly contract price of standalone and bundled FTTH flagship product(s) during the ACL. In circumstances where the FTTH BB services is bundled with other unregulated services (i.e., fixed lines, mobile and/or TV), the contract price should include the associated price for such services.</p> <p>The price should be reported net of VAT.</p>
R2	Forecasted average monthly out of bundle calls revenue of the FTTH flagship products (with fixed voice).	<p>This is the forecasted additional revenue for fixed line traffic/calls consumed outside the plan (i.e., where the customer exceeds the fixed voice traffic/call allowance included in the plan).</p> <p>For post-launch assessment the revenue for each call type is taken from the Eircom billing information for calls for customers on that bundle in that billing month. Eircom bills out of bundle calls based on a call set up fee and a fee per</p>



		minute of call time with any partial minute rounded up to the next minute. This total revenue for the call type outside the bundle allowance is then divided by the total number of customers to get an average revenue per customer for that component.
<b>R3</b>	Forecasted average monthly out of bundle other revenue of the standalone and bundled FTTH flagship products	This is forecasted average other monthly out of bundle revenue, e.g., excess data usage on fixed data allowance contracts, out of plan revenues on unregulated mobile contracts.
<b>R4</b>	Forecasted non-recurring revenues of the standalone and bundled FTTH flagship product(s).	This is the forecasted non-recurring revenues, e.g., FTTH connection charges and broadband activation fees. This should be recognised in the period/month in which it is expected to arise (i.e., it should not be allocated over the ACL).
<b>R5</b>	Forecasted average total monthly revenue for each of the bundled FTTH flagship products plus forecasted non-recurring revenues (where relevant).	This is the sum of the monthly headline price (R1) plus forecasted average monthly out of bundle calls revenue (R2) plus forecasted average monthly out of bundle other revenue (R3) plus forecasted non-recurring revenues (where relevant) (R4).
<b>R5a</b>	Forecasted average total monthly revenue for each of the standalone FTTH flagship products plus forecasted non-recurring revenues (where relevant).	This is the sum of the monthly headline price (R1) plus forecasted average monthly out of plan other revenue (R3) plus forecasted non-recurring revenues (where relevant) (R4).

<b>R6</b>	The present value of monthly revenue for each of the bundled FTTH flagship products.	This is the sum of the monthly revenues (R5) discounted to present day terms using the WACC rate.
<b>R6a</b>	The present value of monthly revenue for each of the standalone FTTH flagship products.	This is the sum of the monthly revenues (R5a) discounted to present day terms using the WACC rate.
<b>R7</b>	Forecasted average monthly NGA Portfolio revenue (FTTH flagship products – standalone and bundled).	This is the weighted average of the present value of the relevant bundled FTTH flagship products (R6) and the present value of the standalone FTTH flagship products (R6a) based on the number of customers on each bundle or standalone plan.

**Table 53: FTTH Flagship Products - Costs**

<b>Reference</b>	<b>Title</b>	<b>Description</b>
<b>C1</b>	Forecasted Wholesale Network Input ('WNI') for FTTH VUA.	This is the forecasted monthly price (based on Eircom's published reference offers) less the forecasted wholesale discounts provided to the retail arm of Eircom for the FTTH flagship products.
<b>C2</b>	Forecasted Other Network costs (incurred by Access Seekers) to provide the FTTH flagship products.	This is all other relevant forecasted wholesale costs to provide FTTH flagship products.  In this context "all relevant forecasted wholesale costs" means a) ancillary charges levied by Eircom in respect of a particular

		service <sup>707</sup> plus b) backhaul usage charges <sup>708</sup> plus c) other unavoidable non-retail costs which are necessary to provide a retail service. <sup>709</sup>
<b>C3</b>	Forecasted retail costs associated with retail line rental for the relevant FTTH flagship products (with fixed voice).	This is the forecasted retail costs associated with PSTN phone line rental. Prior year costs can be derived from Eircom's most recent Regulatory Accounts and may be used as a basis (with adjustments) for the forecasts.
<b>C4</b>	Adjusted forecasted retail costs associated with retail line rental for the relevant FTTH flagship products (with fixed voice)	This is the forecasted retail costs associated with PSTN phone line rental ( <b>C3</b> ) less forecasted common costs less forecasted fixed indirect costs associated with the line rental included in the relevant FTTH flagship product (i.e., the LRIC of the retail costs of line rental).
<b>C5</b>	Forecasted average cost of calls for the relevant FTTH flagship product (with fixed voice).	This is the forecasted cost (wholesale and retail) per call type e.g., domestic national landline; domestic mobile on/off net.
<b>C6</b>	Adjusted forecasted average cost of calls for the relevant FTTH flagship product (with fixed voice)	This is the forecasted cost of calls ( <b>C5</b> ) less forecasted common costs less forecasted fixed indirect costs (i.e., the LRIC of the retail calls).
<b>C7</b>	Forecasted retail costs associated with FTTH retail broadband for the FTTH flagship products.	This is the forecasted total retail costs associated with FTTH retail broadband. Eircom's Regulated Accounts, which includes retail cost for all BB types, can be used

<sup>707</sup> For example, connection fees or co-location charges (cost of IP switch, ports etc.).

<sup>708</sup> Backhaul usage – This will be based on Eircom usage/throughput rate (based on Kbps peak hour usage) for next generation products to ensure continued compliance with its cost orientation and price setting obligations.

<sup>709</sup> For example, the cost of a line card, amortised over the relevant customer life.

		as a starting point for the forecast.
<b>C8</b>	Adjusted forecasted retail costs associated with FTTH retail broadband for the FTTH flagship products.	This is the forecasted total retail cost associated with FTTH broadband ( <b>C7</b> ) less forecasted common costs less forecasted fixed indirect costs (i.e., the LRIC of the retail broadband cost).
<b>C9</b>	Forecasted In-home retail costs associated with the FTTH flagship products.	This is the forecasted in-home LRIC retail costs relating to the installation of FTTH broadband at the customer premises e.g., wiring, repairs etc.
<b>C10</b>	Forecast promotion costs associated with relevant bundled and standalone FTTH flagship products.	This is the forecasted promotional costs (promotions and discounts) provided on the relevant FTTH flagship products provided to retail customers. The cost will be allocated to the period in which it is expected to be incurred.
<b>C11</b>	Forecasted Unregulated services costs.	This is the forecasted LRIC costs associated with any unregulated services included in the relevant bundled FTTH flagship products (e.g., mobile, TV and fixed line). <sup>710</sup>
<b>C12</b>	Forecasted average total monthly costs for each of the bundled FTTH flagship products (the ATC cost)	This is the sum of the Forecasted WNI for FTTH VUA ( <b>C1</b> ) plus Forecasted Other Network costs ( <b>C2</b> ) plus Forecasted average retail costs associated with retail line rental ( <b>C3</b> ) plus Forecasted average cost of calls ( <b>C5</b> ) plus Forecasted Total Retail Costs Associated with FTTH Retail Broadband ( <b>C7</b> ) plus Forecasted In-home retail costs ( <b>C9</b> ) Forecast promotional costs ( <b>C10</b> ) plus Forecasted Unregulated services costs ( <b>C11</b> ).

<sup>710</sup> If any in the case of fixed line (as cost of calls and lines are dealt with separately in table).

<b>C12a</b>	Forecasted average total monthly costs for each of the standalone FTTH flagship products (the ATC Cost).	This is the sum of the Forecasted WNI for FTTH VUA (C1) Forecasted Other Network costs (C2) plus Forecasted Total Retail Costs Associated with FTTH Retail Broadband (C7) plus Forecasted In-home retail costs (C9) Forecast promotional costs (C10).
<b>C13</b>	Present value of the forecasted average total monthly costs for each of the bundled FTTH flagship products.	This is the sum of the monthly costs (C12) discounted to present day terms using the WACC rate.
<b>C13a</b>	Present value of the forecasted average total monthly costs for each of the standalone FTTH flagship products.	This is the sum of the monthly costs (C12a) discounted to present day terms using the WACC rate.
<b>C14</b>	Forecasted average adjusted monthly costs for each of the bundled FTTH flagship products (i.e., the LRIC cost).	This is the sum of the Forecasted WNI for FTTH VUA (C1) Forecasted Other Network costs (C2) plus Adjusted forecasted average retail costs associated with retail line rental (C4) plus Adjusted forecasted average cost of calls (C6) plus Forecasted LRIC Retail costs associated with FTTH Retail Broadband (C8) plus Forecasted In-home retail costs (C9) plus Forecast promotion costs (C10) plus Forecasted Unregulated services costs (C11) where applicable.
<b>C14a</b>	Forecasted average adjusted monthly costs for each of the standalone FTTH flagship products (i.e., the LRIC cost)	This is the sum of the Forecasted WNI for FTTH VUA (C1) plus Forecasted Other Network costs (C2) plus Forecasted LRIC Retail costs associated with FTTH Retail Broadband (C8) plus Forecasted In-home retail costs (C9) plus Forecast promotion costs (C10).

<b>C15</b>	Present value of the forecasted average adjusted monthly costs for each of the bundled FTTH flagship products.	This is the sum of the monthly costs ( <b>C14</b> ) discounted to present day terms using the WACC rate.
<b>C15a</b>	Present value of the forecasted average adjusted monthly costs for each of the relevant standalone FTTH flagship products.	This is the sum of the monthly costs ( <b>C14a</b> ) discounted to present day terms using the WACC rate
<b>C16</b>	Average total Present Value cost of the portfolio of FTTH flagship products (bundled and standalone)	This is weighted average by the number customers of the present value of the average FTTH retail bundle costs per customer ( <b>C13</b> ) and the present value of the average FTTH retail standalone costs per customer ( <b>C13a</b> ).

9.578 For the FTTH flagship products, sold singly or as part of a bundle, the MST will be passed:

- (a) At the portfolio level if the NPV is not negative i.e., when the average total PV of revenue (R7) is equal to or exceeds the average total PV of costs (C16), and
- (b) At the FTTH flagship product level if the NPV is not negative i.e., when the PV of revenue (R6/R6a) is equal to or exceeds than the PV of costs (C15/C15a) for each of the relevant FTTH flagship products.

### MST on Bitstream prices

9.579 The 2018 Decision provided that Eircom shall ensure that the rental charge offered or charged by it to any other Undertaking in relation to FTTH-based VUA shall not cause a margin/price squeeze between (a) Wholesale FTTH-based VUA; and (b) Wholesale FTTH-based Bitstream in WCA Markets.

9.580 However, ComReg is of the view that the proposed FTTH MST would ensure that Eircom has no incentive to engage in a squeeze between FTTH VUA and FTTH Bitstream. ComReg proposes accordingly that the wholesale MST between FTTH-based VUA and FTTH-based Bitstream should be removed.

- 9.581 In particular, ComReg notes that under the proposed FTTH MST in addition to the wholesale cost of FTTH VUA, all other relevant costs incurred by the RSP in the downstream market (so it can replicate the retail offering of Eircom) are included. The other relevant costs include for example other network costs incurred by the RSP in order to provide the downstream retail service e.g., backhaul and co-location costs. This will in ComReg's view provide sufficient room for the provision of FTTH Bitstream services by other network operators. While ComReg proposes to deregulate WCA services including FTTH Bitstream, ComReg has competition law powers available to it and may intervene on an *ex post* basis if concerns arose in respect of anti-competitive behaviour such as, for example, in relation to Bitstream pricing.
- 9.582 As noted by Oxera (in section 6.102 of its Part 3 Report) if Eircom decided to lower its Bitstream prices to engage in a squeeze relative to FTTH VUA, RSPs using Eircom's wholesale Bitstream input would then be in a position to lower their retail prices, undercutting Eircom's retail prices. Eircom would not however be in a position to respond (by reducing its retail prices) given the proposed FTTH MST prohibits this and may lose customers who divert to the lower priced bitstream services offered by RSPs.

## **Ex ante and ex post assessment of offers**

### **Overview**

- 9.583 In proposing to continue the MSTs for the FTTH flagship products, there is a need to consider whether the existing administrative obligations with regard to *ex ante* and *ex post* assessment continue to be required, and what form they should take.
- 9.584 In the 2018 Bundles Decision, ComReg in order to minimise the risk of non-compliant bundles (and standalone offers) being launched (e.g., ones that may cause a margin squeeze), required Eircom to notify ComReg of all new and revised bundles at least five working days before launch. Similarly for standalone offers, in the 2018 Pricing Decision Eircom was also required to submit notifications for any changes to prices and/or promotions or discounts.
- 9.585 ComReg also set out the requirements to be followed where post launch it is found that a bundle or standalone offer (as well as an entire portfolio) may be non-compliant with the obligation not to cause a margin squeeze. Ongoing compliance with the MSTs is Eircom's obligation. Finally, ComReg required that Eircom provide, on an *ex post* basis, quarterly monitoring statements to demonstrate Eircom's continued compliance with the MSTs.
- 9.586 Since publication of the 2018 Bundles Decision, Eircom has notified 72 retail amendments to ComReg by end October 2022. While the number of notifications has declined in recent years, there has been an increase in their

complexity due to the inclusion of several promotions/discount proposals in one notification. Eircom has not, over that time, submitted a notification that failed the pre-launch assessment of compliance with Eircom's obligation not to cause a margin squeeze.

9.587 Further, Eircom has always provided the quarterly monitoring statements as required in accordance with the requirements established in 2018.

### Pre-launch notification

9.588 ComReg continues to consider that the requirement for Eircom to pre-notify ComReg plays an important part in supporting the overall remedies being imposed on Eircom.

9.589 Self-certification is an alternative approach, whereby Eircom would be obliged to demonstrate that it has undertaken a form of self-compliance to ensure, ahead of launching a new or revised retail offering, it meets the obligations not to cause a margin squeeze. In other words, Eircom would be required to provide the details of the retail amendment (e.g., relevant retail offering name, promotions details, etc.) of the new or revised retail offering to ComReg. Such notifications would not require ComReg's pre-clearance for launch. However, notifications would need to include a unique reference such that the retail offering could be monitored *ex post*.

9.590 ComReg's current requirement for Eircom to pre-notify minimises the risk that non-compliant retail offerings may be launched. By doing so, this safeguard assists in avoiding the complexity which would be entailed in unpicking (and remedying) the harms caused to competitors were a non-compliant offer to be launched, and furthermore avoids the impact of having to cancel contracts with consumers. Therefore, ComReg proposes to continue the existing pre-launch notification requirements described below. The burden to Eircom will however be reduced as it will only be relevant to the FTTH flagship products.

9.591 ComReg proposes that prior to launching a new FTTH retail offering that is expected to become a FTTH Flagship Product or a revision to a FTTH Flagship product (by means of a price change, discount or promotional offer), Eircom must furnish ComReg with a detailed written submission demonstrating the compliance of the relevant FTTH retail offering with the obligation not to cause a margin squeeze.

9.592 Upon receipt of the submission, ComReg will review the submission and within five (5) working days communicate to Eircom its decision whether to give or withhold prima facie approval for launch of the proposed new or revised offer – such approval will not be unreasonably withheld by ComReg, subject to the submission being to the standard required by ComReg. Where the submission is not to the required standard, ComReg will restart the review period once the



submission has been provided to the standard required (which at the very least is that the paperwork and DCF model are in agreement, e.g., the value of the promotion in the DCF model matches that in the paperwork). Eircom will not be permitted to launch any new FTTH retail offering or revised FTTH product (which falls within the specification above) without having received such prior approval from ComReg. For the avoidance of doubt, the making available of a promotion or discount to end users which affects an existing offer, or any other change to the price or components of an existing offer, constitutes the making available of a “revised” offer.

- 9.593 ComReg proposes to continue the approach whereby Eircom is required to ensure that all offers (relating to all FTTH products, standalone and bundled) remain compliant with its obligation not to cause a margin squeeze at all times.
- 9.594 In that context, the granting of approval does not amount to a definitive finding by ComReg that a particular offer is compliant, or will remain compliant in the future, with the FTTH MST given that the actual outturn of a specific offer may ultimately be different from that initially envisaged, such that the relevant offer may not in fact pass the FTTH MST.
- 9.595 Accordingly ComReg providing Eircom with prima facie approval is strictly without prejudice to ComReg’s right to take action (whether pursuant to a final decision and/or pursuant to any of its relevant statutory enforcement powers) in respect of any FTTH flagship product that it believes may be non-compliant with Eircom’s regulatory or competition law obligations.
- 9.596 ComReg also proposes that any submission made by Eircom makes full and true disclosure of all material facts for the purpose of demonstrating that the proposed new or revised offer complies with the obligation not to cause a margin squeeze, in particular, with the FTTH MST. In the submission, all assumptions should be clearly set out together with the rationale and supporting evidence for such assumptions and the likely effect if any such assumptions are not met. The MST DCF Model presented by Eircom in its submission should be capable of running scenarios for changed key assumptions. Any claims for retail efficiencies should be supported by robust evidence. For the avoidance of doubt, the making available of a promotion or discount to end users which affects an existing offer, or any other change to the price or components of an existing offer, shall constitute the making available of a revised offer.
- 9.597 Given ComReg’s proposal that Eircom is under an ongoing obligation to ensure at all times that it does not to cause a margin squeeze, Eircom must notify ComReg immediately if it believes an existing offer may be causing a margin squeeze. Also, if requested by ComReg at any time, Eircom must provide such data as may be requested by ComReg for the purpose of

verifying Eircom is not causing a margin squeeze. In this submission, Eircom should also provide any other relevant information it believes is required so that ComReg can make an informed decision as to whether the offer is compliant with Eircom's regulatory obligations, in particular its obligation not to cause a margin squeeze.

### Monitoring Statement

- 9.598 To understand the margin performance of offers on an on-going basis, ComReg proposes to maintain the requirement introduced by the 2018 Bundles Decision that Eircom provide a monitoring statement of past performance of its retail offers in the form of a quarterly monitoring statement for actual performance compared to the original projections provided. It is however proposed that this is restricted to the FTTH flagship products (including SA FTTH retail offerings and other plans specifically identified by ComReg for MST assessment). The purpose of this statement is to provide sufficient visibility to show that the relevant FTTH retail offerings are covering their costs over their lifetime and passing the MSTs.
- 9.599 In addition to the above, it is proposed that Eircom submit a modified quarterly monitoring report for all FTTH retail offerings (standalone and bundled), setting out the actual volume and revenue associated with each plan. This, as set out above, will form the basis of determining the FTTH flagship products that will be subject to the MST for the quarter.
- 9.600 ComReg views that this frequency of update strikes a balance between not placing too high a regulatory burden on Eircom and ensuring that actual offer performance (for all FTTH products) is being updated with sufficient regularity.

**Table 54: Summary of Proposed Recommendations - Parameters of MST**

Parameter	Existing Position (as per the 2018 Pricing Decision and the 2018 Bundles Decision)	ComReg Proposal
<b>Profitability Approach</b>	Period by Period (i.e., monthly basis) to calculate margin	DCF (i.e., over ACL) to calculate an NPV (using WACC as discount factor)
<b>Level of Efficiency</b>	EEO	EEO
<b>Cost Standard</b>	LRIC – all bundles ATC - Portfolio	LRIC - FTTH Flagships ATC - Portfolio

<b>Relevant retail products</b>	WLA (NGA) - FTTH / FTTC WCA (CGA) – ADSL (Copper)	FTTH Flagship products (top 75% based on volume with at least 1 Bundle and 1 SA)
<b>Aggregation level</b>	<u>Bundle-by-bundle</u> <ul style="list-style-type: none"> <li>- NGA all bundles, no SA plans</li> <li>- CGA (excl.UA) all bundles, no SA plans</li> </ul> <u>Portfolio</u> <ul style="list-style-type: none"> <li>- NGA - bundles &amp; SA (no FTTH SA)</li> <li>- CGA – bundles &amp; SA</li> <li>- FTTH SA</li> </ul>	<u>Bundle-by-bundle</u> <ul style="list-style-type: none"> <li>- FTTH Flagship Products (bundle &amp; SA)</li> </ul> <u>Portfolio</u> <ul style="list-style-type: none"> <li>- 'Grand' Portfolio for SA and bundled FTTH Flagship products</li> </ul>
<b>Wholesale access inputs</b>	Relevant access products For NGA and CGA services  Ban on wholesale discounts	Relevant access products for FTTH services i.e., FTTH VUA.  Ban on wholesale discounts removed so FTTH VUA price should be reduced by relevant discounts
<b>Time period</b>	ACL - 42 months Retention – 30 months	ACL - 42 Months Retention – a shorter period i.e., < 42 months
<b>Ex ante Assessment</b>	Yes  New or revised plans on all NGA and CGA plans (for bundle by bundle and portfolio assessment above). 5 day turnaround	Yes  New or revised plans on FTTH Flagship products only. 5 day turnaround
<b>Ex post Assessment</b>	Quarterly Margin Monitoring reports (detailed by aggregation level above)	Quarterly Margin Monitoring reports – Flagship FTTH products only and Modified Quarterly Monitoring reports – all FTTH retail offerings (detailing associated volumes and revenues only).
<b>Unregulated services</b>	Included in headline price of bundle	Included in headline price of bundle

	Costs included at LRIC	Costs included at LRIC
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### 9.3.6 Cost accounting obligation

9.601 Eircom has been subject to cost accounting obligations in the WLA Market under the 2018 WLA/WCA Market Review Decision, as further specified in the 2010 Accounting Separation Decision. In particular, Eircom is required to maintain detailed cost accounting systems that are sufficiently granular to allow an assessment of cost allocations. ComReg proposes to maintain these obligations.

9.602 To ensure the effectiveness of the specified price control obligations, ComReg considers that it is necessary to have a clear and comprehensive understanding of the costs associated with Eircom's provision of certain WLA products, services, and facilities. Obligations to maintain appropriate cost accounting systems generally support obligations of price control (and accounting separation) and can also assist ComReg in monitoring the obligation of non-discrimination. Furthermore, the 2013 EC Recommendation also recommends that operators provide NRAs with up-to-date information in respect of NGA deployments:

*“In order to ensure transparency and to facilitate the monitoring of the evolution of the investment environment for NGA broadband as well as of competitive conditions NRAs should ask operators to provide the NRA with up-to-date information, including investment and NGA roll-out plans on a regular basis.”<sup>711</sup>*

9.603 Additionally, Eircom's cost accounting systems contain significant detail on the costs and revenues associated with wholesale access services. While ComReg is of the view that there is currently too much fluctuation in costs and demand each year to use the information contained in the accounts from any single-year to derive prices (e.g. for wholesale services such as FTTC VUA), it is still possible to analyse the reported costs and revenues over a number of years to determine the extent that price levels in the past have been consistent with efficient cost recovery across the economic life of the assets. It should also be possible to project this accounting information forward to gain an insight into how the prices of regulated services might need to change in the future so that the overall recovery of all relevant efficient expenditure<sup>712</sup>

<sup>711</sup> 2013 EC Recommendation; recital 51.

<sup>712</sup> Relevant expenditure can include an appropriate return on all investments, both the past investments in assets that are still being used to provide NGA services and the future investments needed to upgrade the network and ensure its efficient operation.

can be achieved in the long run. The prospect of copper switch off also means that such an assessment of past and future returns may also need to consider the terminal values of legacy assets, such as the potential gains that may be realised from the sale of recovered copper cables following the ultimate retirement of the copper network.

- 9.604 The burden of proof rests with Eircom to show that its prices/charges for cost-oriented products and services in the WLA Market and associated facilities or interconnection links, are derived from costs and that it is in compliance with any margin squeeze or non-discrimination obligations. Furthermore, for the purpose of calculating the costs of efficient provision of such products and services, in accordance with Regulation 13(4) of the Access Regulations, ComReg notes that it may also use cost accounting methods independent of those used by any SP in the market. ComReg can also issue a direction requiring an SP to provide full justification for its prices, and may, where appropriate, require prices to be adjusted.
- 9.605 Having regard to the need to support the effectiveness of the proposed price control obligations above and to enable ComReg to monitor Eircom's compliance with these obligations, ComReg considers that the continued imposition of cost accounting obligations on Eircom in the WLA Market is justified. In this respect, ComReg proposes that Eircom is required to maintain appropriate cost accounting systems to justify its prices/costs of WLA products, services, and facilities in the Commercial NG WLA Market. Consequently, Eircom needs to ensure that its cost accounting systems are capable of providing the level of granularity and transparency necessary to demonstrate compliance with its obligations arising from a finding of SMP in the Commercial NG WLA market, including its price control, accounting separation, and non-discrimination obligations.

### 9.3.7 Accounting Separation Remedies

#### Overview

- 9.606 In paragraphs 9.224 to 9.605 above, ComReg proposed to impose various price control and cost accounting obligations on Eircom relating to the provision of WLA products, services, and facilities in the Commercial NG WLA Market.
- 9.607 The purpose of accounting separation obligations is to provide a further level of detail of information than that which can be derived from the statutory financial statements of Undertakings designated with SMP, with the objective of reflecting, as closely as possible, the performance of those parts of the Undertaking's business, were it to operate on a standalone basis. In the case of vertically-integrated Undertakings, it can also support non-discrimination

obligations, help prevent unfair cross-subsidies to other services, and assist ComReg in monitoring compliance with obligations (e.g. non-discrimination). Having such detailed information enables ComReg to understand the information related to the costs, volumes and associated revenues of products, services and facilities.

- 9.608 In accordance with Regulation 11 of the Access Regulations (regulation 53 of the ECC Regulations), ComReg can, *inter alia*, require a vertically-integrated SMP operator, to make transparent its wholesale prices and its internal transfer prices, so as for example to ensure compliance with any non-discrimination obligation imposed or, where necessary, to prevent unfair cross-subsidy.
- 9.609 Allocating costs to the appropriate and relevant products and services of an SMP Undertaking is an important factor to consider when regulating multiple products and services carried over the same network. This is particularly true for Eircom, where its fixed access network is a common infrastructure that is used to provide a range of retail and wholesale services (some of which are subject to regulation). Therefore, when setting price controls for WLA products, services and facilities (and in ensuring compliance with pricing and other obligations) in the Commercial NG WLA Market, information is required about the costs and revenues associated with Eircom's provision of regulated WLA products and services, with such costs and revenues being distinct from the costs and revenues associated with other services provided over Eircom's network.
- 9.610 The detailed nature of the accounting separation obligations currently imposed on Eircom is specified in the 2010 Accounting Separation Decision. However, the focus of regulation has evolved, with the services subject to regulation changing, the number of relevant markets reducing, and new technologies and services emerging. As regulation has evolved ComReg is proposing to update some of the specific Accounting Separation obligations.

### Proposed Accounting Separation Obligations

- 9.611 ComReg considers the Accounting Separation obligation reporting requirements under the following headings:
- (a) Historic Cost Accounting ('**HCA**') Statements;
  - (b) Additional Financial Statements ('**AFS**'); and
  - (c) Additional Financial Information ('**AFI**').

### HCA Statements

- 9.612 proposes to retain the obligation requiring Eircom to publish in its HCA Statements, a consolidated income statement and consolidated Statement of

Mean Capital Employed for Wholesale Access. This is a continuation of the current process and arises in light of the proposal for on-going price regulation of certain WLA products, services and facilities, and also supports transparency for stakeholders.

- 9.613 Eircom's Wholesale Access in the HCA Statements is sub-divided into the following:
- (a) Wholesale fixed narrowband and unbundled access; and
  - (b) Wholesale broadband access
  - (c) Wholesale leased lines.
- 9.614 The 2021 HCA Statements from Eircom for "Wholesale Broadband Access" included:
- (a) WBA connections;
  - (b) CGA rental;
  - (c) CGA usage;
  - (d) NGA rental; and
  - (e) NGA usage.
- 9.615 ComReg is of the view that in future HCA Statements the costs and revenues for all the products and services that are within the WLA market are reported within a WLA statement, with a clear distinction between FTTH, FTTC and other WLA services. This will require some restructuring and reformatting of Eircom's HCA Separated Accounts, but ComReg considers that this can be progressed as part of the annual engagement with Eircom, as set out in the 2010 Accounting Separation Decision. ComReg also expects that restructuring the HCA Separated Accounts may also involve changes to the network studies and revenue reporting systems that are used in the preparation of the Separated Accounts. For example, to date, Eircom has reported costs and revenues associated with the provision of FTTC VUA services within the 'Wholesale fixed narrowband and unbundled access' statement, when that FTTC-based VUA service was ultimately sold as part of a POTS-based service. Consequently, the only time that Eircom currently reports the costs and revenues associated with FTTC use of the copper loop in the 'Wholesale Broadband Access' statement is when that service is sold

as a Standalone Broadband service.<sup>713</sup> As POTS-based FTTC has tended to be the predominant FTTC-based service since 2013, this has meant a relatively small proportion of the costs and revenues associated with FTTC-based VUA sales were included in the 'Wholesale Broadband Access' statement.

- 9.616 However, ComReg proposes that future HCA Separated Accounts report all the costs and revenues associated with the provision of WLA services, such as FTTC-based VUA, within the same statement. This would mean that the costs and revenues associated with all the copper loops (LLU and SLU) that are used in the provision of an FTTC based service are reported as an FTTC VUA related revenue and cost. ComReg proposes to engage with Eircom and its auditors to determine how changes can be implemented in the HCA statements in order to ensure that preparation of the HCA Statements does not represent an undue burden to Eircom, while also ensuring that the HCA Separated Accounts provide stakeholders with relevant information on those services that continue to be subject to regulation.
- 9.617 As it is intended that products, services and associated facilities provided in the Commercial NG WLA Market continue to be regulated, ComReg proposes to retain the requirement to provide consolidated financial results for the wholesale access income statements, as produced annually by Eircom in its Separated Accounts, but in particular for the results pertaining to Eircom's provision of NGA services, e.g. FTTC and FTTH. These obligations continue to flow from the 2010 Accounting Separation Decision.

### Additional Financial Statements

- 9.618 Additional financial statements tend to be in a profit and loss format, below the market level. They may be subject to external audit.
- 9.619 Presently, as part of the AFS there is a separation of "Wholesale Broadband Access" between "CGA Connections, Rental, Usage", and also NGA connections, NGA rental and NGA usage. Given the proposal to deregulate the Regional WCA Market, as well as CGA services across markets, ComReg therefore may only require data from Eircom in relation to the NGA services.
- 9.620 Further, in light of the increased deployment and take-up of FTTH services, ComReg's view is that the existing reporting obligation should be enhanced to separate, where possible, the three NGA categories further into FTTH and

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<sup>713</sup> One consequence of this is that the rates of return that Eircom has reported for FTTC-based services have tended to be understated. In the past, Eircom has continually reported excess returns for "Wholesale fixed Narrowband" services. However, a significant proportion of the revenues and costs were associated with POTS based FTTC services. Reporting all the costs and revenues associated with the sale of POTS-based FTTC services in the 'Wholesale Broadband Access' would have increased the reported rate of return for FTTC based Services and reduced the reported rate of return for Wholesale Fixed Narrowband services.



FTTC, as part of the AFS submissions. ComReg also proposes to relax the reporting obligations in relation to CGA as this form of broadband is declining and has been proposed for deregulation. Details of the necessary enhancements can be finalised as part of the annual engagement with Eircom, as set out in the 2010 Accounting Separation Decision.

### Additional Financial Information

- 9.621 Additional financial information can contain both profit and loss accounts as well as volumes, fixed asset investments, further breakdown of cost information. Additional financial information tends not to be subject to external audit.
- 9.622 The 2013 EC Recommendation recommends that NRAs should take into account the SMP operator's audited downstream costs when assessing *ex ante* Economic Replicability Tests.<sup>714</sup> Eircom currently provides ComReg with information in respect of retail costs in relation to relevant products through the AFI submissions. Given the proposal related to MSTs for Eircom's provision of retail offers both standalone and bundled as part of this Consultation, ComReg considers that Eircom should continue to provide information related to the retail costs.
- 9.623 On an annual basis, ComReg discusses the requirements for AFI reports with Eircom and has, in previous years, revised the list as required. ComReg proposes to continue with this annual review, thereby ensuring that the number and format of the AFI reports continue to be relevant, and that the production of such reports does not represent an undue burden on Eircom.

### 9.3.8 Regulatory Governance Obligations

#### Requirement for effective regulatory governance

- 9.624 A key objective of ComReg in selecting appropriate remedies to prevent potential anti-competitive behaviours arising from Eircom's SMP in regulated markets to date, has been to ensure that Access Seekers have the option to choose what level of access they want depending on the scale of their operation, while encouraging efficient infrastructure-based competition (including through price control obligations). A critical aspect in the effectiveness of WLA products in facilitating effective competition is the regulatory governance arrangements that are or need to be in place for the purpose of ensuring that Eircom provides access to its network in accordance with its regulatory obligations. This includes, in particular the management of matters such as order provisioning and service assurance; the development of the WLA products and services; the manner in which Eircom investment

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<sup>714</sup> Ibid, recital 67.

decisions are made, by whom and the criteria used; and the management of confidential regulated information.

- 9.625 Eircom's regulatory governance arrangements are currently overseen by ComReg in two principal ways.
- 9.626 First, Eircom is required under the 2018 Decision and the 2020 WHQA Decision<sup>715</sup> to prepare and provide to ComReg, Statements of Compliance ('**SoC**') which detail and explain Eircom's risk assessment and control procedures. The function of the SoC is to require Eircom to demonstrate how it ensures compliance with SMP obligations, more particularly by reference to the regulatory governance measures and arrangements put in place in order to identify and manage risks of non-compliance. Eircom uses its Regulatory Governance Model ('**RGM**') to develop and provide SoCs to ComReg. The RGM in turn relies on Eircom's expertise and knowledge of its processes, systems and procedures to identify, manage and control the risks of non-compliance with its regulatory obligations.
- 9.627 Second, on 10 December 2018, ComReg and Eircom entered into a settlement of a number of High Court proceedings (the '**Settlement Agreement**').<sup>716</sup> As part of this Settlement Agreement, Eircom agreed to a set of commitments which, when fully implemented, were to result in the establishment and operation of an enhanced RGM in Eircom. These commitments include among others, the establishment of an Independent Oversight Body ('**IOB**'). The IOB is charged with, among other things, overseeing and assessing Eircom's regulatory governance arrangements and publishing a report on an annual basis with an opinion regarding the implementation and effectiveness of Eircom's RGM.
- 9.628 However, following its review of the IOB's first report of 8 September 2021, ComReg noted that the IOB Report was wholly based on evidence provided by Eircom and that Eircom had not yet permitted the independence and effectiveness of these functions to be independently assured in a way that ComReg considers adequate. As such ComReg considered that the IOB was not in a position to adopt an opinion on the overall effectiveness of Eircom's RGM and as a result, the IOB Report – while providing some information about aspects of Eircom's RGM – did not provide ComReg with reason to place meaningful reliance on the effectiveness of Eircom's RGM when ComReg is exercising its regulatory functions.<sup>717</sup>

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<sup>715</sup> ComReg Document 20/06, Decision D03/20, WHQA Market Review, Response to Further Consultation and Final Decision ('**2020 WHQA Decision**').

<sup>716</sup> Settlement Agreement between Eircom and ComReg dated 10 December 2018.

<sup>717</sup> ComReg 21/95, ComReg statement on IOB Opinion, 5 October 2021.

- 9.629 In its **Electronic Communications Strategy Statement 2021-2023**,<sup>718</sup> ComReg also indicated that it continued to have some concerns around the state of competition and the culture of compliance within Eircom in the presence of the enhanced RGM, and that it would continue to review the effectiveness of the RGM and Settlement Agreement and consider if more regulatory action is required.
- 9.630 A key aspect in assessing Eircom's regulatory governance arrangements and whether additional measures are required in this respect, is to understand in the presence of WLA products available to Access Seekers, whether they are effective in terms of facilitating effective competition and establishing that there is a level playing field for all users, including how Eircom supplies itself and other Access Seekers WLA products which consume upstream PIA products.
- 9.631 In light of the above, ComReg is of the view that Eircom should be required to ensure that it has in place effective regulatory governance arrangements ensuring compliance with its obligations of access, non-discrimination, transparency, accounting separation, cost accounting and price control including as regards its arrangements, and the implementation of those arrangements, with FNI. ComReg further proposes that this obligation be further specified for the time being by reference to a requirement to prepare and provide to ComReg, an SoC, as further described below. ComReg is of the view that this is the least intrusive measure which ComReg may impose on Eircom at this point in time. However, Eircom's obligations may be respecified or complemented by further requirements, including non-standard remedies where and if justified, depending on the outcome of ComReg's review of the effectiveness of Eircom's RGM as referred to in the Electronic Communications Strategy Statement. This will include consideration of the effectiveness of Eircom's WLA products in terms of facilitating effective competition and how competition has developed to date, and the potential impact of the divestment of certain inputs used by Eircom in its supply of WLA in FNI and associated governance arrangements within the Eircom Group in this respect. In light of the fact that Regulation 15 of Framework Regulations has been triggered, ComReg has an obligation to assess the impact of decision making by FNI and the associated incentives on the provision of WLA by Eircom.

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<sup>718</sup> Electronic Communications Strategy Statement 2021-2023, ComReg Document 21/70, June 2021 ('**Electronic Communications Strategy Statement**').

## Statement of Compliance Remedies

- 9.632 ComReg proposes to require Eircom to provide, and keep up to date, a SoC that details and explains Eircom's risk assessment and control and governance measures.
- 9.633 The function of the SoC is to require Eircom to demonstrate how it ensures compliance with the regulatory obligations imposed on it in the Commercial NG WLA Market. The SoC obligation requires Eircom to explain the regulatory governance measures and arrangements that it has put in place in order to identify and manage risks of non-compliance with its SMP obligations, thereby providing reasonable assurances to ComReg that Eircom effectively manages risks of non-compliance in the Commercial NG WLA Market.

## Information to be provided in the SoC

- 9.634 The implementation of effective regulatory governance structures and arrangements by Eircom requires the identification and management of risks of non-compliance with Eircom's regulatory obligations in the Commercial NG WLA Market, and in turn transparency as regards Eircom's approach to risk identification and the development of controls including an explanation of the scope and output of the risk review, the processes reviewed, the material considered and how Eircom employed subject matter experts in the risk analysis and control development processes.
- 9.635 This requires assessments to be carried out by Eircom of, *inter alia*, systems, processes and activities that have relevance for Eircom's compliance with all of its regulatory obligations in the Commercial NG Market in order to determine where and how regulatory risk might arise. For example, the business processes and associated systems that underpin the development of WLA products or provisioning of WLA products and services or service assurance may give rise to regulatory risk. A structured and systematic approach to the assessment of risk is required in order to identify potential risks of non-compliance. A similar approach is necessary for the effective design and operation of controls in order to manage the identified risks of non-compliance.
- 9.636 It also requires that the output of the risk analysis is documented adequately, including a description of the potential regulatory issues which could give rise to regulatory risk, together with an outline of the consideration given to potential regulatory issues and the reasons why the conclusion that issues identified do or do not give rise to regulatory risk as the case may be.
- 9.637 Eircom's risk analysis process, which it currently applies in the WLA/WCA and WHQA Markets is structured such that it produces the information outlined above and that the output from each risk assessment is stored by Eircom. Therefore, ComReg considers that this requirement, with respect to the

Commercial NG WLA Market, will not result in an undue additional burden on Eircom. Furthermore, the provision of this information to ComReg has the potential to increase confidence in the scope and comprehensiveness of Eircom's regulatory governance and oversight in the Commercial NG Market.

- 9.638 This information is required in order for ComReg to understand Eircom's approach to risk management and the extent to which it has fully evaluated risks and has developed, and is operating, controls. This information demonstrates the extent to which identified risks of non-compliance with obligations are being managed by Eircom in a manner that provides reasonable assurances to ComReg with respect to Eircom's compliance with its regulatory obligations in the Commercial NG WLA Market. It also provides information which supports the directors' confirmation that, in their opinion, the governance arrangements in place provide reasonable assurance that Eircom is in compliance with its regulatory obligations in the Commercial NG WLA Market.

#### **Activities particularly relevant to the WLA Market**

- 9.639 ComReg has identified categories of activities which it considers are particularly relevant to the delivery and availability of regulated wholesale products and services in the Commercial NG WLA Market. ComReg considers that non-compliance by Eircom with regulatory obligations associated with these activities has the potential to have a significant impact on Access Seekers. Effective regulatory governance in general, including with respect to these activities, will assist Eircom in being compliant with its regulatory obligations resulting in benefits to competition and, ultimately, end users.
- 9.640 For the avoidance of doubt, ComReg is not proposing that these are the only categories or areas where the proposed SoC obligation requires Eircom to provide information on the implementation and operation of regulatory governance. It is reasonable to expect that appropriate and effective governance and oversight of the management of Confidential Regulated Information<sup>719</sup> as required by Eircom's regulatory obligations in the Commercial NG WLA Market will apply throughout the Eircom organisation.
- 9.641 The proposed SoC obligation is required with respect to all of Eircom's activities and processes i.e., all areas where Eircom's regulatory obligations apply in the Commercial NG WLA Market. ComReg expects that Eircom has the knowledge and expertise to make a determination as to the scope, extent and potential impact of its activities on its compliance with its regulatory

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<sup>719</sup> "Confidential Regulated Information" or "CRI" means information relating to Regulated Access Products (RAPs) over and above that which is currently in the public domain. This includes Confidential Wholesale Customer Information. "Confidential Wholesale Customer Information" means confidential or commercially sensitive information provided to the Wholesale Function by a wholesale customer relating to RAPs.

obligations in the Commercial NG WLA Market and should address the requirements of the SoC obligation accordingly, in a comprehensive manner.

9.642 However, in this Consultation ComReg is proposing that, due to their significance and relevance, the consideration given to the management of regulatory risk arising from Eircom's activities, processes and systems associated with these categories should be explicitly included in the proposed SoC obligations:

- (a) Development of WLA Products and Services;
- (b) Provisioning and Service Assurance;
- (c) Eircom's investment decisions; and
- (d) Management of Confidential Regulated Information.

9.643 The proposed obligation requires that the SoC be signed by a person of appropriate authority within Eircom such that assurances can be provided to ComReg that regulatory governance and oversight is afforded the necessary oversight and attention by Eircom.

9.644 Furthermore, ComReg considers that the signatory needs to be a person within Eircom who is sufficiently independent from day-to-day operational activity and decision-making, in relation to the development, and supply of wholesale regulated products and services, in order to be able to objectively confirm Eircom's compliance with its regulatory obligations.

9.645 ComReg considers that the SoC should be signed by a director or directors of Eircom on behalf of the Board of Directors, of Eircom Limited and should include a statement acknowledging the directors' responsibility in ensuring Eircom's compliance with its regulatory obligations and confirmation that the governance arrangements in place provide reasonable assurance that Eircom has taken all necessary steps to ensure compliance with its regulatory obligations in the Commercial NG WLA Market. ComReg considers that this requirement emphasises the importance of the SoC and reinforces the need for, and increases the likelihood of the establishment, by Eircom, of appropriately robust oversight and governance measures relating to the implementation and operation of regulatory governance in Eircom.

9.646 ComReg also notes that, under the Companies Act 2014, company directors have specific obligations with which they must comply relating to securing compliance with relevant obligations, defined in the Act, as follows:

*“The directors of a company to which this section applies shall also include in their report under section 325 a statement—*

- (a) acknowledging that they are responsible for securing the company's compliance with its relevant obligations; and*

*(b) with respect to each of the things specified in subsection (3), confirming that the thing has been done or, if it has not been done, specifying the reasons why it has not been done.*

*(3) The things mentioned in subsection (2)(b) are—*

*(a) the drawing up of a statement (to be known, and in this Act referred to as, a “compliance policy statement”) setting out the company’s policies (that, in the directors’ opinion, are appropriate to the company) respecting compliance by the company with its relevant obligations;*

*(b) the putting in place of appropriate arrangements or structures that are, in the directors’ opinion, designed to secure material compliance with the company’s relevant obligations; and*

*(c) the conducting of a review, during the financial year to which the report referred to in subsection (2) relates, of any arrangements or structures referred to in paragraph (b) that have been put in place.”*

- 9.647 In ComReg’s opinion, while the obligations referred to in the Companies Act 2014 do not include regulatory obligations, ComReg considers that it is relevant and instructive that the Companies Act 2014 requires directors to prepare a statement that, *inter alia*, confirms that, in their opinion, arrangements are designed and put in place that secure material compliance with the company’s relevant obligations.
- 9.648 ComReg’s view is that, in order to ensure that the signatory has the required independence and authority, the signatory should be a director authorised to represent the Board of Directors (defined in the Companies Act 2014) of Eircom.
- 9.649 ComReg is aware from SoCs previously received from Eircom that there are various certification processes in place as part of the RGM which Eircom has implemented in order to govern compliance with its regulatory obligations generally. ComReg understands that these include self-certification processes by Eircom managers certifying, for example the operation of the governance processes in their areas of responsibility.
- 9.650 ComReg proposes that the SoC describes both the processes followed and the information relied upon by the signatory to the SoC who are required to certify the correct operation of the governance process. Similarly, ComReg proposes that the SoC includes a description and explanation of the governance measures implemented in Business Areas and activities which have relevance to Eircom’s compliance with its regulatory obligations. ComReg also proposes that the SoC includes a description and explanation of the processes followed by Eircom’s management, in particular senior

managers in relevant Business Areas,<sup>720</sup> to assess the operation and effectiveness of the processes used to identify and mitigate risks of non-compliance.

- 9.651 As some form of verification process must currently be carried out by the SoC signatory and the staff who provide certification, ComReg considers that it is reasonable that it should understand and review the verification process followed by the SoC signatory and Eircom management in order for ComReg to reasonably satisfy itself that Eircom has adequate governance and oversight arrangements in order to ensure compliance with its regulatory obligations. ComReg considers that providing this information should not be an additional undue burden and is reasonable and proportionate.
- 9.652 A key element of Eircom's RGM is the analysis, development, management and documentation of the risk and control framework. This includes the production of data and information, some of which can be used when preparing a SoC. A significant portion of the information required for the SoC is generated as an output from the risk assessment processes executed as part of the implementation of Eircom's RGM. In the proposed SoC obligation, ComReg requires Eircom to produce information on the output generated from the risk analysis and control development process. ComReg considers that the requirement to provide such information, relating to the execution of its risk analysis process in the proposed SoC, will not result in an additional burden being placed on Eircom as this information is currently being generated by Eircom as it operates its RGM.

### Timeframe for Provision of the SoC to ComReg

- 9.653 ComReg proposes that Eircom is to be required to provide a SoC for the Commercial NG WLA Market within three months from the effective date of the decision (to be published as a result of this Consultation) where there is no offer of a new WLA product or change to an existing WLA product.
- 9.654 ComReg proposes also that in the case of any offer of a new WLA product, service or facility, or a change to an existing WLA product, service or facility in the Commercial NG WLA Market, that an updated SoC is notified to ComReg under the notification requirements specified as part of Eircom's obligation of transparency.
- 9.655 In all cases, SoC and associated updates should include version control information including a revision history in order to allow the reader of the SoC to easily identify changes and when they were made.

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<sup>720</sup> Senior Managers in Business Areas where Eircom's regulatory obligations apply, for example Business Areas responsible for the provision and service assurance of Regulated Access Products.



## Publication of the Statement of Compliance

- 9.656 ComReg has considered whether the SoC should be published and available to Access Seekers and is of the view that it should be. The SoC is primarily concerned with the degree of governance Eircom applies to meeting its regulatory obligations in the Commercial NG WLA Market.
- 9.657 ComReg is of the view that the provision of the SoC to Access Seekers gives greater visibility to Access Seekers of the processes Eircom has put in place to ensure it complies with its regulatory obligations in the Commercial NG WLA Market. This has the potential to improve Access Seekers' confidence that they are receiving the same wholesale product or service that Eircom is supplying to its own downstream arm, for example, and this is beneficial to providing regulatory certainty, facilitating competition and ultimately greater choice to end users.
- 9.658 However, ComReg recognises that some information to be published as part of the proposed SoC may be considered confidential by Eircom. In these circumstances, where a request is made by Eircom to ComReg not to publish aspects of the SoC then ComReg will apply its rules relating to the publication of confidential information when assessing any such request.
- 9.659 ComReg's view is that Eircom should make available the SoC to Access Seekers by making it available on its publicly available wholesale website one month after provision of the SoC to ComReg, unless otherwise agreed by ComReg.

## 9.4 Conclusions on Remedies in the Commercial NG WLA Market

- 9.660 Having regard to the competition problems identified in Section 8 and the discussion in this Section 9 above, ComReg proposes to impose a range of access, non-discrimination, transparency, price control, cost accounting, accounting separation and SoC remedies on Eircom, with such obligations being imposed in the Commercial NG WLA Market.

**Q. 8. Do you agree with ComReg's proposals in respect of remedies in the Commercial NG WLA Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

## 10 Withdrawal of SMP and Remedies on the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market

- 10.1 In cases where Eircom has previously been designated as holding SMP on a specific market, and has therefore been subject to regulatory obligations, ComReg notes that Regulation 27(2) of the Framework Regulations (Regulation 49 of the ECC Regulations) allows ComReg to give reasonable notice to any parties which it considers to be affected by the withdrawal of such obligations.
- 10.2 As noted in Section 6, ComReg proposes to find that neither the CG WLA Market nor the IA NG WLA Market are susceptible to *ex ante* regulation. Similarly, as noted in Section 7, ComReg proposes to find that the WCA market is no longer susceptible to *ex ante* regulation.
- 10.3 This is predicated on a number of factors, including a forward-looking assessment of the competitive constraints arising in those markets, principally due to the presence of wholesale NG broadband networks capable of delivering WLA and WCA to Access Seekers. In respect of WCA, the presence of such constraints is assured, in an MGA, through upstream regulation in the Commercial NG WLA Market, and services to be supplied by NBI by means of the NBP Contract, in the IA NG WLA Market.

### 10.1 Withdrawal of remedies – sunset period

- 10.4 In order to facilitate an orderly transition to deregulation of the three markets described above, ComReg's view is that an overall 12 month sunset period is appropriate, starting from the effective date of the final decision to be made on foot of this Consultation. During this period, access to existing CG WLA, NG WLA (in the IA NG WLA Market) and WCA services will be maintained at prices no higher than prevailing prices. At the end of this 12 month sunset period, these obligations will be withdrawn.
- 10.5 During 12 month sunset period, Eircom is not obliged to meet new requests for access to CG WLA, NG WLA or WCA orders in the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market respectively, as appropriate. It is, of course, open to Eircom to do so on a commercial basis.

- 10.6 ComReg considers that this 12 month sunset period is necessary, in order to facilitate an orderly transition to deregulation, including noting that:
- (a) Access Seekers may need to obtain backhaul and interconnect to new aggregation nodes on Eircom's network in order to facilitate their purchases of NG WLA at new network access points.
  - (b) Access Seekers may need to obtain backhaul and interconnect to new aggregation nodes on SIRO's and/or NBI's network in order to facilitate their purchases of NG WLA at new network access points.
  - (c) It is probable that LLU (CG WLA) is largely being used to provide retail services to business users and sufficient time would be required to ensure continuity of service provision and/or the exploration of alternatives.
- 10.7 Apart from the aforementioned access and prevailing prices requirements, Eircom will not be required to meet other obligations (for example, in relation to transparency, non-discrimination etc.) during this 12 month sunset period.
- 10.8 ComReg, accordingly, proposes to withdraw existing regulatory obligations on Eircom, given its preliminary finding that the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market are not susceptible to *ex ante* regulation. In this respect, ComReg proposes that existing obligations, other than as set out above, would be withdrawn on the date at which ComReg's final decision comes into effect, subject to the 12 month sunset period described above.

**Q. 9. Do you agree with ComReg's proposals on the withdrawal of SMP remedies on the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

# 11 Regulatory Impact Assessment

## 11.1 Introduction

- 11.1 A Regulatory Impact Assessment ('**RIA**') is a detailed consideration of the likely effect of proposed new regulations - or changes to existing regulations - on SPs, end users, Access Seekers and other stakeholders. A RIA seeks to establish if such proposals are necessary and, in doing so, identifies any possible effects which might result from their implementation. A RIA identifies alternative regulatory options and, ultimately, establishes whether a proposed regulation is likely to have the desired impact. It is a structured approach to policy development, and analyses the impact of the proposed regulation, and other regulatory options, on different stakeholders. Appropriate use of a RIA should assure identification of the most effective regulatory option.
- 11.2 In carrying out a RIA, ComReg adheres to its RIA Guidelines<sup>721</sup> and takes account of the Better Regulation programme.<sup>722</sup> ComReg is also cognisant of international best practice, such as guidance from the EC and the Organisation for Economic Co-operation and Development ('**OECD**').
- 11.3 Section 13(1) of the Communications Regulation Act 2002 (as amended) requires ComReg to comply with Ministerial Policy Directions. Section 6 of the Ministerial Policy Direction to ComReg of 21 February 2003 also requires that, prior to imposing regulatory obligations on Undertakings, ComReg shall conduct a RIA in accordance with international best practice, and otherwise in accordance with measures that may be adopted under the Better Regulation programme.
- 11.4 The ultimate aim of conducting a RIA is to ensure that the regulatory measures which are proposed to be implemented are appropriate, proportionate and justified. As decisions can 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 that respect.
- 11.5 ComReg's approach to carrying out a RIA follows five steps:
- Step 1:** Describe the policy issue and identify the objectives;
  - Step 2:** Identify and describe the regulatory options;
  - Step 3:** Determine the impact on stakeholders;

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<sup>721</sup> [ComReg Document 07/56a](#), ComReg, "Guidelines on ComReg's Approach to Regulatory Impact Assessment", 10 August 2007 (the '**RIA Guidelines**').

<sup>722</sup> Department of the Taoiseach, "Regulating Better", January 2004. See also "Revised RIA Guidelines: How to conduct a Regulatory Impact Analysis", June 2009, (the '**Revised RIA Guidelines**'), available from: [http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/07/Revised\\_RIA\\_Guidelines\\_June\\_20091.pdf](http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/07/Revised_RIA_Guidelines_June_20091.pdf)

**Step 4:** Determine the impact on competition; and

**Step 5:** Assess the impacts on stakeholders and competition and choose the best regulatory option.

- 11.6 In the analysis set out below, ComReg carries out each of these steps in respect of the Commercial NG WLA Market.
- 11.7 The purpose of carrying out a RIA is to aid decision-making through identifying regulatory options and analysing the impact of those options in a structured manner. The Revised RIA Guidelines state that:
- “RIA should be conducted at an early stage and before a decision to regulate has been taken.”<sup>723</sup>*
- 11.8 The EC, in its review of impact assessments, notes that:
- “Impact assessments need to be conducted earlier in the policy development process so that alternative courses of action can be thoroughly examined before a proposal is tabled.”<sup>724</sup>*
- 11.9 In determining the impacts of the various regulatory options, best practice recognises that a full cost benefit analysis should be carried out where it would be proportionate to do so, or, in exceptional cases, where robust, detailed and independently verifiable data are available. Such a comprehensive review may be undertaken by ComReg when necessary and relevant.
- 11.10 A RIA should be carried out as early as possible in the assessment of potential regulatory options, where appropriate and feasible. The consideration of regulatory impacts facilitates the discussion of options, and a RIA should therefore be integrated into the overall preliminary analysis. This is the approach which ComReg follows, and this RIA should be read in conjunction with the overall Consultation. A RIA will be finalised in the final decision arising from this Consultation, having taken into account responses to this Consultation, and any comments from the CCPC, EC and BEREC.
- 11.11 ComReg now conducts a RIA, having regard to the proposed regulatory remedies set out in Section 9 of this Consultation, along with consideration of other options. The following sections, along with the full analysis and discussion set out in this Consultation represent a RIA. It sets out ComReg’s assessment of the potential impact of proposed regulatory obligations for the Commercial NG WLA Market, and the proposed removal of regulatory obligations in the IA NG WLA Market, the CG WLA Market, and the Revised Regional WCA Market, as set out in Sections 9 and 10.

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<sup>723</sup> See paragraph 2.1 of the Revised RIA Guidelines.

<sup>724</sup> “Second strategic review of Better Regulation in the European Union”, COM(2008)32, p.6.

## 11.2 Principles in Selecting Remedies

- 11.12 In Sections 2 and 9, ComReg sets out the legislative basis for the imposition of remedies on Eircom, which it proposes to designate with SMP in the Commercial NG WLA Market. In choosing appropriate remedies, ComReg is obliged, pursuant to Regulation 8(6) of the Access Regulations (Regulation 50(5) of the ECC Regulations), to ensure that they are:
- (a) Based on the nature of the problem identified;
  - (b) Proportionate and justified in the light of the objectives laid down in Section 12 of the Communications Regulation Act 2002 (as amended), and Regulation 16 of the Framework Regulations (Regulation 4 of the ECC Regulations); and
  - (c) Only imposed following consultation in accordance with Regulations 12 and 13<sup>725</sup> of the Framework Regulations (Regulation 17 of the ECC Regulations).
- 11.13 Section 12(1)(a) of the Communications Regulation Act 2002 (as amended) sets out the objectives of ComReg in exercising its functions in relation to the provision of electronic communications networks, services and associated facilities, namely:
- (a) To promote competition;
  - (b) To contribute to the development of the internal market; and
  - (c) To promote the interests of users within the European Union.

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<sup>725</sup> As mirrored at Articles 23 and 32 of the EECC.

## 11.3 Commercial NG WLA Market Regulatory Impact Assessment

### 11.3.1 Step 1: Describe the Policy Issue and Identify the Objectives

- 11.14 The EC acknowledges the need for the imposition of *ex ante* regulatory obligations to mitigate the potentially anti-competitive exercise of market power by SMP SPs, and to ensure the development of effective competition within, and across, communications markets. ComReg notes that the EC has established that the WLA market is susceptible to *ex ante* regulation and ComReg has carried out the preceding analysis in this Consultation on that basis. However, since the WCA market is no longer included in the 2020 Recommendation, NRAs must decide on an individual basis if, based on national circumstances, WCA markets need to continue to be regulated, in the first instance by carrying out a 3CT. In the case of WCA, and pursuant to the MGA, ComReg carries out a 3CT in the first instance on the Modified Retail Broadband Market, assuming no WCA regulation. This ultimately forms the basis for the assessment set out in this Consultation.
- 11.15 In this Consultation, ComReg has set out its analysis and preliminary views on the Relevant WLA Markets and Relevant WCA Markets. In doing so, its policy objectives are to identify whether or not any SP operating on each of those Relevant Markets has SMP, whether competition concerns arise and, if so, how best to address these. This includes the following:
- (a) In Section 5, ComReg sets out its preliminary views on the definitions of the Relevant WLA Markets, which provide the parameters within which competition would be assessed;
  - (b) In Sections 6 and 7, ComReg carries out competition assessments and sets out its view that, in the absence of evidence of SMP, the IA NG WLA Market, the CG WLA Market, and the Revised Regional WCA Market are deemed to be effectively competitive. However, on the basis of a competition assessment which suggested the presence of SMP, the Commercial NG WLA Market is deemed not to be effectively competitive, thereby being susceptible to *ex ante* regulation. ComReg accordingly proposes to designate Eircom with SMP on the Commercial NG WLA Market;
  - (c) In Section 8, ComReg assesses the ability and incentives of Eircom to engage in various anti-competitive conducts to the ultimate detriment of competition and end users on the Commercial NG WLA Market; and
  - (d) In Section 9, ComReg sets out proposals to address these identified competition problems and justified proportionate remedies which it proposes to impose on Eircom.

- 11.16 As noted in Section 9, in order to address identified competition problems, ComReg is required to impose on SMP SPs such of those obligations set out below, as it deems appropriate:
- (a) Transparency;
  - (b) Non-Discrimination;
  - (c) Access;
  - (d) Price Control and Cost Accounting;
  - (e) Accounting Separation; and
  - (f) SoC.
- 11.17 ComReg is required to impose at least one of the above obligations on those SPs which it proposes to designate with SMP.
- 11.18 Having regard to the competition problems identified in Section 8, ComReg's objectives are to mitigate the effects of SMP in the Commercial NG WLA Market, and any impacts on related markets. In so doing, ComReg aims to prevent the emergence of restrictions or distortions in competition among SPs, to the ultimate benefit of consumers. ComReg also seeks to provide regulatory certainty to all SPs through the development of an effective and efficient forward-looking regulatory regime that serves to promote competition between SPs.
- 11.19 In pursuing these objectives, ComReg aims to influence the behaviour of Eircom, to mitigate the potential harmful effects that can potentially arise from the exercise of SMP in the Commercial NG WLA Market. In this regard, ComReg considers that the regulatory measures proposed in Section 9 should address, in a proportionate way, the relevant competition problems and the consequent impacts on competition and consumers.
- 11.20 In Section 9, ComReg considered the impact of the specific nature of the regulatory obligations deemed necessary in the Commercial NG WLA Market and formed the preliminary view that the range of remedies specified is both appropriate and justified in light of the analysis set out in Section 8. The various regulatory options for the Commercial NG WLA Market are, in the context of the RIA, further considered below.



### 11.3.2 Step 2: Identify and Describe the Potential Regulatory Options

- 11.21 ComReg recognises that regulatory measures should be restricted to the minimum necessary to address the identified market failure in an effective, efficient and proportionate manner. A range of potential regulatory options is available to ComReg to address the potential competition problems that may arise in the Commercial NG WLA Market.
- 11.22 In this regard, regulation should be incremental, such that only those obligations which are necessary and proportionate to address the identified competition problems are imposed, as set out in Regulations 9 to 13 of the Access Regulations/Regulations 51 to 56, 58 and 62 of the ECC Regulations. For example, the lightest measure that can be imposed is the obligation of transparency. Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation. If this is still not sufficient, ComReg may next consider the imposition of an access obligation, SoC obligations, or price controls, with accounting separation obligations potentially required where price control obligations are imposed.
- 11.23 The questions of regulatory forbearance and the incremental imposition of one or more of the above obligations in the Commercial NG WLA Market are considered at paragraphs 11.24 to 11.46 below.

#### Forbearance from regulating the Commercial NG WLA Market

- 11.24 Forbearance is not, in ComReg's view, applicable in the case of the Commercial NG WLA Market. As set out in Section 6, ComReg considers that the Commercial NG WLA Market is not effectively competitive, nor is it likely to become effectively competitive within the timeframe covered by this market review. Therefore, pursuant to Regulation 8(1) of the Access Regulations/Regulation 50(1) of the ECC Regulations and Regulation 27(4) of the Framework Regulations/Regulation 49(8) of the ECC Regulations, in the case of the current analysis of the Commercial NG WLA Market, ComReg is required to impose at least some level of regulation on Eircom, having been designated as having SMP.
- 11.25 In Section 8, ComReg set out its view that, absent regulation, Eircom would likely have the ability and incentive to engage in a range of exploitative, exclusionary and leveraging behaviours. Absent the imposition of any remedies, it is ComReg's view that the Commercial NG WLA Market (and impacted adjacent markets) would not function effectively, ultimately to the detriment of downstream competition and end users.

11.26 By not imposing any regulatory obligations on an SP designated with SMP, ComReg would fail to discharge its statutory obligations. According to Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations/ Regulation 50(1) and Regulation 49(8) of the ECC Regulations, where SMP has been identified, ComReg is obliged to impose at least some level of regulation on the SP designated with SMP. The question is, therefore, which regulatory obligations are appropriate. ComReg examines the regulatory options below.

### NG WLA Transparency Obligations

- 11.27 ComReg's preliminary view, set out in Section 9, is that, due to the ability and incentives of Eircom to engage in the identified anti-competitive behaviours, transparency obligations<sup>726</sup> are necessary to facilitate the development of effective downstream competition. ComReg has specified transparency remedies, including requirements to publish an ARO (refer to paragraphs 9.149 to 9.178 above) setting out contractual terms and conditions, and the technical basis upon which SPs can obtain access to WLA and associated facilities, along with requirements to publish WLA prices and provide advance notification of changes to them.
- 11.28 Eircom faces a minor level of incremental burden from the proposed enhancements to the existing transparency obligations, which include:
- (a) A minor level of amendments to the ARO; and
  - (b) Minor updates to the content of Eircom's NGA rollout plan;
- 11.29 The requirements to publish information on product development and to publish Key Performance Indicators and performance with respect to Service Level Agreements are largely a continuation of extant obligations.
- 11.30 ComReg considers that Eircom should be required to comply with these transparency obligations in order to minimise information asymmetries and, therefore, facilitate timely and efficient access to WLA and associated facilities. It is envisaged that these obligations will promote effective competition in downstream markets.
- 11.31 As set out in Section 9, ComReg does not consider that transparency obligations, in isolation, will sufficiently address competition problems in the Commercial NG WLA Market. For example, transparency obligations do not directly address concerns regarding denial of access, discrimination (on price or non-price grounds), or excessive pricing.

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<sup>726</sup> The proposed transparency remedies in the Commercial NG WLA Market are outlined in paragraphs 9.143 to 9.191 above.

## NG WLA Non-Discrimination Obligations

- 11.32 Having reviewed competition problems in the Commercial NG WLA Market in Section 8, ComReg sets out its preliminary view in Section 9 that non-discrimination obligations are necessary to ensure that Access Seekers being provided with WLA are treated in an equivalent manner.<sup>727</sup> Eircom supply WLA services, such as VUA and NG migrations to undertakings, and self-supply, such as NG broadband and migrations, to itself. ComReg proposes to maintain Eircom's non-discrimination obligation to provide access and information to all undertakings including itself, its subsidiaries, affiliates or partners, on the same timescales, terms and conditions, including those related to prices and service levels, using the same systems and processes.
- 11.33 Such non-discrimination obligations are designed to promote pro-competitive behaviours in the Commercial NG WLA Market, by requiring the same treatment of Access Seekers (with the transparency obligation providing a means of observing that discrimination is not occurring). In view of potential issues of discriminatory treatment (on price or non-price terms), transparency obligations alone would not address such issues. Furthermore, a non-discrimination obligation itself (or coupled with transparency) does not specifically address what type of product or service should be offered, or how it should be priced.
- 11.34 Thus, the non-discrimination and transparency obligations alone are not considered by ComReg to be sufficiently adequate in providing a means of ensuring *ex ante* that Eircom provides access to WLA and associated facilities, and does so in a fair, reasonable and timely manner.

## NG WLA Access Obligations

- 11.35 Having reviewed the competition problems identified in Section 8, ComReg sets out its preliminary view in Section 9 that access obligations are necessary to prevent the actual denial of, or effective refusal to provide, access to WLA and associated facilities.<sup>728</sup> Transparency and non-discrimination obligations are necessary supporting obligations, but ComReg holds the view that such obligations alone are incapable of effectively addressing access issues.
- 11.36 Eircom faces a relatively moderate level of incremental burden from the proposed enhancements to the existing access obligations. These enhancements include:

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<sup>727</sup> The proposed non-discrimination remedies in the Commercial NG WLA Market are outlined in paragraphs 9.137 to 9.142 above.

<sup>728</sup> The proposed access remedies in the Commercial NG WLA Market are outlined in paragraphs 9.17 to 9.136.

- (a) Eircom to provide access to an Interconnection Sharing Service<sup>729</sup> where the Guest Access Seeker can request Eircom to terminate its VUA traffic on a WEIL which is owned by the Host Access Seeker in circumstances where the Host Access Seeker agrees commercially to allow the Guest Access Seeker to use its WEIL(s) (as described at paragraphs 9.74 to 9.77 above);
- (b) Eircom to provide access to 1:1 VLAN tagging on FTTH-based VUA service<sup>730</sup> (as described at paragraphs 9.83 to 9.88 above);
- (c) When assessing Access requests, Eircom must provide an engagement plan outlining when Access Seekers can input into discussions on requirements and when SLA Negotiations will take place. Eircom must also provide a timeline for notification, publication and launch when providing the status update. This will give Access Seekers certainty with regard to the timeline for input to and delivery of Access requests, to the benefit of competition in downstream markets and ultimately, end users (refer to paragraphs 9.106 to 9.109 above);
- (d) Eircom must provide information to Access Seekers when it plans to conduct a trial as part of a product development to allow Access Seekers to opportunity to participate in the trial;
- (e) If a new SLA or an amendment to an existing SLA is required due to an Access request for a new or amended product, service or associated facility, the SLA Negotiation Period will be scheduled to ensure that the SLA documentation is notified at the same time as the new or amended product documentation. This will result in the new or amended product, service or associated facility being launched with the necessary SLA in place (refer to paragraphs 9.122 to 9.128 above); and,
- (f) Eircom must demonstrate how SLA service credits incentivise it in meeting the service levels committed in the SLA, including itemising the relevant elements and value contributing to the service credit. Eircom must include this information within its published SLA documentation. This will give Access Seekers certainty regarding levels of service they may provide to end users with respect to downstream products relying on WLA inputs (refer to paragraphs 9.129 to 9.134 above).

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<sup>729</sup> Currently Eircom provides access to the Interconnection Sharing Service in the MI WHQA Markets.

<sup>730</sup> Currently Eircom provides access to the 1:1 VLAN tagging feature on the FTTC-based VUA service.

- 11.37 ComReg's preliminary view is that obligations to provide WLA and access to associated facilities (including Interconnection Services necessary for effecting such access) are both proportionate and justified. Access obligations on Eircom will promote regulatory predictability and ensure that Access Seekers are treated in a consistent fashion.
- 11.38 ComReg is of the preliminary view that the specified access obligations are fundamental requirements in the Commercial NG WLA Market and, taking account of the provisions of Regulation 12(1) of the Access Regulations/Regulation 55(1) of the ECC Regulations), the absence of such obligations would hinder the development of effectively competitive retail markets by restricting or distorting competition among SPs, to the detriment of end users.
- 11.39 These access obligations are therefore considered necessary and appropriate in achieving the objectives of Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations/Regulation 4 of the ECC Regulations, namely the promotion of competition, contributing to the development of the internal market, and protecting the interests of end users.<sup>731</sup>

#### **NG WLA Price Control and Cost Accounting Obligations**

- 11.40 Having identified competition problems with respect to the Commercial NG WLA Market in Section 8, ComReg sets out its preliminary view in Section 9 that wholesale charges for access to WLA and associated facilities should be subject to both price control and cost accounting obligations, as set out in greater detail below.
- 11.41 ComReg proposes that Eircom be subject to price control obligations which vary to reflect ComReg's competition concerns and cost accounting with respect to access to WLA and associated facilities. ComReg's analysis in Section 8 and Section 9 indicates that Eircom has both the ability and incentive to engage in excessive pricing and exclusionary behaviours absent regulation. For example, imposing a cost orientation obligation on associated facilities will provide regulatory certainty to all stakeholders, including both Access Seekers and end users. ComReg is proposing to maintain a MST for Eircom's retail FTTH broadband offers to ensure replicability is possible for Eircom's retail competitors dependent on Eircom's FTTH VUA service.
- 11.42 Eircom faces a lighter regulatory burden from the proposed price control and cost accounting obligations compared to the existing ones. Of particular note are the following:

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<sup>731</sup> These overarching objectives are mirrored at Recital 23 of the EECC.

- (a) The MST is proposed to focus on a reduced number of Eircom's FTTH broadband retail offers (bundles and standalone offers), rather than all offers, as is the case currently. ComReg proposes to end the current approach of also testing FTTC and CGA based broadband retail offers;
  - (b) ComReg proposes to remove the MST between FTTH Bitstream and FTTH VUA, given the proposed deregulation of WCA;
  - (c) ComReg propose to maintain pricing flexibility for FTTH VUA;
  - (d) Prices for services on both FTTC VUA and an emulated FTTC-like service on the FTTH network are proposed to be the same. This price acts as an anchor to constrain the risk of excessive prices for FTTH VUA. ComReg's preliminary view is that a cost orientation obligation for FTTC VUA can be discharged using a "price continuity" approach that involves, taking as a starting point, the existing price from the BU LRAIC+ models (€19.12, from 1 July 2023), with the FTTC VUA price allowed to increase in future by no more than inflation (CPI-0%);
  - (e) An emulated FTTC-like service on the FTTH network is considered necessary in the event of FTTC withdrawal, and in its absence, there would be no anchor price constraint on Eircom pricing of FTTH services;
  - (f) ComReg is also proposing to relax the ban on wholesale promotions and discounts for FTTH VUA. To protect competition ComReg propose to follow a principle based case by case assessment of any wholesale promotions and discounts so as to limit Eircom as the SMP operator in frustrating market entry or expansion by competing networks;
  - (g) ComReg is capping the charges for FTTH connections and migrations at €100. Eircom will still retain the ability to recover its costs either through up front charges, from ongoing rental, or a combination of the two; and
  - (h) ComReg is continuing to impose rules related to price floors for FTTC VUA and FTTH VUA provision, with a mechanism for any exceptional circumstances where Eircom seeks to lower these price floors, subject to ComReg approval.
- 11.43 If specific price control obligations are to be meaningful, it is necessary to have a clear and comprehensive understanding of the costs associated with the provision of WLA by Eircom. ComReg proposes to continue to impose a cost accounting obligation on Eircom, having regard to its integrated position across several upstream and downstream markets and, in particular, noting its proposed SMP designation in the Commercial NG WLA Market.

### NG WLA Accounting Separation Obligations

- 11.44 ComReg set out its preliminary view in Section 9 that the imposition of an accounting separation obligation on Eircom would be proportionate and justified to mitigate the potential competition problems discussed in sub-section 8.3.1.
- 11.45 As noted in Section 9, in general, the purpose of an accounting separation obligation is to provide more detailed information than that which can be derived from the statutory financial statements of SPs designated with SMP, with the objective of reflecting, as closely as possible, the performance of those parts of the SP's business, were it to operate on a standalone basis. In the case of vertically-integrated SPs, accounting separation obligations can support non-discrimination obligations and prevent unfair cross-subsidies to other services.
- 11.46 In Section 8, ComReg identified potential competition problems associated with possible price-related leveraging to be particularly pertinent in the case of Eircom, which highlights the importance of continuing to ensure a transparent and effective mechanism of accounting separation, which was previously imposed under the 2018 Decision. In respect of the Commercial NG WLA Market, the main objective of accounting separation is to provide sufficient visibility over the allocation of costs across WLA products, services and associated facilities, and other horizontally and vertically-related input services. ComReg therefore considers it proportionate and justified to continue to impose an obligation on Eircom to maintain separated accounts.

### NG WLA Statement of Compliance Obligations

- 11.47 Section 8 sets out a series of competition problems and impacts which are likely to arise, absent regulation in the Commercial NG WLA Market, due to Eircom's proposed SMP position. It is ComReg's view that, due to the ability and incentives of Eircom to engage in identified anti-competitive behaviours, which would ultimately have a negative impact on competition in downstream and/or adjacent markets, a SoC obligation is both proportionate and justified, having regard to the need to ensure effective monitoring and enforcement of all regulatory obligations placed on Eircom.
- 11.48 It is ComReg's preliminary view that this SoC obligation will ensure Eircom's adherence with each of the other proposed remedies set out in Section 9, thereby facilitating the achievement of the overall objectives described in paragraph 11.13, namely promoting competition, contributing to the development of the market, and protecting the interests of end users.

### 11.3.3 Step 3: Determine the Impacts on NG WLA Stakeholders

- 11.49 Given that ComReg has proposed to designate Eircom with SMP in the Commercial NG WLA Market, it is ComReg's preliminary view, as outlined in paragraphs 11.24 to 11.26 above, that there is no option of regulatory forbearance in this case. Regulatory forbearance is therefore discounted when considering the impact on stakeholders.
- 11.50 Having regard to the proposed SMP designation in Section 6 (which requires ComReg to impose at least some level of regulation),<sup>732</sup> as well as the review of competition problems and remedies in Sections 8 and 9, ComReg has, on an incremental basis, identified why a range of remedies are necessary, proportionate and justified, while discounting other remedies, as appropriate.
- 11.51 Having regard to the analysis and assessment of the Commercial NG WLA Market, ComReg sets out the four options it considers in terms of the bundles of regulatory obligations which could, in principle, be imposed on Eircom:
- Option 1:** Impose Transparency, Non-Discrimination, and Statement of Compliance obligations only;
  - Option 2:** Impose Transparency, Non-Discrimination, Statement of Compliance, and Access obligations (can only be provided on the basis of a Non-Discrimination clause);
  - Option 3:** Impose Transparency, Non-Discrimination, Statement of Compliance, Access and Price Control & Cost Accounting obligations; or
  - Option 4:** Impose Transparency, Non-Discrimination, Statement of Compliance, Access, Price Control & Cost Accounting, and Accounting Separation obligations.
- 11.52 Having set out the four potential options for regulation in the Commercial NG WLA Market, ComReg sets out below in Table 55 to Table 58 below, a summary of the impacts of each of the four options on stakeholders.

**Table 55: Option 1 – Impose Transparency, Non-Discrimination, and Statement of Compliance Obligations**

Impact on Eircom, as the SMP SP	Impact on Access Seekers	Impact on end users
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<sup>732</sup> Pursuant to Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations /Regulation 50(1) and Regulation 49(8) of the ECC Regulations.



<p>Eircom would benefit from a reduced regulatory burden, compared to the 2018 Decision.</p> <p>With the introduction of an SoC obligation, there would be a greater onus on Eircom to demonstrate compliance with the obligations imposed under the proposed Decision.</p> <p>Eircom could, absent access obligation, refuse to provide NG WLA to Access Seekers, thereby restricting and/or distorting competition in downstream markets.</p> <p>Relatively low burden of compliance as VUA charges are published online as part of Open eir's RIO obligation, enabling transparency for all relevant stakeholders.</p> <p>Eircom would, absent other obligations, have flexibility to price VUA above efficient cost and/or obstruct access by existing rivals and/or new entrants in downstream markets. Could facilitate extraction of excessive rents. Risk of disputes and legal challenges if price of VUA set above efficient cost.</p> <p>Eircom incentives to innovate and increase efficiency may be reduced where prices set above efficient cost are paid for by competitors and, in turn, by their end users.</p> <p>Eircom could engage in exclusionary behaviour by setting its retail prices too low which would then frustrate market entry/expansion of competitors.</p>	<p>Risk that, even though non-discrimination mandated in principle, there would be scope for exploitative and exclusionary practices such as excessive pricing which may, in practice, amount to discrimination. Effective denial of access and/or delaying tactics could <i>inter alia</i> also be invoked to extract excessive prices and/or raise rivals' costs.</p> <p>This could also contribute to raising entry barriers for newer or smaller retail broadband participants. Negative impact on competition increases Eircom's retail broadband market share grows, further increasing the disparity in bargaining power between SPs.</p> <p>WLA prices, if set above efficient costs, could limit scope for broadband pricing innovation by downstream competitors.</p> <p>Regulatory certainty is reduced, given wholesale pricing and access uncertainty. Disputes over WLA prices or access could also raise legal and regulatory costs for Access Seekers.</p> <p>Ineffective access to WLA (through exploitative or exclusionary pricing) could also raise barriers to entry and expansion for new entrants or existing participants.</p>	<p>Absent effective access and price control obligations, scope for VUA access to be undermined through <i>inter alia</i> excessive pricing, refusals to supply, delaying tactics, etc. would contribute to reduced scope of retail broadband (limited interoperability or higher cost service) for end users.</p> <p>If downstream competition is distorted or investments discouraged through WLA prices which are above efficient cost, end users would potentially have reduced service choice, quality and innovation.</p> <p>Above-cost WLA could put upward pressure (or slow the rate of any decline) on downstream wholesale and/or retail prices. Above-cost WLA would also limit scope for wholesale and retail pricing innovations ultimately depriving consumers of new and innovative bundles/packages involving fixed data (and other) services.</p> <p>Where WLA prices are set above efficient cost, this could put upward pressure on retail broadband prices. Higher wholesale prices would also limit scope for retail pricing innovations, potentially depriving end users of new and innovative retail bundles/packages.</p>
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<p>Increased risk of disputes and legal challenges involving Eircom WLA arising from ineffective transparency and other preventative measures to protect against non-discrimination.</p>	<p>There would be a risk that, even though WLA access is mandated in principle, there would be significant scope for it to be effectively undermined through such practices as excessive pricing and/or margin squeeze.</p>	
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**Table 56: Option 2 – Impose Transparency, Non-Discrimination, Statement of Compliance, and Access Obligations**

Impact on Eircom, as the SMP SP	Impact on Access Seekers	Impact on end users
<p>Eircom would benefit from a reduced regulatory burden relative to 2018 Decision.</p> <p>The amendments to Eircom’s existing SoC obligations would place a greater onus on it to demonstrate compliance with the obligations imposed under the Decision.</p> <p>There would be increased flexibility for Eircom to use its SMP to engage in pricing conduct amounting to exploitative or leveraging behaviour and negatively influence developments at the retail broadband level, or in adjacent wholesale markets. Could also facilitate extraction of excessive rents from WLA, related markets, and end users.</p> <p>Eircom’s incentives to innovate and increase efficiency may be reduced if prices set above efficient cost are paid for by competitors and, in turn, by end users.</p> <p>Disputes could increase legal and regulatory costs faced by Eircom.</p>	<p>While risk of impeding access to WLA may be eliminated, effective WLA may still be undermined through high or inefficient WLA pricing.</p> <p>Where access is provided to downstream competitors on exploitative or exclusionary terms, this could significantly disadvantage existing rivals and distort, restrict or eliminate existing competition in downstream or adjacent markets.</p> <p>Pricing above efficient cost would raise financial barriers to entry and expansion for smaller or newer entrants and existing participants in downstream or adjacent retail markets.</p>	<p>High risk that, even though access mandated in principle, there would be significant scope for such access to be effectively undermined through excessive pricing.</p> <p>If downstream competition is distorted or investments discouraged due to ineffective WLA, end users could have reduced retail broadband choice, quality and innovation.</p> <p>Above-cost WLA prices, if applied, could put upward pressure (or slow the rate of any decline) on retail broadband prices.</p> <p>Above-cost prices would also limit scope for retail broadband pricing innovations, thereby potentially depriving consumers of new and innovative bundles/packages.</p> <p>There would be a risk that, even though WLA access is mandated in principle, there would be significant scope for it to be effectively undermined through such practices as excessive pricing and/or margin squeeze.</p>

**Table 57: Option 3 – Impose Access, Transparency, Non-Discrimination, Statement of Compliance, and Price Control & Cost Accounting Obligations**

Impact on Eircom, as the SMP SP	Impact on Access Seekers	Impact on end users
<p>As Eircom is currently subject to price control and cost accounting obligations, the incremental burden of such obligations is not likely to be significant.</p> <p>Eircom's regulatory burden under Option 3 would not be significantly less than under Option 4, as Eircom is already subject to accounting separation obligations in other SMP markets.</p> <p>Under Option 3, there would be increased flexibility for Eircom to obscure internal transfer prices and the real costs of WLA if no accounting separation obligation was imposed. There would thus be an increased opportunity for Eircom's non-discrimination and/or price control obligations to be undermined.</p> <p>Risk of disputes and legal challenges involving Eircom's WLA prices may be eased relative to Options 1 and 2 due to price control obligation. However, lack of accounting separation may generate uncertainty regarding Eircom compliance with non-discrimination and price control obligations, thus also contributing to risk of disputes.</p>	<p>Regulating WLA prices at efficient cost would reinforce the effectiveness of the access, transparency and non-discrimination obligations, thus reducing risk of competitive distortions or restrictions (including foreclosure) in downstream retail broadband or adjacent markets, and potentially lowering barriers to entry / expansion for smaller SPs and existing participants.</p> <p>This would also contribute to reducing the impact of any inefficient financial transfers or cross subsidies from Access Seekers to Eircom and thereby contribute to a level playing field between all SPs.</p> <p>Regulating WLA prices at efficient cost could potentially provide greater scope for retail broadband pricing options (such as flat rate pricing or large inclusive bundles of minutes to fixed phone numbers) by Eircom's downstream rivals.</p> <p>Greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors, although lack of accounting separation obligations may render monitoring of potential exclusionary behaviour less transparent, further impacting on investment incentives for new entrants.</p>	<p>Reduced risk of competitive distortions or restrictions, a more level playing field in downstream and adjacent markets, and greater wholesale pricing certainty help facilitate retail price and service innovations (e.g. in terms of packages/bundles offered).</p> <p>Reduced risk of high WLA prices being passed through to end users in the form of higher prices, relative to Options 1 and 2 above.</p> <p>Potential for undetectable discriminatory behaviour due to lack of accounting separation may impact on downstream competition and investment with consequent negative implications in terms of price and service choice over time.</p>

**Table 58: Option 4 – Impose Access, Transparency, Non-Discrimination, Statement of Compliance, Price Control & Cost Accounting, and Accounting Separation Obligations**

Impact on Eircom, as the SP with SMP	Impact on Access Seekers	Impact on end users
<p>Existing regulatory burden on Eircom (per 2018 Decision) would remain.</p> <p>Risk of disputes and legal challenges involving Eircom's WLA prices would be eased relative to Options 1, 2 and 3.</p>	<p>General impacts associated with proposed price control are as set out for Option 3 above.</p> <p>As set out for Option 3 above, greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors.</p> <p>Greater certainty that WLA prices would be set at efficient cost, complemented by greater visibility of internal transfers to support non-discrimination obligation, moderates risk of disputes relative to Options 1, 2 and 3.</p>	<p>Reduced risk of competitive distortions and restrictions, therefore facilitating a more level playing field in downstream markets.</p> <p>Greater wholesale pricing certainty helps facilitate retail broadband price and service innovations (e.g. in terms of packages/bundles offered).</p> <p>Reduced risk of above-cost inefficient WLA prices being passed through to end users in form of higher prices relative to Options 1 and 2 above.</p> <p>Dynamic competition from SPs (facilitated by effective price control and appropriate preventative measures for discriminatory behaviour in respect of Eircom WLA) should help facilitate ongoing delivery of price and service innovations, and choice to end users over time.</p>

#### **11.3.4 Step 4: Determine the Impacts on Competition in the provision of NG WLA**

- 11.53 ComReg's preliminary view is that, absent regulation, Eircom would have the ability and incentive to engage in exploitative and exclusionary behaviours which would impact on competition and consumers in the Commercial NG WLA Market. In Section 8, ComReg provided examples of potential competition problems and their impact on competition and consumers. ComReg has also highlighted its objectives in regulating the Commercial NG WLA Market, in particular, preventing the restriction or distortion of competition in downstream markets.
- 11.54 The imposition of appropriate *ex ante* remedies to address such competition problems was discussed and justified in Section 9, with each of the specific remedies designed to promote the development of effective competition. This approach will ultimately benefit SPs by allowing them to compete fairly at the retail broadband level.

#### **11.3.5 Step 5: Assess Likely Impacts and Choose Best Option in respect of NG WLA**

- 11.55 In its proposed approach to remedies in this Consultation, ComReg has taken full account of its obligations under Regulation 8(6) of the Access Regulations /Regulation 50(5) of the ECC Regulations, as well as its relevant objectives as set out under Section 12 of the Communications Regulation Act 2002 (as amended).
- 11.56 ComReg considers that, absent regulation, Eircom, as the proposed SMP SP on the Commercial NG WLA Market, has the ability and incentive to engage in exploitative and exclusionary behaviours which would impact on competition and consumers. In Section 8, ComReg provided examples of potential competition problems and their impact on competition and, ultimately, end users.
- 11.57 Based on its assessment above and throughout this Consultation, and having considered the impacts on stakeholders and competition, including the impact on the development of competition within the internal market, it is ComReg's preliminary view that Option 4 represents the most justified, reasonable and proportionate approach to regulation of the Commercial NG WLA Market.

- 11.58 The imposition of appropriate *ex ante* remedies to address competition problems was discussed and justified in Section 9, and each of the specific remedies is designed to promote the development of effective competition, and to protect end users. ComReg proposes to apply a suite of remedies to Eircom. Accordingly, ComReg is of the view that the risk of competition problems and associated impacts resulting from Eircom's SMP position in the Commercial NG WLA Market should be minimised. This will ultimately be to the benefit of SPs and end users of downstream retail broadband.
- 11.59 The proposed regulatory obligations do not unduly discriminate against Eircom, in that the obligations are proposed to address specific competition problems, and are proportionate, in that they are the least burdensome means of achieving this objective.
- 11.60 ComReg considers that it has met its transparency obligations by setting out the remedies which it proposes to impose on Eircom, outlining the justification for the proposed obligations, and issuing a detailed and reasoned public consultation on these matters.

#### **11.4 IA NG WLA Market, CG WLA Market, and Revised Regional WCA Market Regulatory Impact Assessment**

- 11.61 As noted in Sections 6 and 7, ComReg's preliminary view is that no undertaking is likely to have SMP on the IA NG WLA Market or the CG WLA Market, and that the Revised Regional WCA Market is likely to be sufficiently effectively competitive, even absent regulation. ComReg therefore considers that the IA NG WLA Market, the CG WLA Market, and the Revised Regional WCA Market are no longer susceptible to *ex ante* regulation and, therefore, regulation is no longer warranted on those markets.
- 11.62 On that basis, ComReg proposes to remove regulation from the CG WLA Market, the IA NG WLA Market and the Revised Regional WCA Market. Therefore, ComReg's regulatory options in each of these markets are limited to the timing of the withdrawal of existing obligations.
- 11.63 As set out in Section 10, in order to facilitate an orderly transition to deregulation of the three markets described above, ComReg's view is that an overall 12 month sunset period is appropriate, starting from the effective date of the final decision to be made on foot of this Consultation. During this period, access to existing CG WLA, NG WLA (in the IA NG WLA Market) and WCA services will be maintained at prices no higher than prevailing prices. At the end of this 12 month sunset period, these obligations will be withdrawn.

- 11.64 This will allow Access Seekers sufficient time in which to make any necessary preparations for the new market environment, arising from the deregulation process, thereby preserving continuity in the supply of both wholesale and retail services (were Eircom to withdraw, or significantly alter, its VUA or Bitstream terms and conditions following deregulation).<sup>733</sup> To ultimately ensure the protection of end user interests, ComReg also proposes to continue to monitor the effectiveness of competition within the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market, notwithstanding the proposed removal of regulation. In this respect, ComReg reserves its right to re-examine competitive conditions within these markets and, if appropriate, to intervene accordingly.
- 11.65 ComReg also proposes that, from the effective date of the decision arising from this Consultation, Eircom will no longer be obliged by means of regulation to meet new requests for access in the CG WLA Market, the IA NG WLA Market, or the Revised Regional WCA Market (although it is free to do so commercially). ComReg believes that this is appropriate, given that it would be illogical to maintain this requirement for a short period which, having expired, would then be subject to commercial negotiation. ComReg considers that regulatory certainty would be better preserved for all parties by not requiring access pursuant to regulation during the sunset period.

**Q. 10. Do you agree with ComReg's proposals on the Regulatory Impact Assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.**

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<sup>733</sup> ComReg would not expect Eircom to significantly alter its terms and conditions given the presence of competition.

## 12 Next Steps

- 12.1 The consultation period will run to 1700 on Friday, March 3<sup>rd</sup>, 2023, providing an 8-week consultation period. ComReg encourages all interested parties to comment on the issues set out in this Consultation. The task of analysing responses will be greatly facilitated if all comments are referenced to the specific question numbers set out above in this Consultation. Consultation responses should also contain paragraph numbering to facilitate cross referencing.
- 12.2 As noted in this Consultation, a separate PIA Consultation on a market analysis of the upstream PIA market has also been published in parallel with this Consultation.
- 12.3 Having analysed and considered comments received, ComReg will maintain or amend its proposals, as appropriate, including with respect to the draft measures set out in the draft Decision Instruments.
- 12.4 In doing so, ComReg will consult with the CCPC and notify the final draft measures to the EC, other NRAs and BEREC, pursuant to Regulation 13 of the Framework Regulations (Regulation 17 of the ECC Regulations). Taking utmost account of any comments received from the EC as well as from other aforementioned parties, ComReg will then adopt and publish the final decision.
- 12.5 Respondents should note the guidance set out in paragraph 2.59 above regarding the making of submissions, including with respect to any confidential information that may be contained within them.
- 12.6 Such information will be treated subject to the provisions of the guidelines on the treatment of confidential information as set out in ComReg Document No. 05/24. In submitting comments, respondents are also requested to provide a copy of their submissions in an unprotected electronic format in order to facilitate their subsequent publication by ComReg.



# Annex 1: Draft Decision Instrument

**Please note:** The Regulations made by the Minister for Communications for the purpose of transposing the European Electronic Communications Code, namely the European Union (Electronic Communications Code) Regulations 2022, SI No. 444 of 2022, have yet, at the time of publication of this Consultation, to be commenced and the legal basis for this market review and consultation is accordingly the suite of regulations made in 2011 including in particular the Framework Regulations and the Access Regulations. Were the Electronic Communications Code Regulations to be commenced prior to the adoption of ComReg's final decision, ComReg will adopt its final decision including this Decision Instrument referring to the relevant Regulations as appropriate. For the purpose of this Consultation, references to both the 2011 set of Regulations and to the Electronic Communications Code Regulations have been included.

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

1.1. This Decision Instrument ("Decision Instrument") is made by the Commission for Communications Regulation ("ComReg"):

- (i) Pursuant to and having had regard to Sections 10 and 12 of the Communications Regulation Act 2002 (as amended); Regulation 6(1) of the Access Regulations and Regulation 16 of the Framework Regulations/ Regulation 4 and Regulation 42 of the ECC Regulations;
- (ii) Having taken the utmost account of the 2020 Recommendation, the Explanatory Note, the SMP Guidelines and the 2013 Recommendation;
- (iii) Having regard to relevant BEREC guidance (including the BEREC Report on the impact of fixed-mobile substitution in market definition and the BEREC Guidance on the regulatory accounting approach to the economic replicability test);
- (iv) Having, where applicable, pursuant to Section 13 of the Communications Regulation Act 2002 (as amended) complied with Ministerial Policy Directions;
- (v) Having had regard to the analysis and reasoning set out in ComReg Document No. 23/03 [*the Consultation document*] and having taken account of the submissions received from interested parties in response thereto following a public consultation pursuant to Regulation 12 of the Framework Regulations/Regulation 101 of the ECC Regulations;
- (vi) Having consulted with the Competition and Consumer Protection Commission, further to Regulation 27 of the Framework Regulations/Regulation 49 of the ECC Regulations;

- (vii) Having notified the draft measure and the reasoning on which the measure is based to the European Commission, BEREC and the national regulatory authorities in other EU Member States pursuant to Article 32 of the Code/Regulation 17 of the ECC Regulations and having taken utmost account of any comments made by them;
  - (viii) Having had regard to the provisions contained in the European Electronic Communications Code;
  - (ix) Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 8, 9, 10, 11, 12, 13 and 18 of the Access Regulations/Regulations 45, 46, 49, 50, 51, 52, 53, 55, 56 and 104 of the ECC Regulations;
  - (x) Pursuant to Regulation 16 of the Authorisation Regulations/Regulation 99 of the ECC Regulations; and
  - (xi) Having regards to the analysis and reasoning set out in ComReg Decision DXX/XX [*the draft Decision*].
- 1.2. The provisions of ComReg Document No. 23/03 [*the Consultation document*] and ComReg Decision DXX/XX [*the draft Decision*], shall, where appropriate, be construed consistently with this Decision Instrument. For the avoidance of doubt, to the extent that there is any conflict between a decision instrument dated prior to the Effective Date (as defined in Section 2.1 of this Decision Instrument) and this Decision Instrument, this Decision Instrument shall prevail.

## PART I - GENERAL PROVISIONS

### 2. DEFINITIONS

2.1. In this Decision Instrument, unless the context otherwise suggests:

**“Access”** has the same meaning as under Regulation 2 of the Access Regulations/Regulation 2 of the ECC Regulations;

**“Access Path”** means the connection from the NTU/ONT in the End User’s premises to the Point of Handover;

**“Access Regulations”** means the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011);

**“Access Seeker”** means an Undertaking other than Eircom;

**“Additional Financial Information”** means the information defined in section 2.1 of the Decision Instrument annexed to ComReg Decision D08/10;

**“Aggregation Node”** means a network concentration point for Access Paths;

**“Associated Facilities”** has the same meaning as under Regulation 2 of the Framework Regulations/Regulation 2 of the ECC Regulations;

**“Authorisation Regulations”** means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011);

**“Average Customer Life”** or **“ACL”** means for the purpose of the Margin Squeeze Test provided for in Section 14.12 the length of time a customer remains on average on a specific FTTH Retail Offering within the meaning of that section;

**“Average Total Cost”** or **“ATC”** means all costs incurred in the provision of a product or service including variable, fixed, common, and joint costs;

**“BEREC”** means the Body of European Regulators for Electronic Communications, as established pursuant to Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 amending Regulation (EU) 2015/2120 and repealing Regulation (EC) No. 1211/2009;

**“Bottom Up Long Run Average Incremental Cost plus”** or **“BU-LRAIC+”** means the methodology used to estimate average efficiently incurred directly attributable variable and fixed costs, including an appropriate apportionment of joint and common costs;

**“Bundle”** means a package of more than one retail product or retail service;

**“Communications Regulation Act 2002”** means the Communications Regulation Act 2002 (No. 20 of 2002), as amended;

**“Competition and Consumer Protection Commission”** means the body established under section 9 of the Competition and Consumer Protection Act 2014;

**“ComReg”** means the Commission for Communications Regulation, established under Section 6 of the Communications Regulation Act 2002;

**“ComReg Decision D08/10”** means ComReg Document No. 10/67, entitled “Response to Consultation Document and Final Direction and Decision, Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of Eircom Limited”, dated 31 August 2010;

**“ComReg Decision D10/18”** means ComReg Document No. 18/94, entitled “Market Review - Wholesale Local Access (WLA) provided at a Fixed Location & Wholesale Central Access (WCA) provided at a Fixed

Location for Mass Market Products: Response to Consultation and Decision”, dated 19 November 2018;

“**ComReg Decision D11/18**” means ComReg Document No. 18/95 entitled “Pricing of wholesale broadband services – Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets: Response to Consultation Document 17/26 and Final Decision”, dated 19 November 2018;

“**ComReg Decision D12/18**” means ComReg Document No. 18/96 entitled “Response to Consultation and Decision on price control obligations relating to retail bundles – Further specification of the wholesale price control obligation not to cause a margin squeeze in the WLA, and WCA Markets”, dated 19 November 2018;

“**ComReg Decision D04/22**” means ComReg Document No. 22/49 entitled “Access Products and Services – Key Performance indicator (KPI) Metrics” dated 29 June 2022;

“**ComReg Decision D10/21**” means ComReg Document No. 21/120 entitled “Mid-term Assessment Regional Wholesale Central Access (WCA) Market) – Re-application of geographic assessment criteria set out in ComReg Decision D10/18 dated 25 November 2021;

“**ComReg Decision D11/21**” means ComReg Document No. 21/130 entitled “Regulated Wholesale Fixed Access Charges – Review of the Access Network Model”, dated 17 December 2021;

“**CPI**” means the Consumer Price Index at the end of the last calendar year;

“**Current Generation Wholesale Local Access**” or “**CG WLA**” means Wholesale Local Access offered or provided exclusively over Eircom’s copper access network infrastructure and its Associated Facilities;

“**Decision Instrument**” means this decision instrument;

“**Director**” has the same meaning as under Section 2 of the Companies Act 2014;

“**Discount**” means an offer or sale of a product, service or facility at less than its standard price, for example, a price reduction, including a volume related price reduction, a rebate, a reimbursement, a refund, a set-off and any other similar words or expressions;

“**Distribution Point**” or “**DP**” means the network element that provides for drop cables to premises to be joined with cables from an Exchange or intermediate network element;

“**Effective Date**” means the date set out in Section 21 of this Decision Instrument;

**“Eircom”** means Eircom Limited, a company incorporated in Jersey (Number 116389), registered as a Branch in Ireland (Number 907674), with an Irish registered Branch Office at 2022 Bianconi Avenue, Citywest Business Campus, Dublin 24, D24 HX03;

**“Electronic Communications Network”** or **“ECN”** has the same meaning as under Regulation 2 of the Framework Regulations/Regulation 2 of the ECC Regulations;

**“Electronic Communications Service”** or **“ECS”** has the same meaning as under Regulation 2 of the Framework Regulations/Regulation 2 of the ECC Regulations;

**“End User”** has the same meaning as under Regulation 2 of the Framework Regulations/Regulation 2 of the ECC Regulations;

**“European Electronic Communications Code”** or the **“Code”** means Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code;

**“Ethernet”** means a technology that supports data transfer between network Nodes at Layer 2 of the OSI reference model;

**“Exchange”** means an Eircom network premises or equivalent facility used to house network and associated equipment;

**“Exchange Area”** or **“EA”** means the geographic area served by a specific Exchange;

**“Exchange launched VUA”** means that the active equipment that is required to provide VUA is housed in an Eircom Exchange building or equivalent;

**“Explanatory Note”** means the European Commission 2020 Recommendation – Staff Working Document/Explanatory Note (dated 18 December 2020 SWD(2020) 337 final);

**“Fibre to the Cabinet”** or **“FTTC”** means fibre to the cabinet which is a variant of the FTTN access network architecture where the Node used to house active equipment is the street cabinet and for the purpose of this Decision Instrument also includes Exchange launched VUA;

**“Fibre to the Premises”** or **“FTTP”** means an access network architecture where fibre optic cable is used to connect the End User premises to the ODF in an Exchange or for the avoidance of doubt includes Fibre To The Home (“FTTH”);

**“Fibre to the Node”** or **“FTTN”** means an access network architecture where fibre optic cable is used to connect a Node in the local access network to the ODF in an Exchange;

“**FNI**” means Fibre Networks Ireland Limited, a company incorporated in Jersey (number 140179), registered as a Branch in Ireland (Number 909747), with a registered Branch Office at 2022 Bianconi Avenue, Citywest Business Campus, Dublin 24, D24 HX03;

“**Framework Regulations**” means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011);

“**FTTC-based VUA**” means VUA that is based on FTTC and for the purpose of this Decision Instrument also includes Exchange Launched VDSL;

“**FTTP-based VUA**” means VUA that is based on FTTP;

“**Geographic Number Portability**” or “**GNP**” means the facility that allows an End User to retain his/her telephone number when changing or switching service provider and describes the process used for this when the number concerned is a geographic number;

“**Historical Cost Accounts**” or “**HCA**” means the historical cost accounts which Eircom is required to publish in accordance with ComReg Decision D08/10;

“**Intervention Area**” or “**IA**” means the geographic areas for State intervention for the National Broadband Plan comprising the premises and delivery points in respect of which NBI has contracted with the Minister to deliver high-speed broadband services under the NBI State Contract as more particularly set out in Schedule 1;

“**Interconnection**” has the same meaning as under Regulation 2 of the Access Regulations/Regulation 2 of the ECC Regulations;

“**Key Performance Indicator(s)**” or “**KPI(s)**” means a measure(s) of the standard(s) of product, service or facility provided by Eircom to an Undertaking and by Eircom to itself;

“**Line Share**” means the facility offered by Eircom to an Access Seeker for shared Access to the Local Loop where the Access Seeker has exclusive Access to the high frequency capacity only of the Local Loop;

“**Local Access**” means the physical infrastructure between the End User’s premises and the relevant MPoP;

“**Local Loop**” means the twisted copper pair between an Exchange and an End-User’s premises;

“**Local Loop Unbundling**” or “**LLU**” means the facility offered by Eircom to an Access Seeker for exclusive Access to the Local Loop;

“**MDF**” stands for Main Distribution Frame;

**“Metropolitan Point of Presence”** or **“MPoP”** means the point of inter-connection between the access and core networks of an Undertaking;

**“Migration”** means the facility allowing an Access Seeker change the upstream wholesale input it uses to supply a retail service for another upstream wholesale input whilst maintaining services to the End User, irrespective of whether or not the supplier at the retail level changes.

**“Ministerial Policy Directions”** means the policy directions made by Dermot Ahern TD, then Minister for Communications, Marine and Natural Resources, dated 21 February 2003 and 26 March 2004;

**“NBP”** stands for National Broadband Plan;

**“NBP IA”** means the geographic area comprising the premises set out in Schedule 1;

**“NBI”** means the Authorised Undertaking NBI Infrastructure Designated Activity Company, a company registered in Ireland with number 631656 whose registered office at the date of this Decision instrument is at 3009, Lake Drive, Citywest Business Campus, Citywest, Dublin 24, D24H6RR, Ireland;

**“NBI State Contract”** means the contract concluded between the Minister and NBI which was signed on 19 November 2019;

**“Network Termination Unit”** or **“NTU”** means the physical interface which provides the service demarcation or Point of Handover of the wholesale service within the customer premises;

**“NGA”** stands for Next Generation Access and refers to Access provided over wired access network technologies comprised of wholly or in part of optical elements and include without limitation Fibre to the Cabinet (**“FTTC”**) and Fibre to the Premises (**“FTTP”**);

**“Next Generation Wholesale Local Access”** or **“Next Generation WLA”** means Wholesale Local Access provided over NGA and its Associated Facilities;

**“Node”** means any location or concentration point in the access network (excluding termination points at End Users’ premises) which houses equipment for the purpose of providing services to End Users;

**“Non-Disclosure Agreement”** means an agreement for protecting the disclosure of commercially sensitive, competition sensitive or confidential information and governing its use or reliance;

**“ODF”** stands for optical distribution frame;

**“Optical Line Termination”** or **“OLT”** means a network element in an optical distribution network that terminates the root of at least one such

network and allows for network elements in that network to be interconnected by optical communications channels;

**“ONT”** or **“Optical Network Terminal”** means the device that terminates the fibre Access Path at the End User’s premises;

**“OSI”** stands for open systems interconnection;

**“OSS”** stands for operational support systems;

**“Point of Handover”** means the physical point at which two networks are interconnected to allow traffic to pass between these networks and includes the MDF (in for copper networks), the ODF (for fibre) in the Exchange, and the WEIL at the MPoP;

**“Pre-Qual Value”** means the maximum data-rate attainable for an Access Path based on its electrical characteristics;

**“Promotion”** means an offer in respect of a product, service or facility which is available for a finite period of time and which entails a price reduction;

**“Quarter”** means a three month period (July to September, October to December, January to March or April to June) in a calendar year;

**“RAB”** means Regulated Asset Base;

**“Ready for Order Date”** means the earliest date from which orders for products or services may be placed on Eircom’s OSS;

**“Regional WCA Market”** means the market as defined in Section 4 of the Decision Instrument contained in Appendix 21 of ComReg Decision D10/18;

**“Re-usable Assets”** means Civil Engineering Infrastructure that is used for the copper network which can be reused to accommodate an NGA network without further investment;

**“Revised Regional WCA Market”** means the Regional WCA Market as revised in section 4.2 of Annex 1 of ComReg Decision D10/21;

**“Revised Urban WCA Market”** means the Urban WCA Market as revised in Section 4.2 of Annex 1 of ComReg Decision D10/21;

**“Service Credit(s)”** means the amount of money owed by Eircom to an Access Seeker in circumstances where Eircom has failed to meet the service levels which Eircom commits to in its SLA, or on the occurrence of specified events or the application of criteria specified in the SLA;

**“Service Level Agreement(s)”** or **“SLA(s)”** means a legally binding contract between Eircom and an Access Seeker in relation to the service levels which Eircom commits to from time-to-time;



**“SLA Negotiation Period”** means the duration of time required by Eircom to close negotiations with Access Seekers and make a BAFO in respect of an amended or new SLA;

**“SMP Guidelines”** means the European Commission guidelines of 7 May 2018 on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services (2018/C 159/01) (OJ C 159, 7.5.2018, p.1);

**“Sub-Loop Unbundling”** or **“SLU”** means the facility offered by Eircom to an Access Seeker for exclusive Access to the portion of the Local Loop between a street cabinet and the End-User’s premise;

**“Top-Down HCA”** means the methodology in which the HCA and network information of the regulated Undertaking are used as the starting point for calculating the costs of relevant services;

**“Undertaking”** has the same meaning as under Regulation 2 of the Framework Regulations/Regulation 2 of the ECC Regulations;

**“Urban WCA Market”** means the market as defined in Section 4.2(i) of the Decision Instrument contained in Appendix 21 of ComReg Decision D10/18;

**“Virtual Unbundled Access”** or **“VUA”** means a Layer 2 product allowing Access Seekers to handover or interconnect aggregate End Users’ telecommunications traffic at the MPoP and includes both FTTC-based VUA and FTTP-based VUA;

**“WCA Markets”** means the Revised Urban WCA Market and the Revised Regional WCA Market as described in ComReg Decision D10/21 and as updated from the Urban WCA Market and the Regional WCA Market as described in ComReg Decision D10/18;

**“Wholesale Central Access”** or **“WCA”** means wholesale central access provided at a fixed location for mass market products;

**“Wholesale Local Access”** or **“WLA”** means wholesale local access provided at a fixed location;

**“WEIL”** or **“Wholesale Ethernet Interconnection Link”** is the interconnection service for the handover of VUA-based End User traffic;

**“2020 Recommendation”** means the European Commission Recommendation of 18 December 2020 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (C (2020) 8750);

**“2013 Recommendation”** means the Commission Recommendation of 11 September 2013 on consistent non-discrimination obligations and costing

methodologies to promote competition and enhance the broadband investment environment (2013/466/EU).

### 3. SCOPE AND APPLICATION

- 3.1. This Decision Instrument is binding upon Eircom and Eircom shall comply with it in all respects.
- 3.2. This Decision Instrument applies to Eircom and its subsidiaries and any related companies, including FNI, and any Undertaking which owns or controls Eircom, and its successors, affiliates and assigns and all shall comply with it in all respects.

## PART II – RELEVANT MARKET AND SMP OBLIGATIONS

### 4. MARKET DEFINITION

- 4.1. Upon its analysis of the provision of Wholesale Local Access provided at a fixed location in the State identified in the 2020 Recommendation and having regard to the relevant markets defined in, and regulated under, ComReg Decision D10/18, ComReg hereby defines the following markets:
  - (i) The retail Current Generation broadband market, consisting of Retail broadband provided over Eircom's copper-only network ("**Retail CG Broadband Market**");
  - (ii) The retail Next Generation broadband market consisting of the provision of broadband access over FTTC, FTTP and DOCSIS 3.1 CATV networks ("**Retail NG Broadband Market**");
  - (iii) the wholesale market for the provision of current generation WLA over copper-only networks in the State, including LLU, Line Share and SLU ("**National CG WLA Market**");
  - (iv) the wholesale market for the provision of next generation WLA over fibre optic cable networks, including FTTC-based VUA and FTTP-based VUA, in the NBP IA ("**IA NG WLA Market**"); and
  - (v) the wholesale market for the provision of next generation WLA over fibre optic cable networks, including FTTC-based and FTTP-based VUA outside the NBP IA ("**Commercial NG WLA Market**").

### 5. COMPETITION ASSESSMENT AND SMP DESIGNATION

- 5.1. ComReg hereby determines that, on a forward looking basis, the Commercial NG WLA Market is not effectively competitive and designates Eircom as having SMP in the Commercial NG WLA Market.
- 5.2. ComReg hereby finds that on a forward looking basis:

- (i) the National CG WLA Market is effectively competitive absent its regulation and that no Undertaking has SMP in the National CG WLA Market;
  - (ii) the IA NG WLA Market is effectively competitive absent its regulation and no Undertaking has SMP in the IA NG WLA Market.
- 5.3. Having regard to the findings set out in Section 5.2(ii) and the designation of Eircom with SMP in the Commercial NG WLA Market, ComReg hereby finds that the Retail CG Broadband Market and the Retail NG Broadband are effectively competitive on a forward-looking basis in the absence of regulation save as regards the Commercial NG WLA Market and subject to Section 7.
- 5.4. Having regard to ComReg's finding in Section 5.2 and 5.3, Eircom's designation with SMP in the Modified Regional WCA Market pursuant to ComReg Decision D10/21 is hereby withdrawn.

## **6. REQUIREMENT FOR SMP OBLIGATIONS**

- 6.1. In light of the competition issues arising in connection with Eircom's SMP in the Commercial NG WLA Market, ComReg finds that it is necessary to impose on Eircom in respect of the Commercial NG WLA Market, obligations of Access, non-discrimination, transparency, price control and accounting separation as set out in, and further specified as the case may be, in Sections 7 to 15.

## **7. ACCESS**

### **Reasonable requests for Access**

- 7.1. Eircom shall meet all reasonable requests for Wholesale Local Access including Associated Facilities.
- 7.2. For the purpose of Section 7.1, and in accordance with Section 7.4, all requests for Wholesale Local Access including Associated Facilities in the Commercial NG WLA Market shall be deemed reasonable, subject always to reasonable terms and conditions, and a request for Access may only be rejected, refused or otherwise denied for objective reasons such as where Access, as per the request, is not technically feasible or threatens network integrity and concerns in this respect may not be objectively mitigated satisfactorily by way of suitable terms and conditions.
- 7.3. Within ten (10) working days of the end of each Quarter following the Effective Date, Eircom shall provide ComReg with a list of all requests for Access to products, services and Associated Facilities in the Commercial NG WLA Market, whether by way of requests for the development of new products, services or Associated Facilities or amendments to existing products, services or Associated Facilities which have been accepted or refused/declined within

the Quarter, together with the objective reasons for refusing/declining to meet the Access request.

### **Conditions for Access**

- 7.4. Eircom shall at all times grant Access in a fair, reasonable, timely, transparent and non-discriminatory manner, as may be further specified by ComReg from time to time.
- 7.5. Without prejudice to the generality of Section 7.4, Eircom shall ensure that requirements imposed in respect of accreditation, audits and supervision are reasonable, proportionate and non-discriminatory by reference to the task concerned and the circumstances pertaining to the Access such that they do not result in unjustifiable impediments to the work of, or unwarranted costs for, Access Seekers. In particular, save where a material risk to national security, public safety or public health presents, or taking into account the nature of the work involved, there is a serious risk to the integrity of Eircom's network, Eircom shall ensure that any supervision requirements are applied in such a way that they do not have the effect of delaying or preventing Access Seekers from commencing or continuing work in the absence of an Eircom supervisor.
- 7.6. Eircom shall not amend the rules or technical standards governing the deployment of equipment in the Access Network or the topology of the Access network including without limitation changes to the Copper Loop Frequency Management Plan ("CLFMP") without the prior written approval of ComReg which may be subject to terms and conditions.

### **Specified forms of Access**

- 7.7. Without prejudice to the generality of Section 7.1, Eircom shall provide and grant Wholesale Local Access in the Commercial NG WLA Market by way of Virtual Unbundled Access (VUA) subject only to fair and reasonable terms and conditions and as may be directed by ComReg from time to time, and offer the following options:
  - (i) the facility to combine VUA with GNP;
  - (ii) a multicast facility allowing for the distribution within the Eircom network of a single copy of a designated data stream to multiple End-Users ("**Multicast**");
  - (iii) a traffic-based and circuit-based Class of Service ("**CoS**") facility allowing for the autonomous treatment of traffic at a single router, switch or equivalent equipment using classes to group and manage traffic with common forwarding characteristics;

- (iv) within seven (7) months of the Effective Date, having notified ComReg one month in advance, 1:1 Virtual Local Area Network (“**VLAN**”) tagging allowing an End User to tag specific traffic for the purpose of identifying specific traffic transported across an ECN; and
- (v) technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services.

7.8. Without prejudice to the generality of Section 7.1, for the purpose of facilitating Wholesale Local Access, Eircom shall provide the following Associated Facilities:

7.8.1. Interconnection, including:-

- (i) In-Building Handover (“**IBH**”) whereby connection from the Eircom network to the Access Seeker’s equipment takes place within the Exchange, or equivalent facility;
- (ii) In-Span Handover (“**ISH**”) whereby connection from the Eircom network to the Access Seeker’s equipment takes place at the Access Seeker’s nominated Point of Handover, within the vicinity of the Exchange, or equivalent facility;
- (iii) Customer-Sited Handover (“**CSH**”) whereby connection from the Eircom network to the Access Seeker’s equipment takes place at the Access Seeker’s premises and includes the installation of an Eircom NTU at the Access Seeker’s premises; and
- (iv) Edge Node Handover (“**ENH**”) whereby connection from the Eircom network to the Access Seeker’s equipment takes place through a dedicated aggregation node interface;

and in each case, Eircom shall allow an Access Seeker to share the Interconnection facility it avails from Eircom with another Access Seeker (“**Interconnection Sharing**”).

7.8.2. Co-Location including (without limitation):-

- (i) Access to the Main Distribution Frame (“**MDF**”) and/or to the Optical Distribution Frame (“**ODF**”), floor space, Alternating Current (“**AC**”) power, Direct Current (“**DC**”) power, air conditioning, mast access, roof access, cable trays and cable management systems as applicable at Exchanges;
- (ii) Co-location Rack Interconnection allowing interconnection between two or more Access Seekers’ co-location equipment racks in the same Exchange;

- (iii) Co-location Resource Sharing whereby an Access Seeker may accommodate its network access and/or transmission equipment in the co-located rack of another Access Seeker and share resources such as power supplies (AC or DC) and/or backhaul;

7.8.3. Migration including (without limitation) those between any forms of NGA VUA with and without GNP.

7.9. Without prejudice to the obligations set out in Sections 7.1 to 7.8, Eircom shall:-

- (i) negotiate in good faith with Undertakings requesting Access;
- (ii) not withdraw Access to facilities already granted without the prior approval of ComReg and in accordance with terms and conditions as may be determined by ComReg;
- (iii) provide Access to OSS or similar software systems necessary to ensure fair competition in the provision of services (including those products, services and facilities described in this Section 7).

7.10. Without prejudice to the conditions that may be imposed by ComReg pursuant to Regulation 63 of the ECC Regulations, and without prejudice to the generality of the requirement set out in Section 7.9 (ii), Eircom may not in any Exchange Area in the Commercial NG WLA Market withdraw Access to FTTC-based VUA and substitute it with FTTP-based VUA without the prior approval of ComReg and a condition to such approval shall be that Eircom makes available to Access Seekers, an FTTP-based VUA product designed to deliver at least an equivalent level of service typical of a FTTC-based VUA at the price set in Section 14.3.2 or, as the case may be, Section 14.3.3 when and where applicable (“**Emulated FTTC-like FTTP VUA**”).

## **8. NON-DISCRIMINATION**

8.1. Eircom shall, as regards the provision of Access required in Section 7 of this Decision Instrument, ensure that it does not discriminate between Access Seekers, and between Access Seekers and itself, its subsidiaries, affiliates or partners, and to that effect shall more particularly:

- (i) apply equivalent conditions in equivalent circumstances to other Undertakings requesting, or being provided with Access (or requesting or being provided with information in relation to such Access); and
- (ii) provide Access and information in relation to such Access to all other Undertakings under the same conditions and of the same quality as Eircom

provides to itself or to its subsidiaries, affiliates or partners, as further specified in Section 8.2.

- 8.2. For the purpose of Section 8.1(ii), Eircom shall provide Access and information to all Undertakings including itself, its subsidiaries, affiliates or partners, on the same timescales, terms and conditions, including those related to prices and service levels, using the same systems and processes.

## 9. TRANSPARENCY

- 9.1. Eircom shall ensure transparency in its provision of Access to Wholesale Local Access in the Commercial NG WLA Market.

### Publication

- 9.2. Subject to Section 9.3, and save where otherwise specified by ComReg, a requirement to publish in this Decision Instrument shall be met where Eircom has made the information that it is required to publish, publicly available on its publicly available wholesale website.
- 9.3. Where the information which Eircom is required to publish under this Decision Instrument is of a confidential and/or commercially/competition sensitive nature, Eircom shall restrict access to such information using appropriate means, such as publication on a password-protected or restricted section of its website and subject to such reasonable terms and conditions as may be required in light of the nature of the information concerned, including a requirement to enter into a Non-Disclosure Agreement, and in accordance with any directions which ComReg may make.

### ARO and other information to be published

- 9.4. Without prejudice to the generality of Section 9.1 Eircom shall publish, and keep available on its publicly available wholesale website, an Access Reference Offer ("**ARO**") for Access in respect of the Commercial NG WLA Market, which shall include at least the following:
- (i) a description of the offer of contract for Access broken down into components according to market needs including without limitation relevant charges, terms of payment and billing procedures;
  - (ii) a description of any associated contractual or other terms and conditions for supply of Access and use including a description of each product offered ("**Product Description**") and an "**ARO Price List**" setting out applicable prices, for each of the products, services and Associated Facilities provided further to Section 7;
  - (iii) subject to Section 9.3 as the case may be, a description of technical characteristics and engineering or technical standards for network

Access, including any technical usage restrictions and other security issues, to include accreditation and audit requirements, that are relevant to Access to products, services or Associated Facilities in the Commercial NG WLA Market;

- (iv) SLAs;
  - (v) detailed description of operational processes, including in particular;
    - (a) pre-ordering, ordering, provisioning and service assurances processes;
    - (b) reason codes and their descriptions for declined orders;
    - (c) rules for the allocation of space when co-location space is limited;
    - (d) repair and maintenance processes;
    - (e) IT systems in such detail that Access Seekers may independently perform any development that they require to avail of Access; and
    - (f) interoperability tests.
- 9.5. Eircom shall ensure that invoices for products, services and Associated Facilities within the Relevant Market are sufficiently disaggregated, detailed and clearly presented such that an Access Seeker availing of WLA can reconcile invoices to the ARO and ARO Price Lists.
- 9.6. Without prejudice to the generality of Section 9.1 and by way of further specification, Eircom shall publish and thereafter keep up-to-date, subject to Section 9.3 as the case may be, the following information:
- (i) A full, true and accurate description of the product development process (the “**Product Development Process**”) relied upon by Eircom to meet Access requests including a description of all process steps and activities to include the points where Eircom decides to advance, delay or terminate the development of a product, service or Associated Facility (the “**Product Development Decision Points**”) and any key stages in the analysis, design, development and launch, and the date on which the product, service or Associated Facility will be made available (together, “**Milestones**”) from receipt of a written request for Access to launch;
  - (ii) The list of all proposed, planned and in progress developments in respect of each Access request identified by their unique reference, a summary and a link to relevant documentation (hereafter, the “**Product Development Roadmap**”), which Eircom shall keep up-to-date on an



ongoing basis with the information set out in Section 10.2.2 and the timelines at Section 10.2.3;

- (iii) The prioritisation process and the criteria used by Eircom in reaching decisions with respect to the prioritisation of product developments relative to each other (“**Prioritisation information**”).

#### **Amendments, Notification and publication timelines/Change control**

- 9.7. Subject to Section 9.3 and Section 9.9, or where applicable, Section 9.10, Eircom shall keep the ARO, ARO Price List Product Development Process, Product Development Roadmap and Prioritisation information up-to-date on its publicly available website.
- 9.8. Eircom shall ensure that the following, in searchable format, is available on its publicly available website;
  - (i) A current, unmarked, version of the ARO and ARO Price List;
  - (ii) A marked version of the ARO and ARO Price List tracking changes as against the previous version such that all changes are readily identifiable;
  - (iii) An ARO Change Matrix listing all of the amendments made to the ARO over time, including dates at which amendments were made;
  - (iv) An ARO Price List Change Matrix listing all of the amendments made to the ARO Price List including dates at which amendments were made; and
  - (v) A copy of historic versions of its ARO, ARO Price List, ARO Change Matrix and ARO Price List Change Matrix.
- 9.9. Subject also to Section 9.10, or save as otherwise agreed in writing with or directed by ComReg, Eircom shall not introduce new products, services or Associated Facilities or make amendments to existing products, services or Associated Facilities without first amending accordingly the documents that it is required to publish under this Decision Instrument including without limitation, the ARO, ARO Price List, Product Development Process, Product Development Roadmap and the Prioritisation information, as relevant, without first publishing at least two (2) months in advance of coming into effect, any proposed amendments or changes, having notified ComReg in writing with the information to be published at least one (1) month in advance of any such publication taking place.
- 9.10. By way of exception to the requirements set out in Section 9.9, the minimum two (2) month advance publication requirement shall be extended to at least six (6) months, save as otherwise agreed in writing with or directed by ComReg, where:-

- (i) Availing of the new or amended product, service or Associated Facility to deliver broadband services in markets downstream from the Commercial NG WLA Market necessitates an Access Seeker to deploy or update equipment including End-User equipment not previously required in respect of any form of Access offered by Eircom in the Commercial NG WLA Market; or
- (ii) Availing of the new or amended product, service or Associated Facility or continuing to avail of Wholesale Local Access from Eircom on a like for like basis requires Access Seeker to carry out development work to their own IT systems as a result of changes to Eircom's IT systems;

Eircom having provided ComReg in writing, one month in advance of publication, together with the information to be published, a justification for the changes necessitating Access Seekers to carry out development work to their own IT systems where applicable or to deploy or update their equipment.

### **NGA Rollout Plan**

9.11. Without prejudice to the generality of Section 9.1, and subject to Section 9.3, Eircom shall within three (3) months of the Effective Date, publish an updated NGA Rollout Plan which shall consist of the following:-

- (i) A **Deployment Plan** setting out at least six (6) months in advance of the expected Ready for Order Date:
  - (a) A list of cabinets with their associated geographic coordinates;
  - (b) The location and name of the Exchange which houses the MPoP for each cabinet and for each OLT from which it is proposed that premises will be served from; and
  - (c) For each EA, the number of premises that Eircom forecasts will be passed by FTTP and the expected Ready for Order date.
- (ii) An **Order of Magnitude File** setting out, at least three (3) months in advance of the expected Ready For Order Date, sufficient information to enable operators to identify the address to be passed by FTTP, including:
  - (a) the Exchange Area;
  - (b) the expected Ready for Order Date for the premises to be passed;
  - (c) the Eircode of each expected premises;
  - (d) identities of the fibre Distribution Points from which the premises are expected to be served; and
  - (e) for each entry, the date of entry and the date it was last amended.

(iii) An **Advanced PreQual File** setting out premises passed by NGA, 28 calendar days in advance of the actual Ready for Order Date, the following information:-

- (a) The Ready for Order Date for each premises;
- (b) The Exchange Area for each premises;
- (c) A list of the premises, as uniquely identified, that are capable of receiving FTTC and the associated Pre-Qual Value for each such line/premises;
- (d) A list of all premises passed by FTTP categorised by EA and including the MPoP for each address and the identity of the fibre Distribution Point to which each premises is indexed; and
- (e) Where available, and in all cases for FTTP, the Eircode of each premises that is passed and whether or not the premises is connected;

and “premises passed” means those premises for which the fibre DP installation has been completed and the DP is ready for the drop cable to the premises to be installed and testing has been carried out by Eircom to verify light is being transmitted between the port on the installed DP and serving OLT. Eircom shall only add premises to the Advanced PreQual File in accordance with 9.11 (iii) and where they fall within this meaning of premises passed.

9.12. Eircom shall ensure the accuracy and completeness of the information included in the NGA Rollout Plan and to that effect shall in particular:

- (i) Publish the Deployment Plan on a monthly basis, updated with the identity, geographic coordinates, capacity, installation status, expected Ready for Order Date and whether that date has been passed for each fibre DP, as soon as possible as such information is available to Eircom and at least three (3) months from the expected Ready for Order Date.
- (ii) Publish the Order of Magnitude File on a Quarterly basis, updated and with the following entries removed:
  - (a) any entries included in the Advanced PreQual File; and
  - (b) any entries which are older than twelve (12) months and for which Eircom does not intend to pass within three (3) months.
- (iii) Publish the Advanced PreQual file on a weekly basis.

9.13. For the avoidance of doubt, during the period from the Effective Date until three (3) months after the Effective Date, Eircom shall continue to publish and update

the NGA Rollout Plan in accordance with its obligations under Section 10.25 of Appendix 20 of ComReg Decision D10/18.

## **10. PRODUCT DEVELOPMENT PROCESS REQUIREMENTS**

- 10.1. Eircom shall make available a clear, non-discriminatory and transparent process for requesting the development of new forms of Access in the Commercial NG WLA Market, including new products, services or Associated Facilities including SLAs and amendments to existing products, services and Associated Facilities including SLAs and such process shall apply, for the avoidance of doubt, to requests for SLAs or amendments to SLAs made independently of a request for a new or amended product, service or Associated Facility.
- 10.2. For the purposes of Section 10.1 and in respect of any developments requested by an Access Seeker, or by Eircom, its subsidiaries or partners, Eircom shall make available a product development process which meets the following requirements:
  - 10.2.1. Access requests are made in writing;
  - 10.2.2. Information is exchanged as soon as practicable and at appropriate times, with the Undertaking that has made the written request (“the requestor”) and other Undertakings including at the minimum in all cases:
    - (a) An acknowledgement to the requester of receipt of the request providing a unique reference number identifying the request;
    - (b) Provision of a copy of the request to Access Seekers with the allocated reference number of the request and a description of the key features and functionality requested;
    - (c) A description of the matter or matters in respect of SLAs that require negotiations and the timelines governing the negotiations (the “SLA Negotiation Period”);
    - (d) A status update including:
      - I. An outline of the product, service or Associated Facility proposed in response to the Access request including, as the case may be, any aspects which do not fully meet the requestor’s requirements and the objective reasons therefor;
      - II. The product development timelines including expected notification, publication and launch dates, and where Eircom anticipates at that stage that IT developments or

equipment deployment or updates on the part of Access Seekers may be required, the objective reasons therefor;

III. The priority level granted to the request with detail of the input values and calculations used by Eircom for the prioritisation of the request, any impact on the development timelines for other Access requests and where other Access requests are reprioritised as a result, the objective reasons therefor;

(e) A timetable for engagement and negotiations (“the engagement timetable”) as regards the Access request noting as follows:

I. Where the Access request is for a new or amended product, service or Associated Facility, the engagement timetable shall indicate the manner and times in which Eircom will consult and seek inputs from the requestor and other Undertakings on the product requirements;

II. Where the Access request is for a new or amended SLA, the engagement timetable shall define the SLA Negotiation Period and indicate times at which the requestor and other Undertakings are required to provide requirements, information, clarifications or comments regarding the Access request, subject always that the SLA Negotiation Period is deemed to commence on the day the Access request is received.

10.2.3. In respect of the matters described in Section 10.2.2 (a) to (e), save where otherwise agreed with, or directed by ComReg, Eircom shall ensure the information is provide as soon as practicable and in any event within the timelines below:

- (a) An Access request is acknowledged, and a unique reference provided, within no more than three (3) working days from receipt of the Access request;
- (b) The information set out in Section 10.2.2 (b), 10.2.2 (c) (where the Access request is for a new or amended SLA), and 10.22 (e) are provided within no more than fifteen (15) working days of receipt of the Access request;
- (c) The information set out in Section 10.2.2 (c) (where the Access request is for a new or amended product, service or Associated Facility) and the status update referred to in Section 10.2.2 (d) is provided within no more than eighty-five (85) working days of receipt of the Access request;

- (d) In the absence of agreement between the negotiating parties, the SLA Negotiation Period shall last for no more than six months from the start of the SLA Negotiation Period (which is the receipt of the Access request where the request is for a new or amended SLA or as per Eircom's SLA Negotiation Period in the case of a request for a new or amended product, service or Associated Facility) and ends with Eircom making a Best and Final Offer ("BAFO") and the BAFO shall enter into force on the date the new or amended product, service or Associated Facility is launched.

## **Trials**

10.3. Where Eircom intends on conducting a trial, whether such trial is for the purposes of testing operational and/or technical issues or an End User trial, Eircom shall:-

10.3.1. Set the duration of the trial for a reasonable period sufficient only to achieve the objectives of the trial;

10.3.2. Notify all Undertakings at least three (3) months in advance unless otherwise agreed with ComReg, of the commencement of the trial with an invitation to participate by means of:

- (a) direct written invitation to each Undertaking that has signed a contract with Eircom on the basis of the ARO; and
- (b) the publication of a general invitation on Eircom's publicly available wholesale website;

accompanied by a statement of the objectives of the trial, the requirements for participation to all Undertakings in sufficient time to allow participation, having notified ComReg in writing at least one month in advance of the invitation to Undertakings to participate.

10.3.3. Save as otherwise agreed with or directed by ComReg, Eircom shall terminate any trial at least one (1) month prior to the launch of the new or amended product, service or facility being trialled and for the avoidance of doubt, may not proceed until such time that the requirements set out in Section 9.9 or Section 9.10 as the case may be.

## **11. SERVICE LEVEL AGREEMENTS**

11.1. Without prejudice to the generality of, and for the purpose of further specifying the requirements of the obligation at Section 7.4, Eircom shall ensure that a legally binding, fit-for-purpose, SLA which encourages an efficient level of performance on the part of Eircom is attached to each product, service and Associated Facility made available in accordance with this Decision Instrument

from the time that the product, service and Associated Facility is available and subsequently kept up-to-date and fit for purpose.

11.2. In meeting its obligation under Section 11.1, Eircom shall:

11.2.1. Negotiate proactively, in good faith, with Undertakings, on their requirements be it in respect of a new SLA or an amendment to an existing SLA and to that purpose meet the further requirements set out in Section 11.3 as may be amended or further specified by ComReg from time to time;

11.2.2. Ensure that SLAs are sufficiently detailed and include, without limitation, the following provisions:

(a) An obligation on Eircom to compensate failure to meet agreed service levels by way of payment of Service Credits such that the Service Credits cover, at a minimum, the direct costs and any other reasonable loss of value incurred by the Access Seeker concerned and provide Eircom with sufficient and adequate incentives to meet agreed service levels;

(b) Details of the specific circumstances upon which Service Credits must be paid by Eircom and the methodology used to calculate the amount of Service Credits owed, including an itemised list of the direct costs and other losses contributing to the Service Credit calculation, supported by clear examples demonstrating the practical application of Service Credits;

(c) An obligation on Eircom to apply Service Credits, where payable, automatically and in a timely manner;

11.2.3. Ensure, where provision is made in an SLA for its suspension, that suspension may only be triggered on the basis of objectively defined and measurable parameters, that full details are set out as to the specific circumstances which may trigger such suspension, all the terms and conditions governing the suspension, and the procedural requirements to be followed for suspension including that Eircom shall be required where suspension occurs, to provide to the Access Seekers concerned reasons for the suspension and the parameters relied upon.

11.3. Eircom shall ensure that negotiations for the conclusion or amendment of an SLA as the case may be, are conducted in a fair, reasonable and timely manner and that the matters of Service Credits and SLA suspension are the subject of negotiations during the SLA Negotiation Period.

11.4. Where no agreement is reached, the SLA Negotiation Period shall conclude with Eircom making available to the requestor or Undertakings involved in the

negotiation its best and final offer (“BAFO”) within the timelines set out in the engagement timetable referred to in Section 10.2.2 (e), and the BAFO shall enter into force and replace as the case may be any SLA it amends, within three (3) months of its notification to ComReg in accordance with Section 9.9, save where Eircom has applied, setting out reasons therefor, for an extension and ComReg, at its sole discretion, has granted same, or in the case of an SLA or an amendment to an SLA for a new product or an amendment to a product, on the date the new or amended product, service or Associated Facility is launched.

- 11.5. Further to its obligation of transparency set in Section 9, Eircom shall:
- 11.5.1. Publish concluded SLAs or when no SLA is formally agreed, the SLA reflecting the BAFO required under Section 11.4; 24
  - 11.5.2. Within two (2) months of the end of each Quarter, publish a report setting out the actual performance achieved in each of the three (3) previous months in respect of all Access Seekers compared to the committed service levels contained in the relevant SLA for the products, services and Associated Facilities referred to in Section 7 (the “performance metric report”);
  - 11.5.3. Having regard to Section 11.5.2, publish and maintain on its publicly available website a performance metric report detailing the methodology applied, the source data used and explanations on how the source data was processed by Eircom including worked examples as to how the processed source data relates to the actual performance achieved.
- 11.6. Save as otherwise agreed with ComReg, within seven (7) months of the Effective Date, Eircom shall ensure that any and all existing Service Level Agreements SLAs in respect of products, services and Associated Facilities in the Relevant Market meet the requirements of this Section 11.

## **12. KEY PERFORMANCE INDICATORS**

- 12.1. Further to Eircom’s obligations under Sections 7, 8, 9 and 10, Eircom shall publish Key Performance Indicators (KPI) on its publicly available wholesale website in respect of its provision of WLA in the Commercial NG WLA Market, as may be further specified by ComReg.
- 12.2. For the purpose of complying with Section 12.1, and by way of further specification, Eircom shall meet the requirements set out in ComReg Decision D04/22.



### **13. ACCOUNTING SEPARATION**

- 13.1. Eircom shall maintain separated accounts in respect of the products, services and Associated Facilities in the NG Commercial WLA Market.
- 13.2. Without prejudice to the generality of Section 13.1, Eircom shall comply with the requirements set out in the Decision Instrument annexed to ComReg Decision D08/10 (as may be amended from time to time).

### **14. PRICE CONTROL AND COST ACCOUNTING**

#### **Cost Accounting**

- 14.1. Eircom shall maintain appropriate cost accounting systems in respect of products, services and Associated Facilities in the NG Commercial WLA Market.

#### **Cost orientation**

- 14.2. Save as regards FTTP-based VUA, prices charged by Eircom to any other Undertaking for Access to or use of the products, services or Associated Facilities referred to in Section 7 shall be subject to an obligation of cost orientation obligation, as may be further specified by ComReg.

#### FTTC-based VUA

- 14.3. The obligation of cost-orientation set out in Section 14.2 is hereby further specified as follows in respect of FTTC-based VUA:
  - 14.3.1. Eircom shall recover the costs of FTTC-based VUA by way of a connection charge and a monthly rental charge.
  - 14.3.2. For the purpose of Section 14.3.1 and subject to Section 14.3.2, from the Effective Date, the monthly rental charge applicable to FTTC-based VUA shall be a price equal to the costs set out in Section 6.1 of the ANM Decision Instrument for the relevant year [namely €19.12 up until 30 June 2024], which price Eircom may thereafter increase from 1 July 2024 once annually on 1 July by no more than the level of inflation calculated each year as CPI-0. For the avoidance of doubt, Eircom may not carry over from one year to the next any permitted increases in the rental charge for FTTC-based VUA that it refrained from applying in full or otherwise in respect of any 12 month period.
  - 14.3.3. By way of exception to Section 14.3.2, where Eircom demonstrates to ComReg's satisfaction that the applicable monthly rental charge for FTTC-based VUA materially impedes Eircom's ability to compete with an alternative network or networks in a defined, substantial, geographic area within the Commercial NG WLA

Market, Eircom may charge a price by way of monthly rental charge that is lower than the price set in accordance with Section 14.3.2, but not less than the higher of either an alternative Undertaking's wholesale VUA price or equivalent or Eircom's full deployment costs for FTTC VUA in the specific geographic area concerned, calculated on the basis of a BU-LRAIC+ costing methodology and with Eircom's RAB applied to Reusable Assets, subject always to the express prior written approval of ComReg, which approval ComReg may grant at its discretion where the following conditions are met:

- (a) ComReg is satisfied that the proposed reduction in the price is necessary to enable Eircom to compete fairly with rival network operators;
- (b) ComReg is satisfied that the proposed reduction in the price will not dissuade new investment by alternative Undertakings;
- (c) the proposed reduction in the price is not, in form or in effect, a discount or promotion; and
- (d) Eircom undertakes that the reduced charge will be used as the input cost in respect of all of Eircom's FTTC-based services in the geographic area concerned.

#### Associated Facilities

14.4. The obligation of cost-orientation set out in Section 14.2 is hereby further specified as follows in respect of the Access to Associated Facilities under Section 7:-

- 14.4.1. Eircom shall ensure that it recovers no more than its actual incurred costs adjusted for efficiencies plus a reasonable rate of return in respect of the provision of connections.
- 14.4.2. The price charged by Eircom in respect of the Interconnection services set out in Section 7.8, shall be no more than the costs of an efficient operator calculated on a BU-LRAIC+ costing methodology.
- 14.4.3. The price charged by Eircom in respect of Co-Location shall be no more than the actual costs (adjusted for efficiencies) incurred for the provision of Co-location plus a reasonable rate of return.
- 14.4.4. The price charged by Eircom in respect of each of the Multicast, CoS and 1:1 VLAN Tagging Facilities provided for in Section 7.7 shall be no more than the actual costs (adjusted for efficiencies) incurred by Eircom for their provision plus a reasonable rate of return.

## FTTP VUA

- 14.5. Eircom shall recover the costs of FTTP-based VUA by way of connection and migration charges and a monthly rental charge to be set in accordance with the requirements set out in Section 14.6 to Section 14.8.

### Pricing Flexibility

- 14.6. Eircom shall be free to determine the price applicable to its FTTP-based VUA services subject to the following:

14.6.1. Save as provided for in Section 14.6.2, the monthly rental charges for FTTP-based VUA shall be set at or above the applicable price for FTTC-based VUA set in accordance with Section 14.3.2 or, as the case may be in respect of the geographic area concerned, in accordance with Section 14.3.3 (the “Price Floor”);

14.6.2. Where, on Eircom’s application, ComReg finds that in a geographic area the Price Floor materially impedes Eircom’s ability to compete with an alternative network or networks in a defined, substantial, geographic area and that a reduction of the applicable Price Floor for FTTP-based VUA monthly charge is necessary to allow Eircom to compete, ComReg may lower the Price Floor in the geographic area subject always to the following:

- (i) The reduced charge (including any Connection/Migration Charges (as provided for in Section 14.6.3)) is not less than the higher of either an alternative Undertaking’s wholesale VUA price or equivalent or Eircom’s full deployment costs for FTTP VUA in the specific geographic area concerned (including for the avoidance of doubt customer specific connection costs), calculated on the basis of a BU-LRAIC+ costing methodology and with Eircom’s RAB applied to Reusable Assets;
- (ii) ComReg is satisfied that the lowering of the Price Floor is unlikely to dissuade new investment by alternative Undertakings;
- (iii) Eircom undertakes that its proposed price reduction is not temporary in nature or limited in time;
- (iv) Eircom undertakes that the reduced charge will be used as the input cost in respect of all of Eircom’s FTTP-based services in the geographic area concerned.

14.6.3. Where Eircom charges a separate fee in respect of connection to its FTTP network (**‘Connection Charge’**), it shall also charge a fee

where there is a change of RSP in respect of the FTTP line concerned (**'Migration Charge'**) in which case:

- (i) The Connection Charge and the Migration Charge shall be the same; and
- (ii) The combination of the Connection and Migration Charges referred to in Section 14.6.3(i) shall not exceed Eircom's customer specific connection related investment costs;
- (iii) The Connection Charge and the Migration Charge shall not exceed €100; and
- (iv) Any Connection Charge and Migration Charge shall remain in place for a minimum of six (6) months.

14.6.4. Eircom shall not cause a margin squeeze between FTTP-based VUA services and FTTC-based services in markets downstream from the Commercial NG WLA Market, as may be further specified from time to time by ComReg.

#### **Emulated FTTC-like FTTP service**

14.7. Where Eircom offers, further to Section 7.10, an Emulated FTTC-like FTTP service, the latter's price shall be the applicable price for FTTC-based VUA calculated in accordance with Section 14.3.2 or as the case may be and in respect of the geographic area concerned only, the reduced price for FTTC-based VUA approved by ComReg under Section 14.3.3.

#### **Wholesale Discounts and Promotions**

14.8. Eircom shall not apply any Discounts or Promotions in respect of FTTC-based VUA.

14.9. Eircom shall not apply any Discounts or Promotions in respect of FTTP-based VUA without the express prior approval of ComReg which approval ComReg may grant on Eircom's application made in accordance with Section 14.11 where the conditions set out in Section 14.10 are met.

14.10. For the purpose of Section 14.9, ComReg shall not approve a Discount or Promotion unless:-

14.10.1. The proposed price taking account of any Promotion or Discount remains above the Price Floor calculated in accordance with Section 14.6.1.

14.10.2. ComReg is satisfied that the Promotion or Discount is not, in form or in effect, for the benefit only of Eircom's retail arm and is in practice available to a range of Access Seekers;

14.10.3. ComReg is satisfied that the Promotion or Discount is not targeted at a specific geographic area and for the avoidance of doubt, no Promotion or Discount will be approved that gives rise to a geographic differentiation of prices; and

14.10.4. ComReg is satisfied that the Promotion or Discount will not adversely affect investments by alternative Undertakings or undermine competition.

### **Notifications for Regulatory approval**

14.11. Any notification for the purpose of Section 14.3.3, Section 14.6.2 and Section 14.9 shall be made at least three (3) months in advance of the proposed publication date setting out the detail of the proposed offer and Eircom's submission as regards the assessment to be carried out by ComReg under Section 14.3.3, Section 14.6.2 and Section 14.10 respectively. Upon receipt of a notification and in any event within one month of notification, ComReg may require any such additional information as it considers necessary to its assessment and shall indicate to Eircom the date by which its assessment will complete following receipt of the relevant information.

### **Further specification of the obligation not to cause a Margin Squeeze**

14.12. For the purpose of Section 14.6.4, Eircom shall be considered not to cause a margin squeeze where its FTTP Flagship Offering and FTTP Flagship Portfolio pass a Margin Squeeze Test whereby:-

- The average total Present Value revenue of the FTTP Flagship Portfolio is equal to or exceed the FTTP Flagship Portfolio's average total Present Value of costs; and
- For each FTTP Flagship Offering, the Offering's Present Value revenue is equal to or exceed the Offering's Present Value of costs;

where:-

- (i) FTTP Offering means an FTTP-based product sold by Eircom at the retail level on a standalone basis or included in a bundle with one or more unregulated products;
- (ii) FTTP Flagship Offering means each of the FTTP Offerings, including at least one retail FTTP bundle offering and one retail standalone FTTP offering, which together account for at least 75% of Eircom's total FTTP retail product subscribers in the Quarter being reported on;
- (iii) FTTP Flagship Portfolio means Eircom's FTTP Flagship Offerings in aggregate;

and:-

- (iv) The average total Present Value revenue and costs of the FTTP Flagship Portfolio are calculated by reference to lines R7 and C16 in Table X in Schedule 2;
- (v) An FTTP Flagship Offering's Present Value revenue and costs are calculated by reference to lines R6/R6a and C14/C14a in Table X2 in Schedule 2;

in each case calculated using a Discounted Cash Flow ("**DCF**") approach over the Average Customer Life ("**ACL**") to generate the Net Present Value ("**NPV**");

and where the ATC used for the purpose of the MST is reconciled to the extent possible to Eircom's Separated Accounts.

14.13. Eircom shall ensure that the Margin Squeeze Test is met at all times in respect of the FTTP Flagship Portfolio and each of the FTTP Flagship Offerings and having followed the requirements set out in Section 14.14 take appropriate measures where the Margin Squeeze Test is not met.

14.14. Eircom shall demonstrate to ComReg that the Margin Squeeze Test set out in Section 14.12 is met:

14.14.1. In respect of an FTTP Offering which Eircom forecast will become an FTTH Flagship Offering in future or an amendment to an FTTP Flagship Offering's price, including by way of promotion or other discount, at least five (5) days in advance of the FTTP Offering or amended price being made available to End-Users (and for the avoidance of doubt Eircom may not offer for sale an FTTP Offering which Eircom forecast will become an FTTP Flagship Offering in future or an amended FTTP Flagship Offering without first having obtained ComReg's confirmation under Section 14.15 that the Margin Squeeze Test is met); and

14.14.2. Further to Section 14.13, on amending an FTTP Flagship Offering which fails to meet the Margin Squeeze Test,

and for that purpose, Eircom shall furnish ComReg with a detailed written submission, making full and true disclosure of all material facts including all assumptions relied upon, the rationale and supporting evidence for such assumptions including as regards retail efficiencies or increased Average Customer Life and the likely effect if any such assumptions are not met, together with a copy of the DCF Model underpinning Eircom's submission in a

format allowing changes to key assumptions and ComReg shall assess Eircom's submissions in accordance with Section 14.15.

- 14.15. Subject to Section 14.17, within five (5) working days of receipt of a submission pursuant to Section 14.14, ComReg shall inform Eircom whether or not ComReg finds on a prima facie basis that the FTTP Offering meets the Margin Squeeze Test under Section 14.12 or Section 14.18 as the case may be and does not cause a margin squeeze.
- 14.16. Where ComReg informs Eircom, under Section 14.15, that an FTTP Offering does not meet the Margin Squeeze Test (or otherwise causes a margin squeeze) Eircom shall:-
- 14.16.1. Where the FTTP Offering has been notified on the basis that Eircom forecast it will become an FTTP Flagship Offering in future, withhold from making the FTTP Offering available to End-Users;
  - 14.16.2. Where the FTTP Offering has been notified as an amendment to an existing FTTP Flagship Offering, withhold from implementing the proposed amendment;
  - 14.16.3. Further to Section 14.13, where the FTTP Offering is available to End-Users, adjust the price for all existing customers of the Offering and immediately stop new sales of the FTTP Offering or transfer subscribers to an alternative FTTP Offering until such time that the price of the Offering has been adjusted and confirmation obtained from ComReg that prima facie the Margin Squeeze Test is met in accordance with Section 14.15.
- 14.17. Prior to the expiry of the five (5) working day period referred to in Section 14.15, ComReg may seek further information from Eircom to inform its assessment of whether prima facie the Margin Squeeze test is met in which case, the five working day period under Section 14.13 shall be deemed to commence from the day that ComReg receives the information sought.
- 14.18. Where either part or both parts of the Margin Squeeze Test set in Section 14.12 are not met, ComReg may nevertheless determine that Eircom has not caused a margin squeeze for the purpose of Section 14.6.4 on the basis of a general reasonableness assessment taking into account any objective evidence of retail efficiencies or increased customer lifetimes resulting from the Offering concerned and potential impact in the Commercial NG WLA Market and downstream markets.
- 14.19. Within six (6) weeks of the end of each Quarter, Eircom shall submit to ComReg the following statements:

- 14.19.1. A Monitoring Statement demonstrating that the Margin Squeeze Test is met in respect of the FTTP Flagship Portfolio and each of the FTTP Flagship Offerings;
- 14.19.2. A Modified Monitoring Statement stating the actual volume and revenue associated with each FTTP Offering.

## **15. REGULATORY GOVERNANCE**

- 15.1. Eircom shall have in place transparent regulatory governance arrangements, which facilitate effective and non-discriminatory provision of Access by Eircom to the products, services or associated facilities in the Commercial NG WLA Market in accordance with the requirements of this Decision Instrument.
- 15.2. Without prejudice to the generality of Section 15.1, within three (3) months of the Effective Date, Eircom shall submit to ComReg a written statement of compliance (“Statement of Compliance”) signed by a Director or Directors of Eircom authorised to provide such statements on behalf of the Board of Directors of Eircom, which includes the following:
  - 15.2.1. A statement:
    - (a) That the Directors acknowledge that they are responsible for Eircom securing compliance with its regulatory obligations;
    - (b) Confirming that, in their opinion, arrangements, structures and internal controls are in place that provide reasonable assurance that Eircom is compliant with its obligations as set out in this Decision Instrument;
    - (c) Explaining the basis upon which the confirmation in subparagraph (b) above is made, including a description of the information relied upon, and the process followed, by the Directors for that purpose;
  - 15.2.2. A description and explanation of the governance measures implemented by Eircom to ensure that it is, and remains, in compliance with the obligations set out in this Decision Instrument;
  - 15.2.3. A description of the methodology followed to identify risks of noncompliance with the obligations imposed in Sections 7 to 14 (the “regulatory risks”) and to develop the controls required to manage the regulatory risks including in particular by reference to identifying, employing and relying on adequate expertise, material and information.



- 15.2.4. A detailed description of the regulatory risks identified utilising the methodology described in Section 15.2.3 above for all WLA products, services and facilities in the Commercial NG WLA Market, including without limitation, in respect of the following activities:
- (a) Pre-provisioning, provisioning and service assurance;
  - (b) Product development including product enhancements, and pre-product development screening of Access requests;
  - (c) Product prioritisation and investment decisions;
  - (d) Access to shared resources including IT and product development resources, and
  - (e) The management of confidential information, in conformance with regulatory requirements.
- 15.2.5. A detailed description of the controls developed to manage the regulatory risks, including:
- (a) A description of the relationship of each control to the underlying regulatory risk;
  - (b) A description of the process used to assess the adequacy and effectiveness of the controls;
  - (c) A description of the operation of controls including the method employed by Eircom to record and store the data produced when controls are operated;
  - (d) The identification and description of the repository in which the data from the operation of each control is recorded and stored.
- 15.2.6. For each of the products, services and Associated Facilities reviewed for the purpose of Section 15.2.1 and 15.2.5, a description of the risk analysis and control development process carried out (the "Process"), to include the following:
- (a) The scope of the Process, including in particular:
    - I. A description of the expertise relied upon to identify the regulatory risk and develop the controls required to manage the regulatory risks, by reference to the description of the expertise of the Eircom personnel engaged in the Process, and
    - II. A list of all the material used to identify the regulatory risks and develop the controls required to manage

the regulatory risks including without limitation, relevant product documentation, internal process information, risk analysis documentation.

- (b) The outcome of the Process in respect of the identification of regulatory risks, and the justification for the outcome;
  - (c) The outcome of the Process in respect of the development of the controls required to address the regulatory risks identified, and the justification for the outcome, to include:
    - I. A description of the operation of the control, including the frequency of its operation, and
    - II. A description of the directory / path details for repository for control evidence.
- 15.3. The documentation referred to in this Section 15 shall be of sufficient clarity and detail to enable ComReg to assess whether Eircom's risk assessment and control and governance measures provide reasonable assurance as to Eircom's compliance with the obligations set out in this Decision Instrument.
- 15.4. Eircom shall keep the Statement of Compliance up to date. In particular, and without prejudice to the generality of this obligation, Eircom shall update, and submit to ComReg, an updated Statement of Compliance, duly dated and signed and meeting the requirements of Section 15.2.1 above, in the following circumstances:
- 15.4.1. Where a material change or material changes are made to any of the documentation and information detailed in this Section 15, within three (3) months of such change or changes being made;
  - 15.4.2. Where a new WLA product, service or Associated Facility, or an amendment to an existing WLA product, service or Associated Facility which falls within the scope of the Commercial NG WLA Market is introduced, having regard in particular to the requirements in Sections 15.2.4, 15.2.5 and 15.2.6, and in accordance with the timeline set out in, and as part of the documentation required for the purpose of Section 9.9, or as otherwise may be required or agreed by ComReg.
- 15.5. Eircom shall ensure that updates or changes to the Statement of Compliance are easily identifiable. For that purpose, Eircom shall operate a standardised regime for the management of changes to the documents contained in, and including, the Statement of Compliance whereby:
- 15.5.1. Different versions of the Statement of Compliance are identified by a number, letter or code, associated with a date and timestamp; and

- 15.5.2. A record of all changes made to versions of the Statement of Compliance is maintained and incorporated in a dedicated and indexed section in each Statement of Compliance.
- 15.6. Eircom shall publish the Statement of Compliance, and updates to the Statement of Compliance, within one (1) month of providing it to ComReg, unless otherwise agreed with ComReg.

### **PART III - OPERATION AND EFFECTIVE DATE**

#### **16. STATUTORY POWERS NOT AFFECTED**

- 16.1. Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it under any primary or secondary legislation (in force prior to or after the Effective Date of this Decision Instrument).

#### **17. WITHDRAWAL OF SMP OBLIGATIONS**

- 17.1. The following Decision Instruments, and/or ComReg Documents and/or Decisions shall be withdrawn when this Decision Instrument come into effect, subject to Section 9.13:
- (i) The Decision Instrument contained in Appendix 20 and Appendix 21 of ComReg Decision D10/18 save for sections 7.2(xiii), 7.2(xiv), 12.6, 12.7, 12.8 and 10.26 of Appendix 20;
  - (ii) The Decision Instrument contained in Annex 1 and Annex 2 of ComReg Decision D11/18.
  - (iii) The Decision Instrument contained in Annex 4 and Annex 5 of ComReg Decision D12/18.
  - (iv) The Decision Instrument contained in Annex 1 of ComReg Decision D10/21.
  - (v) The Decision Instrument contained in Annex 7 and Annex 8 of ComReg Decision D11/21.

#### **18. SUNSET PROVISIONS**

- 18.1. There shall be one Sunset Period of twelve (12) months in relation to the deregulation of the following three markets: (i) the National CG WLA Market; (ii) the IA NG WLA Market; and (iii) the WCA Market.
- 18.2. During the Sunset Period Eircom shall not withdraw Access to any products, services or Associated Facilities in the three markets referred to in Section 18.1 to which Access was previously granted on or before the Effective Date, pursuant to or consistent with an obligation imposed by the Decision Instrument contained in Appendix 20 and Appendix 21 of ComReg Decision D10/18, or in

respect of which Access has been sought on or prior to the Effective Date of this Decision.

- 18.3. Access to any products, services or Associated Facilities in any of the three markets referred to in Section 18.1 above provided by Eircom to any Undertaking pursuant to the obligations in Section 18.2, shall be provided at prices no higher than those prevailing for such products, services or Associated Facilities on the Effective Date for the Sunset Period of twelve (12) months.

## **19. MAINTENANCE OF OBLIGATIONS**

- 19.1. Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements contained in Decision Notices and Directions made by ComReg, applying to Eircom, and in force immediately prior to the Effective Date of this Decision Instrument, continue in force and Eircom shall comply with the same.
- 19.2. For the avoidance of doubt, to the extent that there is any conflict between a Decision Instrument dated prior to the Effective Date and Eircom's obligations set out herein, it is the latter which shall prevail.
- 19.3. If any Section(s), clause(s), or provision(s), or portion(s) thereof, contained in this Decision Instrument is(are) 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(those) Section(s), clause(s), or provision(s), or portion(s) 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(s) thereof, of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument or other Decision Instruments.

## **20. PUBLICATION AND NOTIFICATIONS**

- 20.1. This Decision Instrument shall be published on ComReg's website, [www.comreg.ie](http://www.comreg.ie) and notified to Eircom on the same day.

## **21. EFFECTIVE DATE**

- 21.1. The Effective Date of this Decision Instrument shall be the date of its notification to Eircom and it shall remain in force until further notice by ComReg.

**COMMISSIONER  
THE COMMISSION FOR COMMUNICATIONS REGULATION  
THE [X] DAY OF [X]**

## **Schedule 1 – NBP IA Premises**

## Schedule 2

**TABLE 1 – REVENUES**

Ref.	Title	Description
R1	Forecasted monthly headline price of the standalone and bundled FTTH flagship product(s).	<p>This is the full monthly contract price of standalone and bundled FTTH flagship product(s) during the ACL. In circumstances where the FTTH BB services is bundled with other unregulated services (i.e., fixed lines, mobile and/or TV), the contract price should include the associated price for such services.</p> <p>The price should be reported net of VAT.</p>
R2	Forecasted average monthly out of bundle calls revenue of the FTTH flagship products (with fixed voice).	<p>This is the forecasted additional revenue for fixed line traffic/calls consumed outside the plan (i.e., where the customer exceeds the fixed voice traffic/call allowance included in the plan).</p> <p>For post-launch assessment the revenue for each call type is taken from the Eircom billing information for calls for customers on that bundle in that billing month. Eircom bills out of bundle calls based on a call set up fee and a fee per minute of call time with any partial minute rounded up to the next minute. This total revenue for the call type outside the bundle allowance is then divided by the total number of customers to get an average revenue per customer for that component.</p>
R3	Forecasted average monthly out of bundle other revenue of the standalone and bundled FTTH flagship products	This is the forecasted average other monthly out of bundle revenue, e.g., excess data usage on fixed data allowance contracts, out of plan revenues on unregulated mobile

		contracts.
<b>R4</b>	Forecasted non-recurring revenues of the standalone and bundled FTTH flagship product(s).	This is the forecasted non-recurring revenues, e.g., FTTH connection charges and broadband activation fees. This should be recognised in the period/month in which it is expected to arise (i.e., it should not be allocated over the ACL).
<b>R5</b>	Forecasted average total monthly revenue for each of the bundled FTTH flagship products plus forecasted non-recurring revenues (where relevant).	This is the sum of the monthly headline price (R1) plus forecasted average monthly out of bundle calls revenue (R2) plus forecasted average monthly out of bundle other revenue (R3) plus forecasted non-recurring revenues (where relevant) (R4).
<b>R5a</b>	Forecasted average total monthly revenue for each of the standalone FTTH flagship products plus forecasted non-recurring revenues (where relevant).	This is the sum of the monthly headline price (R1) plus forecasted average monthly out of plan other revenue (R3) plus forecasted non-recurring revenues (where relevant) (R4).
<b>R6</b>	The present value of monthly revenue for each of the bundled FTTH flagship products.	This is the sum of the monthly revenues (R5) discounted to present day terms using the WACC rate.
<b>R6a</b>	The present value of monthly revenue for each of the standalone FTTH flagship products.	This is the sum of the monthly revenues (R5a) discounted to present day terms using the WACC rate.
<b>R7</b>	Forecasted average monthly NGA Portfolio revenue (FTTH flagship products – standalone and bundled).	This is the weighted average of the present value of the relevant bundled FTTH flagship products (R6) and the present value of the standalone FTTH flagship products (R6a) based on the number of customers on each bundle or standalone plan.



**TABLE 2 – COSTS**

Reference	Title	Description
<b>C1</b>	Forecasted Wholesale Network Input ('WNI') for FTTH VUA.	This is the forecasted monthly price (based on Eircom's published reference offers) less the forecasted wholesale discounts provided to the retail arm of Eircom for the FTTH flagship products.
<b>C2</b>	Forecasted Other Network costs (incurred by Access Seekers) to provide the FTTH flagship products.	<p>This is all other relevant forecasted wholesale costs to provide FTTH flagship products.</p> <p>In this context "all relevant forecasted wholesale costs" means a) ancillary charges levied by Eircom in respect of a particular service<sup>734</sup> plus b) backhaul usage charges<sup>735</sup> plus c) other unavoidable non-retail costs which are necessary to provide a retail service.<sup>736</sup></p>
<b>C3</b>	Forecasted retail costs associated with retail line rental for the relevant FTTH flagship products (with fixed voice).	This is the forecasted retail costs associated with PSTN phone line rental. Prior year costs can be derived from Eircom's most recent Regulatory Accounts and may be used as a basis (with adjustments) for the forecasts.
<b>C4</b>	Adjusted forecasted retail costs associated with retail line rental for the relevant FTTH flagship products (with fixed voice)	This is the forecasted retail costs associated with PSTN phone line rental ( <b>C3</b> ) less forecasted common costs less forecasted fixed indirect costs associated with the line rental included in the relevant FTTH flagship product (i.e., the LRIC of the retail costs of line rental).

<sup>734</sup> For example, connection fees or co-location charges (cost of IP switch, ports etc.).

<sup>735</sup> Backhaul usage – This will be based on Eircom usage/throughput rate (based on Kbps peak hour usage) for next generation products to ensure continued compliance with its cost orientation and price setting obligations.

<sup>736</sup> For example, the cost of a line card, amortised over the relevant customer life.

<b>C5</b>	Forecasted average cost of calls for the relevant FTTH flagship product (with fixed voice).	This is the forecasted cost (wholesale and retail) per call type e.g., domestic national landline; domestic mobile on/off net.
<b>C6</b>	Adjusted forecasted average cost of calls for the relevant FTTH flagship product (with fixed voice)	This is the forecasted cost of calls ( <b>C5</b> ) less forecasted common costs less forecasted fixed indirect costs (i.e., the LRIC of the retail calls).
<b>C7</b>	Forecasted retail costs associated with FTTH retail broadband for the FTTH flagship products.	This is the forecasted total retail costs associated with FTTH retail broadband. Eircom's Regulated Accounts, which includes retail cost for all BB types, can be used as a starting point for the forecast.
<b>C8</b>	Adjusted forecasted retail costs associated with FTTH retail broadband for the FTTH flagship products.	This is the forecasted total retail cost associated with FTTH broadband ( <b>C7</b> ) less forecasted common costs less forecasted fixed indirect costs (i.e., the LRIC of the retail broadband cost).
<b>C9</b>	Forecasted In-home retail costs associated with the FTTH flagship products.	This is the forecasted in-home LRIC retail costs relating to the installation of FTTH broadband at the customer premises e.g., wiring, repairs etc.
<b>C10</b>	Forecast promotion costs associated with relevant bundled and standalone FTTH flagship products.	This is the forecasted promotional costs (promotions and discounts) provided on the relevant FTTH flagship products provided to retail customers. The cost will be allocated to the period in which it is expected to be incurred.
<b>C11</b>	Forecasted Unregulated services costs.	This is the forecasted LRIC costs associated with any unregulated services included in the relevant bundled FTTH flagship products (e.g., mobile, TV and fixed line). <sup>737</sup>
<b>C12</b>	Forecasted average total monthly costs for each of the bundled FTTH flagship products (the ATC	This is the sum of the Forecasted WNI for FTTH VUA ( <b>C1</b> ) plus Forecasted Other Network costs ( <b>C2</b> ) plus

<sup>737</sup> If any in the case of fixed line (as cost of calls and lines are dealt with separately in table).

	cost)	Forecasted average retail costs associated with retail line rental ( <b>C3</b> ) plus Forecasted average cost of calls ( <b>C5</b> ) plus Forecasted Total Retail Costs Associated with FTTH Retail Broadband ( <b>C7</b> ) plus Forecasted In-home retail costs ( <b>C9</b> ) Forecast promotional costs ( <b>C10</b> ) plus Forecasted Unregulated services costs ( <b>C11</b> ).
<b>C12a</b>	Forecasted average total monthly costs for each of the standalone FTTH flagship products (the ATC Cost).	This is the sum of the Forecasted WNI for FTTH VUA ( <b>C1</b> ) Forecasted Other Network costs ( <b>C2</b> ) plus Forecasted Total Retail Costs Associated with FTTH Retail Broadband ( <b>C7</b> ) plus Forecasted In-home retail costs ( <b>C9</b> ) Forecast promotional costs ( <b>C10</b> ).
<b>C13</b>	Present value of the forecasted average total monthly costs for each of the bundled FTTH flagship products.	This is the sum of the monthly costs ( <b>C12</b> ) discounted to present day terms using the WACC rate.
<b>C13a</b>	Present value of the forecasted average total monthly costs for each of the standalone FTTH flagship products.	This is the sum of the monthly costs ( <b>C12a</b> ) discounted to present day terms using the WACC rate.
<b>C14</b>	Forecasted average adjusted monthly costs for each of the bundled FTTH flagship products (i.e., the LRIC cost).	This is the sum of the Forecasted WNI for FTTH VUA ( <b>C1</b> ) Forecasted Other Network costs ( <b>C2</b> ) plus Adjusted forecasted average retail costs associated with retail line rental ( <b>C4</b> ) plus Adjusted forecasted average cost of calls ( <b>C6</b> ) plus Forecasted LRIC Retail costs associated with FTTH Retail Broadband ( <b>C8</b> ) plus Forecasted In-home retail costs ( <b>C9</b> ) plus Forecast promotion costs ( <b>C10</b> ) plus Forecasted Unregulated services costs ( <b>C11</b> ) where applicable.
<b>C14a</b>	Forecasted average adjusted monthly costs for each of the standalone FTTH flagship	This is the sum of the Forecasted WNI for FTTH VUA (C1) plus Forecasted Other Network costs ( <b>C2</b> ) plus Forecasted LRIC Retail costs

	products (i.e., the LRIC cost)	associated with FTTH Retail Broadband ( <b>C8</b> ) plus Forecasted In-home retail costs ( <b>C9</b> ) plus Forecast promotion costs ( <b>C10</b> ).
<b>C15</b>	Present value of the forecasted average adjusted monthly costs for each of the bundled FTTH flagship products.	This is the sum of the monthly costs ( <b>C14</b> ) discounted to present day terms using the WACC rate.
<b>C15a</b>	Present value of the forecasted average adjusted monthly costs for each of the relevant standalone FTTH flagship products.	This is the sum of the monthly costs ( <b>C14a</b> ) discounted to present day terms using the WACC rate
<b>C16</b>	Average total Present Value cost of the portfolio of FTTH flagship products (bundled and standalone)	This is weighted average by the number customers of the present value of the average FTTH retail bundle costs per customer ( <b>C13</b> ) and the present value of the average FTTH retail standalone costs per customer ( <b>C13a</b> ).

# **Annex 2: 2022 Residential Market Research**

A 2.1 The 2022 Residential Market Research conducted for ComReg by Red C Research & Marketing is published alongside this Consultation in ComReg Document 23/03a.

## **Annex 3: 2022 SME Market Research**

A 3.1 The 2022 SME Market Research conducted for ComReg by Red C Research & Marketing is published alongside this Consultation in ComReg Document 23/03b.

# Annex 4: Broadband Packages

## Introduction

A 4.1 This Annex outlines the retail broadband packages (both fixed and mobile) which are offered by the primary SPs (Digiweb, Eircom, Imagine, Magnet, Pure Telecom, Sky Ireland, Virgin Media, and Vodafone). The service offerings are separately assessed with the primary distinction made between bundles/packages for either business or residential customers.

## Fixed Broadband Packages Offered by Main SPs

### Digiweb

A 4.2 Digiweb provides retail broadband packages to both residential and business customers using DSL (copper), VDSL (FTTC), FTTP (via SIRO, OpenEir and NBIs FTTP network) and satellite. It offers a total of 13 residential packages and five business packages.

#### Residential Packages

A 4.3 Digiweb offers one DSL-based broadband product:<sup>738</sup>

**Table A4.1: Digiweb Residential Copper tariffs**

	DSL Unlimited + Talk Unlimited
<b>Contract Length</b>	12 months
<b>Price (inc. VAT) p/m</b>	€59.95
<b>Download Speed</b>	Up to 24Mbps
<b>Download Allowance</b>	Unlimited
<b>Once-off Charges</b>	€24.95 activation fee
<b>Other Services included</b>	6,000 anytime minutes to Irish/ UK landline and 1,500 anytime minutes to Irish/ UK mobiles

A 4.4 Digiweb offers one FTTC plan, advertised as ‘Superfast’:<sup>739</sup>

**Table A4.2: Digiweb Residential FTTC tariffs**

	Superfast Value Broadband
<b>Contract Length</b>	12 months
<b>Price (inc. VAT) p/m</b>	€24.95 for first 4 months for new customers €42.95 for remaining 8 months €49.95 thereafter €42.95 for existing customers
<b>Download Speed</b>	Up to 100 Mbps
<b>Download Allowance</b>	Unlimited
<b>Other Services included</b>	Free anytime calls to Irish/ UK landlines and mobiles

<sup>738</sup> <https://digiweb.ie/product/dsl-unlimited-broadband/> accessed November 2022.

<sup>739</sup> <https://digiweb.ie/product/superfast-home-broadband-intro-offer/> accessed November 2022.

A 4.5 Digiweb offers six different FTTP packages, delivered over different networks (OpenEir, SIRO or NBI), depending on the location of the premises. Table A4.3 outlines the components of each bundle<sup>740</sup> through its access to FTTP:

**Table A4.3: Digiweb Residential FTTH tariffs**

	Lightning FTTH Broadband <sup>741</sup>		SIRO Broadband <sup>742</sup>		NBI FTTH Broadband <sup>743</sup>	
	Lightning 500	Lightning 1000	SIRO Gigabit Broadband	SIRO Broadband 500	NBI Fibre 500	NBI Fibre 1000
<b>Contract</b>	12 months					
<b>Price (inc. VAT) p/m</b>	€34.95 for 6 months €49.95 for balance of contract €54.95 thereafter	€34.95 for 6 months €59.95 for balance of contract €64.95 thereafter	€29.95 for 4 months €54.95 for balance of contract €59.95 thereafter	€34.95 for 6 months €49.95 for balance of contract €54.95 thereafter	€29.95 for 3 months €54.95 for balance of contract €59.95 thereafter	€24.95 for 3 months €64.95 for balance of contract €69.95 thereafter
<b>Download Speed</b>	Up to 500Mbps	Up to 1000Mbps	Up to 1000Mbps	Up to 500Mbps	Up to 500Mbps	Up to 1000Mbps
<b>Upload Speed</b>	Up to 50MBps	Up to 100Mbps	Up to 100Mbps	Up to 70Mbps	Up to 50Mbps	Up to 100Mbps
<b>Download Allowance</b>	Unlimited					
<b>Once-off charges</b>	€24.95 activation fee		€49 activation fee			
<b>Other services included</b>	Talk Unlimited (6,000 anytime minutes to any Irish/ UK landline numbers and 1,500 anytime minutes to Irish/ UK mobile numbers per month)		Talk Off-peak calls to landlines and mobiles in Ireland and the UK			

A 4.6 Satellite Broadband is a broadband service delivered following the installation of a 75cm Satellite dish, at the premises. Digiweb offers three satellite based broadband packages, varying them by download allowance and price outlined in Table A4.4 below:

<sup>740</sup> <https://digiweb.ie/fibre-broadband/> accessed November 2022.

<sup>741</sup> <https://digiweb.ie/lightning-ftth-saver-broadband/> accessed November 2022.

<sup>742</sup> <https://digiweb.ie/siro-broadband/> accessed November 2022.

<sup>743</sup> <https://digiweb.ie/nbi-ftth-broadband/> accessed November 2022.



**Table A4.4: Digiweb Residential Satellite tariffs<sup>744</sup>**

	Konnect Starter	Konnect Lite	Konnect Plus
<b>Contract Length</b>	12 months		
<b>Price (inc. VAT) p/m</b>	€37.90	€37.90 for 3 months €47.90 thereafter	€347.90 for 3 months €67.90 thereafter
<b>Average Download Speed</b>	20Mbps	37Mbps	75Mbps
<b>Download Allowance</b>	50GB	75GB	150GB
<b>Once-off Charges</b>	€149 installation fee €50 activation fee	€79 installation fee €50 activation fee	€50 activation fee

A 4.7 Digiweb offer two FWA based broadband products, outlined in Table A4.5 below, delivered over a wireless network which is owned and managed by Digiweb.

**Table A4.5 Digiweb Residential FWA tariffs<sup>745</sup>**

	Metro Freedom Broadband	Metro Starter Broadband
<b>Contract Length</b>	12 months	
<b>Price (inc. VAT) p/m</b>	€54.95	€34.95
<b>Download Speed</b>	Up to 30Mbps	Up to 5Mbps
<b>Download Allowance</b>	Unlimited	30GB
<b>Other services included</b>	Talk Unlimited to Irish/ UK landlines and mobiles	
<b>* Talk World International Call package for an extra €5 per month</b>		

### **Business Packages**

A 4.8 Digiweb's business offerings include broadband and phone services. Digiweb currently has six offerings of broadband based products. It offers one FTTC product, an FTTP product and four satellite-based plans.<sup>746</sup>

A 4.9 Digiweb offers one FTTC plan, advertised as 'Superfast'.<sup>747</sup> Table A4.6 below describes its various components.

**Table A4.6: Digiweb Business FTTC tariffs**

<b>Superfast Business Broadband</b>	
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<sup>744</sup> <https://digiweb.ie/konnect/> accessed November 2022.

<sup>745</sup> <https://digiweb.ie/metro-broadband/> accessed November 2022.

<sup>746</sup> <https://digiweb.ie/business/>

<sup>747</sup> <https://digiweb.ie/product/business-fibre-broadband/> accessed November 2022.

<b>Contract Length</b>	12 months
<b>Price (exc. VAT) p/m</b>	€55
<b>Download Speed</b>	Up to 100Mbps
<b>Upload Speed</b>	Up to 20Mbps
<b>Download Allowance</b>	Unlimited
<b>Once-off Charges</b>	€49 activation fee
<b>Other Services included</b>	Talk Anytime (1,500 anytime minutes to any Irish landline and 100 anytime minutes to Irish mobile numbers) Free landline rental

A 4.10 Digiweb offers four satellite broadband plans, advertised as ‘Tooway’.<sup>748</sup> Table A4.7 below describes its various components.

**Table A4.7 Digiweb Business Satellite tariffs**

Package Title	Tooway Business 25	Tooway Business 40	Tooway Business 100	Tooway Business 200
<b>Contract Length</b>	12 months			
<b>Price (exc. VAT) p/m</b>	€71.95	€99.95	€249.95	€395.95
<b>Download Speed</b>	Up to 22Mbps			
<b>Upload Speed</b>	Up to 6Mbps			
<b>Download Allowance</b>	25GB Unlimited night-time traffic	40GB Unlimited night-time traffic	100GB Unlimited night-time traffic	200GB Unlimited night-time traffic
<b>Once-off charges</b>	€219.95 activation fee			
<b>Other Services</b>	Fixed Irish public IP addressing			

A 4.11 Digiweb also offers FTTP broadband plans using the SIRO network.

### **Eircom**

A 4.12 Eircom offers a range of broadband packages, catering for both residential and business broadband users. Eircom does not offer standalone broadband products, but offers broadband bundled with RFTS, TV or mobile services.

#### **Residential Packages**

A 4.13 On the residential side, Eircom offers broadband fibre packages at three speed profiles, as outlined below.

**Table A4.8: Eircom Residential Fibre Broadband tariffs<sup>749</sup>**

	Up to 500Mb	500Mb	1Gb
<b>Contract Length</b>	12 months	24 months	
<b>Price (inc. VAT) p/m</b>	€34.99 €75.99 thereafter	€39.99 €75.99 thereafter	€44.99 €85.99 thereafter

<sup>748</sup> <https://digiweb.ie/tooway-business-satellite-broadband/> accessed November 2022.

<sup>749</sup> <https://www.eir.ie/broadband/> accessed November 2022.

<b>Download Speed</b>	Up to 500Mbps	Up to 1000Mbps
<b>Upload Speed</b>	50Mbps	100Mbps
<b>Download Allowance</b>	Unlimited	
<b>Other Services included</b>	Unlimited off-peak local and national calls	

A 4.14 Eir TV can be added to any package for €9.99 per month for the duration of the contract, €19.99 thereafter.

### **Business Packages**

A 4.15 On the business side, Eircom offers packages for small to medium (1-9 employees, eir Business)<sup>750</sup> and large (10+ employees, eir evo)<sup>751</sup> sized businesses. The bundles listed below are available to small to medium businesses, through eir Business, while larger firms can access more tailored broadband services through eir evo, in addition to a range of other IT and telecommunication solutions.

**Table A4.9: Eircom Business Fibre Broadband tariffs**

	eir Business			eir evo		
	Up to 100Mb	Up to 100Mb	1Gb	1GB Fibre Broadband	1GB Fibre & Landline Bundle	Collaborate Starter Bundle
<b>Contract Length</b>	12 months	24 months		24 months		36 months
<b>Price (ex VAT) p/m</b>	€44.99 €69.99 thereafter	€49.99 €69.99 thereafter	€59.99 €74.99 thereafter	€30 for 4 months €55 thereafter	€50 for 6 months €65 thereafter	€99
<b>Download Speed</b>	Up to 100Mbps					
<b>Download Allowance</b>	Unlimited					

A 4.16 Eircom also offers business broadband plans bundled with mobile.<sup>752</sup> The components of each bundle are described in Table A4.10 below:

**Table A4.10 Eircom Business Broadband and Mobile tariffs**

	100Mb Broadband and SIM Only	Gigabit Fibre and SIM Only	Gigabit Fibre and Mobile
<b>Contract Length</b>	12 months	24 months	
<b>Price (exc. VAT) p/m</b>	€59.99	€74.99	€99.99
<b>Download Speed</b>	Up to 100Mbps	Up to 1000Mbps	Up to 1000Mbps
<b>Download Allowance</b>	Unlimited		
<b>Other services</b>	Unlimited local, national and international calls from landline No limits 5G mobile data Unlimited calls to Irish landlines and mobiles International calls included 1GB USA Data roaming		

<sup>750</sup> <https://business.eir.ie/shop/bundles/broadband-landline/> accessed November 2022.

<sup>751</sup> <https://eirvo.ie/communications/broadband-voice/broadband/> accessed November 2022.

<sup>752</sup> <https://www.eir.ie/business/smb/broadband-mobile/> accessed November 2022.

## Imagine

A 4.17 Imagine offers one residential broadband package and one business broadband package.<sup>753</sup> It offers broadband delivered over its WTTx network and makes use of LTE technology and 5G Fixed Broadband, as an alternative to FTTx.

### **Residential Package**

**Table A4.11: Imagine Residential Broadband tariffs**

	<b>Home (Hero Package)</b>
<b>Contract Length</b>	18 months
<b>Price (inc. VAT) p/m</b>	€59.99
<b>Download Speed</b>	Up to 150Mbps
<b>Download Allowance</b>	1TB
<b>Other Services included</b>	Free local, national and UK landline calls Free 60 minutes to Irish mobiles

### **Business Package**

**Table A4.12: Imagine Business Broadband tariffs**

	<b>For business</b>
<b>Contract Length</b>	12 months
<b>Price (exc. VAT) p/m</b>	€48.77
<b>Download Speed</b>	Up to 150Mbps
<b>Download Allowance</b>	1TB
<b>Once-off Charges</b>	€150 installation and connection fee
<b>Other Services included</b>	Free 60 minutes to Irish Mobiles Free Static IP address on request

## Magnet

A 4.18 Magnet offers a range of broadband packages for residential and business customers. These packages are split between FTTP and FTTC.<sup>754</sup>

### **Residential Packages**

A 4.19 The residential packages are split between FTTC and FTTP. All are outlined in Table A4.13, Table A4.14 and Table A4.15 below:

<sup>753</sup> <https://www.imagine.ie/broadband/> accessed November 2022.

<sup>754</sup> <https://www.magnet.ie/residential/> accessed November 2022.

Table A4.13 Magnet Residential Broadband and Telephone tariffs<sup>755</sup>

	Choice 30 <sup>756</sup>	Choice 60 <sup>757</sup>	Choice 100 <sup>758</sup>
<b>Contract Length</b>	12 months		
<b>Price (inc. VAT) p/m</b>	€39.99	€53.99	€63.99
<b>Download Speed</b>	Up to 30Mbps	Up to 60Mbps	Up to 100Mbps
<b>Upload Speed</b>	Up to 5Mbps	Up to 8Mbps	Up to 10Mbps
<b>Download Allowance</b>	Unlimited		
<b>Other Services included</b>	Free local and national off-peak calls	Free local and national off-peak calls 100 international minutes	Free local and national off-peak calls 100 international minutes 30 minutes mobile calls

Table A4.14: Magnet Residential Standalone Broadband tariffs

	24Mb Fatpipe Fibre <sup>759</sup>	Fatpipe Fibre 24	Fatpipe Fibre 100 <sup>760</sup>	Fatpipe Fibre 100
<b>Contract Length</b>	18 months	No Contract	12 months	No contract
<b>Price (inc. VAT) p/m</b>	€20 for 3 months €29.99 thereafter	€41.99	€49.99	€59.99
<b>Download Speed</b>	Up to 24Mbps		Up to 100Mbps	
<b>Upload Speed</b>			Up to 20Mbps	
<b>Download Allowance</b>	Unlimited			
<b>Other Services included</b>	Add Simply Phone for €9.99 (Anytime unlimited calls to Irish landlines) Add Infinity Phone for €19.99 (Anytime unlimited mobile and landline calls)			

Table A4.15: Magnet Residential FTTP Broadband tariffs

Package Title	Fibre Broadband 60 <sup>761</sup>	Fibre Broadband 100 <sup>762</sup>
<b>Contract Length</b>	12 months	
<b>Price inc. VAT p/m</b>	€15 for 6 months €29.99 after 6 months	€20 for 6 months €39.99 after 6 months
<b>Download Speed</b>	Up to 60Mbps	Up to 100Mbps
<b>Upload Speed</b>	8Mbps	10Mbps
<b>Download Allowance</b>	Unlimited	
<b>Other Services included</b>	Local and National anytime calls for €10 60 minutes to any Irish mobile calls for €10 200 minutes of international calls to 20 destinations for €5	

<sup>755</sup> <https://www.magnet.ie/residential/home-broadband/> accessed November 2022.

<sup>756</sup> [https://www.magnet.ie/residential/products/magnet-choice-30/?doing\\_wp\\_cron=1667833569.3919899463653564453125](https://www.magnet.ie/residential/products/magnet-choice-30/?doing_wp_cron=1667833569.3919899463653564453125)

<sup>757</sup> <https://www.magnet.ie/residential/products/magnet-choice-60/>

<sup>758</sup> <https://www.magnet.ie/residential/products/magnet-choice-100/> accessed November 2022.

<sup>761</sup> <https://www.magnet.ie/residential/products/magnet-fibre-broadband-60/> accessed November 2022.

<sup>762</sup> <https://www.magnet.ie/residential/products/fibre-broadband-100/> accessed November 2022.

### **Business Packages**

A 4.20 Magnet offers four business packages, including two standalone broadband solutions and two broadband packages bundled with phone services.<sup>763</sup> Table A4.16 and Table A4.17 below outline the components of each bundle:

**Table A4.16: Magnet Business Standalone Broadband tariffs**

	Business Broadband 100Mb	Business Broadband 1GB
<b>Price (exc. VAT) p/m</b>	€44.95	€59.95
<b>Download Speed</b>	Up to 100Mbps	Up to 1000Mbps
<b>Once-off Charges</b>	€99 installation fee	

A 4.21 Magnet More allows a business to add a phone service alongside their broadband service with unlimited monthly call allowance to Irish numbers:

**Table A4.17 Magnet More Business tariffs**

	Magnet More 100Mb	Magnet More 1GB
<b>Price (exc. VAT) p/m</b>	€49.95	€64.95
<b>Download Speed</b>	Up to 100Mbps	Up to 1000Mbps
<b>Once-off Charges</b>	€99 installation fee	
<b>Other Services included</b>	Unlimited calls to Irish landlines and mobiles Available as an app Voicemail with the option to have voicemails emailed	

## **Pure Telecom**

### **Residential Packages**

A 4.22 Pure Telecom offers a number of residential packages, as outlined on its website.<sup>764</sup> Pure Telecom offer one standalone broadband package, two broadband packages bundled with phone services<sup>765</sup> and two fibre broadband packages with phone services.<sup>766</sup> The components of each package are outlined in Table A4.18 below:

**Table A4.18: Pure Telecom Residential Bundle tariffs**

	Unlimited Broadband Only	Online Special Bundle	Broadband and Phone	Instant Speed	Premium Speed
<b>Contract Length</b>	12 months		12 months		

<sup>761</sup> <https://www.magnet.ie/residential/products/magnet-fibre-broadband-60/> accessed November 2022.

<sup>762</sup> <https://www.magnet.ie/residential/products/fibre-broadband-100/> accessed November 2022.

<sup>763</sup> <https://www.magnetplus.ie/business/business-broadband/> accessed November 2022.

<sup>764</sup> <https://www.puretelecom.ie/> accessed November 2022.

<sup>765</sup> <https://www.puretelecom.ie/broadband-deals> accessed November 2022.

<sup>766</sup> <https://www.puretelecom.ie/fibre-broadband> accessed November 2022.

<b>Price inc. VAT p/m</b>	€35, then €40	€24 for 6 months, then €50	€35 for 12 months, then €50	€35 for 12 months €55 thereafter	€35 €55 thereafter
<b>Download Speed</b>	Up to 100Mbps			Up to 500Mbps	
<b>Download Allowance</b>	Unlimited				
<b>Other Services included</b>		Unlimited calls Discounted mobile calls	Unlimited calls	Unlimited Local and National calls Line rental included	Unlimited Local and National calls Line rental included

A 4.23 Pure Telecom offer fibre speeds of up to 1000 Mbps on its Lightning Fibre services ranging from 150 Mbps to 1000 Mbps.

### **Business Packages**

A 4.24 Pure Telecom offers broadband services for businesses through fibre technology, ethernet, licensed wireless, and leased lines.<sup>767</sup>

### **Sky**

A 4.25 Sky offers a number of broadband packages for residential consumers, both as standalone and as bundles. Sky have widened their portfolio from initially only offering satellite TV services, to now offering a range of broadband and dual play services. In addition to the broadband and bundles outlined below, Sky also offers a number of TV-only packages.

### **Residential Packages**

A 4.26 Table A4.19 describes the standalone broadband services offered<sup>768</sup> by Sky:

**Table A4.19: Sky Residential Standalone Broadband tariffs**

	<b>Superfast</b>	<b>Ultrafast Plus</b>	<b>Ultrafast Max</b>
<b>Contract Length</b>	12 months		
<b>Price (inc. VAT) p/m</b>	€32	€32	€42
<b>Download Speed</b>	Up to 100Mbps (Average 75 Mbps)	Up to 500Mbps	Up to 1000Mbps
<b>Average Upload Speed</b>	10Mbps	30Mbps	
<b>Download Allowance</b>	Unlimited		

A 4.27 Table A4.20 describes three of Sky's broadband and TV bundled packages.<sup>769</sup>

<sup>767</sup> <https://www.puretelecom.ie/business/broadband-data>

<sup>768</sup> <https://www.sky.com/ie/broadband?irct=bns-roi-shop-homepage-broadband-explore-prospect#Comparison-table-BB> accessed November 2022.

<sup>769</sup> <https://www.sky.com/ireland/broadband-talk/#section-2> accessed November 2022.

**Table A4.20: Sky Residential Broadband and TV bundled tariffs**

	Sky TV, Netflix and Ultrafast <sup>770</sup>	Sky TV, Sky Sports and Ultrafast <sup>771</sup>	Sky TV and Ultrafast (Build your own package) <sup>772</sup>
<b>Contract Length</b>	12 months		
<b>Price (inc. VAT) p/m</b>	€30	€45	€25
<b>Download Speed</b>	Up to 500Mbps		
<b>Download Allowance</b>	Unlimited		

- A 4.28 TV Extras and Sky TV can be upgraded in any of the broadband bundled packages. The Multiscreen, Ultra HD + HD and HD upgrades are all currently being offered with the first two months free, after which they are priced at €19, €14 and €10 respectively. They all require 31 days' notice to cancel.
- A 4.29 Sky Sports can be added for an introductory rate of €20, normally €40, on a 31-day rolling contract. Sports Extra can be added to any bundle for €17 (normally €34) and if paired with Sky Sports, it is discounted further to €10, also on a 31-day rolling contract.
- A 4.30 Sky Cinema, which is normally priced at €20 per month, is currently offered at €12 per month for the Sky TV and Ultrafast and Sky TV, Netflix and Ultrafast bundles. Sky Cinema is offered at €9 per month when part of the Sky TV, Sky Sports and Ultrafast bundle and is currently offered at €4.50. The Sky Cinema bundle is offered on a 12-month minimum contract, unlike other TV extras.
- A 4.31 Netflix can be added to any bundle for €8 per month normally and is currently offered at €6 per month on a 31-day rolling contract.
- A 4.32 Sky Kids can be added to any package for €8 a month and Disney+ can be added for €8.99 a month, each of which are on a 31-day rolling contract.

### Three

#### **Business Packages**

- A 4.33 Three offers a number of broadband packages, all of which are aimed towards business users. Table A4.21 outlines both the fibre broadband packages and fixed line broadband packages Three offers:

<sup>770</sup> <https://www.sky.com/shop/choose/build/package?irct=dealstp-bns-roi-deal-tvnetflixultrafast-buy> accessed November 2022.

<sup>771</sup> <https://www.sky.com/shop/choose/build/package?irct=dealstp-dealstp-bns-roi-deal-tvsportsultrafast-buy> accessed November 2022.

<sup>772</sup> <https://www.sky.com/shop/choose/build/package?irct=dealstp-bns-roi-deal-tp-byob-buy> accessed November 2022.



**Table A4.21: Three Business Broadband and Phone Service bundle tariffs<sup>773</sup>**

	Business Fibre Lite	Business Fibre Extra	Business Fibre Ultra	Business Line Lite	Business Line Extra	Business Line Ultra
<b>Contract Length</b>	24 months			18 months		
<b>Price (ex. VAT) p/m</b>	€55	€65	€75	€40	€50	€60
<b>Download Speed</b>	Up to 1Gbps			Up to 100Mbps		
<b>Download Allowance</b>	Unlimited					
<b>Other services included</b>	150 minutes to Irish & UK landlines 150 minutes to Irish mobiles	1500 minutes to Irish & UK landlines (includes international) 500 minutes to Irish mobiles 8-hour SLA included	Unlimited calls to Irish & UK landlines (includes international) Unlimited calls to Irish mobiles 8-hour SLA included	150 minutes to Irish & UK landlines 150 minutes to Irish mobiles	1500 minutes to Irish & UK landlines (includes international) 500 minutes to Irish mobiles 8-hour SLA included	Unlimited calls to Irish & UK landlines (includes international) Unlimited calls to Irish mobiles 8-hour SLA included
* All bundle pricing includes a €10 discount for customers with mobile services on the same account for the duration of their contract.						

### Virgin Media

A 4.34 Virgin Media offers a range of broadband services both as part of a bundle and as a standalone product. It is the only operator in the Irish market which delivers its broadband services over a CATV network, and offers single, dual, triple and quad play bundles. These service offerings encompass eleven residential packages and two business packages.

#### **Residential Packages**

A 4.35 Virgin Media offer four standalone broadband products, the components of which are outlined in Table A4.22 below:

**Table A4.22 Virgin Media Standalone Broadband tariffs**

	250Mb Freedom Broadband <sup>774</sup>	250Mb Broadband <sup>775</sup>	500Mb Broadband <sup>776</sup>	1Gb Broadband <sup>777</sup>

<sup>773</sup> <https://www.three.ie/business/solutions/communications-and-collaboration/landline-plans.html> accessed November 2022.

<sup>774</sup> <https://www.virginmedia.ie/broadband/buy-a-broadband-package/250-mb-freedom-broadband/> All Virgin Media plans were accessed in, and valid as of, November 2022.

<sup>775</sup> <https://www.virginmedia.ie/broadband/buy-a-broadband-package/250-mb-broadband/>

<sup>776</sup> <https://www.virginmedia.ie/broadband/buy-a-broadband-package/500-mb-broadband/>

<sup>777</sup> <https://www.virginmedia.ie/broadband/buy-a-broadband-package/1-gb-broadband/>

<b>Contract</b>	30-day rolling	12 months		
<b>Price (inc. VAT) p/m</b>	€60	€45, then €60 after 12 months	€45, then €70 after 12 months	€59, then €80 after 12 months
<b>Download Speed</b>	Up to 250Mbps		Up to 500Mbps	Up to 1000Mbps
<b>Upload Speed</b>	Up to 25Mbps		Up to 50Mbps	
<b>Download Allowance</b>	Unlimited			
<b>Once-off Charges</b>	* Red House Technician Visit can be purchased once-off for €50			
<b>Other Services</b>	TV for €20 per month	TV for €14 per month	TV for €14 per month World Talk Home Phone with unlimited Irish mobile and landline calls and 400 international minutes to 22 destinations	

A 4.36 Table A4.23 outlines the broadband, RFTS and TV bundles offered by Virgin Media:

**Table A4.23: Virgin Media Residential Broadband, Phone and TV Services**

	<b>250Mb + Virgin Big TV<sup>778</sup></b>	<b>500Mb + Virgin Big TV<sup>779</sup></b>	<b>500Mb + Virgin Bigger TV<sup>780</sup></b>	<b>1Gb + Virgin Bigger TV<sup>781</sup></b>
<b>Contract Length</b>	12 months			
<b>Price inc. VAT p/m</b>	€59 €94 after 12 months	€59 €99 after 12 months	€64 €104 after 12 months	€74 €114 after 12 months
<b>Download Speed</b>	Up to 250Mbps	Up to 500Mbps		Up to 1000Mbps
<b>Upload Speed</b>	Up to 25Mbps	Up to 50Mbps		

<sup>778</sup> <https://www.virginmedia.ie/bundles/broadband-tv-phone/250mb-broadband-big-tv-360/>

<sup>779</sup> <https://www.virginmedia.ie/bundles/broadband-tv-phone/500mb-broadband-big-tv-360/>

<sup>780</sup> <https://www.virginmedia.ie/bundles/broadband-tv-phone/500mb-broadband-bigger-tv-360/>

<sup>781</sup> <https://www.virginmedia.ie/bundles/broadband-tv-phone/1gb-broadband-bigger-tv-360/>

<b>Other Services included</b>	Virgin Media Hub 50+ channels TV Anywhere app World Talk (unlimited calls to Irish landlines and mobiles and 400 minutes to 22 countries)	Virgin Media Hub 50+ channels TV Anywhere app World Talk Unlimited (Free local and national calls to landlines and Irish mobiles and unlimited calls to mobiles and landlines in 22 countries)	Virgin Media Hub 100+ channels TV Anywhere app World Talk Unlimited (Free local and national calls to landlines and Irish mobiles and unlimited calls to mobiles and landlines in 22 countries)
<b>Optional Add-Ons</b>	Virgin Media Mobile Unlimited can be added on for €10 per month (for 8 months) Sky Sports add on for €40 per month Sky Sports, Premier Sports and BT Sport add on for €74 per month Sky Sports and Sky Cinema add on for €49 per month Red House Technician Visit can be purchased once-off for €50 Add TV 360 Mini Box for €15 extra per box		

A 4.37 Table A4.24 outlines the broadband and RFTS<sup>782</sup> bundles Virgin Media offers:

**Table A4.24: Virgin Media Residential Broadband and Phone services**

	250Mb + Home Phone	500Mb + Home Phone	1Gb + Home Phone
<b>Contract Length</b>	30-day contract		
<b>Price (inc. VAT) p/m</b>	€48 €63 per month after 12 months	€48 €73 per month after 12 months	€62 €83 per month after 12 months
<b>Download Speed</b>	Up to 250Mbps	Up to 500Mbps	Up to 1000Mbps
<b>Upload Speed</b>	Up to 25Mbps	Up to 50Mbps	Up to 50Mbps
<b>Download Allowance</b>	Unlimited		
<b>Other Services included</b>	Unlimited minutes to landlines and mobiles in Ireland		
* Phone contract is on a 30-day rolling basis			

### **Business Packages**

A 4.38 Virgin Media also provides broadband packages to business customers, from small businesses (1-20 employees) to medium businesses (20-250 employees), large enterprises (250+ employees) and the public sector. These include standalone broadband services and office packages that can be bundled with Virgin Cloud WiFi (€35 p/m), Virgin Business TV (€42 p/m), Virgin Cloud Voice (€119 p/m) or Mobile (€42 p/m). The various packages available for small businesses<sup>783</sup> are outlined below in Table A4.25:

<sup>782</sup> <https://www.virginmedia.ie/bundles/broadband-and-homephone/> accessed November 2022.

<sup>783</sup> <https://www.virginmedia.ie/business/> accessed November 2022.

**Table A4.25: Virgin Media Business Broadband tariffs (for SMEs)**

	Business 500	Business 1Gb
<b>Contract Length</b>	24 months	
<b>Price (exc. VAT) p/m</b>	€55	€85
<b>Download Speed</b>	Up to 500Mbps	Up to 1000Mbps
<b>Upload Speed</b>	Up to 50Mbps	Up to 50Mbps

## Vodafone

A 4.39 Vodafone offer a range of broadband packages, including single, dual, and triple play combinations of broadband, TV and voice.

### **Residential Packages**

A 4.40 Table A4.26 describes four of the standalone broadband packages offered by Vodafone to residential customers:<sup>784</sup>

**Table A4.26: Vodafone Residential Standalone Broadband tariffs**

	Up to 100Mbps	Up to 500Mbps	Up to 1000Mbps	Up to 2000Mbps
<b>Contract</b>	12 months			
<b>Price (inc. VAT) p/m</b>	€35	€35	€45	€65
<b>Download Speed</b>	Up to 100Mbps	Up to 500Mbps	Up to 1000Mbps	Up to 2000Mbps
<b>Download Allowance</b>	Unlimited			
<b>Once-off Charges</b>	€50 installation fee may apply			
<b>Other Services included</b>	Home phone (Unlimited Irish landline calls), €5 p/m after 12 months Vodafone TV can be added for €20 p/m GigaHome can be added for €10 p/m Super Wi-Fi can be added for €5 p/m Always Connected can be added for €5 p/m			

### **Business Packages**

A 4.41 Table A4.27 describes three of the standalone broadband packages offered by Vodafone to business customers:

**Table A4.27: Vodafone Business Standalone Broadband tariffs**

	Simply Broadband for Business 500	Simply Broadband for Business – Gigabit 1000	Gigabit Fibre Broadband 2000 Business
<b>Contract Length</b>	12 months		
<b>Price (ex VAT) p/m</b>	€35	€45	€60
<b>Download Speed</b>	Up to 500Mbps	Up to 1000Mbps	Up to 2000Mbps
<b>Upload Speed</b>	Up to 50Mbps		
<b>Download Allowance</b>	Unlimited		
<b>Once-off Charges</b>	€50 installation fee may apply		

<sup>784</sup> <https://n.vodafone.ie/shop/broadband.html>, accessed November 2022.

<b>Other Services included</b>	Always Connected for €7.5 p/m Super WiFi Business for €5 p/m	Always Connected included Super WiFi Business for €5 p/m	Always Connected included
* Any package can be bundled with RFTS for €5 p/m, which includes free Irish landline calls			

## Residential and Business Mobile broadband

This section gives a brief outline of the mobile broadband packages on offer to retail customers. Mobile broadband packages are offered by Three, eir Mobile, Magnet and Vodafone. A total of 28 packages are available.

**Table A4.28: Mobile Broadband Packages**

Service Provider	Number of Packages
<b>Eir</b>	8
<b>Magnet</b>	3
<b>Three</b>	13
<b>Vodafone</b>	4
<b>Total</b>	28

### Eircom

#### **Residential Packages**

A 4.42 Eircom offers three residential mobile broadband packages delivered through its mobile network. Table A4.29 below outlines the components of each:

**Table A4.29: Eircom Residential Mobile Broadband tariffs<sup>785</sup>**

	5G Broadband	4G Broadband	eir Mobile Broadband
<b>Contract Length</b>	12 months		6 months
<b>Price (inc. VAT) p/m</b>	€39.99 for 12 months €44.99 thereafter	€34.99	€19.99
<b>Download Speed</b>	Up to 1.65Gpbs	Up to 600Mbps	
<b>Upload Speed</b>	Up to 250Mbps	Up to 100Mbps	
<b>Download Allowance</b>	1TB	750GB	100GB 16.3GB to use in the EU
<b>3G/4G/5G</b>	5G and 4G enabled	4G enabled	4G enabled
<b>Device</b>	Huawei 5G CPE Pro 3 router	Huawei B628 router	Huawei E5576 4G Hotspot router

<sup>785</sup> <https://www.eir.ie/mobile/broadband/> accessed November 2022.

### **Business Packages**

A 4.43 Eircom offers business mobile broadband packages delivered through its mobile network, both for small businesses and medium-to-large businesses. Table A4.30 below outlines the components for each broadband package:

**Table A4.30: Eircom Business Mobile Broadband tariffs**

	Small Business (SMB) <sup>786</sup>		Medium-to-Large Business (LB) <sup>787</sup>		
	5G Broadband	4G Broadband	100GB Mobile Broadband	Performance Mobile Broadband	5G Unlimited Mobile Broadband
<b>Contract Length</b>	12 months		24 months		
<b>Price ex VAT pm</b>	€35.99	€29.99	€17.50	€20	€25
<b>Download Speed</b>	Up to 1.65Gbps	Up to 600Mbps	Up to 150Mbps	Up to 150Mbps / Up to 600Mbps	Up to 1.65Gbps
<b>Upload Speed</b>	Up to 250Mbps	Up to 100Mbps	Up to 50Mbps	Up to 50Mbps / Up to 100Mbps	Up to 250Mbps
<b>Download Allowance</b>			100GB in ROI inc. 15GB to use in EU	20GB in ROI, USA Europe, Canada	Unlimited
<b>3G/4G/5G</b>	5G & 4G enabled	4G enabled	4G enabled	4G enabled	5G & 4G enabled
<b>Other services</b>	Router included for free				

### **Magnet**

### **Business Packages**

A 4.44 Magnet offers three business mobile broadband packages. Table A4.31 below outlines the components of each:

**Table A4.31: Magnet Business Mobile Broadband tariffs<sup>788</sup>**

	Anywhere 100GB	Anywhere 250GB	Anywhere 600GB
<b>Price (exc. VAT) p/m</b>	€59	€69	€89
<b>Download Allowance</b>	100GB	250GB	600GB

### **Three**

A 4.45 Three offers 13 mobile broadband packages, five residential and eight business.

### **Residential Packages**

A 4.46 Three's mobile broadband packages are divided between prepay and bill pay (direct debit) and are described in Table A4.32 below:

<sup>786</sup> <https://www.eir.ie/business/smb/mobile-broadband/> accessed November 2022.

<sup>787</sup> <https://eirevo.ie/communications/mobile/mobile-broadband/> accessed November 2022.

<sup>788</sup> <https://www.magnetplus.ie/business/wireless-broadband/> accessed November 2022.

**Table A4.32: Three Residential Mobile Broadband tariffs<sup>789</sup>**

	Unlimited 5G Gold	Unlimited 5G Silver	Unlimited 5G 12 Months	Unlimited 4G	Prepay Broadband <sup>790</sup>
<b>Contract</b>	24 months		12 months	24 months	28 days
<b>Price (inc. VAT) p/m</b>	First 3 months free, then €39	First 3 months free, then €39	€45 for 12 months, then €55	€30	€30
<b>Download Allowance</b>	Unlimited*				30GB
<b>3G/4G/5G</b>	5G enabled			4G enabled	
<b>Once-off Charges</b>			€79 set up cost		€109.99 for Huawei B535-333 router, or €59.99 for Huawei E5576-322 router

\* Unlimited Broadband is subject to the fair usage policy of 750GB per billing cycle.

### **Business Packages**

A 4.47 Three offers eight mobile broadband packages for businesses, outlined in Table A4.33 below:

**Table A4.33: Three Business Mobile Broadband tariffs<sup>791</sup>**

	Broadband Express	Broadband Advanced	Broadband+	Express SIM Only	Broadband Only <sup>792</sup>	Mobile Broadband 3GB	Mobile Broadband 15GB	Unlimited
<b>Contract Length</b>	24 months			30 day rolling	18 months	24 months		
<b>Price (ex. VAT) p/m</b>	€25 promotion, then €36	€30 promotion, then €44	€45 for 12 months, then €55	€30	€38	€7	€15	€25
<b>Download Allowance</b>	Unlimited					3GB ROI & EU	15GB	Unlimited
<b>3G/4G/5G</b>	5G enabled	5G enabled	4G enabled	5G enabled		4G enabled		
<b>Once-off Charges</b>		€49 set up cost	€49 set up cost					

### **Vodafone**

A 4.48 Vodafone offers both residential and business mobile broadband packages.

### **Residential Packages**

A 4.49 Table A4.34 below provides an overview of the mobile broadband packages available from Vodafone:

**Table A4.34: Vodafone Residential Mobile Broadband tariffs**

	Unlimited Mobile Broadband <sup>793</sup>	20GB PAYG Mobile Broadband <sup>794</sup>	50GB PAYG Mobile Broadband <sup>795</sup>
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<sup>793</sup> <https://n.vodafone.ie/shop/broadband/mobile-broadband.html> accessed November 2022.

<sup>794</sup> <https://n.vodafone.ie/shop/accessories-and-mobile-broadband/r219z.html?gallery=payg> November 2022.

<b>Contract Length</b>	12 months	Pay as you go (PAYG)	
<b>Price (inc. VAT) p/m</b>	€35 for 6 months €45 thereafter	€20	€30
<b>Download Allowance</b>	Unlimited	20GB	50GB
<b>3G/4G/5G</b>	5G or 4G enabled, depending on modem		

### **Business Package**

A 4.50 Table A4.35 below provides an overview of the one business mobile broadband package available from Vodafone:

**Table A4.35: Vodafone Business Mobile Broadband tariffs<sup>796</sup>**

	<b>Unlimited Plan</b>
<b>Contract Length</b>	12 months
<b>Price (exc. VAT) p/m</b>	€28.46 for 6 months €36.59 thereafter
<b>Download Allowance</b>	Unlimited
<b>3G/4G/5G</b>	5G or 4G enabled, depending on modem
<b>Device</b>	Alcatel LINKHUB LTE (4G enabled) Huawei 5G Pro 2 (5G enabled) for €81.27

<sup>791</sup> <https://www.three.ie/business/shop-and-plans/broadband-plans.html#business-and-home-office> accessed November 2022.

<sup>792</sup>

[https://www.three.ie/web/uploads/pdfs/terms/business/3Broadband\\_Only\\_Price\\_Plan\\_and\\_Price\\_Plan\\_Rules.pdf](https://www.three.ie/web/uploads/pdfs/terms/business/3Broadband_Only_Price_Plan_and_Price_Plan_Rules.pdf) accessed November 2022.

<sup>793</sup> <https://n.vodafone.ie/shop/broadband/mobile-broadband.html> accessed November 2022.

<sup>794</sup> <https://n.vodafone.ie/shop/accessories-and-mobile-broadband/r219z.html?gallery=payg> November 2022.

<sup>795</sup> <https://n.vodafone.ie/shop/accessories-and-mobile-broadband/r219z.html?gallery=payg> November 2022.

<sup>796</sup> <https://n.vodafone.ie/business/products-and-solutions/fixed-communications/mobile-broadband.html> accessed November 2022.



# Annex 5: Market Definition: Assessing Potential Substitutes

## Approach to Assessing Potential Substitutes for Market Definition purposes

- A 5.1 When assessing whether or not potential substitute products fall within a particular relevant product market, ComReg typically takes account of the following:
- (a) Demand-side substitution;
  - (b) Supply-side substitution; and
  - (c) In respect of wholesale product markets only, the indirect retail constraint generated by self-supply of vertically-integrated SPs.
- A 5.2 These analytical concepts are briefly described below.

### Demand-Side Substitution

- A 5.3 Demand-side substitution measures the extent to which a purchaser of services would, in response to the levying by a HM of a SSNIP<sup>797</sup> of the relevant focal product above the competitive level, switch to an alternative product such that it would render the price increase unprofitable. If the level of switching away from the HM to the alternative product is sufficient to render the focal product price increase unprofitable (for instance, due to the resulting loss of sales), then the alternative product will be included in the relevant product market.
- A 5.4 As noted in paragraph 13 of the Notice on Market Definition, demand-side substitution constitutes the most immediate and effective disciplinary force on the suppliers of a product. If the relevant focal product is priced above the competitive level, a switch to an alternative product may render the price increase unprofitable. If the level of switching away from the HM to the alternative product is sufficient to render the focal product price increase unprofitable, then the alternative product will be included in the relevant product market.

*“...the assessment of demand substitution entails a determination of the range of products which are viewed as substitutes by the consumer”.*<sup>798</sup>

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<sup>797</sup> Typically, a long-term ‘non-transitory’ price increase in the range of 5% to 10%.

<sup>798</sup> See paragraph 15 of the Notice on Market Definition.

- A 5.5 For products to be considered effective demand-side substitutes and included in the relevant market, it is necessary that a sufficient number of customers are not only capable of switching between such products, but that they would be likely to actually do so in the short term (usually one year), in response to a price change.
- A 5.6 In this regard, the SMP Guidelines state<sup>799</sup> that demand-side substitution must effectively restrain the pricing of the parties' products in the short term. Furthermore, in order for two products to be considered to fall within the same relevant market, demand must be sufficiently responsive to small changes in relative prices above the competitive level.
- A 5.7 For the purposes of market definition, the Notice on Market Definition suggests that constraints imposed by actual competitors are among the most relevant elements to be assessed:

*“The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the Undertakings involved that are capable of constraining those Undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure”.*<sup>800</sup>

### Supply-Side Substitution

- A 5.8 ComReg also considers the impact of supply-side substitution, that is, the extent to which a producer not currently active in supplying the candidate products within the market would, in response to a HM's SSNIP above the competitive level, switch production in the immediate to short term without incurring significant costs, and start supplying potential substitute products of equivalent characteristics and/or prices and, as a consequence of such provision, render the HM's price increase unprofitable.<sup>801</sup>
- A 5.9 Such an alternative potential substitute product could be included within the overall product market as a supply-side substitute if the production facilities (or network) would provide a sufficient competitive constraint to prevent a profitable price increase by the HM supplier of the candidate product(s), say because of the resulting loss of sales through switching to the alternative producer's product.
- A 5.10 In such circumstances, the Notice on Market Definition indicates that supply-side substitutes can be included within the product market:<sup>802</sup>

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<sup>799</sup> SMP Guidelines, paragraph 33.

<sup>800</sup> Notice on Market Definition, paragraph 2.

<sup>801</sup> See paragraph 41 of the SMP Guidelines.

<sup>802</sup> Notice on Market Definition, paragraph 20.

*“...in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term<sup>803</sup> without incurring significant additional costs or risks in response to small and permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved. Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect.”*

A 5.11 The Notice on Market Definition also notes that:<sup>804</sup>

*“When supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition. .... In these cases, the effects of supply-side substitutability and other forms of potential competition would then be examined at a later stage.”*

A 5.12 Therefore, any potential relevant supply-side substitutes should be sufficiently imminent in terms of their presence in the market in order to be capable of constraining a SSNIP.

A 5.13 The SMP Guidelines also suggest that, when defining a relevant market, mere hypothetical supply-side substitution is not sufficient.<sup>805</sup>

*“NRAs will need to ascertain whether a given supplier would actually use or switch its productive assets to produce the relevant product or offer the relevant service (for instance, whether their capacity is committed under long-term supply agreements, etc.).”*

### **Self-Supply of vertically-integrated Service Providers**

A 5.14 The indirect retail constraint generated by means of self-supply of wholesale/retail inputs on electronic communications networks by vertically-integrated SPs may also fall within the relevant market, if such self-supply exerts an effective competitive constraint on the market being considered. Having regard to the SMP Guidelines, the 2020 Explanatory Note and the Notice on Market Definition, the following criteria are typically considered by ComReg in determining whether self-supply on a given network falls within the relevant product market:

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<sup>803</sup> That is, such a period that does not entail a significant adjustment of existing tangible and intangible assets.

<sup>804</sup> See paragraph 23 of the Notice on Market Definition.

<sup>805</sup> See paragraph 41 of the SMP Guidelines.

- (a) Whether sufficient demand-side substitution would be likely to arise if the self-supplied product was made available to third parties in the merchant market;
- (b) Whether the network offers the coverage expected by Access Seekers;
- (c) Whether provision of the self-supplied product to third parties is technically feasible;
- (d) Whether the SP whose self-supply is under consideration has sufficient capacity to provide the self-supplied product to third parties; and
- (e) Whether the SP whose self-supply is under consideration would provide the self-supplied product to third parties in the short term without incurring significant additional costs or risks, and would be likely to do so in response to small and permanent changes in relative prices.

A 5.15 Where these criteria are met, it is likely that the self-supplied service could act as an effective competitive constraint on the focal product. On that basis, the inclusion of self-supplied services in the product market is warranted.

# Annex 6: Critical Loss Test for Indirect Retail Constraints

## Introduction

- A 6.1 In this Annex, ComReg outlines the computation of the Critical Loss Test ('**CLT**') set out in paragraphs 5.153 to 5.154 above. The CLT provides further evidence in assessing the extent to which indirect retail constraints might impact upon the definition of the Relevant WLA Market. The CLT supports the SSNIP analysis by providing an estimate of the percentage of customers that would have to divert away from the focal product in response to a SSNIP (in this case, the pass-through of a wholesale SSNIP) to make the increase in price of the focal product unprofitable.
- A 6.2 The CLT utilises data on prices of retail broadband, WLA prices and costs, and subscriber numbers. These data, alongside other relevant information, support the overall preliminary conclusions set out in this Consultation.
- A 6.3 The framework used to assess the scope of a market is the HMT, also known as the SSNIP test. The test begins by considering whether a nominal focal product constitutes a market in and of itself, and can be assessed by evaluating whether a market is worth monopolising. In order to determine whether a given product, or group of products, is worth monopolising, the pricing behaviour of a HM is considered. If the HM could impose a profitable SSNIP, then the market is considered to be no wider than the focal product(s).
- A 6.4 It is not necessary that all customers switch to a given potential substitute product in order for it to be defined as falling within the same relevant product market as the focal product(s). Rather, it only needs to be the case that a sufficient number of customers would switch to such alternative products, in order to prevent the SSNIP from being profitable.
- A 6.5 To implement the HMT, a framework known as 'critical loss analysis' is used. The CLT estimates the percentage of customers that would have to divert away from the focal product in response to a SSNIP, for that price rise to be unprofitable. A prediction of actual loss can then be compared to the critical loss value ('**CLV**'), and if the number of customers switching exceeds the CLV, then the SSNIP is considered likely to be unprofitable. The market is thus no wider than the focal product(s). Thus, the amount of demand substitution from the focal product to the potential substitute must be greater than the critical loss estimate, in order for the potential substitute to be deemed to fall in the same relevant market as the focal product.

## Deriving the CLT

A 6.6 The CLT measures the percentage reduction in demand due to a SSNIP that would leave profits unaffected. If the reduction in demand due to a SSNIP is greater than the CLT, then the SSNIP will be unprofitable, and vice versa.

A 6.7 The change in profits following a SSNIP is given by:

$$\pi_1 - \pi_0 = (p_1 q_1 - p_0 q_0) - c(q_1 - q_0) \quad (1)$$

where  $\pi$  is profit,  $c$  is marginal cost,  $p_0$  is the price before the SSNIP,  $p_1$  is the price after the SSNIP,  $q_0$  is the original number of subscribers, and  $q_1$  is the post SSNIP number of subscribers. The equation states that the change in profit equals the change in revenue less the change in costs (i.e., marginal costs), which are assumed to fall if the number of subscribers falls.

A 6.8 If we specify  $p_1 = p_0(1 + s)$ ,  $q_1 = q_0(1 + L)$ ,  $c = (\alpha p_0)$  and  $\pi_1 - \pi_0 < 0$  the CLT can be expressed as a function of the SSNIP:

$$L < -\frac{s}{1 + (s - \alpha)} \quad (2)$$

where  $L$  is the critical loss,  $s$  is the SSNIP, and  $\alpha$  is the ratio of marginal cost to price.

A 6.9 Alternatively, the critical loss can be computed as:<sup>806</sup>

$$\frac{s}{(1 - \alpha) + s}$$

or

$$\frac{s}{m + s}$$

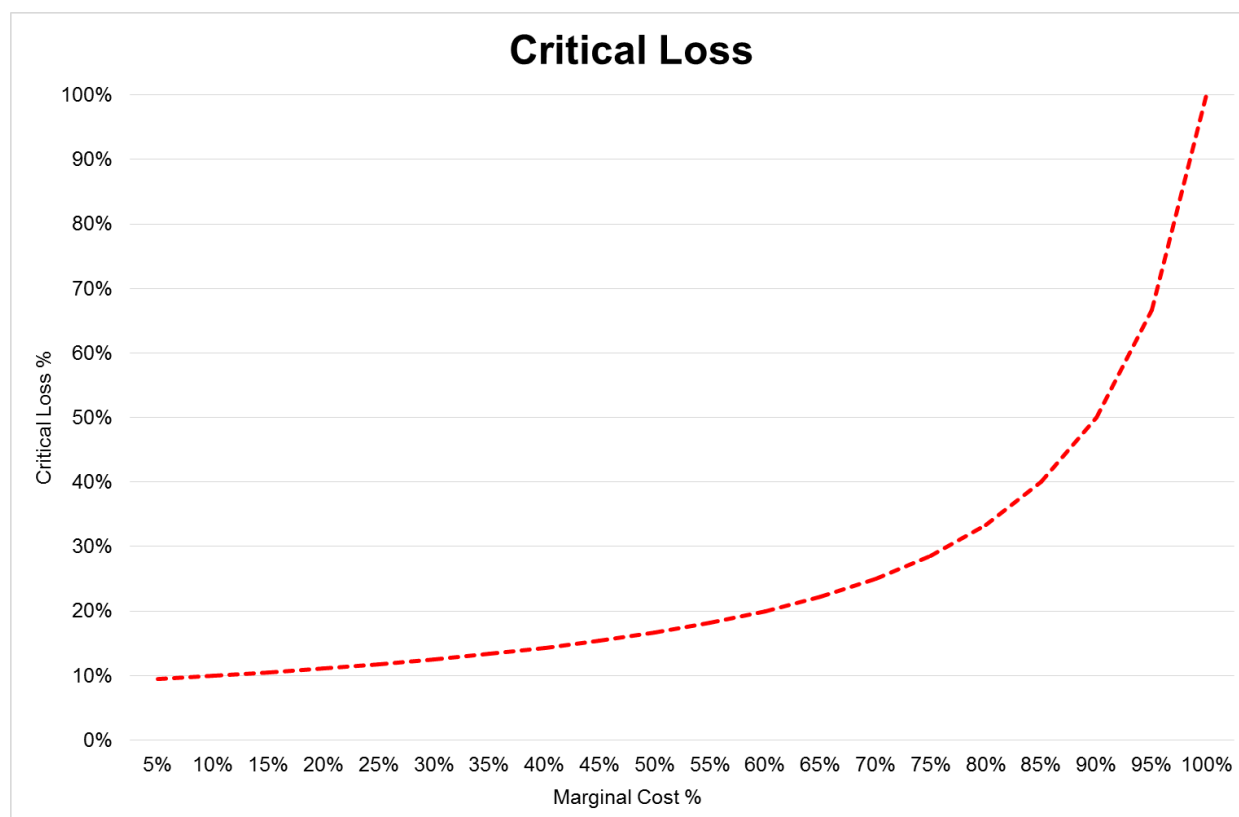
Where  $m = (1 - \alpha)$  i.e., the margin as opposed to the ratio of marginal cost to price.

A 6.10 Figure A6.1 below plots the critical loss if a number of assumptions for  $\alpha$  are made (i.e., that it is as low as 5%, or as high as 100%). If  $\alpha$  is 100% (i.e., it is equal to the retail price charged), the lost revenue from customers who switch SP in response to the SSNIP would be offset by the costs saved from not serving those customers. In this case, profits would amount to the increase in retail prices multiplied by the number of customers who do not switch.

<sup>806</sup>'Could' or 'would'? The difference between two hypothetical monopolists', Oxera, November 2008. <https://www.oxera.com/wp-content/uploads/2018/03/Hypothetical-monopolists-1.pdf>

A 6.11 Conversely, if the marginal costs are as low as 5%, then the lost revenue would come from those who switch, with only a 5% associated cost saving. The lost revenue would be greater than the increase in revenue from customers who do not switch if demand falls by more than 10%:

**Figure A6.1: Critical Loss with assumed values for  $\alpha$**



## Price and cost data

A 6.12 The CLT requires detailed information regarding a number of parameters, including marginal costs. Where such relevant information is absent, ComReg uses proxies for the various parameters that are used to calculate the critical loss. The CLT is therefore no more than a general guide for ComReg's assessment of indirect retail constraints. It is by no means determinative in and of itself, and is considered alongside other information in seeking to determine whether the response by end users to an increase in the price of retail broadband resulting from the SSNIP in WLA would be likely to constrain the profitability of such a SSNIP.

A 6.13 The relevant retail broadband prices by SP and package type are outlined in detail in Annex 3. In Figure A6.2 and Figure A6.3 below, ComReg shows average standalone broadband residential prices across all SPs. The average price per month is €40.51 for standalone broadband residential end user purchases and includes VAT. The average price across all broadband packages (both standalone and bundled) is €48.76. This is consistent with the 2022 Residential Market Research, which indicated that the average retail standalone broadband price per month paid by residential end users is €43.<sup>807</sup>

**Figure A6.2: Average Monthly Residential Standalone Broadband Prices by Speed<sup>808</sup>**



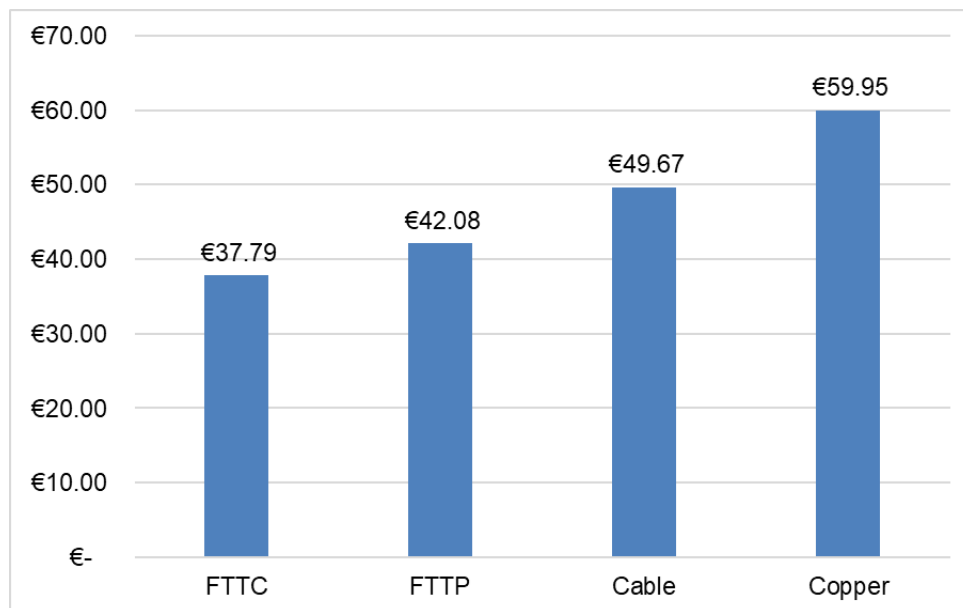
Source: ComReg calculations based on tariff data from SP websites, accessed November 2022

<sup>807</sup> See 2022 Residential Market Research in Annex 2.

<sup>808</sup> SPs included; Eircom, Vodafone, Sky, Virgin Media, Magnet, Pure Telcom and Digiweb. Average cost of plans advertised under the speed bands of 'up to' 100, 500 and 1000 Mbps.



**Figure A6.3: Average Monthly Residential Standalone Broadband Prices by Platform**



Source: ComReg calculations based on tariff data from SP websites, accessed November 2022

A 6.14 ComReg obtains data on the costs of servicing a residential customer per month including the WLA prices, customer services costs, billing, equipment, and connection costs. These costs are outlined in Table A6.1 below.

**Table A6.1: Eircom WLA prices and retail costs**

Product	Monthly Cost for an Access Seeker	Residential retail prices	Business retail prices
CG WLA: LLU	[Redacted] 809	€54.97	€76.33
NG WLA: VUA	[Redacted] 810	€48.76	€51.10

809 [Redacted text]

810 [Redacted text]

## WLA Market CLT

- A 6.15 ComReg has used Eircom’s Historical Cost financial statements for December 2021 to estimate Eircom’s margins for WLA products, i.e.,  $m=(1-\alpha)$ , and has calculated critical loss estimates accordingly.<sup>811</sup> This actual historical accounting data is used to approximate the critical loss calculation where the margin ‘m’ is estimated based on Eircom’s reported service-specific return (profit) relative to its corresponding revenue.
- A 6.16 The estimates in Table A6.2 and Table A6.3 below represent the end user demand response that would be required following the pass-through of a SSNIP of VUA and LLU, in order to prevent a profitable SSNIP of WLA by Eircom.
- A 6.17 Table A6.2 estimates the critical loss for VUA at  $[\text{XREDACTED}]$ <sup>812</sup> for a 5% SSNIP, and  $[\text{XREDACTED}]$ <sup>813</sup> for a 10% SSNIP. This implies that, if a HM imposed a SSNIP of 10%, it would be rendered unprofitable if demand fell by more than  $[\text{XREDACTED}]$ .<sup>814</sup> These critical loss estimates indicate the extent to which demand would need to switch from Eircom’s WLA products for a given alternative retail product to fall within the Relevant WLA Markets:

**Table A6.2: Estimates of Residential Critical Loss for SSNIP of VUA**  
 $[\text{XREDACTED}]$

	5% SSNIP	10% SSNIP
<b>Average residential retail prices (inc. VAT)</b> <sup>815</sup>	€48.76	€48.76
<b>Marginal costs for Access Seeker</b>	$[\text{XREDACTED}]$	$[\text{XREDACTED}]$
<b>Effective Retail price increase</b>	€1.70	€3.40
<b>Ratio costs to prices (<math>\alpha</math>)</b>	70%	70%
<b>Profit-maximising critical loss</b>	3.5%	7.0%

<sup>811</sup> [https://www.eir.ie/opencms/export/sites/default/.content/pdf/regulatoryinformation/HCA\\_FY21.pdf](https://www.eir.ie/opencms/export/sites/default/.content/pdf/regulatoryinformation/HCA_FY21.pdf)

<sup>812</sup> Between 1% and 10%.

<sup>813</sup> Between 1% and 10%.

<sup>814</sup> Between 1% and 10%.

<sup>815</sup> Average residential retail prices for the CLT have been calculated across both standalone and bundle broadband plans, as the change in price from a SSNIP would affect both standalone and bundled broadband plans.

A 6.18 Table A6.3 estimates the critical loss for LLU at [REDACTED]<sup>816</sup> for a 5% SSNIP, and [REDACTED]<sup>817</sup> for a 10% SSNIP. This implies that, if a HM imposed a SSNIP of 10%, it would be rendered unprofitable if demand fell by more than [REDACTED].<sup>818</sup> These critical loss estimates indicate the extent to which demand would need to switch from Eircom's WLA products for a given alternative retail product to fall within the Relevant WLA Markets:

**Table A6.3: Estimates of Residential Critical Loss for SSNIP of LLU**  
[REDACTED]

	5% SSNIP	10% SSNIP
<b>Average residential retail prices (inc. VAT)</b>	€54.97	€54.97
<b>Marginal costs for Access Seekers</b>	[REDACTED]	[REDACTED]
<b>Effective Retail price increase</b>	€0.53	€1.06
<b>Ratio costs to prices (<math>\alpha</math>)</b>	19%	19%
<b>Profit-maximising critical loss</b>	1.0%	1.9%

A 6.19 The CLT for SME customers is set out at Table A6.4 below and is estimated at [REDACTED]<sup>819</sup> for a 5% SSNIP and [REDACTED]<sup>820</sup> for a 10% SSNIP.

**Table A6.4: Estimates of SME Critical Loss for SSNIP of VUA**  
[REDACTED]

	5% SSNIP	10% SSNIP
<b>Average SME retail prices (inc. VAT)</b>	€51.10	€51.10
<b>Marginal costs for Access Seekers</b>	[REDACTED]	[REDACTED]
<b>Effective Retail price increase</b>	€1.70	€3.40
<b>Ratio costs to prices (<math>\alpha</math>)</b>	67%	67%
<b>Profit-maximising critical loss</b>	3.3%	6.7%

A 6.20 The CLT for SME customers is set out at Table A6.5 below and is estimated at [REDACTED]<sup>821</sup> for a 5% SSNIP and [REDACTED]<sup>822</sup> for a 10% SSNIP of LLU.

<sup>816</sup> Between 1% and 10%.

<sup>817</sup> Between 1% and 10%.

<sup>818</sup> Between 1% and 10%.

<sup>819</sup> Between 1% and 10%.

<sup>820</sup> Between 1% and 10%.

<sup>821</sup> Between 1% and 10%.

<sup>822</sup> Between 1% and 10%.

**Table A6.5: Estimates of SME Critical Loss for SSNIP of LLU**  
**[REDACTED]**

	5% SSNIP	10% SSNIP
<b>Average SME retail prices (inc. VAT)</b>	€76.33	€76.33
<b>Marginal costs for Access Seekers</b>	[REDACTED]	[REDACTED]
<b>Effective Retail price increase</b>	€0.53	€1.06
<b>Ratio costs to prices (<math>\alpha</math>)</b>	14%	14%
<b>Profit-maximising critical loss</b>	0.7%	1.4%

## Annex 7: Other Criteria for SMP Assessment

A 7.1 As noted in paragraph 6.7, ComReg has considered other factors that could be used to indicate the potential market power of an SP but which, for the reasons set out below, are considered of little or no relevance for the purposes of the SMP assessment in the Relevant WLA and WCA Markets respectively.

### Technological advantages or superiority

A 7.2 Technological advances or superiority can represent a barrier to entry as well as conferring the ability for an SP to achieve cost or production advantages/efficiencies over its competitors. However, the technologies being used to provide WLA/WCA have little or no bearing on the assessment of SMP in the Relevant WLA and WCA Markets. In particular, it would appear that any technological advancement made by one operator could, from a purely technological point of view, be adopted over time by others. For example, FTTP or DOCSIS 3.1 technology used to provide services WLA, WCA or retail broadband services, are not proprietary technologies, and are available to all operators seeking to provide WLA, WCA and/or retail broadband services. This criterion is, therefore, considered of less relevance in the Relevant WLA and WCA Markets.

### Easy or privileged access to capital markets/financial resources

A 7.3 Easy or privileged access to capital markets may act as a barrier to entry in markets where small, private companies are competing with a large incumbent in the WLA and/or WCA markets and are not able to leverage sufficient finance to invest in alternative infrastructure and use it to compete effectively with the incumbent.

A 7.4 ComReg considers that this is unlikely to be a factor in the WLA and/or WCA markets, considering that the main potential entrants are subsidiaries of large parent companies. e.g., BT, Vodafone Ireland, Sky, Virgin Media, SIRO, and NBI. These SPs are equally able to access capital markets and are therefore not at a disadvantage relative to the incumbent. This criterion is, therefore, considered of little or no relevance.

## A highly developed distribution and sales network

- A 7.5 The need to establish distribution systems might delay short term market entry or expansion given the costs involved and could act as a barrier to entry. However, entry into the WLA and/or WCA Markets is unlikely to involve establishing extensive distribution and sales networks, since there are only a small number of potential wholesale customers.
- A 7.6 In any case, given that potential entrants to either the WLA or WCA Markets are most likely to operate in the WCA Market (with its existing base of wholesale customers), or existing retail broadband suppliers with a significant existing retail distribution and sales network (for example, Virgin Media, Vodafone or Sky Ireland), a highly developed sales and distribution network is unlikely to represent a significant barrier to entry in the Relevant WLA and WCA Markets.

# Annex 8: NG WLA Geographic Market Assessment

## Introduction

- A 8.1 This Annex sets out in greater detail ComReg's approach to the Phase 2 assessment of the NG WLA geographic markets, and is structured as follows:
- (a) Framework for NG WLA market geographic assessment (paragraphs A 8.3 to A 8.60);
  - (b) Assessment of differences in competitive conditions in the NG WLA geographic markets (paragraphs A 8.61 to A 8.74); and
  - (c) Overall preliminary conclusion on NG WLA geographic market assessment (paragraphs A 8.75 to A 8.75).
- A 8.2 This Annex should be read in conjunction with the analysis set out in Section 5.3.

## Framework for NG WLA Market Geographic Assessment

- A 8.3 ComReg's framework for assessing the geographic boundaries of the Relevant NG WLA Market(s) follows three steps:
- (a) **Establishing the relevant geographic unit:** ComReg considers the appropriate geographic unit, taking into account the range of services offered by Eircom and other Network Operators, including those products falling into the NG WLA product market (paragraphs A 8.5 to A 8.29);
  - (b) **Establishing criteria for assessing competitive conditions:** ComReg sets out the criteria by which it assesses any sufficient differences in competitive conditions in the geographic areas in question (paragraphs A 8.30 to A 8.50); and
  - (c) **Analysis of criteria:** ComReg examines factors inputting to the criteria, which assist in distinguishing geographic areas characterised by sufficiently different conditions of competition (paragraphs A 8.52 to A 8.60).
- A 8.4 The rationale for the selection of this assessment framework is discussed below.

## Relevant geographic unit for assessment of competitive conditions in the provision of NG WLA

- A 8.5 In general, the process of defining the geographic boundaries of markets involves identifying any geographic areas where a distinct break in competitive conditions can be observed. This approach places weight on the underlying structural and behavioural factors that are relevant in determining any competitive differences within a market.
- A 8.6 ComReg has considered the appropriate geographic unit to be employed in undertaking the NG WLA market Phase 2 geographic assessment.
- A 8.7 In forming its preliminary view, ComReg has taken utmost account of the 2020 Recommendation and the BEREC Common Position, as well as having regard to EC comments letters on NRA market analyses. The 2020 Explanatory Note<sup>823</sup> indicates that, when NRAs are examining the geographic scope of a market, they should ensure that the geographic unit of assessment is:
- (a) of an appropriate size;
  - (b) able to reflect the network structure of all relevant SPs; and
  - (c) characterised by clear and stable boundaries over time.
- A 8.8 The BEREC Common Position adds that geographic units should satisfy a number of quantitative criteria, namely that:
- (a) they are mutually exclusive and less than national;
  - (b) the network structure of all relevant SPs and the services sold on the market can be mapped onto the geographic units;
  - (c) they have clear and stable boundaries; and
  - (d) they are small enough for competitive conditions to be unlikely to vary significantly within the unit but, at the same time, large enough that the burden on SPs and NRAs with regard to data delivery and analysis is reasonable.
- A 8.9 Having regard to the above, ComReg's preliminary view is that geographic units should be small enough to avoid significant variations in competitive conditions within each chosen unit, but also large enough to avoid a resource intensive and burdensome micro-analysis that could lead to an unwarranted fragmentation of a market which did not reflect the reality of differing competitive conditions.

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<sup>823</sup> At page 14.



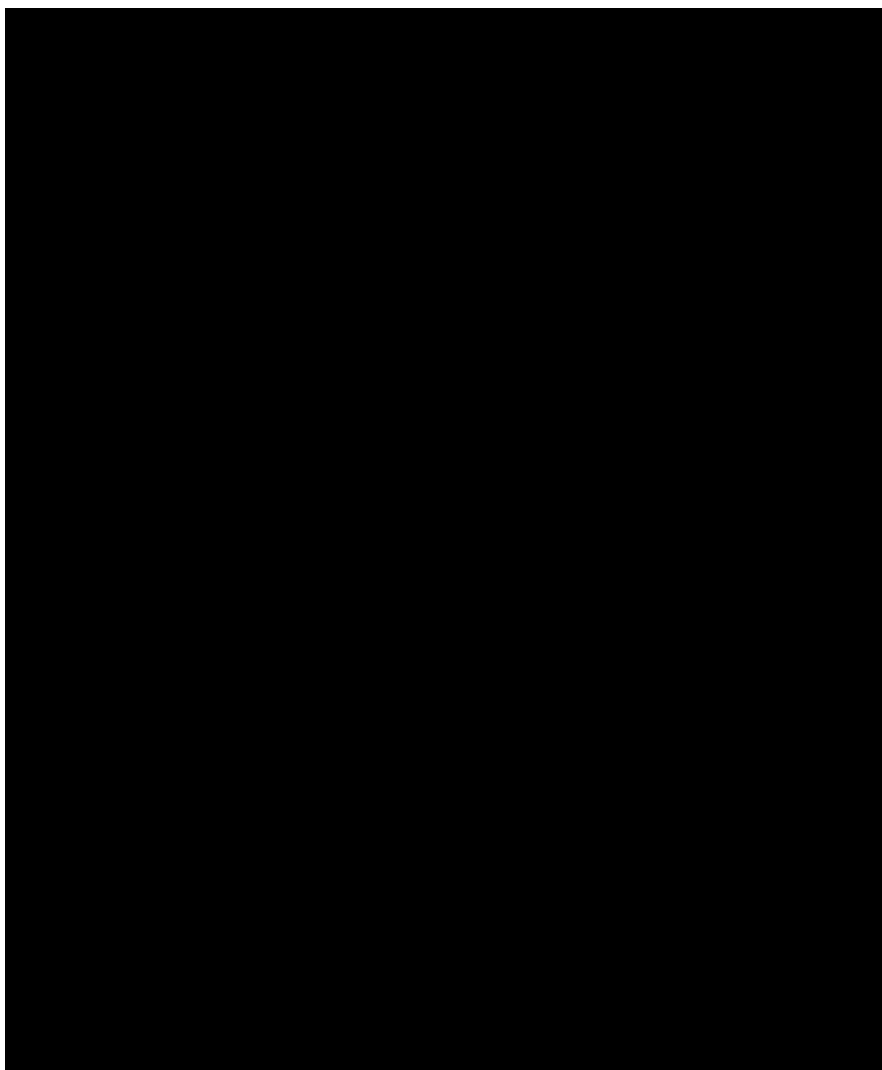
- A 8.10 The boundaries of any geographic unit should also be relatively stable and easily understood by SPs. When applying a network structure that is not familiar to all SPs, sufficient information must be available to all parties who may use the information when considering any future changes to network structure or rollout.
- A 8.11 The network structures of SPs vary. Eircom operates a FTTx network with almost-national (c.87% premises coverage, as of Q2 2022) coverage.<sup>824</sup> Access Seekers using Eircom FTTx inputs accordingly have access to coverage which approximates Eircom's coverage (in those areas where they purchase Eircom VUA). Access Seekers that purchase Eircom VUA can interconnect at the local Eircom Exchange Area ('EA'). However, the presence of other networks complicates the mapping of differing network structures onto one geographic unit (e.g. EA boundaries). This is because other networks have different network topologies which diverge from Eircom's EA based network layout. ComReg is aware, in particular, that SPs rolling out FTTP networks tend to develop rollout plans to optimise network coverage and minimise the amount of fibre rollout required. Furthermore, NBI's coverage footprint is based on serving specified premises which are connected back to a series of network nodes falling within 227 'Deployment Areas' ('DA(s)').<sup>825</sup> The premises can often be non-contiguous and also widely dispersed geographically. Similarly, SIRO's network footprint is delivered using the existing ESB electricity distribution infrastructure. Accordingly, each network takes a differing approach to structuring and aggregation. Nevertheless, ComReg considers that the EA structure is useful, as it is well understood by market participants, even where those participants do not structure their own rollout on the basis of EA contours. Figure A8. below shows the 1,203 Eircom EAs:

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<sup>824</sup> Eir Group Results presentation, Q2 2022, at p.7:  
[https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022\\_2023/eir\\_Q2-22\\_results\\_presentation.pdf](https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022_2023/eir_Q2-22_results_presentation.pdf)

<sup>825</sup> <https://nbi.ie/how-is-the-rollout-determined/>.

Figure A8.1: Eircom Exchange Area boundaries [~~REDACTED~~]



A 8.12 When assessing geographic market boundaries, ComReg notes that some NRAs use administrative units (such as local authority boundaries), rather than telecom network-based geographic units used by SPs.<sup>826</sup> While administrative boundaries are relatively stable over time, in the context of this market review, they do not accurately reflect the network structure of SPs in the Irish market. Accordingly, ComReg's view is that the use of administrative units would lead to an unnecessary administrative burden on SPs, thus causing ComReg to fail to meet the objectives set out at paragraphs A 8.7 and A 8.8 above.

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<sup>826</sup> For example, the Finnish NRA (FICORA) has used administrative units as (incumbent) networks match these areas well. Similarly, the Portuguese NRA (ANACOM), uses parishes as the geographic unit.

### Accounting for coverage of NG broadband networks

- A 8.13 In this sub-section, ComReg explains how it accounts for the presence and competitive impact of NG broadband networks which can supply VUA to Access Seekers. Coverage is referred to in terms of premises passed for a given network, i.e., premises that can be served by that network.
- A 8.14 The networks considered in this analysis are Eircom's FTTC and FTTP networks, SIRO's FTTP network and NBI's FTTP network, (bearing in mind that ComReg proposes not to include Virgin Media FTTP in the Relevant WLA Markets for the reasons given at Section 5 above).
- A 8.15 In respect of each network, Eircode data are available for all of Eircom's FTTP network and circa 75% of Eircom's FTTC network. However, Eircode data are generally unavailable in respect of Eircom's CG copper-only network, and ComReg must therefore, if possible, rely on alternative address data, such as Geocodes or latitude and longitude data. Nevertheless, in certain instances, Eircom has been unable to provide ComReg with accurate geolocations data in respect of premises served by its CG copper network. In such circumstances, ComReg's capacity carry out accurate geographic market assessments is constrained by the accuracy and extent of the data provided to it by operators. Eircode data are available in respect of SIRO's network. In respect of NBI, the vast majority of IA premises have Eircodes. Where an IA premises does not have an Eircode, NBI assigns it a location identifier based on mapping and Geodirectory data.

#### **Eircom FTTx**

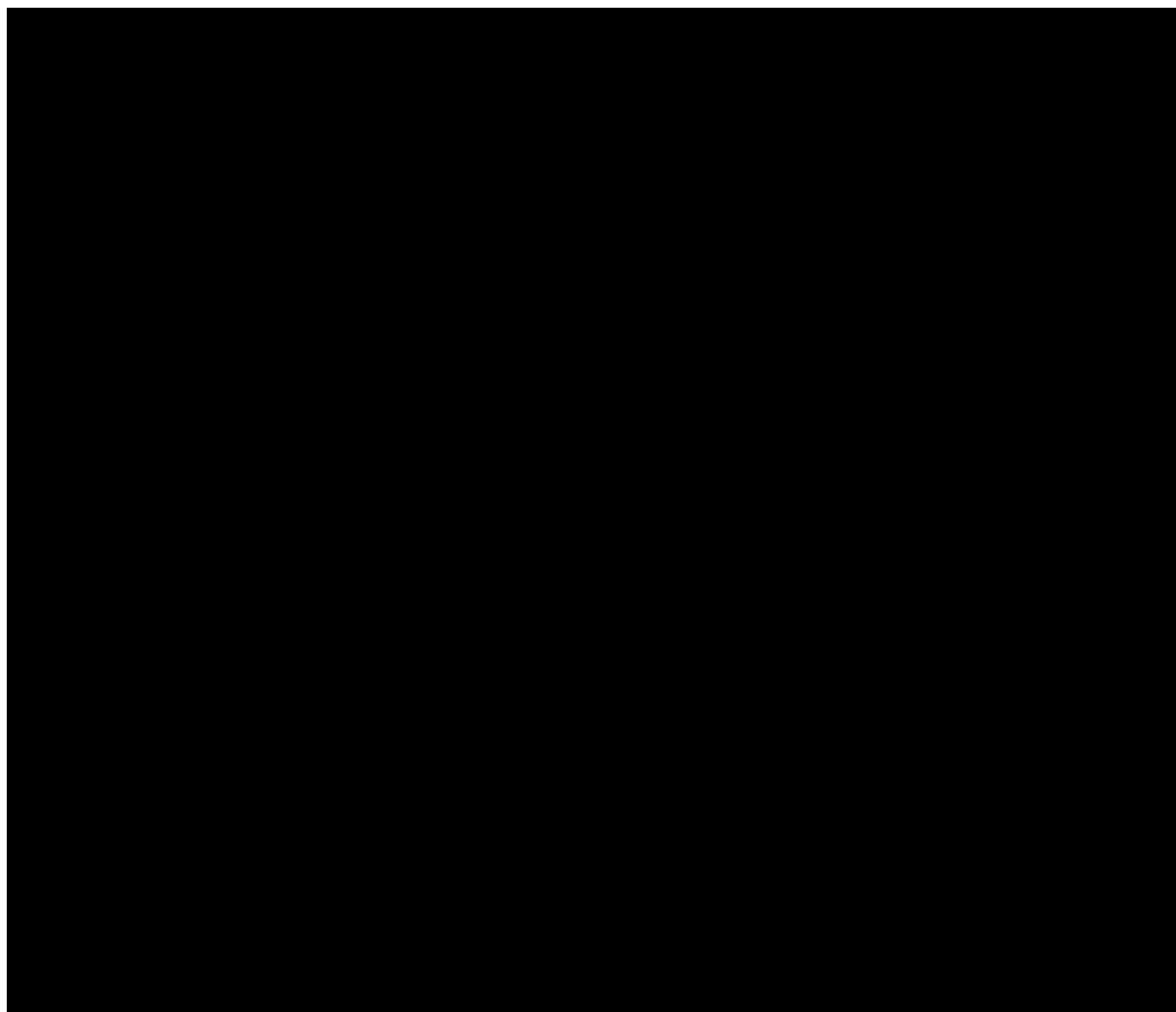
- A 8.16 As set out below, Figure A8.2 illustrates Eircom FTTC coverage, which amounted to 1.2 million premises as of Q2 2022. Eircom FTTC coverage has declined from a peak of 1.6 million premises in Q4 2018,<sup>827</sup> as Eircom commenced overlaying FTTC with FTTP in certain areas in the State. Eircom's FTTC network remains the largest NG broadband network in the State, although the coverage of that network is likely to continue to decline over time as Eircom replaces the copper component in FTTC with fibre, thus transitioning to FTTP. Eircom has stated its intent to pass 1.9 million premises with FTTP by 2026, upgrading 200k-250K premises per year.

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827

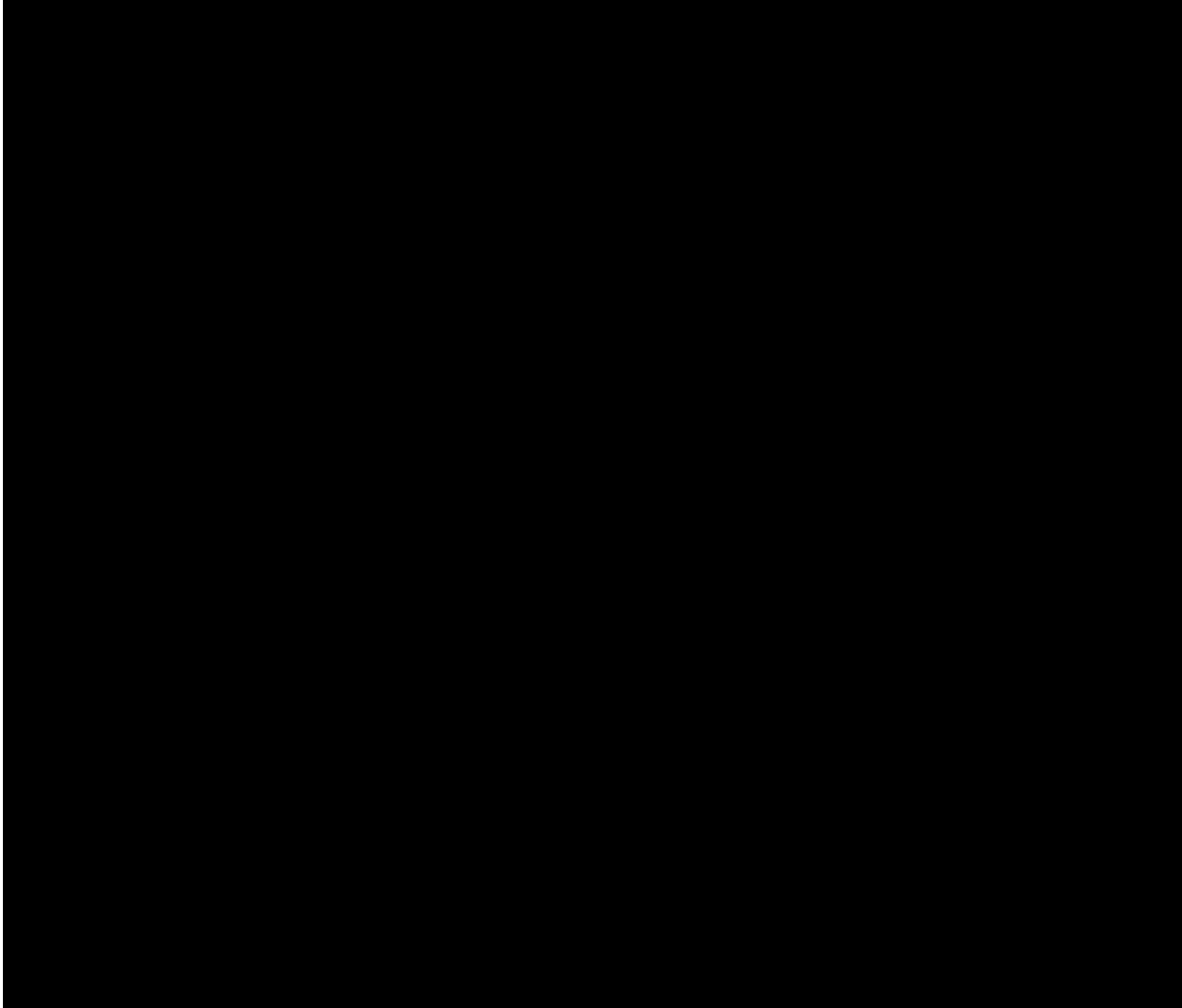
[https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022\\_2023/eir\\_Q6\\_FY21\\_results\\_presentation.pdf](https://www.eir.ie/opencms/export/sites/default/.content/pdf/IR/presentations/2022_2023/eir_Q6_FY21_results_presentation.pdf)

**Figure A8.2: Eircom FTTC (VDSL) coverage, Q2 2022 [~~REDACTED~~]**



A 8.17 Figure A8.3 below illustrates Eircom's FTTP network which covered 864,000 premises, as of Q2 2022 (compared to 263,000 premises in Q4 2018):

Figure A8.3: Eircom FTTP coverage, Q2 2022 [REDACTED]



### **SIRO**

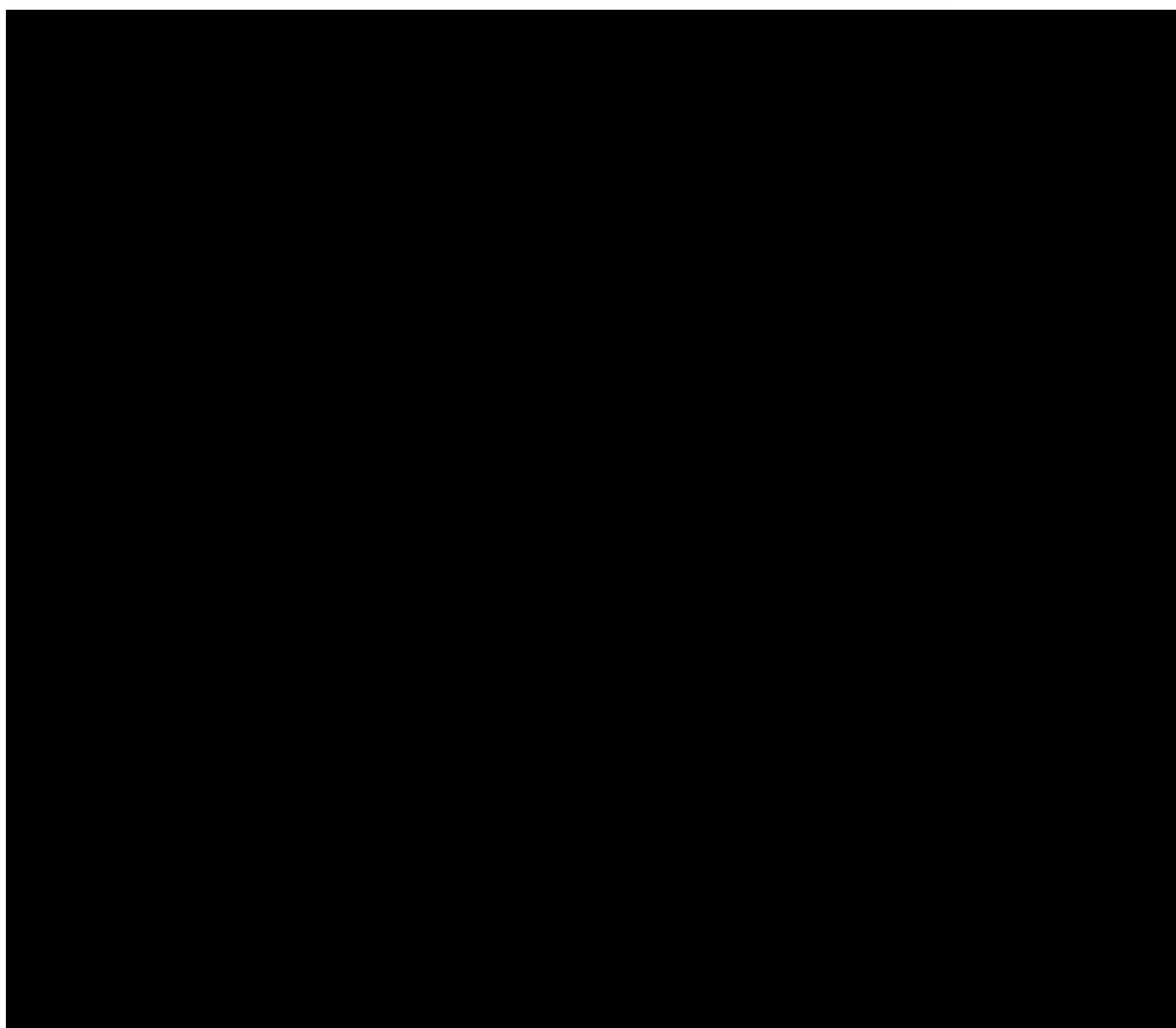
A 8.18 As set out in Section 3, SIRO is in the process of rolling out Phase 2 of its FTTP network in certain locations in the State, and reports that it has passed over 460,000 premises as of November 2022.<sup>828</sup>

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<sup>828</sup> [www.siro.ie](http://www.siro.ie) accessed on 17 November 2022. Data collected by ComReg suggest that the precise number of premises passed by SIRO as of Q2 2022 was [REDACTED].

A 8.19 While SIRO only operates at the wholesale level supplying WLA-based VUA, Vodafone is one of its retail partners (as well as being 50% part-owner of SIRO), while at least 13 other Access Seekers, including Pure Telecom, BT, Digiweb and Sky have signed access agreements with SIRO enabling the provision of wholesale and/or retail services on the basis of SIRO VUA inputs.<sup>829</sup> As shown in Figure A8.4, SIRO has some degree of presence at [REDACTED] EAs at varying levels of premises coverage. Figure A8.4 below maps SIRO's FTTP network:

**Figure A8.4: SIRO FTTP coverage, Q2 2022 [REDACTED]**

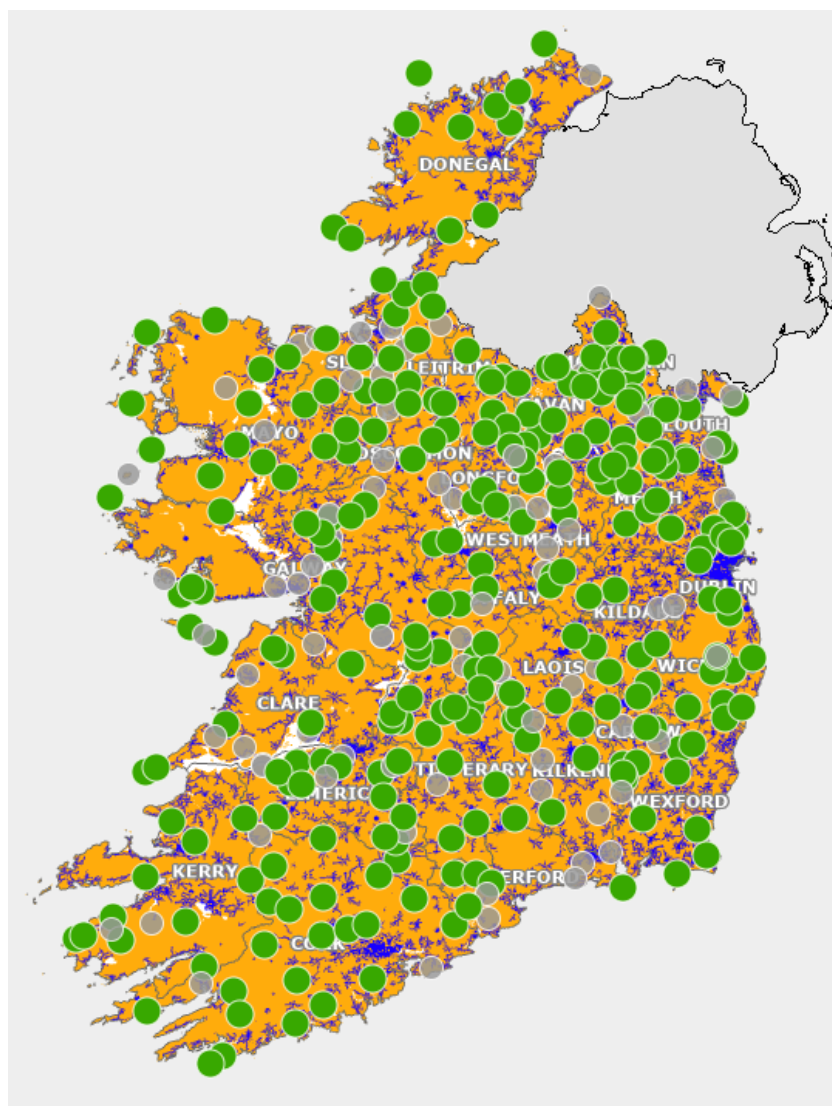


<sup>829</sup> [www.siro.ie](http://www.siro.ie). Accessed on 8 September 2022.

## **NBI**

A 8.20 NBI is obliged under the terms of the NBP Contract to roll NG broadband out to 560,000 delivery points located in the IA. The IA extends to every county in the State, although it is predominantly located in rural areas of lower population and premises density. ComReg's own analysis indicates that 48 EAs contain no IA premises, and that between 1 and 10 premises are in a further 33 IAs. Accordingly, 1,122 EAs have more than 10 IA premises in them. In the map below, the IA is coloured amber and commercial areas are coloured blue.

**Figure A8.5: NBI coverage map on completion<sup>830</sup>**



<sup>830</sup> <https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=99c229dc4c414971afc50818b25337ef>

A 8.21 Table A8.1 below outlines proposed NBI coverage in the IA over a 7-year lifespan. ComReg notes there are 560,000 delivery points in the NBI rollout,<sup>831</sup> with this represented across [X [REDACTED] X] Eircodes. The difference covers situations where there are multiple units at a coordinate (e.g. apartment, office block), or where premises have both business and residential uses (e.g. B&B). As NBI is contracted (and therefore has entered into a binding commitment) to roll out to all of the IA premises by the end of the market review period, ComReg’s preliminary view is that all NBI coverage, current and planned, should be included for the purposes of the geographic market assessment.

**Table A8.1: Premises to be covered by NBI as of Q2 2022 [XREDACTEDX]**

NBP	Premises
Premises passed, Q2 2022	[REDACTED]
2022	[REDACTED]
2023	[REDACTED]
2024	[REDACTED]
2025/2026	[REDACTED]
<b>Total</b>	[REDACTED]

A 8.22 Table A8.2 summarises the coverage of each network as of Q2 2022:

**Table A8.2: NG WLA network coverage as of Q2 2022 [XREDACTEDX]<sup>832</sup>**

	Coverage (premises passed)	% Total premises
<b>Total premises (postal addresses)<sup>833</sup></b>	[REDACTED]	[REDACTED]
Eircom VDSL	[REDACTED]	[REDACTED]
Eircom FTTP <sup>834</sup>	[REDACTED]	[REDACTED]
Eircom FTTx (total coverage accounting for Eircom VDSL/Eircom FTTP overlap)	[REDACTED]	[REDACTED]
SIRO FTTP	[REDACTED]	[REDACTED]
NBI FTTP	[REDACTED]	[REDACTED]

<sup>831</sup> <https://nbi.ie/rollout-plan/> ComReg notes that the NBI rollout is based on ‘Delivery Points’. This figure represents the number of NBI lines. This differs from the number of Eircodes included in the NBP IA (476,491 premises), which is the metric used by ComReg to compare data from different operators.

<sup>832</sup> ComReg QKDR Q2 2022.

<sup>833</sup> The table above uses “Postal Address Star”. This comes from the Eircode database and lists all known addresses by ID per Organisation, their coordinates, their County and whether they are Business, Residential or Mixed (address type).

<sup>834</sup> Eircom FTTC and FTTP networks overlap at 384,279 premises in the State. Accordingly, total Eircom FTTx coverage amounts to 2,203,159 premises nationally.



- A 8.23 On the basis of its analysis, ComReg's preliminary conclusion is that it is not reasonable to define relevant geographic units on the basis of network assets, because these networks do not have ubiquitous national coverage, nor do they sufficiently relate to the network structures of other networks. For example, if the relevant geographic unit were defined on the basis of SIRO's network, substantial parts of the State may be excluded from the analysis. Alternatively, some means of accounting for areas of the State where SIRO is not present would have to be developed. In addition, Access Seekers which purchase VUA from Eircom also follow the Eircom EA topology, which, as was the case in the 2018 Decision, suggests that it is most appropriate to continue use the EA as the relevant geographic unit, bearing in mind that the SIRO and NBI networks can be mapped to EAs by ComReg because premises passed by their networks have Eircodes which can be mapped to EAs.
- A 8.24 By definition, the IA encompasses those premises in the State where it is not deemed commercially viable for SPs to roll out. This, in and of itself, is inherently suggestive of a difference in competitive conditions between those areas where NBI is operating, or planning to operate, and those areas where it is not and where there is commercial rollout. The data provided by both Eircom and SIRO do not suggest any material overlap with the IA.
- A 8.25 Additionally, the geographic structure of the IA means that the EA may not be a suitable unit of assessment. Firstly, the IA is not a single contiguous area, and 'islands' of IA premises which are not connected to the remainder of the IA may be located within a commercial area. Secondly, the IA does not map onto EA boundaries, and an EA may therefore consist of one or more discrete IA locales.
- A 8.26 To address these issues, ComReg proposes the development of a 'Modified EA', being a segmentation of Eircom's EA according to premises within the NBI IA<sup>835</sup> on the one hand and premises in an EA but falling outside the IA on the other.
- A 8.27 ComReg considers this to be a reasonable approach and represents the most appropriate geographic unit of assessment to use, having regard to the data and network rollout specificities outlined above, while at the same time taking account of the BEREC Common Position. That part of an EA falling within the IA is described as the 'IA EA', while that part of an EA falling outside the IA is described as the 'Commercial EA'. Thus, a Modified EA may be either a Commercial IA or an IA EA.

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<sup>835</sup> Including only those premises listed in the Final Decision

A 8.28 The Modified EA is of a size which is appropriate to allow a detailed analysis, yet avoids a burdensome micro-analysis which may not add analytical value. The Modified EAs also have external boundaries which are relatively stable over time and are well understood by SPs who purchase services based on Eircom's broadband networks. ComReg does not allow for the possibility that the internal boundary of a Modified EA (being the Commercial EAs and IA EAs) may change if premises are added to, or removed from, the IA. The data ComReg has obtained from SIRO, NBI and Eircom, where available, also allows ComReg to superimpose these network data on the Modified EA boundaries, to allow for these network data to be taken into account in the analysis.<sup>836</sup> ComReg also notes that the Modified EA reflects the NG WLA market structure as of Q3 2022, and is designed to be forward-looking where reliable data are available to do so. ComReg notes that it may, at the time of the next market review, revisit the appropriate unit of geographic disaggregation, if this is warranted.

### Preliminary Conclusion on Relevant Unit for Geographic Assessment

A 8.29 Having regard to EC and BEREC best practice guidance on the choice of geographic units, and having considered the above factors, including the presence of other networks, ComReg's preliminary view is that the Modified EA is the appropriate unit for geographic market assessment on the NG WLA Market.

### Establishing criteria for assessing difference in competitive conditions

A 8.30 As noted above, the European Commission's *Notice on Market Definition* states that the relevant geographic market is:

*"... an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different."*<sup>837</sup>

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<sup>836</sup> This is particularly the case in circumstances where part of Eircom's FTTC coverage and a large majority of Eircom's CG copper-only coverage can only be identified at EA, rather than premises, level.

<sup>837</sup> European Commission Notice on Market Definition, paragraph 8.

- A 8.31 Having regard to the above analysis and the analysis set out Section 5, ComReg now considers what criteria should be used to assess whether the conditions of competition in Modified EAs are sufficiently homogeneous to warrant inclusion in a single national market, or whether the conditions of competition are appreciably different, such that they can be distinguished from neighbouring Modified EAs and therefore form separate geographic markets. We have already noted above, that given the nature of the NBP IA, it is already suggestive of having appreciably different competitive conditions relative to other areas, and we consider this further below.
- A 8.32 ComReg is of the view that market segmentation based on a single criterion (for example, market share or SP presence) is unlikely to be sufficient. The BEREC Common Position indicates that, although criteria may be closely related, a number of criteria should be adopted when assessing geographic market definition issues. The BEREC Common Position notes that any criteria should be applied cumulatively and in such a way that differences in competitive conditions between different geographic markets are large while competitive conditions within a geographic market are sufficiently similar.
- A 8.33 Having regard to the above, ComReg proposes to set out a range of cumulative criteria, based around the following conditions:
- (a) A minimum number of operators capable of providing NG WLA services within a Modified EA;
  - (b) Individual Network Operator coverage within an EA; and
  - (c) Overlapping Network Operator coverage within an EA.

#### **Minimum Number of Network Operators**

- A 8.34 As noted above, a number of SPs have unbundled a number of Modified EAs to provide retail and/or wholesale services and are availing of VUA at such Modified EAs. A number of these SPs are relatively small in terms of their subscriber base and coverage and do not supply wholesale access products.
- A 8.35 In some cases, these smaller SPs only provide services in a small geographic area. As noted in Section 6, the competitive constraints imposed by such small SPs are, in ComReg's view, not likely to be sufficiently effective.

- A 8.36 In carrying out its assessment of the NG WLA geographic market, ComReg intends to only include those SPs which it includes in the NG WLA product market. These SPs are network operators capable of delivering NG WLA (**'Network Operators'**) which have a significant regional or national presence in the NG WLA market and, in ComReg's preliminary view, are capable of exerting a degree of competitive constraint on other competitors and thereby potentially contributing to differing competitive conditions. ComReg's assessment is also forward looking as it has also taken into consideration the planned network presence and rollout plans of various SPs, where sufficiently reliable deployment data are available.<sup>838</sup>
- A 8.37 Having regard to the above criteria, ComReg considers that the following Network Operators fall for assessment in the Phase 2 NG WLA geographic market assessment:
- (a) Eircom;
  - (b) SIRO; and
  - (c) NBI.
- A 8.38 Each of these Network Operators manages a network which is capable (or which ComReg considers is prospectively capable within a reasonable timeframe and without incurring significant sunk costs) of providing NG WLA (and/or WCA or retail broadband services) using its own network inputs.
- A 8.39 For conditions of competition between geographic areas to be appreciably distinguishable, at least three Network Operators should be present, based on precedents established by Ofcom<sup>839</sup> and the NMa.<sup>840</sup> For example, in its 2014 Review of wholesale broadband markets, Ofcom considered that the presence of two or more competitors at an exchange was sufficient to lead to significant declines in BT's market share. In contrast, exchanges with only one operator in addition to BT were included in the same market as monopoly exchanges, as Ofcom considered the competitive conditions to be sufficiently homogeneous.<sup>841</sup>

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<sup>838</sup> In this regard, ComReg notes that neither Eircom nor SIRO have been able to furnish it with sufficiently reliable network deployment data beyond the very short term.

<sup>839</sup> Ofcom 2018 Wholesale Local Access Market Review: Statement – Volume 1 - Markets, market power determinations and remedies, at p.78: *"In general, the number of firms necessary to generate effective competition will vary from market to market and a case specific assessment needs to be made. Academic studies, competition cases and other market reviews suggest that at least three firms are required for effective competition though, in some cases, four or more may be needed."* Available online at [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0020/112475/wla-statement-vol-1.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0020/112475/wla-statement-vol-1.pdf)

<sup>840</sup> OPTA, 2006, page 10. <http://www.opta.nl/en/news/all-publications/publication/?id=2051>.

<sup>841</sup> Ofcom Review of the Wholesale broadband access markets, Statement, 26 June 2014, paragraphs 4.132 – 4.133 and 4.139 – 4.141. [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0021/57810/WBA-Final-statement.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0021/57810/WBA-Final-statement.pdf)

## Network Operator Presence

A 8.40 Table A8.3 below outlines the national market shares, network coverage and exchange presence of each of the Network Operators identified above.

**Table A8.3: Network Operator Market Shares, Q2 2022**

	National VUA Market Share, absent regulation in the WLA Market	Coverage as % of Total National Premises <sup>842</sup>	Modified EAs where NO is present or planning presence
<b>Eircom (FTTx)</b>	61%	96%	2,292
<b>NBI</b>	4%	3%	1,155
<b>SIRO</b>	35%	19%	244

**Note:** Market share data are based on SP subscription figures, absent regulation in the WLA market. This assumes that only those SPs with an independent network (i.e., self-supply) or SPs using upstream inputs from the PIA market can provide services.

These figures assume that subscribers of Eircom's wholesale WLA purchasers revert to being Eircom customers, absent regulation in the WLA Market but assuming proposed regulation of the upstream PIA market. This assumes Eircom will withdraw its wholesale supply of VUA.

A 8.41 It is ComReg's view that, absent regulation in the NG WLA market, only those Network Operators providing services in a Commercial EA or IA EA at a sufficient level of appreciability are likely to impose a degree of competitive constraint within that geographic area, such that conditions of competition might appreciably differ. ComReg is of the preliminary view that a minimum number of Network Operators must be present (or have a planned presence with a reasonable level of certainty) in a geographic area, such that conditions of competition appreciably differ.

A 8.42 The BEREC Common Position<sup>843</sup> notes that a criterion based on the number of operators present in an area has an advantage over other potential criteria, in that it is easily observable. ComReg also notes that the competitive conditions in an area may not only differ according to the number of operators present, but that differences may arise from the relative size of Network Operators.

<sup>842</sup> Measured as a percentage of premises passed by the relevant network.

<sup>843</sup> At page 25.

A 8.43 ComReg is of the preliminary view that a minimum of three Network Operators should be present (or reasonably forecast to be present) and providing NG WLA, absent regulation in the WLA market, for a Modified EA to be considered as potentially having sufficiently different competitive conditions relative to other Modified EAs. ComReg proposes to assign Eircom, SIRO and NBI as Network Operators on the basis of data available to it as of October 2022. However, ComReg also allows for the possibility of designating additional Network Operators, should there be grounds to do so. In particular, were Virgin Media to commence provision of a WLA service over FTTP, or to provide sufficiently reliable plans in respect of its intentions do so, ComReg would reassess whether it was appropriate to additionally designate Virgin Media as a Network Operator.

### Individual Network Operator Coverage

A 8.44 Conditions of competition between Modified EAs may also be considered to be 'sufficiently different' where there are sufficient differences in individual NO coverage levels between Modified EAs. ComReg considers that materially differing NO coverage between Modified EAs is a useful indicator of differing competitive conditions across EAs, with this also reflecting the extent to which a NO can supply NG WLA.

A 8.45 However, examining the coverage of the largest Network Operator, in the absence of an analysis of the size and scale of competitor NOs is not likely to be sufficient, and the Phase 2 assessment criteria should also consider the size and strength of competitors in a Modified EA. ComReg is of the preliminary view that, for a NO to contribute to differing competitive conditions it must have a minimum presence in an EA, such that Access Seekers (and potential subscribers) view it as a sufficiently viable alternative supplier in any potential switching decision.

A 8.46 In setting a minimum coverage level for NOs, ComReg is seeking to ensure that a sufficient degree of competition exists – or is likely to exist within a reasonable timeframe, with a reasonable degree of certainty - within a Modified EA to be suggestive of potentially differing competitive conditions. In this regard, BEREC research<sup>844</sup> indicates that the number of competitors with an individual infrastructure coverage above a certain threshold was the most commonly-used criterion by NRAs in determining whether it was appropriate to define sub-national geographic markets in the provision of WLA. ComReg's proposal is therefore consistent with NRA practice in assessing WLA geographic markets.

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<sup>844</sup> BEREC Report on the application of the Common Position on geographic aspects of market analysis, BoR (18) 213, at Table 9.

A 8.47 ComReg's market definition exercise is required to be forward-looking. Therefore, it is important to consider how, based on the availability of reliable and accurate evidence, NO coverage might evolve over the period of the market review and whether any observed variations in current or historic coverage levels are likely to increase or remain relatively stable. In this regard, ComReg must consider whether each NO's coverage share within a Modified EA might change sufficiently over the review period, such that it changes conditions of competition.

### Overlapping Network Operator Coverage

A 8.48 For a NO providing NG WLA to contribute to geographic differences in conditions of competition at an EA, it must have a network that has a minimum level of overlap with other NOs at that Modified EA, such that Access Seekers are capable of purchasing VUA inputs from alternative Network Operators at a particular premises which they serve.

A 8.49 ComReg's assessment of network coverage is undertaken on a forward-looking basis, based on information supplied by SPs.

### Preliminary conclusions on Phase 2 assessment criteria

A 8.50 Having regard to the above analysis, ComReg of the preliminary view that the following criteria should be applied in assessing the geographic scope of the Relevant WLA Markets:

- (a) A minimum of three Network Operators ('**NO(s)**') must be actually present, or reasonably forecast to be present at the Modified EA within the lifetime of the market review period. "Reasonably forecast to be present" means that an SP has provided ComReg with reliable and accurate data on the specific premises which it will pass with a high degree of forecast reliability.
- (b) At least three NOs are present, or reasonably forecast to be present, at a Modified EA, with each NO having individual network coverage of at least 60%.
- (c) At least 50% of premises in a Modified EA must be passed by at least three Network Operators.

A 8.51 Criterion 3 passes if at least 50% of premises in a Modified EA are overlapped by at least three NOs.

## Analysis of Geographic Criteria

A 8.52 Table A8.4 below provides a breakdown of the number of Modified EAs by the number of NOs providing services within each Modified EA. From Table A8.4, it is clear that a number of NOs have, at least to some extent, invested in network build to provide services in the WLA market at a number of EAs. This information indicates that Eircom likely faces greater existing and potential competition in a number of Commercial EAs arising from the presence of SPs capable of generating effective direct or indirect constraints, but that Eircom has limited presence compared to NBI in a large number of IA EAs (and is thus suggestive of sufficiently differing competitive conditions across certain EAs).

**Table A8.4: Number of Network Operators by Number of Modified EAs and Premises Covered Q2 2022**

Number of Operators	Number of Commercial EAs	Number of IA EAs	Premises
0	12	0	462
1	1,000	32	945,300
2	144	1,026	1,287,678
3	0	97	55,050

A 8.53 ComReg has sought to establish the extent of coverage of the NBI and SIRO networks. As noted above, SIRO has recently announced plans to commence Phase 2 of its network rollout. While ComReg has included the current SIRO network rollout in its analysis, it has limited coverage on both the Commercial NG WLA Market and the IA NG WLA Market. As set out in Table A8.5 below, the SIRO network, as of October 2022, has passed over 460,000 premises, suggesting a national coverage level of 19% of premises (24% in the Commercial Market and 1% coverage in the IA Market). By the end of Phase 2 SIRO intends to have passed 770,000 premises in 154 towns.<sup>845</sup>

<sup>845</sup> <https://siro.ie/about-us/> accessed on 18 May 2022.



Table A8.5: SIRO Rollout to date [REDACTED]<sup>846</sup>

Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

A 8.54 Table A8.6 depicts NBI network rollout. As of November 2022, it has passed 91,378 premises.<sup>847</sup> NBI is contracted to roll out to 560,000 premises by 2026/7.

Table A8.6: NBI FTTP rollout to date<sup>848</sup> [REDACTED]

Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

### Preliminary Conclusion on Analysis of Proposed Criteria

A 8.55 Having regard the above analysis, ComReg proposes the following cumulative criteria to be applied to Modified EAs in assessing whether there are differences in competitive conditions between those Modified EAs. ComReg's preliminary view of the cumulative criteria required for this assessment is as follows:

- (a) **Criterion 1:** A minimum of three Network Operators must be actually present, or reasonably forecast to be present at the Modified EA within the lifetime of the market review period. "Reasonably forecast to be present" means that a Network Operator has provided ComReg with data on the specific premises which it will pass with a high degree of forecast reliability. "Modified EA" means that part of an EA in the IA (the 'IA EA'), or outside the IA (the 'Commercial EA'), as appropriate; and
- (a) **Criterion 2:** At least three Network Operators present, or reasonably forecast to be present, at a Modified EA must have individual network coverage of at least 60%. "Network coverage" means existing coverage and accurate and reliable forecast coverage, measured by the number of premises passed, or reasonably forecast to be passed, by Network Operators as a percentage of all relevant premises in the Modified EA. "Premises" means an address point recorded on the Eircode database;<sup>849</sup> and

<sup>846</sup> SIRO's rollout plan as of May 2022 indicates that it intends to rollout network to 154 towns by completion of Phase 2. The rollout plans indicate that SIRO intends to rollout of its FTTP network in each location over a number of months (typically 9-12 months) with the rollout underway in several locations at any one point in time.

<sup>847</sup> [www.nbi.ie](http://www.nbi.ie) accessed on 17 November 2022. Data accurate as of 4 November 2022.

<sup>848</sup> Measured by delivery points.

<sup>849</sup> For the purposes of this Consultation, data from the Eircode database are accurate as of Q2 2022. ComReg will update these data in advance of the publication of the final Decision.

- (b) **Criterion 3:** At least 50% of premises in a Modified EA must be passed by at least three Network Operators. Criterion 3 passes if 50% of premises are overlapped by at least 3 Network Operators. Overlapping coverage means existing coverage or reasonably forecast coverage, measured by the number of premises passed, or reasonably forecast to be passed, by more than one Network Operator as a percentage of all premises in the Modified EA.

A 8.56 Table A8.7 and Table A8.8 show the level of coverage of each Network Operator in terms of NG broadband which is capable of delivering VUA. For each Network Operator, ComReg looks at its presence at the Modified EA and the extent of NG broadband availability within the Modified EA. The SIRO network, as of October 2022, has passed over 460,000 premises and, according to Q2 2022 data, is present in [REDACTED] Modified EAs, with total network coverage of [REDACTED] across total premises in these EAs:

**Table A8.7: SIRO Network Coverage by Modified EA Q2 2022**  
[REDACTED]

SIRO Network Coverage	< 25%	25-49%	50-75%	>75%
Number of Commercial EAs	[REDACTED] <sup>850</sup>	[REDACTED] <sup>851</sup>	[REDACTED] <sup>852</sup>	[REDACTED] <sup>853</sup>
Number of IA EAs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

A 8.57 The Eircom FTTx network, as of Q2 2022, passes 2 million premises and is present in [REDACTED] Modified EAs, with total network coverage of [REDACTED] across total premises in these EAs:

**Table A8.8: Eircom Network Coverage by Modified EA Q2 2022**  
[REDACTED]

Eircom Network Coverage	< 25%	25-49%	50-75%	>75%
Number of Commercial EAs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Number of IA EAs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

A 8.58 As of Q2 2022, NBI's FTTP network passes 67,153 premises,<sup>854</sup> and is due to pass 476,491 premises on completion of rollout. ComReg intends to take account of NBI's full rollout for the purposes of its geographic market assessment. NBI is due to be present at [REDACTED] Modified EAs, with total network coverage of 100% across total premises in these EAs.

<sup>850</sup> Less than 40.

<sup>851</sup> Less than 30.

<sup>852</sup> Less than 50.

<sup>853</sup> Less than 15.

<sup>854</sup> In November 2022 NBI had passed some 91,378 premises.

- A 8.59 For the purposes of the geographic market assessment, in applying the NG WLA coverage criterion, as outlined at paragraph A 8.52, coverage is determined as the number of premises passed, or reasonably forecast to be passed, by NOs as a percentage of all premises in the Modified EA.
- A 8.60 Having regard to the above analysis, ComReg applies the assessment criteria to the Modified EAs to determine to whether there are sufficient differences in competitive conditions between Modified EAs, which are set out at paragraph A 8.52 above.

## Assessment of Differences in Competitive Conditions in the NG WLA Market using the Geographic Criteria

- A 8.61 ComReg takes the Modified EA, consisting of Commercial EAs and IA EAs, as the basis for its assessment, overlaying Eircom's FTTC and FTTP networks, NBI's FTTP network and SIRO's FTTP network coverage (and reasonably forecast network coverage). Using this information, ComReg applies the criteria set out in paragraph A 8.55 above to each Modified EA in the State. The results of this analysis are set out below.
- A 8.62 When looking at NG broadband coverage capable of delivering NG WLA, ComReg looks at the number of unique premises with NG broadband availability, bearing mind some level of NO overlap at premises. This allows ComReg to avoid inadvertently double counting a premises which is passed by more than one NO. Table A8.9 shows the overlap between the NG broadband networks that provide wholesale access to Access Seeker SPs.

**Table A8.9: Overlap of NG broadband networks Q2 2022 [REDACTED]**

Network	Total premises passed	Overlaps with		
		Eircom FTTx	SIRO	NBI
Eircom FTTx	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SIRO	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NBI	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

A 8.63 The data set out at Table A8.10 below suggest that there are likely to be differing competitive conditions across geographic areas – as evidenced from differences in NG broadband presence, coverage levels, and overlaps. In particular, conditions of competition vary between areas where NBI is (or is likely to be with a high degree of reliability) present, and areas where Eircom or SIRO are present. There are also variations in the number of Network Operators present; in the IA NG WLA Market (1155 IA EAs), 3 NOs are present at 97 IA EAs, 2 NOs are present at 1026 IA EAs, and only 1 NOs is present at 32 IA EAs. Conversely, in the Commercial NG WLA Market (1156 Commercial EAs), 2 NOs are present at 144 Commercial EAs, only 1 NO is present at 1000 Commercial EAs, and none is present in 12 Commercial EAs.

A 8.64 As shown in the table below, the Commercial NG WLA Market includes 79% of premises and 92% of retail broadband lines delivered using VUA inputs.

**Table A8.10: Differences in competitive conditions by EA, applying assessment criteria, Q2 2022**

NG Market	WLA	Modified EAs	Premises	% Total premises	Total NG WLA lines	% Total NG WLA lines
Commercial		1,156	1,812,201	79%	346,148	92%
IA		1,155	476,289	21%	30,110	8%
<b>Total</b>		<b>2,311</b>	<b>2,288,490</b>	<b>100%</b>	<b>468,721</b>	<b>100%</b>

A 8.65 Table A8.11 below outlines the NO presence in each of the Commercial NG WLA Market and the IA NG WLA Market, the former under regulation and the latter absent regulation. Presence is based on current (Q2 2022) VUA lines by SP. Eircom's presence is heavily concentrated in the Commercial NG WLA Market as it has very limited presence in the IA.

**Table A8.11: NG WLA Market and breakdown of NG broadband networks, Q2 2022 [REDACTED]**

NG Market	WLA	Modified EAs	Premises in IA	SIRO FTTP premises	Eircom FTTx premises	NBI FTTP premises
Commercial		1,156	1,812,201	[REDACTED]	[REDACTED]	[REDACTED]
IA		1,155	476,289	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>		<b>2,311</b>	<b>2,288,490</b>	[REDACTED]	[REDACTED]	[REDACTED]

A 8.66 The list of EA codes that fall into each of Relevant NG WLA Markets are set out in Annex 9 below.

## Premises without NG broadband in the Commercial NG WLA Market

- A 8.67 Within the 1156 Commercial EAs that form the Commercial NG WLA Market, there may be some premises that do not currently have NG broadband coverage, as Criterion 2 requires that each Network Operator must have at least 60% coverage. This implies that a maximum of 40% of premises of EAs in the Commercial NG WLA Market would not have NG broadband coverage (in the hypothetical scenario where Eircom and SIRO all had 60% coverage, which overlapped perfectly). In some cases, Network Operators in some Commercial EAs in densely populated urban areas may have close to 100% coverage.
- A 8.68 As some Commercial EAs may not have full (i.e., 100%) NG broadband coverage, this means that some premises may not be served by NG broadband capable of delivering NG WLA until NG broadband becomes available in the future. The extent of these premises is shown in Table A8.12. ComReg estimates this to be a maximum of 26,151 premises in the Commercial NG WLA Market, and 0 premises in the IA NG WLA Market,<sup>855</sup> as set out at Table A8.12 below.
- A 8.69 Table A8.12 shows the distribution of NG broadband coverage for the Commercial EAs in the Commercial NG WLA Market, with a small number having less than 60% coverage and a higher number of densely populated EAs having near 100% coverage. For example, 23 EAs have less than 60% NG broadband coverage, with a total of 5,330 premises in these EAs, and accordingly, 3,894 without NG broadband availability. In the EAs with 91 – 100% coverage, encompassing 1,095 EAs and 1,707,127 premises, only 4,841 premises are without NG broadband availability.

**Table A8.12: Distribution of NG broadband coverage in the Commercial NG WLA market, Q2 2022<sup>856</sup> [REDACTED]**

Distribution of >60% coverage among Commercial EAs	No. of EAs	Total premises in EAs	No. of Premises in EAs not having NG broadband coverage
<60%	■	■	■
61% to 70%	■	■	■
71% to 80%	■	■	■
81% to 90%	■	■	■
91% to 100%	■	■	■
<b>Total</b>	<b>1,156</b>	<b>1,812,201</b>	<b>26,151</b>

<sup>855</sup> On a forward-looking basis, all or the vast majority of premises in the IA not currently served by NG broadband should be passed by NBI FTTP over the scheduled lifetime of its rollout period.

<sup>856</sup> Measures the percentage of premises passed in an EA, taking into account any potential overlapping of networks.

- A 8.70 ComReg notes that the rollout figures used in the Commercial Market, being those areas where NBI is not, or will not be, present, largely only takes into account current rollout as planned specific rollout data from SIRO and Eircom are unavailable. Due to the nature of the IA NG WLA Market, which accounts for the entire footprint of the current, and planned, NBI network, it is ComReg's preliminary conclusion that, unlike the Commercial NG WLA Market, this market will have NG broadband availability throughout.
- A 8.71 Using the inputs described above, ComReg applied the assessment criteria in paragraph A 8.52 above to each Modified EA in the State.

**Table A8.13: Application of Criteria for Assessing Competitive Conditions by Geographic Area Q2 2022**

	Modified EAs	Premises
<b>Commercial NG WLA Market: EAs meeting Criteria 1-3</b>	<b>0</b>	<b>0</b>
<b>Commercial NG WLA Market: EAs not meeting Criteria 1-3</b>	<b>1156</b>	<b>1,812,201</b>
<b>IA NG WLA Market: EAs meeting Criteria 1-3</b>	<b>2</b>	<b>90</b>
<b>IA NG WLA Market: EAs not meeting Criteria 1-3</b>	<b>1153</b>	<b>476,199</b>

- A 8.72 In practice, and as of Q2 2022, no Commercial EA passes Criteria 1 to 3. Similarly, only two IA EAs (DOM IA and TOG IA) pass Criteria 1 to 3. However, the overall size of these IA EAs is trivial. DOM IA consists of 1 premises (compared to 2,581 DOM COM premises), while TOG IA consists of 89 premises (compared to 391 TOG COM premises). Therefore, a total of 90 premises in the State pass Criteria 1 to 3, amounting to less than 0.01% of all premises in the State. Bearing in mind that over 99.99% of premises in the State fail one or more of Criteria 1 to 3, ComReg considers that there are insufficient grounds, as of Q3 2022, to define a separate geographic market consisting of IA EAs passing Criteria 1 to 3, given the small number of premises involved. ComReg will continue to keep this figure under review and allows for the possibility of defining additional geographic markets in future where additional network rollout causes more Modified EAs to pass all three criteria.
- A 8.73 Based on its assessment, ComReg therefore proposes to group Modified EAs into two areas:
- (a) The **Commercial NG WLA Market**: Commercial Exchange Areas where Criteria 1 to 3 have not been met; and
  - (b) The **IA NG WLA Market**: IA Exchange Areas where Criteria 1 to 3 have not been met.
- A 8.74 The Modified EAs that fall into each of these two proposed geographic markets are set out at Annex 9 of this Consultation.

## Overall Preliminary Conclusion on WLA Geographic Market Assessment

A 8.75 Having regard to the analysis above, ComReg's overall preliminary conclusion is that there are likely to be two separate Relevant NG WLA Markets, encompassing two geographic markets:

- (a) The **Commercial NG WLA Market**, being those 1,156 Commercial EAs where the assessment criteria have not been cumulatively met; and
- (b) The **IA NG WLA Market**, being those 1,155 IA EAs where the assessment criteria have not been cumulatively met.

## Annex 9: Boundaries of the Commercial NG WLA Market and the IA NG WLA Market

- A 9.1 In Annex 8 ComReg set out its proposed approach to geographic market definition in the Relevant NG WLA Markets. Based on ComReg's assessment in Annex 8, it is proposed to group EAs into two areas:
- (a) The Commercial NG WLA Market, consisting of those Commercial EAs which fail one or more of the assessment criteria; and
  - (b) The IA NG WLA Market, consisting of those IA EAs which fail one or more of the assessment criteria.
- A 9.2 The boundaries of the IA NG WLA Market are published alongside this Consultation in ComReg Document 23/03c. Any premises not included in the IA NG WLA Market are therefore deemed to fall into the Commercial NG WLA Market.



# Annex 10: Optical Distribution Network (ODN) Sharing – Report for ComReg by Analysys Mason

A 10.1 The Optical Distribution Network (**ODN**) Sharing: Report drafted by Analysys Mason for ComReg is published alongside this Consultation in ComReg Document 23/03d.

## Annex 11: Oxera Price Control Reports

A 11.1 The Reports drafted by Oxera for ComReg are published alongside this Consultation in ComReg Document 23/03e. ComReg has asked Oxera to produce a report outlining the options for wholesale price controls and *ex ante* MSTs on services where Eircom has been found to have SMP.

## Annex 12: Glossary of Terms

Acronym	Full Title
3CT	Three Criteria Test
ADSL	Asymmetric Digital Subscriber Line
ARO	Access Reference Offer
BECS	Bitstream Ethernet Connection Services
BEREC	Body of European Regulators for Electronic Communications
BMB	Bitstream Managed Backhaul
BU-LRAIC	Bottom Up-Long Run Average Incremental Cost
CA	Carrier Access
CAM	Copper Access Model
CATI	Computer Aided Telephone Interview
CATV	Cable Television Network
CBP	Countervailing Buyer Power
CCPC	Competition and Consumer Protection Commission
CDR	Customer Data Records
CEI	Civil Engineering Infrastructure
CG	Current Generation
CGA	Current Generation Access
CID	EU Civil Infrastructure Directive
CLFMP	Copper Loop Frequency Management Plan
CLT	Critical Loss Test

CoS	Class of Service
CPE	Customer Premises Equipment
CSH	Customer-Sited Handover
CVDSL	Cabinet based VDSL
DOCSIS	Data Over Cable Service Interface Specification
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexers
DUG	Direct Underground
EA	Exchange Area
EC	European Commission
ECN	Electronic Communications Networks
ECS	Electronic Communications Services
EEO	Equally Efficient Operator
EFM	Ethernet First Mile
ENH	Edge Node Handover
EoI	Equivalence of Inputs
EoO	Equivalence of Outputs
EU	European Union
EVDSL	Exchange-based VDSL
FACO	Fixed Access and Call Origination
FHS	Fault Handling System
FL LRAIC+	Forward-Looking Long Run Average Incremental Cost plus

FLU	Fibre Loop Unbundling
FNA	Fixed Narrowband Access
FSP	Fixed Service Provider
FTTC	Fibre to the Cabinet
FTTH	Fibre to the Home
FTTP	Fibre to the Premises
FVCT	Fixed Voice Call Termination
FWA	Fixed Wireless Access
GAP	Geographically Averaged Pricing
GLUMP	GNP and ULMP
GNP	Geographic Number Portability
GPON	Gigabit Passive Optical Networking
HCA	Historical Cost Accounts
HM	Hypothetical Monopolist
HMT	Hypothetical Monopolist Test
IA	Intervention Area
IBH	In Building Handover
ICT	Information and Communications Technology
IN	Intelligent Network
IP	Internet Protocol
IPM	Industry Process Manual
IPTV	Internet Protocol Television

ISDN	Integrated Services Digital Network
ISDN BRA	ISDN Basic Rate Access
ISDN FRA	ISDN Fractional Rate Access
ISDN PRA	ISDN Primary Rate Access
ISH	In-Span Handover
ISP	Internet Service Provider
KPI	Key Performance Indicator
LL	Leased Line
LLU	Local Loop Unbundling
LS	Line Share
LV-CPER	Low-Value Customer Premises Equipment Rental
MDF	Main Distribution Frame
MGA	Modified Greenfield Approach
MNO	Mobile Network Operator
MOV	Multi-Operator Vectoring
MPoP	Metropolitan Point of Presence
MSP	Mobile Service Provider(s)
MTS	Mobile Telephony Service(s)
MVCT	Mobile Voice Call Termination
MVNO	Mobile Virtual Network Operator
NBI	National Broadband Ireland
NBP	National Broadband Plan

NDA	Non-Disclosure Agreement
NEH	Near-End Handover
NG	Next Generation
NGA	Next Generation Access
NRA	National Regulatory Authority
NRT	Net Revenue Test
NTC	Number Translation Code(s)
NTP	Network Termination Point
NTU	Network Termination Unit
OAO	Other Authorised Operator
ODF	Optical Distribution Frame
ONT	Optical Network Terminal
OSS	Operational Support Systems
OTT	Over the Top
PABX	Private Automated Branch Exchange
PAC	Payphone Access Charge
PAR	Passive Access Records
PoH	Point of Handover
Pol	Point of Interconnection
PoP	Point of Presence
PRA	Primary Rate Access
PRS	Premium Rate Service(s)

PSTN	Public Switched Telephone Network
QKDR	Quarterly Key Data Report
QoS	Quality of Service
RFO	Ready for Order
RFTS	Retail Fixed Telephony Service(s)
RFVA	Retail Fixed Voice Access
RFVC	Retail Fixed Voice Call(s)
RGM	Regulatory Governance Model
RIA	Regulatory Impact Assessment
RIO	Reference Interconnect Offer
RSPG	Radio Spectrum Policy Group
RSU	Remote Subscriber Unit
SAB	Standalone Bitstream
SAB	Service Access Bandwidth
SABB	Standalone Broadband
SB-WLR	Single Billing-Wholesale Line Rental
SDSL	Symmetric Digital Subscriber Line
SEO	Similarly Efficient Operator
SIP	Session Internet Protocol
SIR	Statutory Information Requirement
SLA	Service Level Agreement
SLU	Sub-Loop Unbundling



SME	Small to Medium Enterprise
SMP	Significant Market Power
SoC	Statement of Compliance
SP	Service Provider
SSNIP	Small but Significant Non-transitory Increase in Price
STRPL	Switched Transit and Routing Price List
SV	Switchless Voice
TD LRAIC+	Top-Down Long Run Average Incremental Cost plus
TDM	Time-Division Multiplexing
TFEU	Treaty on the Functioning of the European Union
TWDM GPON	Time Wavelength Division Multiplexing GPON
UG	Unified Gateway
ULMP	Unbundled Local Metallic Path
USO	Universal Service Obligations
VDSL	Very-high-bit-rate Digital Subscriber Line
VEA	VDSL Ethernet Access
VoB	Voice over Broadband
VoD	Video on Demand
VoIP	Voice over Internet Protocol
VUA	Virtual Unbundled Access
VULA	Virtual Unbundled Local Access
WACC	Weighted Average Cost of Capital

WBARO	Wholesale Bitstream Access Reference Offer
WCA	Wholesale Central Access
WDM	Wavelength Division Multiplexing
WEIL	Wholesale Ethernet Interconnection Links
WHQA	Wholesale High Quality Access
WLA	Wholesale Local Access
xDSL	Digital Subscriber Line broadband technology

## Annex 13: Consultation Questions

### Question 1:

Do you agree that the main developments identified in the provision of retail broadband are those which are most relevant in informing the assessment of the Relevant Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual/empirical evidence supporting your views.

### Question 2:

Do you agree with ComReg's proposed definition of the Relevant Retail Broadband Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

### Question 3:

Do you agree with ComReg's product market assessment for the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

### Question 4:

Do you agree with ComReg's geographic market assessment for the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

### Question 5:

Do you agree with ComReg's assessment of SMP on the Relevant WLA Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

### Question 6:

Do you agree with ComReg's market assessment for the Modified Retail Broadband Market, absent WCA regulation? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Question 7:**

Do you agree that the competition problems and the associated impacts on competition end users identified are those that could potentially arise in the Commercial NG WLA Market (and related markets)? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Question 8:**

Do you agree with ComReg's proposals in respect of remedies in the Commercial NG WLA Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Question 9:**

Do you agree with ComReg's proposals on the withdrawal of SMP remedies on the CG WLA Market, the IA NG WLA Market, and the Revised Regional WCA Market? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Question 10:**

Do you agree with ComReg's proposals on the Regulatory Impact Assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.