EUROPEAN COMMISSION

Brussels, 18.6.2014
C(2014) 4229 final

Office of Communications (Ofcom)

Riverside House - 2a Southwark
Bridge Road
SE1 9HA London
United Kingdom

For the attention of:
Mr Ed Richards
Chief Executive Officer

Fax: +44 20 7981 3504

Dear Mr Richards,

Subject: Commission Decision concerning Case UK/2014/1607: Fixed narrowband wholesale services in the United Kingdom; fixed narrowband retail services in the Hull Area; and retail ISDN2 exchange line services in the United Kingdom excluding the Hull Area.

Comments pursuant to Article 7(3) of Directive 2002/21/EC

I. PROCEDURE

On 19 May 2014, the Commission registered a notification from the United Kingdom national regulatory authority Office of Communications (Ofcom)[1], concerning the wholesale markets for fixed analogue exchange lines, ISDN30 and ISDN2 exchange line services in the United Kingdom, and the retail markets for fixed analogue exchange lines, ISDN2 and ISDN30 exchange line services in the Hull Area, as well as retail ISDN2 exchange line services in the United Kingdom excluding the Hull Area.

The national consultation[2] ran from 16 January 2014 to 17 February 2014.

On 27 May 2014, a request for information[3] was sent to OFCOM and a response was received on 2 June 2014.

Pursuant to Article 7(3) of the Framework Directive, national regulatory authorities (NRAs), the Body of European Regulators for Electronic Communications (BEREC) and the Commission may make comments on notified draft measures to the NRA concerned.

1 Under Article 7 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108, 24.4.2002, p. 33, as amended by Directive 2009/140/EC, OJ L 337, 18.12.2009, p. 37, and Regulation (EC) No 544/2009, OJ L 167, 29.6.2009, p. 12.

2 In accordance with Article 6 of the Framework Directive.

3 In accordance with Article 5(2) of the Framework Directive.

II. DESCRIPTION OF THE DRAFT MEASURE

II.1. Background

The markets for ***wholesale narrowband access*** in the United Kingdom were previously notified to and assessed by the Commission under case UK/2009/0898[4]. Ofcom proposed three separate markets for wholesale fixed narrowband exchange lines: (i) wholesale fixed analogue exchange line services (WFAEL); (ii) wholesale ISDN2 exchange line services; and (iii) wholesale ISDN30 exchange line services. Two separate geographic markets were proposed, the United Kingdom excluding the Hull area and the Hull area. BT was found to have SMP in the UK excluding the Hull area and in the Hull area, KCOM was designated with SMP.

The following remedies were proposed: (i) requirement to provide network access; (ii) requirement not to unduly discriminate; (iii) BT and KCOM's charges must be set on the basis of long-run incremental costs plus an appropriate mark-up for costs that are common across products, and for recovering the cost of capital; (iv) charge controls; (v) transparency obligations; (vi) requests for new network access; (vii) cost accounting and (viii) requirement to provide wholesale line rental (WLR).

The charge control would apply to the wholesale analogue exchange line services and Ofcom proposed to regulate charges using the RPI -/+X method. In this method, the retail price index (RPI) is used as an inflation index.[5]

The Commission had no comments related to the abovementioned markets[6].

The markets for ***fixed narrowband retail services*** were previously notified to the Commission under case UK/2009/0899[7]. Ofcom proposed the following markets both in the UK area excluding Hull and in the Hull area: (i) Residential Fixed Narrowband Analogue Access; (ii) Business Fixed Narrowband Analogue Access; (iii) ISDN2 Access and (iv) ISDN 30 Access.[8]

Ofcom proposed not to designate BT with SMP in the residential and business markets for fixed-line analogue access, particularly due to the presence of WLR and LLU providers. However, Ofcom still found that BT had SMP in the markets for ISDN2 and ISND30 access in the UK excluding Hull and that KCOM had SMP in all retail markets in the Hull area.

Despite finding SMP in the retail markets for ISDN2 and ISDN30 in the UK excluding the Hull area, Ofcom proposed to remove retail remedies and to rely on wholesale remedies instead. Ofcom took the view that wholesale remedies may be sufficient to address anti-competitive problems in this market and would give BT more scope for

4 C(2009)4441.

5 The RPI-/+X method calculates the value of X for each service or basket of services on the basis of volume inputs, cost inputs and other inputs. Ofcom proposed to align the charges to correspond to fully allocated costs (FAC) at the end of 2013/2014, which would result in a glide path (with the consequence that charges would also be allowed to rise).

6 The notification also covered the markets for call origination, call termination and various conveyance and transit services that provide connectivity across narrowband networks. The Commission commented on the appropriateness of the proposed costing methodology and need for a coherent European approach in relation to the regulation of termination rates.

7 C(2009)4442.

8 The markets for residential and business fixed narrowband calls were also included in the same notification.

introducing innovative bundles. The obligations of no undue discrimination and price publication were proposed to remain in the Hull area. The Commission had no comments.

The market for ***retail and wholesale ISDN30 exchange line services*** in the UK was later on notified under case UK/2010/1082[9]. Ofcom proposed to continue to define a narrow retail ISDN30 market and excluded new telephony services based on IP-based technology from the relevant market. Hosted VoIP and SIP trunking were not part of the market definition. Ofcom also found that indirect competitive constraints stemming from telephony services based on IP-based technologies were likely to be limited. BT/Openreach was found to have SMP in the wholesale market in the UK excluding the Hull area (no operator was designated with SMP in the retail market) and KCOM was designated with SMP both in the retail and wholesale market in the Hull area.

On the retail market in Hull, no undue discrimination and price publication were proposed. For the wholesale markets, the existing remedies were kept and Ofcom also proposed to introduce a charge control obligation on Openreach given that it was making excessive returns on ISDN30.

The Commission commented on the impact of the IP technology and on the timeframe of the market review inviting Ofcom to closely monitor the market developments of IP-based services on the ISDN30 retail and wholesale markets, and to review the markets as soon as the relevant market developments occur.

The markets for ***wholesale fixed analogue exchange lines*** in the UK were subsequently notified under case UK/2010/1139[10]. Ofcom maintained the market definition and the SMP finding from the review in case UK/2009/0898, with BT having SMP in the UK excluding Hull area, and KCOM having SMP in the Hull area. In addition to the remedies previously imposed on both BT and KCOM, Ofcom proposed to introduce a new obligation to create a Statement of Requirements (SOR) process for KCOM. This would increase the transparency of the access condition and mirror the obligation already imposed on BT. WLR and charge control were not found appropriate and proportionate to impose on KCOM but the WLR obligation remained on BT, together with all the previously imposed remedies. The Commission had no comments. [11]

II.2. Market definition

Wholesale fixed analogue exchange lines (WFAEL) are defined as intermediate products that are sold to the Communication Providers (CPs) to enable them to provide a telephone connection (typically a single 64 kbit/s channel) from a customer's premises to a local aggregation point in the access network. Ofcom defines the product market as comprising fixed analogue exchange lines delivered over copper access, cable access, LLU and FTTP deployments offering a narrowband voice service using a voice analogue telephone adaptor (ATA)[12].

Although the use of VoIP has increased significantly since the last market review,

---

[9] C(2010)4154.

[10] C(2010)8235.

[11] In addition, Ofcom has notified changes to remedies in the narrowband access markets in cases: UK/2009/0944, UK/2009/0972, UK/2009/0997, UK/2010/1045, UK/2011/1202 and UK/2012/1302 where the Commission have had no comments.

[12] Where it is necessary for a fibre deployment to support fixed voice access, notably FTTP in conjunction with an ATA, Ofcom includes this within the relevant market, as it did in the 2010 WFAEL Statement, on the basis that the service presented to the end-user is very similar.

suggesting that VoIP calls may present an alternative to fixed voice calls for some customers, Ofcom still considers the potential for CPs to switch from providing narrowband access to offering VoIP calls over broadband to be relatively limited over the review period and does not include it in the product market.[13] In the response to the RFI, Ofcom further explains that it considers VoIP not to be a substitute since it would not allow a consumer to avoid the cost of line rental.[14] Moreover, the key reason for VoIP not being a sufficient constraint relates to the fact that it is provided in addition to the fixed access connection. Additionally, in a consumer survey, only 10% of respondents responded that they would give up their fixed line if the price increased by 10% (across the package of access and calls).

The product market definition for retail fixed analogue exchange lines in the Hull area follows the market definition for WFAEL and it includes residential analogue exchange lines as well as business analogue exchange lines.

ISDN30 services (retail and wholesale) cater for larger business sites, supporting up to 30 narrowband 64kbit/s channels and is used most commonly to provide multiple telephone lines to private branch exchanges (PBXs).

IP-based services such as SIP-trunking are not included in the relevant market since Ofcom finds that for many ISDN30 users barriers to switching[15] still remain, although functionally IP-based services can offer almost the same features as ISDN30 (and in some cases, additional features), and potentially at lower ongoing prices.[16] On the wholesale level, ISDN30 includes self-supply of wholesale ISDN30 exchange lines by retailers using their own PSTN, cable or fibre network, or using LLU.

ISDN2 is a narrowband access service operating over an analogue exchange line that was designed to provide two digital 64 kbit/s channels supporting traditional telephony, facsimile and data with a guaranteed transmission rate. Although accepting that there is a degree of substitutability, for this market as well, Ofcom excludes IP-based services since it does not consider the constraint from IP to be sufficiently strong within the forward-looking perspective, neither in the retail nor in the wholesale markets, all based on the same justification as for ISDN30 services.

For the abovementioned product markets, Ofcom continues to define two separate geographic markets, the United Kingdom excluding the Hull area[17] and the Hull area[18].

II.3. Three criteria test

Since the fixed narrowband access markets, as defined by Ofcom, are not included in the

---

[13] In Q4 2013 there were 29.474.201 PSTN lines in the UK but Ofcom explains in the response to the RFI that they do not have data on residential customers that solely uses VoIP.

[14] Ofcom states that this is particularly evident given the current retail offerings, where only one operator appears to offer a broadband-only package although it is comparable in price to the dual play bundles offered by the other major CPs.

[15] Ofcom states that firms that do not need to replace their current equipment in the near future incur an additional cost of switching to IP-based services and that concerns over reliability and quality of service seem to remain.

[16] Added together, the volumes of SIP/IP trunk and Hosted VoIP together amounted to 2.4 million lines by the end of 2013, compared to the volume of ISDN30 channels which was 2.5 million.

[17] "The Hull area" refers to Kingston upon Hull and covers 0.7% of UK premises.

[18] The markets for fixed narrowband retail services in the UK excluding Hull were already deregulated following OFCOM's decisions as notified under UK/2009/0899. Retail ISDN 30 exchange line services in the UK excluding Hull were deregulated as notified under case number UK/2010/1082.

Relevant Markets Recommendation, Ofcom carries out the three criteria test.

For the markets of ***wholesale fixed analogue exchange lines, the wholesale market for ISDN30 and the wholesale market for ISDN2***, Ofcom finds all three criteria to be fulfilled, in both UK excluding Hull and the Hull area.

For the ***retail markets of fixed analogue exchange lines, ISDN30 exchange line services, and ISDN2 exchange line services, all in the Hull area***, Ofcom finds that the three criteria are not fulfilled, since it considers that competition law would be sufficient on its own to address market failures in these markets. Ofcom still finds high and non-transitory entry barriers and a market structure which does not tend towards effective competition, but considers that competition law would provide sufficient means to address any abuse by KCOM of a dominant position. Further, Ofcom argues that prices in the rest of the UK would provide a benchmark for assessing whether prices in the Hull area would be excessive and there have been no complaints on KCOM so far. With regards to prices, KCOM's prices of retail charges and related bundles remain aligned with national prices or in the case of ISDN30, prices are even lower than BT's prices of the equivalent product. Moreover, Ofcom proposes to keep regulation for the corresponding wholesale markets, i.e. WFAEL and the wholesale markets for ISDN30 and ISDN2 exchange line services in the Hull area.

Based on the non-fulfilment of the three criteria test for the retail narrowband access markets in the Hull area, Ofcom proposes to remove the obligations of no undue price discrimination and price publication in all three markets.

II.4. Finding of significant market power

For the market of ***ISDN2 retail services in the UK excluding the Hull area***, Ofcom does not explicitly carry out the three criteria test. Instead, it assesses the effectiveness of competition in the provision of such services and finds that BT's market share has declined by 20% since the last market review conducted in 2008/2009 and has declined from 69% to 49% in 2012/2013. Further on, many smaller providers operate in the market and the number of total channels in the market has been steadily declining at an average rate of 3% per year, being a development which Ofcom finds likely to continue. Ofcom does not consider barriers to entry and expansion to be high, especially given the market share BT has lost since the last market review. Although BT's margin over wholesale access costs has increased (wholesale rental charges have decreased while retail prices have increased), Ofcom considers that on balance, BT is unlikely to maintain SMP at the retail level for the duration of the time period covered by the review. Thus, no operator holds SMP in the supply of retail ISDN2 exchange lines in the UK excluding the Hull area.

On the contrary, for ***the wholesale markets for fixed analogue exchange lines, ISDN30 and ISDN2, in both UK excluding Hull and the Hull area***, Ofcom continues to find SMP, with BT in the UK excluding the Hull area and KCOM in the Hull area. For the wholesale fixed analogue exchange lines, Ofcom considers the following criteria to be of particular relevance: market shares (BT has a market share of 57% and KCOM almost 100% in their respective geographical markets); constraints from competing services; barriers to entry and expansion; countervailing buying power and prices.

In the relation to wholesale ISDN30 and ISDN2, Ofcom considers the following criteria to be of particular relevance: market shares (BT has 74% in the ISDN30 market and almost 100% in the ISDN2 market, while KCOM has close to 100% in the ISDN30 market and in the ISDN2 market, there has been some entry but KCOM's market share has not been eroded significantly); barriers to entry and expansion; prices and profitability and countervailing buying power.

II.5. Regulatory remedies

Ofcom proposes the following general remedies for BT in the wholesale markets for WFAEL, ISDN30 and ISDN2 in the UK excluding Hull area: (i) provide network access on reasonable request: (ii) publish a process for new network access: (iii) requirement not to unduly discriminate and Equivalence of Input (EOI); (iv) accounting separation; (v) publish a Reference Offer (including specifying services subject to SLAs/SLGs); (vi) notify changes to charges; (vii) notify technical information and (viii) cost accounting.

In addition, the following specific remedies are proposed for BT on the WFAEL market: (i) a requirement to offer Wholesale Line Rental (WLR) and; (ii) charge control on certain WLR services.

The previous charge controls on WLR (and LLU) expired on 31 March 2014. The new charge controls are proposed to enter into force on 1 July 2014 and cover the period to 31 March 2017. The charge control is based on a top-down cost model[19] using BT's Regulatory Financial Statements together with Asset Volume Elasticities (AVEs) and Cost Volume Elasticities (CVEs) to forecast the costs of operating a hypothetical on-going copper network to 2016/17.[20] In the response to the RFI, Ofcom explained that the proposed charge control is cost oriented in the sense that it is based on the cost for the services in question. The WLR rental is proposed to have a cost-based price cap while WLR ancillary services are priced as a basket of services.[21] The new proposed price for WLR rental is £91.04/year for 2014/2015 (compared to £93.22 on 31 March 2014). The charge control for 2015/16 and 2016/17 are set at CPI-3.0%.[22]

In the markets for ISDN30 and ISDN2 services, the following specific remedies are proposed for BT: (i) requirement to offer wholesale ISDN30/ISDN2 services, including ancillary services and (ii) charge control.[23]

With regards to EoI, in the response to the RFI Ofcom explained that, since BT is already providing WFAEL, ISDN2, ISDN30 (as well as WBA, LLU and SLU)[24] on an EoI basis through the obligations under the BT Undertakings Ofcom does not expect that BT

---

[19] The cost model includes an efficiency target of 5% per year and the level of engineering costs is increased by 3.9% to enable Openreach to recover its efficiently incurred costs related to the new Quality of Service remedy. The WACC is set at 8.6%.

[20] Total costs to be recovered from the charge controls will, with the exception of pre-1997 local access ducts, be forecast on the basis of current cost accounting fully allocated costs (CCA FAC). The CCA FAC cost base will be subject to an adjustment in that the regulatory asset base (RAV) of the pre-1997 local access duct assets will be based on historic cost accounting (HCA) value, indexed for inflation.

[21] Ofcom explains in the response to the RFI that the projected unit costs are forecasted from 2011/12 cost information reported by BT and the value of X in the CPI-X charge control for each service basket is the yearly percentage change required to equalise projected unit costs and unit charges in the year 2016/17 – the final year of the charge control. Ofcom also proposes to apply sub-caps alongside the CPI-X control on each basket to prevent individual charges within the basket being set at excessive or anti-competitive levels.

[22] In the response to the RFI, Ofcom explained that the charge control based on price-cap regulation is designed to, inter alia, incentivise cost-minimisation since BT can keep the profits if it is able to deliver the required services at a lower cost than has been forecast.

[23] With the exception of ISDN2 transfer (which charge is proposed to be reduced from £30 to £9 per line), Ofcom proposes to cap the average charges for both ISDN2 and ISDN30 wholesale services at their current levels in nominal terms during the market review period (meaning that charges will fall in real terms, considering general inflation).

[24] Ofcom further states that the proposal excludes from the EoI obligation any network access which BT is not currently offering on an EoI basis.

would have to re-engineer any existing systems or processes as a consequence of the introduction of EoI as an SMP obligation.

Based on a decline in performance in 2012 and in 2013, as well as concerns from CPs, Ofcom conducted a review of BT's (through Openreach) Quality of Service. As a consequence, Ofcom now proposes a Quality of Service remedy including minimum standards for WLR (and LLU) repair and provision and enhanced reporting and publication of KPIs for WLR and ISDN (as well as LLU and GEA) services.

On KCOM, the following general remedies are proposed for the wholesale markets of WFAEL[25], ISDN30 and ISDN2: (i) provide network access on reasonable request; (ii) publish a process for new network access[26]; (iii) requirement not to unduly discriminate: (iv) accounting separation; (v) publish a Reference Offer; (vi) notify changes to charges and (vi) notify technical information.

III. COMMENTS

The Commission has examined the notification and the additional information provided by Ofcom and has the following comment:[27]

Exclusion of IP-based services from the product market definition

The Commission notes that Ofcom continues to exclude IP-based services from the product market definition of the markets for the fixed narrowband wholesale services. In this context, the Commission would like to underline that already in the last review of the retail and wholesale ISDN30 exchange line services (cases UK/2010/1081-1082) it commented on the impact of IP-technology and invited Ofcom to closely monitor the market developments of IP-based services.

The Commission takes note of the fact that for the WFAEL market, Ofcom's key reason for not including VoIP services is that those services are always provided in addition to a fixed access connection and that it therefore would not allow the consumer to avoid the cost of line rental when switching to a VoIP service. However, the total household broadband take-up in 2013 was 75%, indicating that a large majority of households have the possibility of using a VoIP-based service instead of, or alongside, a PSTN-service. The Commission invites Ofcom to review the product market definition, also by including data on actual and forecasted VoIP take-up by residential customers.

With regards to the business products of ISDN30 and ISDN2, the Commission notes that the total number of IP/SIP trunk and hosted VoIP is close to the volume of ISDN30 channels and as such that there is a clear identified demand also for IP-based exchange services even though the increase in IP-based services does not seem to correspond to the decline in ISDN30 volumes. Further, the Commission understands that although there are concerns over the reliability and quality of service of the IP-based services, there are some examples of businesses switching and IP providing better services at potentially lower monthly costs. In light of this, the Commission invites Ofcom to re-examine the substitutability of IP-based services and ISDN30 and ISDN2, especially given the forward looking

25 Ofcom states that they consider imposing specific access remedies on KCOM in the same form as BT, in the absence of clear evidence of demand in the Hull Area for the particular access products currently supplied by BT, to be disproportionate and inappropriate at this time.

26 Only proposed for the WFAEL market.

27 In accordance with Article 7(3) of the Framework Directive.

perspective of the market analysis.

Pursuant to Article 7(7) of the Framework Directive, Ofcom shall take the utmost account of the comments of other NRAs, BEREC and the Commission and may adopt the resulting draft measure; where it does so, shall communicate it to the Commission.

The Commission's position on this particular notification is without prejudice to any position it may take *vis-à-vis* other notified draft measures.

Pursuant to Point 15 of Recommendation 2008/850/EC28 the Commission will publish this document on its website. The Commission does not consider the information contained herein to be confidential. You are invited to inform the Commission29 within three working days following receipt whether you consider that, in accordance with EU and national rules on business confidentiality, this document contains confidential information which you wish to have deleted prior to such publication.30 You should give reasons for any such request.

Yours sincerely,
For the Commission,
Robert Madelin
Director-General

CERTIFIED COPY
For the Secretary-General,

Jordi AYET PUIGARNAU
Director of the Registry
EUROPEAN COMMISSION

---

[28] Commission Recommendation 2008/850/EC of 15 October 2008 on notifications, time limits and consultations provided for in Article 7 of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, OJ L 301, 12.11.2008, p. 23.

29 Your request should be sent either by email: CNECT-ARTICLE7@ec.europa.eu or by fax: +32 2 298 87 82.

30 The Commission may inform the public of the result of its assessment before the end of this three-day period.

EUROPEAN COMMISSION

Brussels,
C(2014)

Office of Communications (Ofcom)

Riverside House - 2a Southwark
Bridge Road
SE1 9HA London
United Kingdom

For the attention of:
Mr Ed Richards
Chief Executive Officer

Fax: +44 20 7981 3504

Dear Mr Richards,

Subject: Commission Decision concerning Case UK/2014/1606: Wholesale local access market

Commission Decision concerning Case UK/2014/1608: Wholesale broadband access market

Comments pursuant to Article 7(3) of Directive 2002/21/EC

I. PROCEDURE

On 19 May 2014, the Commission registered two notifications from the United Kingdom national regulatory authority Office of Communications (Ofcom)[1], one concerning the third review of the market for wholesale local access (WLA) services[2], and the other the fourth review of the market for wholesale broadband access[3] (WBA) in the UK.

Ofcom conducted a series of national consultations.[4] With regard to the WLA market the consultations were published on 3 and 11 July 2013 (fixed access market review, "FAMR consultation" and LLU charge control consultation), on 19 December 2013 (on Openreach quality of service), on 20 December 2013 (on regulatory financial reporting), and on 16 January 2014 (on notification periods and VULA margin). With regard to the WBA market the consultations were published on 11 July 2013 (2013 WBA

1 Under Article 7 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108, 24.4.2002, p. 33, as amended by Directive 2009/140/EC, OJ L 337, 18.12.2009, p. 37, and Regulation (EC) No 544/2009, OJ L 167, 29.6.2009, p. 12.

2 This market corresponds to market 4 in Commission Recommendation 2007/879/EC of 17 December 2007 on relevant product and services markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services ('the Recommendation'), OJ L 344, 28.12.2007, p. 65.

3 This market corresponds to market 5 in the Recommendation.

4 In accordance with Article 6 of the Framework Directive.

Consultation), 20 December 2013 (on regulatory financial reporting) and on 27 January 2014 (on the impact of the fibre roll-out and further consultation on the proposed charge control).

On 27 May 2014, a request for information[5] was sent to Ofcom and a response was received on 2 June 2014.

Pursuant to Article 7(3) of the Framework Directive, national regulatory authorities (NRAs), the Body of European Regulators for Electronic Communications (BEREC) and the Commission may make comments on notified draft measures to the NRA concerned.

II. DESCRIPTION OF THE DRAFT MEASURE

II.1. Background

II.1.1. The wholesale local access market

Under case number UK/2010/1064, Ofcom notified to the Commission its second review of the market for wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services in the United Kingdom, comprising traditional copper loops, cable connections[6] and fibre-based local access. Furthermore, on the basis of the substitution analysis and the need to secure adequate competition on the retail broadband markets, Ofcom included in the market a virtual unbundled local access (VULA) product. Ofcom concluded that the VULA product offers features similar to physical unbundling[7].

Ofcom defined two separate geographic markets and designated BT as the operator having significant market power (SMP) in the UK excluding the Hull area, and Kingston Communications (KCOM) as the operator with SMP (in the Hull area).

Consequently, Ofcom imposed the following regulatory obligations on both operators: (i) general network access; (ii) requirement not to discriminate unduly; (iii) price control based on an LRIC+ method; (iv) transparency requirements; and (v) cost accounting and accounting separation. In addition, Ofcom imposed on BT the requirement to provide local loop unbundling (LLU) services (including shared access) and, in the case of the NGA networks, the requirements to provide (i) virtual unbundled local access (VULA); (ii) sub-loop unbundling (SLU); and (iii) physical infrastructure access (PIA) consisting of duct and pole access. With regard to LLU Ofcom proposed to maintain the previously imposed charge control obligation. For VULA it allowed pricing flexibility (including geographic variations, volume discounts and tiered pricing), while ensuring that VULA is provided on an equivalence of input basis (EoI).

The Commission commented on the inclusion of the VULA product in the relevant wholesale market, as well as on the inclusion of cable on the basis of indirect constraints. With regard to the latter, the Commission was concerned that Ofcom did not provide sufficient evidence on the pass-through of the wholesale price increase to the retail customers and that there was sufficient demand substitution at the retail level to render

---

5 In accordance with Article 5(2) of the Framework Directive.

6 Ofcom proposes to include cable-based services within the relevant market on the basis of indirect constraints, relying on the evidence available from previous reviews.

7 The key characteristics for VULA are: Local (interconnection should occur locally); Service-agnostic (should be able to support a multitude of services); Uncontended (dedicated capacity should be available to the end-user); Control of access (sufficient control of the access connection should be available); and Control of customer premises equipment (CPE) (sufficient control of CPE should be available).

the wholesale price increase unprofitable. The Commission considered that the inclusion of cable and hence the broader market definition had no impact on the regulatory outcome, as BT was found to have SMP even on such broadly defined market. The Commission commented also on the lack of price control remedy for VULA, while acknowledging that it will be provided on fair and non-discriminatory terms under the equivalence of input requirements.

II.1.2. The wholesale broadband access market

In March 2010, Ofcom notified the Commission its third review of the market for wholesale broadband access under case number UK/2010/1065[8]. On the basis of indirect constraints Ofcom included in the relevant market fibre-based, cable-based and LLU-based products. Ofcom proposed to segment the market regionally and defined the following relevant geographic markets: (i) the Hull area where only KCOM is present; (ii) market 1: local exchanges where only BT is present; (iii) market 2: local exchanges with two or three principal operators[9], and (iv) market 3: exchanges where four or more principal operators are present or forecast.

Ofcom concluded that there was no SMP on market 3, accounting for 71.8% of UK delivery points (excluding Hull), while BT held SMP on markets 1 and 2, and KCOM was found to have SMP in the Hull area.

With regard to markets 1 and 2, Ofcom proposed to impose on BT the following obligations: (i) requirement to provide network access on reasonable request; (ii) requirement not to discriminate unduly; (iii) requirement to publish a reference offer; (iv) requirement to notify charges, terms and conditions; (v) transparency as regards quality of service; (vi) requirement to notify technical information; (vii) accounting separation; (viii) cost orientation; and (ix) cost accounting. In addition, Ofcom proposes to impose on BT a charge control obligation on market 1.

In the Hull area, KCOM should comply with: (i) the requirement to provide network access on reasonable request; (ii) the requirement not to discriminate unduly; (iii) the requirement to publish a reference offer; (iv) the requirement to notify charges, terms and conditions; (v) transparency as regards quality of service; (vi) the requirement to notify technical information; and (vii) accounting separation. Ofcom did not propose to impose cost orientation on KCOM.

The Commission commented on the inclusion of cable- and LLU-based WBA services in the relevant market on the basis of indirect constraints stemming from the underlying retail markets, as well as on the criteria used for geographic segmentation of the WBA market.

In August 2010 Ofcom notified to the Commission a revised assessment of the geographic market definition, while leaving the SMP and the remedies unchanged (UK/2010/1123). Ofcom proposed, in addition to the number of principal operators present in a local exchange, to consider also BT's *exchange level service share criterion.*[10] Ofcom proposed to redefine market 3 in such a way as to include also the local exchanges where three principal operators are present and BT's share is below 50% (previously market 3 encompassed only the exchanges with 4 or more principal

---

8 UK/2010/1065, SG-Greffe (2010) D/7658.

9 For the purposes of the review, Ofcom identified the following LLU principal operators: Talk Talk, Sky, Orange, O2 and Cable & Wireless Access.

10 Service shares are calculated at the wholesale level based on exchange level LLU data, i.e. on the basis of the number of lines provided to each operator, including BT.

operators). The Commission reiterated its comments on the inclusion of self-supply on the basis of indirect constraints stemming from the retail market, as well as on the criteria used for the geographic market segmentation.

II.2. Market definition

II.2.1. Wholesale local access

In line with its previous market reviews Ofcom proposes to define the relevant WLA market as including copper-based, cable-based and fibre-based local access at a fixed location. Ofcom does not distinguish between WLA used to provide business or residential services. Similarly as in its previous market review Ofcom considers that because of the retail competition between copper-based and cable-based services, at the wholesale level the cable networks exert indirect constraint on the provision of wholesale local access by a network that uses copper/fibre lines.

With regard to these indirect constraints Ofcom provides a more extensive explanation when compared to its previous market review. Ofcom's assessment of demand side substitutability is based on product characteristics, intended uses, pricing of the different retail offerings, and likely responsiveness (and attitudes) of retail consumers. Ofcom's assessment is qualitative in nature and Ofcom does not provide a quantitative assessment of the pass through and/or absorption capacity by alternative operators of a potential increase of wholesale prices. Ofcom explains that it does not have reliable data to conduct a SSNIP/critical loss analysis.

Ofcom assessed also other forms of access (such as mobile, satellite and fixed wireless access) and concluded that there is only very limited substitutability at the retail level, and that such access products would not provide a sufficient indirect constraint at the wholesale level to justify their inclusion in the relevant market.

Ofcom proposes to define two geographic WLA markets: (i) the UK excluding the Hull area and (ii) the Hull area. [11]

II.2.2. Wholesale broadband access

With regard to the products included in the market definition Ofcom proposes that the market remains unchanged and is defined as: asymmetric broadband access and any backhaul which is necessary to allow interconnection with other communications providers, which provides an always-on capability, allows both voice and data services to be used simultaneously and provides data at speeds faster than a dial-up connection.

Ofcom includes in the relevant product market self-supplied cable and LLU-based access products, by taking into consideration the indirect constraints stemming from the underlying retail markets. Ofcom considers that the relevant wholesale market should in general comprise all the upstream access services which correspond to the competing products at the retail level. With regard to substitutability at retail level, Ofcom's analysis follows the analysis carried out in the context of market 4.

Unlike in its previous review, Ofcom now proposes to define only 3 separate geographic markets: (i) Hull area; (ii) Market A – exchanges where there are no more than 2 principal operators (POs)[12] present or forecasted, which accounts for 9.5% of UK premises; (iii) Market B – exchanges where there are three or more POs present or

[11] "The Hull area" refers to Kingston upon Hull and covers 0.7% of UK premises.

[12] Principal Operators are those that are likely to exert a substantial competitive constraint on other operators. For this market review period Ofcom considers the following undertakings as Principal Operators: BT, Sky, TalkTalk, Vodafone and Virgin.

forecast, which accounts for 89.8% of UK premises.

I.3. Finding of significant market power

II.3.1. Wholesale local access

Following its analysis of the market for wholesale local access, Ofcom concluded that BT has SMP in the UK, excluding the Hull area, and that KCOM should be designated as SMP operator in the Hull area. With regard to BT's SMP position, Ofcom analysed the following main criteria: (i) high and stable market shares[13]; (ii) barriers to entry; and (iii) countervailing buying power. As far as KCOM is concerned, the following criteria were analysed: (i) 100% market share; (ii) barriers to entry; and (iii) countervailing buying power.

II.3.2. Wholesale broadband access

Similarly to the approach taken in its third review of this market, Ofcom concludes that there is no SMP on market B. Furthermore, BT is considered to have SMP on market A and KCOM is found to have SMP in the Hull area. The SMP assessment is based on: (i) market growth and market shares[14] taking into account self-supply by cable and LLU operators; (ii) future potential market shares; (iii) barriers to entry and expansion; (iv) economies of scale and scope; and (v) countervailing buying power.

II.4. Regulatory remedies

II.4.1. Wholesale local access

Ofcom proposes to maintain currently imposed remedies for both BT and KCOM: (i) network access on reasonable request; (ii) non-discrimination (for BT on the EoI basis[15], while for KCOM on the NUD basis (no undue discrimination); (iii) transparency requirements (publication of reference offer, notification of charges, terms, conditions and technical information); (iv) cost accounting; and (v) accounting separation.

With regard to BT only Ofcom proposes to impose in addition cost orientation and charge controls, specific requirements and minimum standards with regard to quality of service.[16]

Furthermore, Ofcom proposes specifically to impose on BT the requirement to provide local loop unbundling (LLU) services (including shared access) and, in the case of the NGA networks, the requirements to provide (i) virtual unbundled local access (VULA); (ii) sub-loop unbundling (SLU); and (iii) physical infrastructure access (PIA) consisting of duct and pole access.

Regarding copper based LLU, Ofcom proposes to maintain the charge control obligation which it had previously imposed. The previous charge controls on LLU expired on 31 March 2014. The new charge controls are proposed to enter into force on 1 July 2014 and

---

[13] According to Ofcom, BT's market share is consistently very high and is above 80%, while in 2009 it was 84%.

[14] BT's market share in market A is 88.8%, while KCOM has close to 100% in Hull area. While fibre is included in the market Ofcom does not include fibre connections in the calculation of market shares. Ofcom considers that currently the fibre connections constitute a very small part of total broadband market (2.5 million lines out of total of 22 million connections), and that BT owns majority of the fibre connections (1.9 million). Given the low fibre penetration its inclusion in the market share calculations would not lead to materially different outcome.

[15] The imposition of non-discrimination based on EoI with regard to legacy infrastructure applies only to the extent to which BT is currently supplying wholesale services on the basis of EoI.

[16] Such as minimum standards for provisioning and fault repairs, increased KPIs, improved SLAs/SLGs.

cover the period to 31 March 2017. The charge control is based on a top-down cost model[17] using BT's Regulatory Financial Statements together with Asset Volume Elasticities (AVEs) and Cost Volume Elasticities (CVEs) to forecast the costs of operating a hypothetical on-going copper network to 2016/17.[18] In 2013 the LLU monthly rental fee was Euro 8.34 and will increase (up to Euro 9.30) in the review period 2016/17.

In addition, Ofcom proposes that BT should price PIA (passive infrastructure access like poles, ducts, etc.)[19] and SLU at their long-run incremental cost (LRIC), allowing a mark-up for common cost recovery. With regard to SLU at this stage Ofcom does not propose any changes to take into account the investments in deploying the vectoring technology. However Ofcom provides non-binding guidance that it intends to protect both BT's investment in vectoring, as well as investments of other communications providers who have actually used SLU.[20] Ofcom will review its position when technical solutions emerge, which would enable vectoring and SLU to co-exist.

In the case of the VULA, Ofcom would like to continue with allowing pricing flexibility, e.g. geographic variations, volume discounts and tiered pricing. However, BT is required to provide VULA to CPs on an equivalence of input (EoI) basis, i.e. on the same timescales, terms and conditions (including price and service levels), by means of the same systems and processes and by providing the same information as to its own downstream divisions. However, with the current notification Ofcom proposes to set the charges for VULA migration (i.e. in case the retail customer switches from one CP to another), to GBP 11 from currently GBP 50.

While not being part of currently notified draft measure, Ofcom will in the near future publicly consult and notify its decision concerning the VULA margin, and a general prohibition to set VULA charges at a level leading to a margin squeeze.

II.4.2. Wholesale broadband access

With regard to market A for BT and for KCOM in the Hull area, Ofcom proposes to

[17] The cost model includes an efficiency target of 5% per year and the level of engineering costs is increased by 3.9% to enable Openreach to recover its efficiently incurred costs related to the new Quality of Service remedy. The WACC is set at 8.6%.

[18] Total costs to be recovered from the charge controls will, with the exception of pre-1997 local access ducts, be forecast on the basis of current cost accounting fully allocated costs (CCA FAC). The CCA FAC cost base will be subject to an adjustment in that the regulatory asset base (RAV) of the pre-1997 local access duct assets will be based on historic cost accounting (HCA) value, indexed for inflation.

[19] Ofcom maintains unchanged the restrictions as to the allowed use of PIA, namely only with relation to the retail services downstream of markets 4 and 5. In 2013 Ofcom has specifically considered whether to allow use of PIA for leased lines services, and based on the evidence and its analysis decided not to impose passive remedies for the markets for leased lines services (case UK/2013/1428).

[20] In view of rapidly changing technology and uncertainty as to the deployment of vectoring Ofcom does not consider it appropriate to put in place specific rules related to vectoring. Ofcom intends to encourage coordination between BT and access seekers, and explore technical possibilities for coexistence between vectoring and SLU. Ofcom provides guidance on how it will likely react in two scenarios: i) if an access seeker requests SLU in a cabinet where BT has already deployed vectoring (request for SLU should not degrade the services provided to end customers at that cabinet; BT could refuse SLU access, if it can demonstrate that it has taken all reasonable steps to coordinate vectoring, based on available technology at that time); and ii) where BT intends to deploy vectoring in a cabinet in which an access seeker already buys SLU (Ofcom considers that it will be unlikely to be reasonable for BT to withdraw SLU access already granted, as it would undermine investments in SLU; if co-existence of vectoring and SLU will not be devised until next review, Ofcom will consider whether continued provision of SLU is appropriate, given the actual volumes of SLU take-up and benefits realised through vectoring).

impose the following obligations: (i) requirement to provide network access on reasonable request; (ii) requirement not to discriminate (for BT on the basis of EoI, while for KCOM less strict standard not to unduly discriminate); (iii) requirement to publish a reference offer; (iv) requirement to notify charges, terms and conditions; (v) transparency as regards quality of service; (vi) requirement to notify technical information; and (vii) accounting separation.

In addition for BT in market A Ofcom proposes to impose charge control based on CPI-X[21] and cost accounting. On the contrary, for KCOM in the Hull area, Ofcom does not propose any price control. Ofcom considers that the imposition of price controls would be too costly, given the size of the market and potential market entry. Moreover, Ofcom considers that it would also be disproportionate to impose non-discrimination on the basis of EoI, and that the requirement not to unduly discriminate[22] is sufficient and effective to ensure the provision of wholesale broadband access.

III. COMMENTS

The Commission has examined the notification and the additional information provided by the Ofcom and has the following comment:[23]

Inclusion of self-supply in the market definition on the basis of indirect constraints

Ofcom defines the relevant Wholesale Local Access and Wholesale Broadband Access markets by taking into consideration indirect constraints stemming from the underlying retail markets. Therefore self-supplied cable- and LLU-based services are included in the relevant markets.

The Commission notes that Ofcom's proposed broad definition of the wholesale markets is based on the fact that certain products are considered as close substitutes at the retail level, and that Ofcom's analysis in this respect is rather qualitative in nature.

As laid out in previous cases[24], the Commission considers that if there is competitive pressure stemming from alternative platforms at retail level, such platforms should only be included in the wholesale markets if the following conditions are met: (i) access seekers would be forced to pass a hypothetical wholesale price increase onto their consumers at the retail level based on the wholesale/retail price ratio; (ii) there would be sufficient demand substitution at the retail level based on indirect constraints such as to render the wholesale price increase unprofitable; and (iii) the customers of the access seekers would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices. When the above-mentioned criteria are fulfilled, constraints should be deemed to be strong

---

21 The charge control will lead to significant price reductions due to the adopted value of X (CPI-10.7%). Ofcom explains that the charge control is based on LRIC and that the price-cap regulation is designed to, inter alia incentivise cost-minimisation since BT can keep the profits if it is able to deliver the required services at a lower cost than has been forecasted.

22 Ofcom considers that the requirement not to unduly discriminate is consistent with the Equivalence of Output in that it requires the SMP operator to provide wholesale inputs in a manner which is comparable in terms of functionality and price to those provided by the SMP operator to itself.

23 In accordance with Article 7(3) of the Framework Directive.

24 See cases UK/2003/0032, NL/2005/0281, AT/2005/0312, UK/2007/0733, UK/2010/1065 and UK/2010/1123.

enough so that the platform concerned is included in the market.

When indirect constraints are found to exist but are not strong enough to constrain the price of other WLA or WBA products, they should be taken into account when assessing whether the incumbent operator has SMP on the relevant market, as well as alternatively in the assessment of the appropriate remedies.

In order to estimate the degree of strength of indirect constraints, Ofcom should therefore have provided *inter alia* a qualitative and a quantitative assessment of factors including the effective pass-through from wholesale to retail prices (including an assessment of the wholesale/retail price ratio), the (in)capacity of operators to absorb wholesale price increases depending on competitive conditions at retail level, as well as the effective willingness of retail consumers to switch their operator in response to the price increase.

The inclusion of self-supplied cable- and LLU-based access could affect the SMP finding, if an operator was found not to hold SMP on such broadly defined market. The Commission notes, however, that as BT and KCOM were found to hold SMP, the inclusion of self-supplied products on the basis of the indirect constraints makes no difference to the outcome of this market review.

Nevertheless, the Commission invites Ofcom to further substantiate its definition of markets 4 and 5 in its final measure, with a particular reference to the factors mentioned above, i.e., pass through, absorption capacity, and retail consumers' switching behaviour.

Pursuant to Article 7(7) of the Framework Directive, Ofcom shall take the utmost account of the comments of other NRAs, BEREC and the Commission and may adopt the resulting draft measure; where it does so, shall communicate it to the Commission.

The Commission's position on this particular notification is without prejudice to any position it may take *vis-à-vis* other notified draft measures.

Pursuant to Point 15 of Recommendation 2008/850/EC[25] the Commission will publish this document on its website. The Commission does not consider the information contained herein to be confidential. You are invited to inform the Commission[26] within three working days following receipt whether you consider that, in accordance with EU and national rules on business confidentiality, this document contains confidential information which you wish to have deleted prior to such publication.[27] You should give reasons for any such request.

Yours sincerely,
For the Commission,
Robert Madelin
Director-General

[25] Commission Recommendation 2008/850/EC of 15 October 2008 on notifications, time limits and consultations provided for in Article 7 of Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, OJ L 301, 12.11.2008, p. 23.

[26] Your request should be sent either by email: CNECT-ARTICLE7@ec.europa.eu or by fax: +32 2 298 87 82.

[27] The Commission may inform the public of the result of its assessment before the end of this three-day period.