

**Reference under section 193 of the Communications Act 2003**

# **CityFibre Infrastructure Holdings plc v Office of Communications**

**Case 1261/3/3/16**

# **TalkTalk Telecom Group plc v Office of Communications**

**Case 1259/3/3/16**

**Final determination**

Notified: 6 April 2017

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Excisions in this determination marked with [✂] relate to commercially confidential information: Schedule 4, paragraph 1, to the Enterprise Act 2002.

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## Glossary

# Final determination

## 1. Introduction

- 1.1 Leased lines are high-quality, dedicated, bi-directional symmetric circuits, that are always open and transmit data between two locations.<sup>1</sup> These are used by businesses and providers of communications services. They are essential components not only of many business information and communication technology services, but also of mobile and residential broadband services.
- 1.2 Every three years, the Office of Communications (Ofcom) conducts a review of competition in the markets for the provision of leased lines in the UK. Where Ofcom finds that a provider has significant market power (SMP) in a market (ie that it is able to act independently of competition) it imposes regulations designed to address concerns about the impact of that market power on competition. The Business Connectivity Market Review (BCMR) assesses the market conditions in respect of the sale of wholesale leased lines services amongst communications providers (CPs), which may then on-sell the leased line to a business customer or use the leased line for the purpose of managing their own network.
- 1.3 On 28 April 2016, Ofcom published the details of, and gave effect to, the decisions taken in the BCMR in its 'Final Statement',<sup>2</sup> taken pursuant to [section 87\(9\)](#) and [section 88\(1\)\(a\)](#) of the Communications Act 2003 (the Act). The Act also implements in the UK the regulation of the telecommunications sector under the Common Regulatory Framework (CRF) which applies across the European Union.
- 1.4 In the Final Statement, Ofcom, in exercise of its statutory obligations, imposed a number of obligations on British Telecommunications plc (BT) to offer access to its network to provide wholesale leased lines services. These decisions are appealable to the Competition Appeal Tribunal (CAT), including the market definition decisions and the choice and design of access remedies.
- 1.5 In addition to the requirements to offer wholesale access to its network, Ofcom imposed a number of obligations on BT in respect of the level of charges for wholesale leased lines services in markets where it has SMP. These obligations are described as the Leased Lines Charge Control (LLCC).

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<sup>1</sup> BT technical presentation to the CMA, slide 3.

<sup>2</sup> [Final Statement](#), 28 April 2016.

- 1.6 TalkTalk Telecom Group plc (TalkTalk)<sup>3</sup>, BT<sup>4</sup> and CityFibre Infrastructure Holdings plc (CityFibre)<sup>5</sup> lodged appeals in the CAT under [section 192](#) of the Act against the decisions contained in the Final Statement.
- 1.7 The CAT gave permission<sup>6</sup> for a number of interventions in the appeals as follows:
- (a) (i) BT; (ii) CityFibre; (iii) Hutchison 3G UK Limited (Three) and Vodafone Limited (Vodafone) (together ‘the NDR Interveners’) and (iv) Gamma Telecom Holdings Limited (Gamma) to intervene in the TalkTalk appeal.
  - (b) (i) CityFibre; (ii) Colt Technology Services (Colt), TalkTalk, Three and Vodafone (collectively ‘the CP Group’), (iii) Gamma and (iv) Virgin Media Limited (Virgin Media) to intervene in the BT appeal.
  - (c) (i) BT; (ii) the CP Group; and (iii) Gamma to intervene in the CityFibre appeal.
- 1.8 In accordance with the Act, and as described further in Section 2 below, the CAT refers to the Competition and Markets Authority (CMA) matters within the appeal which relate to the setting of prices, which are described as ‘specified price control matters’. The CAT has referred specified price control matters arising: (i) in TalkTalk’s appeal; and (ii) in CityFibre’s appeal, to the CMA for determination, in accordance with [section 193](#) of the Act.<sup>7</sup>
- 1.9 Once the CAT has decided to refer matters to the CMA, it is for the parties to agree the form of reference question which the CMA is required to answer. We are required to answer one question in each of the TalkTalk and CityFibre appeals. This document sets out our determination of these specified price control matters in both appeals.
- 1.10 In this section, we provide a brief background to the appeals and a description of the relevant aspects of the decisions in the Final Statement. TalkTalk and CityFibre have challenged the same price control decision taken by Ofcom, but have done so on different grounds, and the CAT has referred a different specified price control matter arising from each appeal to the CMA to determine. We have, therefore, considered each reference separately and on its own merits.

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<sup>3</sup> [Case 1259/3/3/16](#).

<sup>4</sup> [Case 1260/3/3/16](#).

<sup>5</sup> [Case 1261/3/3/16](#).

<sup>6</sup> [Order of the CAT](#) made on 29 September 2016.

<sup>7</sup> Orders of the CAT made on 17 November 2016, which set out the reference questions to be determined by the CMA in each of the appeals can be found at Appendix A and Appendix B.

## Summary of Ofcom's market decision in the Business Connectivity Market Review

- 1.11 In this section we set out a brief overview of the decisions of the BCMR, and in particular Ofcom's identification of markets which are relevant to this appeal.
- 1.12 Ofcom stated that the overall aim of its work in the BCMR was to ensure that the interests of end-users are protected and to promote effective competition, efficient investment, innovation and choice.<sup>8</sup>
- 1.13 The business connectivity services subject to these appeals are referred to by Ofcom as Contemporary Interface Symmetric Broadband Origination (CISBO) services. This refers to both the technology and the part of the network to which the CP is purchasing access. Leased lines use a modern Ethernet or Wavelength Division Multiplex technology, collectively known as Contemporary Interface (CI) services. CISBO services cover the terminating segment (including both the Access and Backhaul segment) of a CP's network, which Ofcom terms 'Symmetric Broadband Origination' (SBO).<sup>9</sup>
- 1.14 Ofcom's market analysis identified a single product market for wholesale CISBO services of all bandwidths. Based on differences in competitive conditions between geographic areas, Ofcom defined distinct geographic markets in wholesale CISBO services in each of the Central London Area (CLA), London Periphery (LP), Hull and the rest of UK (RoUK).<sup>10</sup>
- 1.15 Ofcom determined that BT had SMP in the provision of wholesale leased lines in both the LP and the RoUK.<sup>11</sup> In relation to the CLA, Ofcom determined that there would be a sufficient choice of alternative infrastructure to ensure that end-to-end users will be protected by effective and sustainable competition and that BT did not have SMP in the region.<sup>12</sup>
- 1.16 Having determined that BT had SMP in the provision of wholesale leased lines outside the CLA, Ofcom imposed a charge control in relation to these services along with a series of remedies relating to the quality of Ethernet services and other general access remedies. As explained below, a key change in this charge control period was the introduction of a passive remedy which Ofcom called a 'dark fibre' remedy.<sup>13</sup>

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<sup>8</sup> Final Statement (Volume 1), paragraph 1.3.

<sup>9</sup> Final Statement (Volume 1), paragraphs 3.39–3.40.

<sup>10</sup> Final Statement (Volume 1), paragraph 1.22.

<sup>11</sup> Final Statement (Volume 1), Figure 1.1.

<sup>12</sup> Final Statement (Volume 1), paragraph 1.24.

<sup>13</sup> Final Statement (Volume 1), paragraph 1.36.



## Description of the Leased Lines Charge Control

- 1.17 In this section we set out a brief overview of the relevant aspects of the LLCC decision, which is the subject of CityFibre's appeal.
- 1.18 To address the risk of excessive pricing, Ofcom imposed a charge control on leased line services. Ofcom adopted an inflation-X charge control, with a single charge control basket covering the main controlled Ethernet services provided by Openreach.<sup>14,15,16</sup>
- 1.19 In setting the LLCC Ofcom decided to use a combination of a starting charge adjustment of –12% and a glide-path to achieve price reductions for leased line services. Ofcom said that its general preference is to set prices using glide-paths, however it decided to impose the starting charge adjustment in this review period because BT's charges were likely to be significantly above cost for reasons other than efficiency or volume growth.<sup>17</sup>
- 1.20 Ofcom noted that the price control will result in a reduction of approximately £800 million in revenues to BT over the control period, with reductions more heavily weighted in the first year due to the starting charge adjustment.<sup>18</sup> Ofcom stated that the starting charge adjustment combined with the 13.5% price reduction required by the glide path produce a combined first-year revenue impact on BT of –23.9%.<sup>19</sup>

## Description of the Dark Fibre Access remedy

- 1.21 In this section we set out a brief overview of the Dark Fibre Access (DFA) remedy. The pricing of DFA is the subject of TalkTalk's appeal.
- 1.22 In its Final Statement, Ofcom explained that it had concluded that it was appropriate to change its approach from previous reviews towards regulation further upstream in the value chain. Ofcom decided that it should move away from the current reliance on BT's regulated (active) services towards a model in which competition will be based on passive access. Passive access

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<sup>14</sup> Openreach is BT's infrastructure division, established in 2006 pursuant to undertakings offered by BT and accepted by Ofcom, pursuant to the [Enterprise Act 2002](#), to ensure that rival telecom operators have equivalence of access to BT's local network.

<sup>15</sup> [Final Statement \(Volume 2\)](#), paragraphs 3.6–3.11.

<sup>16</sup> Ofcom also adopted several sub-baskets with sub-caps where it believed that the overall basket would not offer sufficient protection for customers. Ofcom's sub baskets within the main Ethernet basket: 1 gigabit per second (Gbit/s) Ethernet Access Direct (EAD) sub-basket; Main link sub-basket; Interconnection services and Cablelink sub-basket; and Ethernet rental sub-basket.

<sup>17</sup> [Final Statement \(Volume 2\)](#), section 7.

<sup>18</sup> [Final Statement \(Volume 2\)](#), paragraph 1.2.

<sup>19</sup> [Final Statement \(Volume 2\)](#), paragraph 7.88.

requires BT to offer its competitors access to the physical elements of its networks, such as underground ducts or optical fibres, without the electronic equipment.<sup>20</sup>

- 1.23 In this charge control period Ofcom decided to impose a passive remedy in the form of a DFA remedy alongside existing active remedies. The DFA remedy will require BT to provide access to unlit strands of optical fibre, allowing the CP purchasing this access to provide the electrical equipment to light the fibre, which would allow a CP to offer retail leased lines services to end users.<sup>21</sup>
- 1.24 Ofcom decided to set a cap for the price of DFA. In setting a regulated price for DFA, Ofcom decided to set the price with reference to an existing regulated active product, the 1Gbit/s wholesale Ethernet leased line service. Ofcom's final determination requires BT, from 1 October 2017, to provide dark fibre at the same price as the 1Gbit/s active service, minus the long run incremental cost of the active element of that 1Gbit/s service. It calls this an 'active-minus' pricing approach.<sup>22</sup> It results in an effective cap on DFA prices linked to active prices, which is described in this appeal as the 'DFA Cap'.
- 1.25 Ofcom considered that the benefit of pricing DFA in this way was that it provides incentives for efficient investment by BT and by rival infrastructure operators; it incentivises use of dark fibre where it provides benefits relative to active remedies; and it ensures BT will continue to have a fair opportunity to recover its efficiently incurred costs.<sup>23</sup>

## Summary of this document

- 1.26 In the rest of this document, we set out our assessment of the two appeals, and our responses to the reference questions:
- (a) In Section 2, we describe the price control references and the relevant aspects of the legal framework, including some legal precedents which we take into consideration.
  - (b) In Section 3, we review CityFibre's appeal.
  - (c) In Section 4, we review TalkTalk's appeal.

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<sup>20</sup> [Final Statement \(Volume 1\)](#), paragraph 1.30.

<sup>21</sup> [Final Statement \(Volume 1\)](#), paragraph 1.36.

<sup>22</sup> [Final Statement \(Volume 1\)](#), paragraph 1.38.

<sup>23</sup> [Final Statement \(Volume 1\)](#), paragraph 1.39.

- (d) In Section 5, we provide our determination.
- (e) In Section 6, we give guidance as to what directions (if any) the CAT should give to Ofcom on remittal.

## 2. The price control references

- 2.1 The Act provides a specific regime for appeals relating to price controls imposed by Ofcom. [Section 192\(2\)](#) of the Act provides that a person affected by a decision to which [section 192](#) applies may appeal against it to the CAT. [Section 192\(6\)](#) specifies the grounds on which an appeal may be brought under [section 192\(2\)](#). These are that: (a) Ofcom's decision was based on an error of fact or was wrong in law, or both; or (b) it was an erroneous exercise of discretion by Ofcom.
- 2.2 Sections [193](#) to [195](#) of the Act deal with references to the CMA of price control matters, as specified in the CAT Rules 2015 (the CAT Rules), arising in an appeal. A price control matter is a matter relating to the imposition of any form of price control by an SMP condition authorised by sections [87\(9\)](#), [91](#) or [93\(3\)](#) of the Act.<sup>24</sup>
- 2.3 Under the CAT Rules, the CAT must refer specified price control matters arising in an appeal to the CMA for determination within a time period specified by the CAT.<sup>25</sup>
- 2.4 The CMA must notify the CAT of its determination.<sup>26</sup> In deciding the appeal on the merits, the CAT must decide the specified price control matters in accordance with the determination of the CMA unless, applying the principles applicable on an application for judicial review, the CAT decides that the CMA's determination is one that would fall to be set aside on such an application.<sup>27</sup>
- 2.5 At the case management conference on 29 September 2016, the CAT decided that no specified price control matters arose in BT's appeal and that, in TalkTalk's appeal and CityFibre's appeal, the following price control matters arose:
- (a) In TalkTalk's appeal: the challenge to Ofcom's decision that the Non-Domestic Rate (NDR) costs to be deducted from the price of the

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<sup>24</sup> The Act, [section 193\(10\)](#).

<sup>25</sup> The Act, [section 193](#). A 'specified price control matter' is defined in [rule 2](#), read together with [rule 116\(1\)](#) of the CAT Rules.

<sup>26</sup> The Act, [section 193\(4\)](#).

<sup>27</sup> The Act, sections [193\(6\)](#) and [193\(7\)](#).

reference active products in deriving the price for DFA at paragraph 10.C.1 of the Condition should be based on an attribution of BT's rates costs to the fibre (rather than on some other appropriate measure) for reasons set out in paragraphs 32 to 44 of the TalkTalk Notice of Appeal (TalkTalk NoA).

- (b) In CityFibre's appeal: the challenge to Ofcom's decision to set the LLCC by reference to BT's costs of replacement of its network (albeit with modern equivalent technology, specifically BT's Current Cost Accounting Fully Allocated Cost (CCA FAC)), instead of the costs of a reasonably efficient operator (REO) or a modified equally efficient operator (MEEO), for the reasons set out in Grounds 3 and 4(b) of the CityFibre Notice of Appeal (CityFibre NoA), having regard, in particular, to any or all of the arguments in the following paragraphs of the CityFibre NoA:
- (i) paragraphs 32 to 36, summarising the arguments under Grounds 3 and 4(b);
  - (ii) paragraphs 57 to 60, alleging failures to comply with Ofcom's duties under sections 3 and 4 of the Act; and
  - (iii) paragraphs 59 to 69 and paragraph 80, alleging failures to use the appropriate measure of costs and to take properly into account pricing in the CLA and CityFibre's discounting relative to BT's prices.

2.6 By Orders dated 17 November 2016, the CAT referred to the CMA the reference questions to be determined in the CityFibre and TalkTalk appeals. Copies of these Orders can be found at Appendix A and Appendix B.

2.7 In both appeals, the CAT has directed that the CMA must determine the issues which have been referred to it by 7 April 2017 and must notify the parties to the appeal of its determination at the same time as it notifies the CAT.<sup>28</sup>

## The legal framework

2.8 Regulation of the telecommunications sector takes place in the European Union under the Common Regulatory Framework (CRF). The CRF consists of a number of Directives, the most relevant of which to these appeals are

- (i) Directive 2002/21/EC on a common regulatory framework for electronic

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<sup>28</sup> See paragraph 1 of each of the Orders of the CAT dated 17 November 2016 and 10 March 2017 (see Appendices A–C).

communications networks and services (as amended) (the Framework Directive),<sup>29</sup> and (ii) Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (as amended) (the Access Directive).<sup>30</sup> Both Directives were updated in 2009 by Directive 2009/140/EC (the Better Regulation Directive).

- 2.9 The CRF imposes on member states the obligation to designate independent national regulatory authorities (NRAs); sets out objectives and principles that the NRAs are to be guided by in carrying out their functions; obliges them to carry out market reviews; and empowers them to impose certain obligations on undertakings with SMP,<sup>31</sup> including price controls.
- 2.10 The UK's NRA is Ofcom and the CRF was implemented in the UK by the Act, in which the powers and duties set out in the Directives are given effect.<sup>32</sup> The Act, in accordance with the CRF, imposes general duties and objectives upon Ofcom, in particular:
- (a) Ofcom has a number of general duties, in particular the duty to further the interests of citizens (that is to say, all members of the public in the UK) in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition;<sup>33</sup>
  - (b) Ofcom has further duties relating to the fulfilment of its EU obligations, in particular, six Community requirements, which include:
    - (a) a requirement to promote competition in relation to the provision of electronic communications networks and services, and in relation to the provision and making available of services and facilities that are provided or made available in association with the provision of electronic communications networks and services;
    - (b) an obligation to encourage the provision of network service and interoperability for the purpose of securing efficient investment and

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<sup>29</sup> The Framework Directive establishes a harmonised framework for the regulation of electronic communications services and networks and associated facilities and services. It also establishes a set of procedures to ensure the harmonised application of the regulatory framework throughout the Community.

<sup>30</sup> The Access Directive harmonises the way in which member states regulate access to, and interconnection of, electronic communications networks and associated facilities. It deals with the imposition of obligations by national regulatory authorities (NRAs) on operators designated as having SMP.

<sup>31</sup> Pursuant to [Article 14\(2\)](#) of the Framework Directive, 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.

<sup>32</sup> The precise wording of the Directive is not replicated within the Act. This may be the case where a particular provision is not appropriate due to the particular circumstances of the UK markets.

<sup>33</sup> The Act, [section 3](#).

innovation;

- (c) a requirement to take account of the desirability of Ofcom carrying out its functions in a manner which, so far as practicable, does not favour one form of electronic communications network, service or associated facility or one means of providing or making available such a network, service or facility; and
  - (d) a requirement to encourage the provision of network access and service interoperability, to such extent as Ofcom considers appropriate for the purpose of securing efficiency and sustainable competition, efficient investment and innovation; and the maximum benefit for the persons who are customers of communications providers and of persons who make associated facilities available;<sup>34</sup>
- (c) Ofcom must take due account of all applicable recommendations issued by the Commission under the Framework Directive;<sup>35</sup>
- (d) Ofcom has the power to set binding conditions, but only if Ofcom is satisfied that the condition is:
- (i) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates;
  - (ii) not such as to discriminate unduly against particular persons or against a particular description of persons;
  - (iii) proportionate to what it is intended to achieve; and
  - (iv) in relation to what it is intended to achieve, transparent;<sup>36</sup>
- (e) Ofcom has a specific power to set SMP conditions that impose price controls. When determining what SMP conditions to set in a particular case, Ofcom must take into account the factors specified in [section 87\(4\)](#) of the Act:

87. Conditions about network access etc.

(4) [...]—

- (a) the technical and economic viability (including the viability of other network access products, whether provided by the

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<sup>34</sup> The Act, [section 4](#).

<sup>35</sup> The Act, [section 4A](#).

<sup>36</sup> The Act, [section 47](#).

dominant provider or another person), having regard to the state of market development, of installing and using facilities that would make the proposed network access unnecessary;

- (b) the feasibility of the provision of the proposed network access;
  - (c) the investment made by the person initially providing or making available the network or other facility in respect of which an entitlement to network access is proposed (taking account of any public investment made);
  - (d) the need to secure effective competition (including, where it appears to Ofcom to be appropriate, economically efficient infrastructure based competition) in the long term;
  - (e) any rights to intellectual property that are relevant to the proposal; and
  - (f) the desirability of securing that electronic communications services are provided that are available throughout the member states;
- (f) The imposition of price controls is subject to [section 88](#), which provides, in relevant part:

88. Conditions about network access pricing etc.

- (1) Ofcom are not to set an SMP condition falling within [section 87\(9\)](#) except where—
  - (a) it appears to them from the market analysis carried out for the purpose of setting that condition that there is a relevant risk of adverse effects arising from price distortion; and
  - (b) it also appears to them that the setting of the condition is appropriate for the purposes of—
    - (i) promoting efficiency;
    - (ii) promoting sustainable competition; and
    - (iii) conferring the greatest possible benefits on the end-users of public electronic communications services.
- (2) In setting an SMP condition falling within [section 87\(9\)](#), Ofcom must take account of the extent of the investment in the matters



to which the condition relates of the person to whom it is to apply.

- 2.11 In assessing each of the reference questions we have had regard to the CRF and the domestic provisions implementing it. We consider our determination to be consistent with the legal framework.

## Standard of review

- 2.12 Pursuant to [section 195\(2\)](#) of the Act, the CAT must decide an appeal brought under [section 192](#) on the merits and by reference to the grounds of appeal set out in the NoA.
- 2.13 Since, unless the determination is set aside, the CAT must follow the CMA's determination on specified price control matters referred to it under [section 193](#), we consider that the CMA must also determine appeals on the merits and by reference to the grounds of appeal.
- 2.14 In *TalkTalk v Ofcom*,<sup>37</sup> the CAT approved the view set out in *Three v Ofcom*<sup>38</sup> that in an on the merits appeal "the question for the CAT is not whether the decision to impose price control was within the range of reasonable responses but whether the decision was the right one". The CAT also added that in an on the merits appeal "the question is whether Ofcom's determination was right, not whether it lies within the range of reasonable responses for a regulator to take".
- 2.15 A number of our previous determinations of price control references, including those made by the CMA's predecessor the Competition Commission (CC), have outlined the nature of our appellate function under the Act.<sup>39</sup> We have followed the same approach as in those cases and relevant extracts are set out below.
- 2.16 This approach was summarised as follows in the *Mobile Call Termination Determination (MCT)(1)*:<sup>40</sup>

1.30 [Section 195\(2\)](#) of the Act provides for an appeal on the merits. [Section 192\(6\)](#) shows that appeals can be brought on the basis of errors of fact or law or against the exercise of discretion. The CAT interpreted its

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<sup>37</sup> *TalkTalk v Ofcom* ([Case 1186/3/3/11](#)) (CAT 1) (10 January 2012), paragraphs 71–72.

<sup>38</sup> *Three v Ofcom* ([Case 1083/3/3/07](#)) (CAT 11) (20 May 2008), paragraph 164.

<sup>39</sup> For example as set out in (i) *Mobile Call Termination (MCT)(1)* ([Cases 1083/3/3/07 and 1085/3/3/07](#)) (16 January 2009), (ii) *Cable and Wireless* ([Case 1112/3/3/09](#)) (30 June 2010), (iii) *Carphone Warehouse (LLU)* ([Case 1111/3/3/09](#)) (31 August 2010), (iv) *Carphone Warehouse (WLR)* ([Case 1149/3/3/09](#)) (31 August 2010), (v) *Mobile Call Termination (MCT)(2)* ([Cases 1180-1183/3/3/11](#)) (9 February 2012) (vi) *Wholesale Broadband Access* ([Case 1187/3/3/11](#)) (11 June 2012), and (vii) *BT/British Sky Broadcasting Limited/TalkTalk (LLU/WLR)* ([Cases 1192-1193/3/3/12](#)) (27 March 2013).

<sup>40</sup> *Mobile Call Termination (MCT)(1)* ([Cases 1083/3/07 and 1085/3/07](#)) (16 January 2009), paragraphs 1.30–1.33.



role under a [section 192](#) appeal as being one of a specialist court designed to be able to scrutinize the detail of regulatory decisions in a profound and rigorous manner. In our view, our role in determining the specified price control matters that have been referred to us is similar ...

1.31 We also note that the wording of [rule 3](#) of the 2004 Rules envisages a determination of disputes that relate to the principles or methods applied or the calculations or data used in determining a price control, as well as disputes that relate to what the provisions imposing the price control should be (including at what level the price control should be set). That also suggests a rigorous and detailed examination of the price control matters subject to appeal.

1.32 We have carried out that examination with the purpose of determining whether Ofcom erred for any of the specific reasons put forward by the parties. In determining whether it did so err, we have not held Ofcom to be wrong simply because we considered there to be some error in its reasoning on a particular point – the error in reasoning must have been of sufficient importance to vitiate Ofcom’s decision on the point in whole or in part.

1.33 We have also kept in mind the point made by the interveners that Ofcom is a specialist regulator whose judgement should not be readily dismissed. Where a ground of appeal relates to a claim that Ofcom has made a factual error or an error of calculation, it may be relatively straightforward to determine whether it is well founded. Where, on the other hand, a ground of appeal relates to the broader principles adopted or to an alleged error in the exercise of a discretion, the matter may not be so clear. In a case where there were a number of alternative solutions to a regulatory problem with little to choose between them, we do not think it would be right for us to determine that Ofcom erred simply because it took a course other than the one that we would have taken. On the other hand, if, out of the alternative options, some clearly had more merit than others, it may more easily be said that Ofcom erred if it chose an inferior solution. Which category a particular choice falls within can necessarily only be decided on a case-by-case basis.

- 2.17 The case law of the CAT and the Court of Appeal set out below has elaborated how the CMA should carry out its this function in such cases.

2.18 First, in *T-Mobile (UK) Limited v Ofcom*,<sup>41</sup> the Court of Appeal made it clear that the [section 192](#) appeal process is not intended to duplicate, still less, usurp, the functions of Ofcom:

After all it is inconceivable that [Article 4](#) [of the Framework Directive], in requiring an appeal which can duly take into account the merits, requires Member States to have in effect a fully equipped duplicate regulatory body waiting in the wings just for appeals. What is called for is an appeal body and no more, a body which can look into whether the regulator has got something materially wrong. That may be very difficult if all that is impugned is an overall value judgment based upon competing commercial considerations in the context of a public policy decision.

2.19 Second, as to the meaning of an appeal ‘on the merits’, the CAT stated, in *BT v Ofcom*,<sup>42</sup> as follows:

By [section 192\(6\)](#) of the Act and [rule 8\(4\)\(b\)](#) of the 2003 CAT Rules, the notice of appeal must set out specifically where it is contended Ofcom went wrong, identifying errors of fact, errors of law and/or the wrong exercise of discretion. The evidence adduced will, obviously, go to support these contentions. What is intended is the very reverse of a de novo hearing. Ofcom’s decision is reviewed through the prism of the specific errors that are alleged by the appellant. Where no errors are pleaded, the decision to that extent will not be the subject of specific review. What is intended is an appeal on specific points.

2.20 Third, in *TalkTalk v Ofcom*,<sup>43</sup> the CAT said that “[w]here a decision can be challenged by way of a merits appeal, it is incumbent upon an appellant to show – if necessary by way of new evidence – that the original decision was wrong ‘on the merits’. It is not enough to suggest that, were more known, the CAT’s decision might be different”.

2.21 Fourth, as to the standard of review generally, we note that the Court of Appeal held in *Everything Everywhere Ltd v CC*,<sup>44</sup> as follows:

22. ... If the appellant can do no more than show that there is a ‘real risk that the decision was wrong’ then it has not shown that Ofcom’s decision was wrong and the appeal should be dismissed. But there remains scope

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<sup>41</sup> *T-Mobile (UK) Limited v Ofcom* ([Case C1/2008/2257, 2257\(A\) and 2258](#)) (EWCA Civ 1373) (12 December 2008), paragraph 31.

<sup>42</sup> *BT v Ofcom* ([Case 1151/3/3/10](#)) (CAT 17) (8 July 2010), paragraph 76.

<sup>43</sup> *TalkTalk v Ofcom* ([Case 1186/3/3/11](#)) (CAT 1) (10 January 2012), paragraph 134.

<sup>44</sup> *Everything Everywhere Ltd v CC* ([Case C3/2012/1523](#)) (EWCA Civ 154) (6 March 2013), paragraphs 22–25.

for dispute as to what is meant by showing that an original decision is wrong 'on the merits'.

23. It is for an appellant to establish that Ofcom's decision was wrong on one or more of the grounds specified in [section 192\(6\)](#) of the Act: that the decision was based on an error of fact, or law, or both, or an erroneous exercise of discretion. It is for the appellant to marshal and adduce all the evidence and material on which it relies to show that Ofcom's original decision was wrong. Where, as in this case, the appellant contends that Ofcom ought to have adopted an alternative price control measure, then it is for that appellant to deploy all the evidence and material it considers will support that alternative.

24. The appeal is against the decision, not the reasons for the decision. It is not enough to identify some error in reasoning; the appeal can only succeed if the decision cannot stand in the light of that error. If it is to succeed, the appellant must vault two hurdles: first, it must demonstrate that the facts, reasoning or value judgments on which the ultimate decision is based are wrong, and second, it must show that its proposed alternative price control measure should be adopted by the CC. If the CC (or CAT in a matter unrelated to price control) concludes that the original decision can be supported on a basis other than that on which Ofcom relied, then the appellant will not have shown that the original decision is wrong and will fail.

25. Usually an appellant will succeed by demonstrating the flaws in the original decision and the merits of an alternative solution. But that is not necessarily so. I would not rule out the possibility that there could be a case where an appellant succeeds in so undermining the foundations of a decision that it cannot stand, without establishing what the alternative should be. In such a case, if there is no other basis for maintaining the decision, the CC or CAT would be at liberty to conclude that the original decision was wrong but that it could not say what decision should be substituted. The CAT would then be required to allow the appeal under [section 195\(2\)](#) and direct Ofcom to make a fresh decision with such directions as the CAT thinks are necessary to reach a properly informed conclusion. The CAT may wish to specify the steps to be taken by Ofcom to make good any deficit in evidence and material so as to reach a fresh decision, or leave it to Ofcom to act as it sees fit in the light of the CC's conclusion.

2.22 Fifth, as to the exercise of Ofcom’s regulatory discretion, we note that, in *T-Mobile (UK) Limited and others v Ofcom*,<sup>45</sup> the CAT stated:

It is also common ground that there may, in relation to any particular dispute, be a number of different approaches which Ofcom could reasonably adopt in arriving at its determination. There may well be no single ‘right answer’ to the dispute. To that extent, the CAT may, whilst still conducting a merits review of the decision, be slow to overturn a decision which is arrived at by an appropriate methodology even if the dissatisfied party can suggest other ways of approaching the case which would also have been reasonable and which might have resulted in a resolution more favourable to its cause.

2.23 Finally, appeals must be determined by reference to the evidence adduced by the parties and the CMA is not under an investigative duty: see *BT and others v CC*,<sup>46</sup> where the CAT held:

201. The proposition that an administrative decision-maker should ask himself the right question and take reasonable steps to acquaint himself with the relevant information to enable him to answer it correctly is well-established and uncontroversial: see, for example, *Secretary of State for Education and Science v Tameside MBC* (1 AC 1014) (1977) at paragraph 1065.

202. It is absolutely clear that when the CC is exercising its original and investigative jurisdiction, it is under precisely such a duty: see, for example, *Tesco plc v CC* (CAT 6) (2009) at paragraph 139; *BAA Limited v CC* (CAT 3) (2012) at paragraph 20(3).

203. In this case, however, the CC is not exercising any kind of original or investigative jurisdiction. As we made clear in paragraph 118 above, that is the function of Ofcom. The CC’s role is confined to determining the questions referred to it by the CAT. The CC is not investigating anything – it is determining whether Ofcom erred in its decision for the reasons set out in the notice of appeal. As we noted in paragraph 118 above, the CC is acting as an administrative appeal body.

204. Accordingly, we hold that the duty on an administrative decision-maker to investigate and seek out the relevant information to enable him to answer the question before him correctly does not apply to the CC when determining reference questions pursuant to [section 193](#) of the Act.

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<sup>45</sup> *T-Mobile (UK) Limited and others v Ofcom* ([Cases 1089-1092/3/3/07](#)) (CAT 12) (20 May 2008), paragraph 82.

<sup>46</sup> *BT and others v CC* ([Cases 1180-1183/3/3/11](#)) (CAT 11) (3 May 2012), paragraphs 201–204.

Rather, the CC's duty is to discharge its functions under this section in a more judicial manner: it is not investigating with a view to making a decision; it is considering specific complaints about the decision of another. In short, the nature and quality of the scrutiny that the CC gives to Ofcom's decisions is altogether different (to say 'lower' or 'higher' would be to compare qualitatively different functions) from exercises conducted by the CC as administrative decision-maker.

- 2.24 These principles are consistent with the guidance given by the CAT in *British Sky Broadcasting Ltd and others v Ofcom*,<sup>47</sup> which was approved by the Court of Appeal.<sup>48</sup> This has been cited with approval in a number of cases. We consider that the guidance within this judgment is consistent with the earlier precedent, but provides additional clarification as to the principles that we should follow in assessing these appeals. We have followed this approach in determining these appeals:

... we consider that the following principles should inform our approach to disputed questions upon which Ofcom has exercised a judgment of the kind under discussion:

(a) Since the CAT is exercising a jurisdiction 'on the merits', its assessment is not limited to the classic heads of judicial review, and in particular it is not restricted to an investigation of whether Ofcom's determination of the particular issue was what is known as *Wednesbury* unreasonable or irrational or outside the range of reasonable responses.

(b) Rather the CAT is called upon to consider whether, in the light of the grounds of appeal and the evidence before it, the determination was wrong. For this purpose it is not sufficient for the CAT simply to conclude that it would have reached a different decision had it been the designated decision-maker.

(c) In considering whether the regulator's decision on the specific issue is wrong, the CAT should consider the decision carefully, and attach due weight to it, and to the reasons underlying it. This follows not least from the fact that this is an appeal from an administrative decision not a *de novo* rehearing of the matter, and from the fact that Parliament has chosen to place responsibility for making the decision on Ofcom.

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<sup>47</sup> *British Sky Broadcasting Ltd and others v Ofcom* (Cases 1156-1159/8/3/10) (CAT 20) (8 August 2012), paragraph 134.

<sup>48</sup> Case C3/2013/0443 (EWCA Civ 133) (17 February 2014), paragraph 88.

(d) When considering how much weight to place upon those matters, the specific language of [section 316](#) to which we have referred, and the duration and intensity of the investigation carried out by Ofcom as a specialist regulator, are clearly important factors, along with the nature of the particular issue and decision, the fullness and clarity of the reasoning and the evidence given on appeal. Whether or not it is helpful to encapsulate the appropriate approach in the proposition that Ofcom enjoys a margin of appreciation on issues which entail the exercise of its judgment, the fact is that the CAT should apply appropriate restraint and should not interfere with Ofcom's exercise of a judgment unless satisfied that it was wrong.<sup>49</sup>

2.25 The parties to these appeals have made various submissions in relation to the standard of review that should be adopted by us. Generally, the parties accepted the principles laid out above. However, Ofcom said that it did not accept the CMA's description of the applicable standard of review, and in particular, how we had applied the standard of review in the TalkTalk appeal, where it considered that we were encouraging appeals on the basis that we would act as a second regulator.<sup>50</sup> It repeated the view that its Counsel expressed at the hearing:<sup>51</sup>

“... the point is simply that the correct approach is not... to start with an alternative approach and to say that if that approach were considered superior there is an error. In fact, in our submission the reverse is true. The first question for the CMA is whether there was an error in Ofcom's approach. And the question of what alternative approach should be adopted is primarily relevant once an error has been identified”.

2.26 We consider that the approach described by Ofcom is consistent with that in *British Sky Broadcasting Ltd and others v Ofcom*,<sup>52</sup> and indeed this is the approach that we have followed in considering these appeals.

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<sup>49</sup> See *BT and others v Ofcom* (the Ethernet Appeals) ([Cases 1205-1207/3/3/13](#)) (CAT 14) (1 August 2014), paragraph 66, endorsing the principles in the context of a [section 192](#) appeal; *BT v Ofcom* (the ported numbers appeals) ([Case 1245/3/3/16](#)) (CAT 22) (4 November 2016), paragraphs 35–36 and 561; and *BT v Ofcom* (the Virtual unbundled local access (VULA) appeals) ([Case 1238/3/3/15](#)) (CAT 3) (24 March 2016), paragraph 41.

<sup>50</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 10.

<sup>51</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 9 and Ofcom main party hearing transcript (TalkTalk appeal), page 67.

<sup>52</sup> *British Sky Broadcasting Ltd and others v Ofcom* ([Cases 1156-1159/8/3/10](#)) (CAT 20) (8 August 2012).

## Materiality

2.27 In determining the reference questions in each of the appeals before us, our task is to identify whether Ofcom's decision has been shown to be materially in error.

2.28 In the *Carphone Warehouse* determination,<sup>53</sup> the CC summarised its approach to the question of materiality as follows:

We considered that our task was to identify whether Ofcom's decision had been shown to be materially in error; in other words, whether any mistakes had a material impact in the context of the price control.

We have not found it possible to set out a general approach to the assessment of materiality; we did not find that such an assessment would be amenable to a formal analytical scheme. Instead, while our approach is broadly similar to that in the CC determinations in *Carphone Warehouse* (LLU) and *Carphone Warehouse* (WLR), we considered materiality in the context of the specific facts that arose in these Appeals.

In each case, we took into account the following factors, none of which we viewed individually as necessarily defining a sufficient condition for materiality:

(a) the impact of the mistake as a percentage of the relevant charge control; in this context, we noted the CC's determination in *Carphone Warehouse* (LLU) that where the impact is below 0.1%, the mistake is unlikely to be capable of producing a material effect on the charge control; in those circumstances it fell within an acceptable margin of error for a regulator. In our view, this is not, and was not intended to be, a bright-line test for the assessment of materiality. The impact of the mistake as a percentage of the charge control is but one factor in an overall assessment based on all the circumstances of the case;

(b) the effort that Ofcom would have had to expend to consider and address fully appellants' criticisms; we noted that this factor may in some instances overlap with the assessment of whether or not it is proportionate for a material error to be corrected;

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<sup>53</sup> *Carphone Warehouse v Ofcom* determination ([Case 1111/3/3/09](#)) (31 August 2010).



(c) persistency, ie whether, if the mistake were not corrected, it would be likely to be repeated or produce effects that persist for longer than the current price control period;

(d) whether the mistake relates to a matter of economic or regulatory principle;

(e) whether the mistake has a distortive effect in that it works in different directions or impacts to a different extent on different products or services, thus potentially distorting competition between them;

(f) the impact of the mistake on any particular companies that are affected if the error is not corrected, and whether this could distort competition between different providers; and

(g) any other factors that may be relevant in the particular context of the issue under consideration.

2.29 We rely on the same approach in considering these appeals.

## Our process

2.30 We have conducted these appeals in accordance with the guidance set out in [Price control appeals under section 193 of the Communications Act 2003: Competition Commission Guidelines \(CC13\)](#) as adopted by the CMA (the Guidance).<sup>54</sup>

2.31 On 17 November 2016, the CAT referred the specified price control matters in both appeals to the CMA for determination by 31 March 2017.<sup>55</sup> Copies of the CAT Orders can be found at Appendix A and Appendix B. On 10 March 2017, the CAT granted the CMA an extension for determination to 7 April 2017.<sup>56</sup> A copy of the CAT Order can be found at Appendix C.

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<sup>54</sup> We will deal with the issue of costs at the time of the final determination and will apply the guidance set out in [Cost recovery in telecoms price control references: Guidance on the CMA's approach \(CMA5\)](#).

<sup>55</sup> On 16 November 2016, the [CAT granted Ofcom an extension](#) to 24 November 2016 to file and serve its Defence in relation to the TalkTalk appeal. The CAT also granted BT the liberty to apply for an extension of time to file and serve any Statement of Intervention (Sol) and evidence relied upon in support of Ofcom. On 29 November 2016, the CAT granted BT an extension to 2 December 2016 to file and serve any Sol and evidence relied upon in support of Ofcom in relation to the TalkTalk appeal.

<sup>56</sup> On 3 March 2017, Ofcom wrote to the CMA requesting an extension of one week to the deadline set by the CMA for responses to its provisional determination. The CMA received no objections to Ofcom's request for an extension, but considered that, given the timetable for the CMA's Reference, in order to be able to grant such an extension to Ofcom, it would be necessary for the CMA also to be given more time by the CAT in which to make its final determination of the Reference. On 7 March 2017, the CMA therefore requested the CAT give directions extending by seven days the date by which the CMA must determine the Reference (ie until 7 April 2017).



- 2.32 We held a case management conference on 21 November 2016 with all parties to the appeals to discuss and agree how the appeals would be conducted and, on 30 November 2016, BT, CityFibre and Ofcom made presentations about the technical context of the various products which are the subject of these appeals.
- 2.33 On 5 December 2016, we held a Core Submissions hearing at which the main parties to the appeals, together with the interveners, were invited to make submissions to us on what they considered to be the key aspects of their respective cases. The parties were asked to set out clearly all essential elements of the arguments on which they were relying.
- 2.34 On 12 December 2016, we received written Core Submissions (Volume 1) from all parties, summarising the main arguments presented at the Core Submissions hearing. Taking into account the opportunity offered by the Core Submissions hearing, parties were asked to limit their Core Submissions (Volume 1) to 20 pages.
- 2.35 On 21 December 2016, we received written Core Submissions (Volume 2) from the appellants to stand as their replies to Ofcom's Defence. Parties were asked to limit their Core Submissions (Volume 2) to 40 pages.
- 2.36 On 25 January 2017, we held a hearing with CityFibre and with Ofcom to examine in detail their various arguments in relation to the reference questions in the CityFibre appeal. Similarly, on 30 January 2017, we held a hearing with TalkTalk and with Ofcom in respect of the TalkTalk appeal. On 31 January 2017 we held hearings with BT, the CP Group and Gamma as interveners in the CityFibre appeal and with CityFibre and BT as interveners in the TalkTalk appeal. On 31 January 2017 we also held hearings with Ofcom in relation to both the CityFibre appeal and TalkTalk appeal further to the evidence submitted at the aforementioned hearings with interveners.
- 2.37 On 27 February 2017 we notified a provisional determination to the parties to this appeal. Responses to the provisional determination were received on 17 March 2017. We have considered these responses as part of this final determination.

### 3. CityFibre appeal

#### Introduction

- 3.1 Under the CityFibre appeal, the CAT asked us to consider one question, with three sub-questions:<sup>57</sup>
- 3.2 In designing the LLCC and the cap on DFA pricing, was Ofcom wrong to set the LLCC by reference to BT's costs of replacement of its network (albeit with modern equivalent technology, specifically BT's CCA FAC), instead of the costs of a REO or a MEEO, for the reasons set out in Grounds 3 and 4(b) of the CityFibre NoA, having regard, in particular, to any or all of the arguments in the following paragraphs of the CityFibre NoA:
- (a) paragraphs 32 to 36, summarising the arguments under Grounds 3 and 4(b);
  - (b) paragraphs 57 to 60, alleging failures to comply with Ofcom's duties under sections 3 and 4 of the Act; and
  - (c) paragraphs 59 to 69 and 80, alleging failures to use the appropriate measure of costs and to take properly into account pricing in the CLA and CityFibre's discounting relative to BT's prices.
- 3.3 The core of CityFibre's challenge is that Ofcom made an error in its choice of cost standard used to determine BT's regulated prices for leased lines.<sup>58</sup> The LLCC sets constraints on the maximum prices which BT (through its Openreach division) is able to charge for a wide range of relevant business connectivity wholesale services. These wholesale leased line services are used by CPs in offering retail leased line services to customers.
- 3.4 CityFibre alleged that Ofcom was wrong in setting the LLCC charges based on a measure of BT's actual costs, which is described by Ofcom as CCA FAC, rather than an alternative measure which CityFibre described as MEEO or REO.<sup>59</sup>
- 3.5 Whilst there is one question for the CMA, we initially consider separately the elements of the CityFibre NoA highlighted in sub-paragraphs (a) to (c) of the question in paragraph 3.1. We then consider the combined analysis and

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<sup>57</sup> See Appendix A.

<sup>58</sup> We note that the choice of cost standard in the LLCC will also affect the price for DFA, because the DFA price is based on the price for 1Gbit/s active circuits, minus an allowance for BT's avoided costs and NDRs. However, CityFibre's NoA, and the appeal question in paragraph 3.1, is focused on the impact on the LLCC.

<sup>59</sup> CityFibre NoA, paragraphs 57–61.

conclude whether Ofcom was wrong in its decision, taking into account the cumulative effect of the points highlighted by CityFibre.

- 3.6 First, we describe Ofcom's approach and CityFibre's proposed alternative (see paragraphs 3.14 to 3.26).
- 3.7 Second, we consider CityFibre's arguments regarding the benefits of an alternative approach, and in particular:
- (a) impact on infrastructure competition (see paragraphs 3.27 to 3.81):  
CityFibre argued that Ofcom's approach of using BT's CCA FAC will lead to a significant reduction in the LLCC price which would "have the effect of excluding a competitor to BT", as the result would be to allow insufficient profits for investors to finance CityFibre's planned investment. This is because of scale effects that reduce BT's average costs relative to potential competitors such as CityFibre.<sup>60</sup> CityFibre also argued that Ofcom failed to take into account its need to offer substantial discounts on BT's prices and that the structure of the DFA remedy will remove its ability to charge more to customers for which the product is more valuable,<sup>61</sup> and
  - (b) benefits of infrastructure competition under CityFibre's alternative approach (see paragraphs 3.82 to 3.141): CityFibre argued that Ofcom did not fully consider the benefits of infrastructure competition, which had the potential to offer dynamic gains to users of leased line and fixed line services.<sup>62</sup>
- 3.8 Third, we consider CityFibre's and Ofcom's submissions on the costs of CityFibre's alternative approach (see paragraphs 3.142 to 3.169).
- 3.9 Fourth, we consider whether Ofcom erred in its balancing of benefits and costs when it decided to use a cost standard based on BT's CCA FAC rather than an alternative REO or MEE0 approach (see paragraphs 3.170 to 3.193).
- 3.10 We consider these four points together allow us to respond to the evidence raised in the first part of CityFibre's question, as to whether, based on the approach taken by Ofcom, it was wrong in how it balanced the benefits and costs of CityFibre's alternative approach.

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<sup>60</sup> CityFibre NoA, paragraphs 32–33.

<sup>61</sup> CityFibre NoA, paragraphs 67–68.

<sup>62</sup> CityFibre NoA, paragraphs 34–36.

- 3.11 We then consider CityFibre’s argument that Ofcom was wrong as it failed to correctly apply its legal duties. CityFibre argued that Ofcom’s failure to apply an alternative REO or MEE0 approach was inconsistent with its legal duties to promote infrastructure competition, with its own policy statements and with European guidance and case law precedent (see paragraphs 3.194 to 3.220).<sup>63</sup>
- 3.12 Finally, we assess CityFibre’s argument that Ofcom failed properly to consider the implications for the LLCC of the prices of dark fibre products in the CLA (see paragraphs 3.221 and 3.248).<sup>64</sup>
- 3.13 Based on this analysis, we set out our decision on the reference question (see paragraphs 3.249 and 3.250).

### **Choice of cost standard used in the Leased Lines Charge Control**

- 3.14 In this section, we describe the cost standard used by Ofcom in the LLCC and set out the principles behind CityFibre’s alternative of using an MEE0 or REO approach.

#### ***Ofcom’s choice of cost standard***

- 3.15 In the Final Statement, Ofcom concluded that BT had SMP in the business connectivity market (BCM) outside the CLA. In order to remedy this SMP, it imposed a charge control (the LLCC) on BT, setting a cap on the prices which BT could charge during the next three-year charge control period (2016/17 to 2018/19).
- 3.16 Ofcom’s approach to setting the LLCC started from an assessment of BT’s costs, using the CCA FAC methodology. The choice of LLCC cost methodology required a number of assumptions, which are described in the Final Statement and supporting documents. For the purposes of this appeal, key elements include the following assumptions which were described in section 5 of the Final Statement (Volume 2)<sup>65</sup>, in particular in response to comments made by CityFibre in its consultation response:
- (a) the costs used to determine the LLCC are based on an assessment of BT’s expected costs for the period (rather than, for example, those of a hypothetical reasonably efficient competing operator); and

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<sup>63</sup> CityFibre NoA, paragraphs 33 & 61.

<sup>64</sup> CityFibre NoA, paragraphs 65–66.

<sup>65</sup> [Final Statement \(Volume 2\)](#), paragraphs 5.55 & 5.84.

- (b) BT's costs are not adjusted to reflect any differences between BT's operations and those of competing operators – ie Ofcom chose not to use a MEE0 approach.
- 3.17 The CCA FAC methodology estimates the cost for BT of operating its relevant network of leased lines based on its regulatory accounting data, with a number of rules set by Ofcom as to how BT should calculate and allocate its costs. CityFibre is not challenging these rules and therefore we do not consider them further in our determination on this appeal.
- 3.18 The overall impact of Ofcom's LLCC will be to reduce BT's leased line prices significantly over the charge control period. The LLCC requires BT to implement a real 43% reduction in average charges over 3 years,<sup>66</sup> although BT has some flexibility to rebalance charges and therefore some charges may fall by less than this amount and other charges may fall by a greater amount. Ofcom applied 12% of the reduction as a starting charge adjustment because prices were significantly above cost for reasons other than efficiency or volume growth.<sup>67</sup> Ofcom calculated that the total price reduction in the first year of the price control would be 23.9%.
- 3.19 In its Final Statement, Ofcom set out the following broad reasons for using BT's CCA FAC as its preferred cost standard:<sup>68</sup>
- (a) it ensures that BT is able to recover efficiently incurred costs (cost recovery principle); and
  - (b) it provides economic signals for efficient entry which should encourage entry where the entrant is as efficient as BT.
- 3.20 In some other regulatory decisions, Ofcom has used alternative approaches to BT's CCA FAC.<sup>69</sup> However, Ofcom noted that it has used a cost standard based on BT's CCA FAC in its previous LLCC decisions.<sup>70</sup>
- 3.21 In response to comments from CityFibre during the BCMR consultation process, Ofcom considered alternatives, including the option of using an REO

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<sup>66</sup> [Final Statement \(Volume 1\)](#), Table 1.5 (Summary of the controls and starting charge adjustments (the price control applying to the Ethernet basket is a starting charge adjustment of –12% and Consumer Prices Index (CPI)–13.5% adjustments in each year of the price control period).)

<sup>67</sup> Ofcom response to the provisional determination (CityFibre appeal), Annex 2. (Ofcom's analysis included the conclusions of Ofcom's Cost Attribution Review which was published in November 2015. See [Annexes 27 and 28](#) of the Final Statement which confirm the impact of the conclusions from that review on the adjustments to the base year for the LLCC.)

<sup>68</sup> [Final Statement \(Volume 2\)](#), paragraphs 5.61–5.62.

<sup>69</sup> [Final Statement \(Volume 2\)](#), paragraphs 5.72–5.73.

<sup>70</sup> For example, see [Final Statement \(Volume 2\)](#), paragraph 5.61.

or MEE0 approach. Ofcom concluded, however, that using BT's CCA FAC was more appropriate in this case.

### ***CityFibre's alternative approach***

- 3.22 CityFibre stated that Ofcom should have used an REO or an MEE0 cost standard. It summarised the objective of its alternative approach:<sup>71</sup>

“... In respect of the LLCC, CityFibre's preferred remedy is to balance the consumers' short term interests against the consumers' longer term interests and allow some 'economic space' for providers such as CityFibre to establish themselves in competition with BT and achieve more scale and so reap the benefits of economies of scale, at the same time as providing a spur to innovation and improvement. ...”

- 3.23 CityFibre said what this would mean in practice:<sup>72</sup>

“CityFibre contends that Ofcom should have set the LLCC by reference to the costs of a REO or a MEE0, consistently with the Body of European Regulators for Electronic Communications (BEREC) guidance on avoiding margin squeeze and Ofcom's own policy statements. ...”

- 3.24 CityFibre considered that this approach would be consistent with the objectives stated by Ofcom in previous statements. It referred to wholesale local access (WLA) and the relevance of economies of scale and scope quoted by Ofcom in that decision, where it stated:<sup>73</sup>

“In the specific context of ex ante price controls aiming to maintain effective competition between operators not benefiting from the same economies of scale and scope and having different unit network costs, a "reasonably efficient competitor test" will normally be more appropriate”.

- 3.25 CityFibre suggested during the BCMR consultation that the LLCC should be set at a level that would provide sufficient economic headroom to allow infrastructure competition to develop. It indicated that this could be achieved at a price that was 10–15% below BT's then current (ie 2014/15) active prices by the end of the next charge control period (rather than 43% lower under Ofcom's final LLCC determination<sup>74</sup>).

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<sup>71</sup> CityFibre NoA, paragraph 34.

<sup>72</sup> CityFibre NoA, paragraph 61.

<sup>73</sup> CityFibre NoA, paragraph 61.

<sup>74</sup> [Final Statement \(Volume 2\)](#), paragraph 5.74.2.

- 3.26 CityFibre noted that it was not asking for a specific regulatory intervention to assist its business case, but considered that setting the LLCC using an MEE0 or REO approach would benefit all potential infrastructure competitors.<sup>75</sup> Most of the arguments and evidence presented to us during this appeal have focused on the implications of the LLCC on CityFibre and its future plans. However, we recognise that a higher LLCC price would benefit other infrastructure providers, and our approach has been to consider the impact on infrastructure providers generally, not just the impact on CityFibre.

## **Impact of Ofcom's approach on infrastructure competition**

- 3.27 In this section we consider CityFibre's arguments that Ofcom's approach of using BT's CCA FAC will have a significant negative effect on future investment by CityFibre and other infrastructure providers, and that its alternative proposal would avoid these negative effects. This forms the first part of CityFibre's case that an alternative REO or MEE0 approach would create significant benefits by providing incentives for infrastructure investment.
- 3.28 First, we consider CityFibre's arguments on the impact of the LLCC on its investment programme given that BT benefits from advantages of economies of scale and scope which cannot be matched by competing infrastructure providers, and Ofcom's response to these arguments (see paragraphs 3.31 to 3.54).
- 3.29 Second, we consider CityFibre's arguments that Ofcom failed to recognise that it needs to offer significant discounts on BT's prices (see paragraphs 3.55 to 3.66) and that Ofcom failed to have regard to the impact that the charge controls would have on CityFibre's ability to price discriminate (see paragraphs 3.67 to 3.77).
- 3.30 Finally, we set out our assessment of the likely impact of Ofcom's approach on infrastructure competition and future investment by competing infrastructure providers (see paragraphs 3.78 to 3.81).

## ***CityFibre's investment programme and economies of scale***

### ***CityFibre's case, third party views and Ofcom's response***

- 3.31 In this section we consider CityFibre's arguments and Ofcom's response together, as both CityFibre and Ofcom clarified their expectations in respect of

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<sup>75</sup> CityFibre response to the provisional determination, paragraph 16.

CityFibre’s planned investment programme and the potential effects of the LLCC on that investment programme during the process of providing evidence to this appeal.

- 3.32 CityFibre told us that it had constructed purpose-built fibre networks in 36 towns and cities and had plans and funding for networks in 50 towns and cities by 2020. It had identified an addressable market of 130 towns and cities, from which it planned to add at least a further 50 by 2025, making 100 in all by that date.<sup>76</sup>
- 3.33 CityFibre told us that its business model relied in the first stage of network roll-out on revenue streams from providing connections to anchor tenants (often local authorities) but with a view to then building out from that initial network to supply more business and residential customers, along with fibre connectivity for 5G wireless small cells.<sup>77</sup>
- 3.34 CityFibre said that, [REDACTED].<sup>78</sup>
- 3.35 CityFibre argued that the reduction in leased line charges and its knock-on effect on dark fibre charges mean that there will be insufficient profit for CityFibre to expand as planned.<sup>79</sup> This is because CityFibre will earn significantly less from anchor tenants and will not be able to meet the financing conditions to enable it to invest in new cities. It added that, as a result of the LLCC, [REDACTED].<sup>80</sup> It said that a LLCC set with reference to BT’s costs will have the effect of “all but freezing” the roll-out of purpose-built fibre networks by CityFibre and other potential investors.<sup>81</sup>
- 3.36 CityFibre’s case is that a new entrant cannot initially match the unit costs of the incumbent operator due to BT’s substantial economies of scale and scope. It explained that this disadvantage stems from the fact that it must make a substantial upfront investment while the number of customers using the network is initially low, resulting in high initial costs per connection.<sup>82</sup> It said that, given BT’s large customer base, economies of scale mean that BT’s unit costs will be lower than those of an equally efficient market entrant or, in some circumstances, a substantially more efficient entrant.<sup>83</sup>

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<sup>76</sup> CityFibre NoA, paragraph 9.

<sup>77</sup> CityFibre Core Submission (Volume 1), paragraph 20.

<sup>78</sup> [REDACTED]

<sup>79</sup> CityFibre NoA, paragraphs 32–33.

<sup>80</sup> [REDACTED]

<sup>81</sup> CityFibre NoA, paragraph 2.3.

<sup>82</sup> CityFibre main party hearing transcript, page 63.

<sup>83</sup> CityFibre Core Submission (Volume 1), paragraph 64.



- 3.37 CityFibre also told us that, after building a network in a town, it would expect to reach ‘maturity’ once it had a market share of around [X]%, which it would typically expect to achieve after about [X].<sup>84</sup> However, given the greater efficiency of its network, it would expect its unit costs to decline quickly as it added more connections, such that it could achieve unit costs comparable to those of BT in around [X].<sup>85</sup>
- 3.38 In addition CityFibre referred the CMA to the Infrastructure Investors Group (IIG) response to the 2015 BCMR consultation.<sup>86</sup> The IIG’s members are CityFibre, euNetworks, Virgin Media and Zayo. This submission supported CityFibre’s arguments about the likely impact of the reduction in leased line prices. For example, the IIG response stated that “Ofcom’s proposed charge control sets up a self-fulfilling prophecy whereby their incorrect assumption of a lack of competition leads to a remedy that destroys emerging infrastructure competition and wipes out any future chance of a naturally competitive market that does not require regulation”.<sup>87</sup>
- 3.39 Gamma’s Sol and its supporting witness statement made a similar argument, that “the imposition of such a price cap throughout the RoUK threatens to squeeze the margins of potential infrastructure investors to the point at which the lack of competition will be compounded, rather than alleviated”.<sup>88</sup> Gamma did not provide any analysis of the scale of the potential impact for its own or other businesses.
- 3.40 However, Vodafone stated that, while CityFibre implied that the impact on its own business will be analogous to the impact on other industry players, this is in Vodafone’s view plainly untrue. It noted that the CP Group comprises two of the UK’s largest infrastructure investors in the UK, and its intervention in support of Ofcom demonstrates that it considers the impact of Ofcom’s decision on investment is likely to vary for different CPs.<sup>89</sup>
- 3.41 Ofcom did not dispute that BT’s costs exhibit economies of scale and scope, but identified cost factors which may give new entrants a competitive edge.<sup>90</sup> In particular:

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<sup>84</sup> CityFibre main party hearing transcript, pages 65 and 76.

<sup>85</sup> CityFibre main party hearing transcript, page 66.

<sup>86</sup> CityFibre response to the provisional determination, paragraph 37(d).

<sup>87</sup> CityFibre NoA – Collins 1 witness statement, Annex 38 (Response to the 2015 BCMR and LLCC Consultations by the Infrastructure Investors Group), paragraph 4.7.4.

<sup>88</sup> Gamma Sol, paragraph 29.

<sup>89</sup> Vodafone response to the provisional determination (CityFibre appeal), paragraph 5.

<sup>90</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 28.

- (a) competitors may be able to build lower cost and more efficient networks than, or technologically superior networks to, BT's network;
- (b) entrants (which in contrast to BT are not subject to an obligation to supply leased lines to businesses anywhere in the UK) may be able to target infrastructure investment at areas where the incremental costs of providing leased lines are lower; and
- (c) new entrants may have the kind of competitive advantages identified in the survey conducted by CityFibre ([§]).

3.42 CityFibre did not dispute that modern networks are lower cost. It said that, adjusting for scale and scope, the costs of modern networks are likely to be lower than those of the older legacy network and that a modern network is likely to achieve an efficient scale at a smaller size than BT's network.<sup>91</sup> It did not, however, accept that it will achieve material benefit by targeting areas with a potentially lower unit costs (ie a high density of customers). It said that, while there are some areas in which CityFibre would not seek to invest, the 100 towns and cities that it serves or plans to serve are unlikely to be materially lower cost areas than the typical area supplied by BT.<sup>92</sup>

3.43 Ofcom said that CityFibre was wrong to suggest (and had provided no evidence to support its contention) that its costs in its 100 target cities are likely to be similar to BT's average costs of supply nationwide.<sup>93</sup> This argument is based on the assumption that areas with higher density of existing circuits will tend to have lower unit costs (or higher potential revenues).<sup>94</sup>

3.44 Ofcom did not accept that the LLCC will have the extreme effect on CityFibre's business that CityFibre contended.<sup>95</sup> It also said that the additional revenue that a charge control set with reference to an REO cost standard would generate for CityFibre would be modest compared with the scale of CityFibre's investment plans.<sup>96</sup> Ofcom estimated that, over the charge control period, adopting the alternative cost standard would generate only £[§] more revenue for CityFibre.<sup>97</sup> It said that this compared with a proposed investment of over £[§] (to cover 100 cities, as in CityFibre's long term plan) and that a

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<sup>91</sup> CityFibre Core Submission (Volume 1), paragraph 67.

<sup>92</sup> CityFibre NoA, paragraph 60.

<sup>93</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 28(ii).

<sup>94</sup> See Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 113–114 for details of the analysis carried out by Ofcom.

<sup>95</sup> Ofcom Defence (CityFibre appeal), paragraph 76.

<sup>96</sup> CityFibre Core Submission hearing transcript, page 71 lines 11-20.

<sup>97</sup> CityFibre Core Submission hearing transcript, page 59, lines 1-7.

higher LLCC was therefore unlikely to be the swing item, as well as being a very costly way of aiding CityFibre's business development.<sup>98</sup>

- 3.45 CityFibre rejected this argument. It stated that Ofcom appeared to have made a number of significant errors in its analysis.<sup>99</sup> It also said that Ofcom's analysis failed to recognise the impact of a lower LLCC on the revenues of other rivals to BT and so the £[£] figure understated the impact on competition of Ofcom's decision not to adopt an alternative cost standard.
- 3.46 Ofcom also said that infrastructure investment by Virgin Media appears to be continuing and that Virgin Media did not object to the use of a CCA FAC standard.<sup>100</sup>

### *Our assessment*

- 3.47 We note that Ofcom agreed that BT's competitors do not have the same economies of scale as BT<sup>101</sup>, but Ofcom did not accept CityFibre's statement that, all other things being equal, BT's costs will always be lower simply because of the economies of scale and scope (see paragraph 3.41).<sup>102</sup>
- 3.48 We also note that CityFibre agreed that, adjusting for scale and scope, modern networks are inherently more efficient than older legacy networks.<sup>103</sup>
- 3.49 The key points on which Ofcom and CityFibre did not agree were, first, the scope for new entrants to target areas with a potentially lower unit cost (ie a high density of customers) and, second, the impact on CityFibre revenues compared with the scale of its investment plans.
- 3.50 With regard to the first of these points, Ofcom and CityFibre appear to agree that the economies of scale and scope to which they have referred relate largely to the density of connections on the network in a particular local area rather than total volume of connections across the country as a whole.<sup>104</sup> This is relevant because, whilst new entrants will not have BT's national presence, it is the scale of their activities in the areas where they have a presence that will determine their ability to exploit economies of scale and scope.

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<sup>98</sup> CityFibre Core Submission hearing, Ofcom presentation slide 9.

<sup>99</sup> CityFibre Core Submission (Volume 2), paragraph 76.

<sup>100</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 63 and Ofcom main party hearing transcript (CityFibre appeal), page 32.

<sup>101</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 28.

<sup>102</sup> CityFibre NoA, paragraph 13.

<sup>103</sup> CityFibre main party hearing transcript, page 63.

<sup>104</sup> CityFibre main party hearing transcript, pages 63–67; and Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 113–114.

- 3.51 Ofcom submitted evidence which showed considerable variations across towns and cities in the UK in the density of leased lines.<sup>105</sup> It calculated the average density of circuits across CityFibre's current 37 cities compared with its top 50 and top 100 target cities, and found significant variation between these measures. The fact that towns and cities across the UK exhibit significant variations in density suggests that there could be some opportunities for new entrants to target towns and cities where average costs are lower than the BT national average.
- 3.52 With regard to the second of these points, we consider that Ofcom's comparison of an £[X] reduction in CityFibre's revenues over the current charge control period and the scale of CityFibre's long-term investment plans<sup>106</sup> is not sufficient as a basis for assessing the impact of Ofcom's chosen remedies on CityFibre's investment plans. This is because:
- (a) First, the estimated impact on CityFibre's revenues during the current charge control period is a function of the size of its business during this period. Currently CityFibre has a presence in fewer than 50 towns and cities in the UK. However, as explained above, CityFibre's long-term investment plans extend beyond this charge control period to building fibre networks in a further 50 to 70 towns and cities between 2020 and 2025. With a larger network the impact on revenues would be greater.
  - (b) Second, the financial returns CityFibre and its investors can expect to earn on their investment in fibre networks will depend on the revenues generated during this and future charge control periods. The £[X] figure takes no account of the impact of lower prices on revenue streams beyond this charge control period. CityFibre told us that it would need 'economic headroom' over [X] to build the necessary scale, after which its proposal would be for regulated prices to be at levels determined by reference to BT's costs.
- 3.53 We also note that the £[X] figure referred to by Ofcom as the cost of CityFibre's overall investment plan includes planned investment beyond the current charge control period. It also includes CityFibre's planned investment in infrastructure to support services other than leased line services.
- 3.54 Although we accept that the evidence provided by CityFibre suggests that the impact of the LLCC on its investment plans could be significant, this is not sufficient in itself to conclude on the benefits and costs of an REO or MEE0

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<sup>105</sup> See Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 113–114 for further details of the analysis and results.

<sup>106</sup> CityFibre Core Submission hearing, Ofcom presentation slide 9.

approach as an alternative to Ofcom's CCA FAC approach. We compare these benefits and costs in greater detail below (see paragraphs 3.170 to 3.193). First, we consider some additional evidence provided by CityFibre on the impact of the LLCC in respect of discounts and price discrimination.

## **Discounts**

### *CityFibre's case*

- 3.55 CityFibre said that Ofcom ignored or sought to rebut CityFibre's need to offer a substantial discount relative to the incumbent's pricing.<sup>107</sup> [REDACTED].<sup>108,109</sup> It also stated that it is essential that new entrants offer both a superior service and a price differential to the regulated BT price.<sup>110</sup> It argued that the reduction in the LLCC price under Ofcom's approach would affect its ability to offer these discounts, and hence would have a negative impact on CityFibre's investment programme.
- 3.56 CityFibre stated that Ofcom substantially understated the extent of discounts that CityFibre has had to provide relative to BT's equivalent pricing. Ofcom calculated a difference of [REDACTED]%, where CityFibre's own analysis shows differences of between [REDACTED]% and [REDACTED]%.<sup>111</sup>
- 3.57 CityFibre compared its dark fibre prices with BT prices for active products. It said that the results showed that it was selling at a substantial discount to BT's pricing, and that this would be true even if CityFibre's customers had had to purchase their own active equipment. It assumed that the need to purchase equipment would result in additional costs equivalent to approximately £[REDACTED] per annum per circuit.<sup>112</sup>
- 3.58 CityFibre stated that, when the BT DFA price is in the market, it expects to have to offer a discount of the order of [REDACTED]% against that price.<sup>113</sup>
- 3.59 CityFibre conducted a further analysis of how its prices for active services compared with BT's EAD prices.<sup>114</sup> It said that the analysis showed that CityFibre's prices were [REDACTED]% below BT's prices in 2015 and [REDACTED]% below BT's prices in 2016. It also said its active products included elements that

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<sup>107</sup> CityFibre NoA, paragraph 67.

<sup>108</sup> [REDACTED]

<sup>109</sup> [REDACTED]

<sup>110</sup> CityFibre NoA – Collins 1 witness statement, paragraph 185.

<sup>111</sup> CityFibre NoA paragraph 67.

<sup>112</sup> CityFibre NoA – Collins 1 witness statement, paragraph 182 and Table 1.

<sup>113</sup> CityFibre NoA – Collins 1 witness statement, paragraph 183.

<sup>114</sup> CityFibre Core Submission (Volume 2), paragraph 111.

BT's EAD circuits did not include and that it expected adjusted prices to show a discount of circa [X]% in 2015 and higher than [X]% in 2016.<sup>115</sup>

- 3.60 CityFibre said that the need to offer discounts might reduce over time when contracts are renegotiated, as customers gain confidence as a result of their experience of using CityFibre and CityFibre builds its reputation in the market.<sup>116</sup>

#### *Ofcom's response*

- 3.61 Ofcom did not accept that it should be assumed that CityFibre must offer discounts to compete with BT. It noted that CityFibre had a number of potential competitive advantages over BT which might enable it to charge a premium for its services, or at least mean that it need not discount its prices to win business or discount them so heavily.<sup>117</sup>
- 3.62 Ofcom also questioned whether it would be appropriate to make an allowance in the cost base for a firm's need to offer discounts as the need to undercut its competitors significantly would cause doubts about the benefits that the firm has to offer its customers.<sup>118</sup>
- 3.63 Ofcom compared the prices of CityFibre's 1Gbit/s active products with the prices of BT's comparable EAD 1Gbit/s products. It estimated that CityFibre's 1Gbit/s active prices were around [X]% below the price of BT's EAD 1Gbit/s product.<sup>119</sup> It stated that there were a number of problems with the evidence presented by CityFibre (see paragraphs 3.56 and 3.57).<sup>120</sup> Ofcom estimated that the discounts, including an allowance for active equipment costs of £[X] per circuit per annum, would be in a range of [X]% to [X]%, with one price [X]% higher. The weighted average overall discount figure was [X]%.<sup>121</sup>

#### *Our assessment*

- 3.64 Ofcom and CityFibre disagreed on the actual level of discounts currently offered by CityFibre, and Ofcom illustrated that there may be scenarios where discounts are lower than the headline figure provided by CityFibre of [X]%.

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<sup>115</sup> CityFibre Core Submission (Volume 2), paragraph 112.

<sup>116</sup> CityFibre main party hearing transcript, pages 60–61.

<sup>117</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 95.

<sup>118</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 96.

<sup>119</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 98.

<sup>120</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 99. The assumed additional cost of £[X] per annum is based on evidence provided in CityFibre NoA – Collins 1 witness statement.

<sup>121</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 99–100.

This is most likely where CityFibre provides services to customers which particularly value its products as an alternative to those of Openreach.

- 3.65 CityFibre's primary argument is that new entrants need to offer discounts to overcome the perceived risks of switching away from the incumbent supplier. This seems to us to be both likely in principle and consistent with much of the evidence provided, and it was clearly explained by CityFibre at its main party hearing.
- 3.66 CityFibre has not, however, demonstrated that discounts in this market are so significant or unusual that they should have materially affected Ofcom's determination of the appropriate cost standard in this market. CityFibre provided evidence which showed that discounts are a normal cost of doing business for an entrant and would be expected to diminish over time. CityFibre's evidence also showed a significant divergence in the level of discounts across customer groups. Whilst we agree with CityFibre that it is likely to have to offer discounts and this may have accentuated the impact on it of any reduction in the LLCC, we do not consider that Ofcom was required to make any adjustments to the cost standard used in the LLCC to reflect these discounts.

### ***Price discrimination***

#### *CityFibre's case*

- 3.67 CityFibre said that Ofcom failed to have regard to the benefits of price discrimination in encouraging efficient investment to the benefit of all customers (and especially those that receive a service at below average price).<sup>122</sup>
- 3.68 CityFibre said that the DFA remedy (which requires BT to provide dark fibre at the same price as the 1Gbit/s active service minus the LRIC of the active elements of the 1Gb/s service) will remove the possibility for suppliers to charge more to customers for which higher bandwidth products are more valuable.<sup>123</sup>
- 3.69 CityFibre said that, [REDACTED].<sup>124</sup>

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<sup>122</sup> CityFibre NoA, paragraph 67.

<sup>123</sup> CityFibre NoA, paragraph 68.

<sup>124</sup> [REDACTED]

3.70 CityFibre said that, once the maximum price is introduced pursuant to the DFA remedy, [REDACTED].<sup>125</sup>

3.71 CityFibre said that the result of the single fixed DFA price is likely to be a reduction in the overall market size for dark fibre. [REDACTED].<sup>126</sup>

#### *Ofcom's response*

3.72 Ofcom said that it had carefully assessed the impact of its proposals on CityFibre's business (as well as the businesses of other infrastructure operators) and concluded that the likely impact on CityFibre's business would be limited.<sup>127</sup>

3.73 Ofcom said that the potential impact appears likely to be limited because most of CityFibre's business is with customers with bandwidth needs below 1Gbit/s, and other providers, such as BT, will be in a similar position of having to recover more common costs from sub-1Gbit/s customers, meaning that there is no reason to expect CityFibre to be disadvantaged compared with its competitors (and in particular BT). It also said that CityFibre did not take account of the fact that it is likely to benefit to some extent from growth in the dark fibre market more generally.<sup>128</sup>

#### *BT's Statement of Intervention*

3.74 BT said it agreed with CityFibre that the pricing of dark fibre at Ofcom's reference level may have a material effect on infrastructure competition on the industry. It also said that it will affect the bandwidth gradient and that these effects will give rise to substantial risk of harm to the industry.<sup>129</sup>

#### *Our assessment*

3.75 Ofcom did not dispute that the DFA remedy will be a constraint on CityFibre's ability [REDACTED] in the ways described above. Rather, Ofcom disputed that the impact on CityFibre's business will be material, largely because of the relatively small proportion of its customers which require higher bandwidth services.

3.76 BT currently prices active circuits on the basis of a 'bandwidth gradient', with different prices for 10Mbit/s, 100Mbit/s, 1Gbit/s and 10Gbit/s services. We

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<sup>125</sup> [REDACTED]

<sup>126</sup> CityFibre NoA – Collins 1 witness statement, paragraph 193.

<sup>127</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 30(ii).

<sup>128</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 30(ii).

<sup>129</sup> BT Sol (CityFibre appeal), paragraph 22.



consider it plausible that the structure of the DFA remedy will be a constraint on CityFibre's ability to price discriminate in the way it has done in the past. This is because, prior to this charge control period, the constraint imposed by BT on the prices CityFibre could charge higher bandwidth users for dark fibre was the BT price for higher bandwidth leased line services as this was the alternative BT product for these customers. With the DFA remedy the constraint will be the BT price for dark fibre with unlimited bandwidth which will be capped at a price based on the BT price for 1Gbit/s leased line services. It is likely as a result that, like BT, [§]. This may have an impact on prices of individual products, but it is not clear what the net effect will be, as some prices will rise as others decrease.

- 3.77 In any case, we consider that this matter relates primarily to the structure of the DFA remedy and not the cost standard adopted by Ofcom in setting the LLCC.

### ***Overall assessment of Ofcom's approach on infrastructure competition***

- 3.78 Overall it appears to us that there is no dispute that BT enjoys substantial economies of scope and scale and that new entrants building modern purpose-built networks will have some advantages. It seems likely that average costs will vary at a local level with local market conditions. This suggests that there is some advantage to be had for rival infrastructure providers, such as CityFibre, from the deployment of modern networks and the ability to target higher density areas in the further roll-out of fibre networks, but that BT is likely to benefit from significant scale advantages at the point when CityFibre or another competitor is entering a new area.
- 3.79 CityFibre argued that, as a result, the LLCC which is set with reference to BT's costs would have the effect of all but freezing the roll-out of purpose-built fibre networks.<sup>130</sup> In particular, CityFibre stated that the use of BT's costs results in prices that reflect BT's economies of scale and scope, neither of which can be matched or even approached in the short term by CityFibre or any other CP.<sup>131</sup>
- 3.80 Our assessment of CityFibre's evidence is that it identified a credible case that it will be affected by the scale of the price reduction in the LLCC. CityFibre has plans to invest in a further 50 to 70 towns and cities over the period to 2025, [§]. It would also seem likely that the reduction in leased line

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<sup>130</sup> CityFibre NoA, paragraph 2.3.

<sup>131</sup> CityFibre Core Submission (Volume 1), paragraph 55.

charges could have a similarly detrimental impact on other infrastructure providers.

- 3.81 We therefore agree with CityFibre that the LLCC is likely to have an effect on the pace of investment in competing networks, but we also note that this effect is likely to be felt over a number of charge control periods, and will vary according to different regional conditions. We do not find that Ofcom was required to make any adjustments to the cost standard used in the LLCC to reflect CityFibre's need to offer discounts or its concerns about price discrimination.

## **Benefits of infrastructure competition**

- 3.82 In this section we consider CityFibre's arguments in relation to the benefits of the infrastructure competition which would be promoted under its alternative approach. We consider whether Ofcom failed properly to identify the benefits of competition that might result if an REO or MEE0 standard led to increased infrastructure competition.

### *Ofcom's approach in the BCMR*

- 3.83 In its Final Statement, Ofcom considered alternative cost standards. It concluded that, although there were strong reasons to use BT's CCA FAC as the basis for setting charges, there may be circumstances in which its regulatory objectives might be better served by a price level which is above BT's CCA FAC. Ofcom noted that this would tend to be where it judged that the dynamic benefits associated with higher prices would be likely to outweigh the static costs to customers of higher prices.<sup>132</sup>
- 3.84 Ofcom went on to consider the dynamic benefits that might follow from a higher LLCC price cap. It argued that dynamic benefits were likely to be greatest if temporarily high prices facilitated:
- (a) new services that would otherwise not be available to end users; or
  - (b) investment that would be likely to result in effective competition, since regulation cannot replicate or mimic all of the beneficial effects of competition.<sup>133</sup>

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<sup>132</sup> [Final Statement \(Volume 2\)](#), paragraph 5.72.

<sup>133</sup> [Final Statement \(Volume 2\)](#), paragraph 5.73.

- 3.85 In the case of the BCM, Ofcom concluded that neither of these conditions were met.
- 3.86 On the first condition, Ofcom noted that, in the CISBO market, BT already provides Fibre-to-the-Premises (FTTP) connections to end users, and therefore that the dynamic benefits of more infrastructure investment would be lower than in residential markets. Competition would bring greater benefits in markets where the deployment of ultrafast FTTP connections has been more limited, as infrastructure competition would lead to an increase in the reach of fibre networks.
- 3.87 Ofcom noted that, in the longer term, CityFibre plans also to supply ultrafast residential broadband. Ofcom stated that it did not consider it appropriate for BT's customers to pay prices far in excess of costs for services in the CISBO market in order to support investment in the residential broadband market.<sup>134</sup>
- 3.88 On the second condition, Ofcom reviewed the impact on the BCM of the extent of existing and planned investments. It stated that, although the investments will benefit end users through increased choice, they are unlikely to be sufficient to result in widespread effective competition. As a result, it considered that infrastructure competition would not be sufficient for price regulation to be replaced by a more flexible approach based on competition.<sup>135</sup>

### *CityFibre's case*

- 3.89 CityFibre said that the dynamic effects of vigorous infrastructure competition to BT are significant. First, it noted that CityFibre's customers have welcomed an alternative to BT. Secondly, it pointed to the weight of evidence supporting the very significant benefits flowing from fast connectivity and fibre.<sup>136</sup> CityFibre suggested that Ofcom erred in two key ways when assessing benefits:
- (a) it underestimated the importance of existing and potential infrastructure competition, and this resulted in it placing too little weight on infrastructure competition when designing the LLCC;<sup>137</sup> and

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<sup>134</sup> [Final Statement \(Volume 2\)](#), paragraph 5.75.

<sup>135</sup> [Final Statement \(Volume 2\)](#), paragraph 5.75.

<sup>136</sup> CityFibre NoA, paragraph 34.

<sup>137</sup> CityFibre Core Submission (Volume 1), paragraph 27.

(b) it failed to quantify the dynamic benefits likely to accrue from infrastructure competition (even broadly).<sup>138</sup>

3.90 CityFibre argued that, contrary to Ofcom's finding, the long-term dynamic benefits arising from true end-to-end competition are likely to substantially outstrip any short-term benefits arising from lower prices in this charge control review.<sup>139</sup>

3.91 We consider that these benefits can be characterised as:

(a) Benefits of competition in the BCM. CityFibre suggested that these feed through in two ways:

- (i) Direct benefits as a result of new investment and services provided by an additional infrastructure provider.
- (ii) Indirect benefits as incumbents respond to the competitive threat from a new infrastructure provider.

(b) Spill-over benefits where CityFibre is able to leverage its business connectivity network into the residential and small business markets which are classified by Ofcom as the fixed access markets (FAM).

*Benefits for customers in the business connectivity market*

3.92 CityFibre considered that its new infrastructure is better suited than BT's existing infrastructure to meeting present and future demand in a cost effective manner.<sup>140</sup> First, it contended that its network is lower cost than legacy networks such as that of BT, meaning that it will reach efficient scale at a smaller size than BT.<sup>141</sup> Second, CityFibre stated that its products provide a wide range of additional benefits compared with BT's existing fibre products. These are not just incremental improvements over BT, but essentially different features that provide intermediate and end users with significantly enhanced utility.<sup>142</sup> It described these benefits as follows:<sup>143</sup>

(a) Bandwidth on demand: CityFibre's network allows additional bandwidth to be added quickly in response to customer needs. In contrast, BT's offerings are either 1Gbit/s or 10Gbit/s with the bandwidth constrained by the Ethernet boxes attached to the end of BT's fibre. To increase

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<sup>138</sup> CityFibre Core Submission (Volume 1), paragraph 33.

<sup>139</sup> CityFibre NoA – Collins 1 witness statement, paragraph 140.

<sup>140</sup> CityFibre NoA – Collins 1 witness statement, paragraph 67.

<sup>141</sup> CityFibre NoA paragraph 33 and CityFibre Core Submission (Volume 2), paragraphs 82–83.

<sup>142</sup> CityFibre Core Submission (Volume 2), paragraph 38.

<sup>143</sup> CityFibre Core Submission (Volume 2), paragraph 38.

bandwidth from BT requires a change of equipment in the customer's premises.

- (b) Built in Resilience: CityFibre's ring architecture is inherently resilient due to what are known as 'self-healing rings'. If a ring is cut or damaged, data is transmitted the other way around the ring. By contrast, if BT's traditional tree and branch network is damaged, it cannot re-route traffic as easily and repairs take time during which customers do not have access to the affected services.
- (c) Secondary Routing: CityFibre noted that customers value diverse routing and dual supply. CityFibre provides customers that may already be connected to BT's network with the additional assurance that their needs can be met if one route fails for whatever reason.
- (d) Fault Repair Time: CityFibre offers a [X] to CityFibre. Openreach's offer is 18 hours.
- (e) Commercial Offer: CityFibre offers tailored contracts, swifter response times and better customer service than are available from BT. CityFibre also stated that its willingness to customise network topology to meet specific customer needs should have been considered by Ofcom.<sup>144</sup>
- (f) Willing Provider: CityFibre is a commercial, willing provider of dark fibre and customises its services to meet individual customer requirements. By contrast, BT has made it clear that it does not want to offer DFA. If BT wants to frustrate customers that use a regulated service, for example because it would prefer that they continue to buy a different service on which BT makes a greater margin, there are many ways it can do so, which regulation can only partially address and only with a significant time-lag. We note that this point was supported by Gamma in its intervention on behalf of CityFibre.<sup>145</sup>

3.93 CityFibre also argued that a key benefit is that its entry is likely to spur new investments and improvement in service provision by rival infrastructure providers.<sup>146</sup> It said that, without a spur from competition, the UK will be left with an outdated and inadequate network as BT is not interested in replacing

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<sup>144</sup> CityFibre Core Submission (Volume 1), paragraph 43.

<sup>145</sup> Interveners hearing with Gamma (CityFibre appeal), transcript page 10.

<sup>146</sup> CityFibre NoA, paragraph 57.

its network and feels no need to do so as it is not subject to any competitive pressure to improve its service.<sup>147</sup>

- 3.94 CityFibre referred to academic research that found a “positive feedback loop between incumbent and entrant investment”.<sup>148</sup> In other words, investment by entrants such as CityFibre stimulates further investment by the incumbent firm (BT), which in turn stimulates more investment by the entrant.<sup>149</sup> It noted that some of this research relates to the introduction in the USA of fibre rings, a technology very similar to the kind of technology being deployed by CityFibre and other entrants in the UK.<sup>150</sup> CityFibre provided a number of examples where it claimed competitive investment in fibre has stimulated investment by the incumbent (for example in the Netherlands, Spain, France, Portugal and Italy). It also said that studies conducted by the BEREC suggest that incumbent fibre investment is triggered by competing investment by smaller local players (for example in Germany and Sweden).<sup>151</sup>
- 3.95 CityFibre also stated that, when it invests, there is a boost to infrastructure investment by competitors.<sup>152</sup> In some cases, alternative infrastructure providers also use parts of its network in order to ‘piggy back’ on CityFibre’s network, enabling them to invest more efficiently. [REDACTED].<sup>153</sup>
- 3.96 CityFibre said that its investments also put Openreach under competitive pressure to improve its service delivery and quality of service. CityFibre’s business model means that it initially targets customers that are important to existing suppliers like BT as they represent high value business. The risk of losing such business stimulates a competitive response from BT and other providers such as Virgin Media.<sup>154</sup>
- 3.97 CityFibre disputed the proposition that quality of service improvements can be achieved by the application of regulatory rules and incentives. It said that Ofcom has been trying to improve the quality of service of Openreach since its creation in 2006, applying a series of remedies and incentives in both the FAM and the BCM with more remedies in this BCMR and more expected in the forthcoming Fixed Access Market Review (FAMR). It said that this

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<sup>147</sup> CityFibre NoA – Collins 1 witness statement, paragraph 137.

<sup>148</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 131.

<sup>149</sup> CityFibre Core Submission (Volume 1), paragraph 37.

<sup>150</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 130.

<sup>151</sup> CityFibre NoA – Collins 1 witness statement, paragraph 95.

<sup>152</sup> CityFibre NoA – Hart 1 witness statement, paragraph 67.

<sup>153</sup> [REDACTED]

<sup>154</sup> CityFibre Core Submission (Volume 2), paragraph 39.

demonstrated the limits of regulation and the need for competition to drive better services to customers.<sup>155</sup>

3.98 CityFibre also argued that many parts of Ofcom’s own Strategic Review of Digital Communications (DCR) and comments made by HM Treasury make a number of similar claims for the benefits of infrastructure competition.<sup>156</sup>

3.99 CityFibre was supported by Gamma acting as an intervener in the CityFibre appeal. Gamma provided evidence as to how it benefits from having a keen and willing supplier of dark fibre on competitive terms. It said [REDACTED].<sup>157</sup>

*Spill-over benefits into the fixed access market*

3.100 CityFibre also stated that its new investments would result in benefits to customers currently outside the BCM.

3.101 CityFibre said that it intends to use its network initially for business connectivity and in the future for residential services, which it considers will bring very significant benefits.<sup>158</sup> CityFibre said that the roll-out of a full fixed access network is facilitated by having first built a business connectivity network. It said that the core network build is the most complex piece of engineering of the entire network. CityFibre also stated that, as around [REDACTED]% of the fixed access network is shared with the business connectivity network, and as the business market delivers higher revenues for a lower number of connections, this is a logical entry method and a valuable launch pad for subsequent FAM entry.<sup>159</sup>

3.102 In support of its view that Ofcom should take into account spill-over benefits as part of its assessment, CityFibre referred to the European Commission. CityFibre stated that the European Commission had concluded that investors in FTTP infrastructure may invest first in providing connections to businesses and public sector entities before extending the network to provide connections to the mass market, including residential users.<sup>160</sup> CityFibre then argued:

“This is exactly the approach that CityFibre uses, relying in the first stage of network roll-out on revenue streams from providing connections to anchor tenants (often public authorities and large business customers) that presently use leased lines, but with a view to then building out from

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<sup>155</sup> CityFibre Core Submission (Volume 2), paragraph 40.

<sup>156</sup> CityFibre NoA – Collins 1 witness statement, paragraphs 83–85.

<sup>157</sup> [REDACTED]

<sup>158</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 122.

<sup>159</sup> CityFibre main party hearing transcript, pages 102–103.

<sup>160</sup> CityFibre Core Submission (Volume 1), paragraph 19.

that initial network to supply vastly more business and residential customers, along with fibre connectivity for 5G wireless small cells”.<sup>161</sup>

- 3.103 CityFibre emphasised that the separation of its investment stage into building its core business connectivity network first before FTTP roll-out [redacted].<sup>162</sup> CityFibre emphasised that its network designs in the capacity and architecture for an FTTP network into the core network, which would otherwise not be required if the network was not intended to be extended to the mass market as well as the BCM.<sup>163</sup> CityFibre also stated that [redacted].<sup>164</sup>
- 3.104 CityFibre also said that, through its core network, it plans to expand the number of customers served in the BCM, drawing in businesses, including small and medium-sized enterprises (SMEs), which currently use products within the scope of the FAM and therefore do not benefit from FTTP infrastructure.<sup>165</sup> CityFibre considers that Ofcom should have considered these broader benefits rather than focusing excessively on existing customers in the BCM.
- 3.105 CityFibre stated that, in reaching its conclusions, the CMA should not rely on the assertion by Ofcom that CityFibre could simply avail itself of the remedies applied in the FAM, in order to build FTTP networks for that market.<sup>166</sup> In CityFibre’s view [redacted].<sup>167</sup>
- 3.106 As regards the size and value of these spill-over benefits, CityFibre referred to research from the Analysis Group which indicates benefits of 1.1% of GDP in ‘gigabit cities’. It said that this would equate to £2.3 billion to £5.4 billion in CityFibre’s proposed cities, and would outweigh any static costs.<sup>168</sup>
- 3.107 CityFibre also referred to an alternative measure provided by the Department of Culture Media and Sport, which indicated a 10:1 ratio between the benefits and costs of fibre investment. If applied to CityFibre’s proposed investment of close to £3 billion, this would indicate benefits of £30 billion.<sup>169</sup>

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<sup>161</sup> CityFibre Core Submission (Volume 1), paragraph 20.

<sup>162</sup> CityFibre response to the provisional determination, paragraphs 42–43.

<sup>163</sup> CityFibre response to the provisional determination, paragraph 41.

<sup>164</sup> CityFibre response to the provisional determination, paragraph 44.

<sup>165</sup> CityFibre main party hearing transcript, pages 102–103.

<sup>166</sup> CityFibre response to the provisional determination, paragraph 50.

<sup>167</sup> CityFibre response to the provisional determination, paragraph 51.

<sup>168</sup> CityFibre NoA, paragraph 34. This is explained in greater detail in CityFibre NoA – Cadman 1 witness statement, paragraphs 123–124.

<sup>169</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 126.



3.108 CityFibre argued that Ofcom was wrong to disregard these spill-over benefits for two reasons:<sup>170</sup>

- (a) First, CityFibre argued that there is no support in domestic or EU legislation for the idea that benefits resulting from infrastructure competition should not be taken into account unless they result directly from investment into the specific market under review. On the contrary, it claimed that a recent European Commission communication expressly identified the value of spill-over effects.<sup>171</sup> CityFibre stated that Ofcom was, therefore, wrong to discount benefits to consumers in whole or in part because they result indirectly, rather than directly, from a looser charge control in the BCM.<sup>172</sup>
- (b) Second, CityFibre argued that the markets for leased lines and fixed access connections will see increasing overlap over time, especially as full FTTP connections increase. It pointed to Ofcom's own reports indicating increasing convergence between markets.<sup>173</sup> In this context, CityFibre said that Ofcom was misguided to ignore benefits that accrue to customers in the closely related FAM.<sup>174</sup>

3.109 CityFibre noted that Ofcom has referred to its continuing investments in network capacity, including the acquisitions of assets from KCOM and Redcentric. It argued that Ofcom has not properly considered its arguments in relation to these acquisitions, which, in its view, demonstrate the incremental benefits that an alternative wholesale provider such as CityFibre can bring to the market by significantly increasing the customer base of such alternative business connectivity assets.<sup>175</sup>

#### *Ofcom's response*

3.110 In response to CityFibre's case, Ofcom stated that, whilst competition will bring benefits:

- (a) it considered that dynamic benefits in the BCM cannot be reliably quantified;

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<sup>170</sup> CityFibre Core Submission (Volume 1), paragraph 40.

<sup>171</sup> European Commission, '[Connectivity for a Competitive Digital Single Market – towards a European Gigabit Society](#)', 14 September 2016, pages 5 & 6.

<sup>172</sup> CityFibre Core Submission (Volume 1), paragraph 41.

<sup>173</sup> Ofcom, '[Broadband services for SMEs: assessment and action plan](#)', 25 June 2015, cited in CityFibre Core Submission (Volume 2), paragraph 62.

<sup>174</sup> CityFibre Core Submission (Volume 1), paragraph 42.

<sup>175</sup> CityFibre Core Submission (Volume 1), paragraph 28.

- (b) it considered that many of CityFibre's claimed benefits will not accrue to customers in the BCM; and
- (c) it considered that the spill-over benefits that CityFibre claimed will arise in other markets that cannot be linked directly to the LLCC.

*Benefits for customers in the business connectivity market*

- 3.111 Ofcom stated that CityFibre dramatically overstated the benefits which can be attributed to its investment in fibre networks focused on business customers, since all the studies to which it referred relate to the incremental provision of fibre to SMEs and residential customers which would otherwise not have access to fibre networks.<sup>176</sup> Ofcom said that there is no evidence of any comparable scale of benefits from the provision of alternative fibre networks for business connectivity, and that the benefits in the BCM would in practice be small by comparison.
- 3.112 Ofcom said that assessing the scale of static and dynamic benefits is inherently a matter of judgement, particularly in relation to dynamic benefits.<sup>177</sup>
- 3.113 Focusing on the benefits that would accrue to customers in the BCM, Ofcom recognised that, if CityFibre were to make the investments outlined in its case, these could bring about dynamic benefits in the BCM through choice being offered to customers and incentivising Openreach to improve its performance.<sup>178</sup> Ofcom also stated that it considers that [X] would be likely to be valued by customers.<sup>179</sup>
- 3.114 Ofcom questioned the scale of the benefits claimed by CityFibre. It stated that, as BT already provides fibre connections to all business end-users, the likely benefits of infrastructure investment for such users would not be as high as in situations where new infrastructure is built that is not already available in the market.<sup>180</sup> In addition, as BT currently offers to provide leased lines throughout the UK, using its existing fibre network, CityFibre's investments would only be likely to help to encourage a limited degree of additional investment in business leased lines.<sup>181</sup>

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<sup>176</sup> Ofcom Defence (CityFibre appeal), paragraphs 100–100(1).

<sup>177</sup> Ofcom Defence (CityFibre appeal), paragraph 95.

<sup>178</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 23.

<sup>179</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 48.

<sup>180</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 23(i) and Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 41.

<sup>181</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 23(i).

3.115 Ofcom noted that this is in contrast to the situation in the FAM where fibre connections are more limited. Ofcom therefore questioned the relevance of the academic studies cited by CityFibre given that the benefits identified in these reports relate to the roll-out of superfast broadband services to residential consumers.<sup>182</sup>

- (a) Ofcom stated that, in assessing the likelihood of dynamic benefits from further investment, it considered the plans of CPs to invest in alternative infrastructure, but found that these would be insufficient to lead to effective competition in the future such that regulation could be replaced by competition alone.<sup>183</sup>
- (b) Although Ofcom recognised that, all else being equal, a new network topology is likely to have lower costs than a legacy network,<sup>184</sup> it did not accept that CityFibre's network or network design is necessarily more efficient.<sup>185</sup> It also did not agree that it had favoured a particular network configuration. Ofcom said that its approach is to remain neutral to the choice of technology rather than favour one type of network over another.<sup>186</sup>
- (c) Ofcom stated that some benefits, such as improved quality of service, can be secured through regulation, albeit not as effectively as through competition.<sup>187</sup> On the delivery of innovation, Ofcom said that it considers that this will primarily result from other communications providers (OCPs) being able to purchase dark fibre. In its view, one fibre network is technically much the same as another fibre network. This would imply that the DFA remedy would deliver most of the innovation associated with competition in this market.<sup>188</sup>

#### *Spill-over benefits for customers in the fixed access market*

3.116 Ofcom did not contest CityFibre's claim that the markets for leased lines and fixed access connections are likely to overlap increasingly over time, or that the same network infrastructure can be used as a basis for providing products

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<sup>182</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 121.

<sup>183</sup> Ofcom Defence (CityFibre appeal), paragraph 69(3).

<sup>184</sup> [Final Statement \(Volume 2\)](#), paragraph 5.66.

<sup>185</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 119.

<sup>186</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 120. This, Culham claims, is achieved by having a price control based on BT's CCA FAC: "If charges are based on BT's costs, then an operator with a more efficient network will be able to match or undercut BT's charges and make sufficient profits to justify the investment. This is true whether the new operator's efficiency advantage derives from better topology, from superior operational efficiency, or from any other advantage it may have".

<sup>187</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 60.

<sup>188</sup> Ofcom main party hearing transcript (CityFibre appeal), page 19 & 20.

in both markets. It stated that the benefit from an investment that provides access to infrastructure for customers which currently do not have such access (eg new fibre connections to residential and small business customers) is likely to be greater than the benefits from investment to create competition in existing services.<sup>189</sup>

- 3.117 Ofcom disputed the scale of any spill-over benefits from a business focused network of the type built by CityFibre. It said that all the studies CityFibre cited in support of the significant benefits from new fibre networks relate to the provision of new fibre connectivity to SMEs and residential customers, which would otherwise not have access to end-to-end fibre connections.<sup>190</sup> Ofcom disputed the extent to which CityFibre's networks will ultimately result in large numbers of customers getting fibre connections for the first time.
- 3.118 Ofcom did not consider that there is a direct link between investment in fibre rings for business connectivity and future residential roll-out. This is in part due to the significant cost of residential networks, which would also need to be taken into consideration. Specifically, the large proportion of the overall cost of rolling out a fixed access network that would be incremental and not shared with any existing business connectivity network suggests that there is no automatic link between growth in the two networks.<sup>191</sup> Ofcom referred to CityFibre's submissions during the BCMR, [redacted].<sup>192</sup>
- 3.119 Ofcom said that its preference was not to use the BCMR to promote competition in residential broadband markets. It said that it considered the most appropriate approach to promoting roll-out of fibre in residential broadband retail services was through its existing and future regulatory interventions targeted at products provided in the FAM.<sup>193</sup>
- 3.120 Ofcom also noted that there is no restriction on CityFibre's use of its infrastructure for business or residential use.<sup>194</sup> The implication is that CityFibre would be able to invest in networks to serve both the BCM and the FAM, and to recover fixed costs across these markets, even though there are separate regulatory regimes that determine the prices BT can charge in these different markets.

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<sup>189</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 62.

<sup>190</sup> Ofcom Defence (CityFibre appeal), paragraph 100.

<sup>191</sup> Ofcom main party hearing transcript (CityFibre appeal), pages 27–28.

<sup>192</sup> [redacted]

<sup>193</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 74.

<sup>194</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 72.

## *Our assessment*

- 3.121 In this section we consider first the parties' arguments concerning the benefits that will accrue in the BCM as a result of more investment by infrastructure competitors. We then consider whether Ofcom should have also taken into account any benefits which relate to the future roll-out of FTTP beyond the BCM.
- 3.122 We agree with Ofcom that most of the evidence CityFibre presented which attempted to quantify the benefits of infrastructure competition relates to the provision of fibre to customers which would not otherwise have a fibre connection. An important feature of the BCM is that BT is required to provide a leased line to any customer that asks for one, subject to the customer agreeing to pay its regulated price and any excess construction costs. This means that the benefits of infrastructure competition in the BCM relate primarily to quality of service and potentially price (if rival operators can provide leased lines more cheaply than BT), rather than expanding customers' access to fibre.
- 3.123 In contrast, in the FAM, a majority of customers currently do not have the option of taking FTTP. To the extent that competition can spur new investment in fibre infrastructure, this could have a much greater incremental benefit for customers in the FAM.
- 3.124 With regard to benefits that would be realised by customers in the BCM, Ofcom agreed with CityFibre, in broad terms, on the nature of the benefits that would result from more infrastructure competition, including more infrastructure, innovation, improved quality of service and lower prices over time.<sup>195</sup>
- 3.125 We note that Ofcom did not dispute that there are benefits from infrastructure competition in the BCM. We also note, however, Ofcom's view that the key area for innovation in this market is in the active layer, where the DFA remedy is intended to facilitate competition amongst OCPs.
- 3.126 However, the main area of dispute in relation to benefits for leased line customers would appear to be how far Ofcom should have investigated the benefits of infrastructure competition as part of the BCMR before reaching a conclusion on their scale. In CityFibre's view, it was incumbent on Ofcom to seek to quantify the scale of those benefits in a way that would enable them to be compared with the costs of an alternative price control approach. We

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<sup>195</sup> Ofcom Defence (CityFibre appeal), paragraph 96.

analyse this argument when we consider Ofcom's approach to balancing benefits and costs (see paragraph 3.142 to 3.169 below).

3.127 In the rest of this section, we provide our assessment of CityFibre's case relating to the existence of benefits outside the BCM and whether Ofcom failed properly to account for these in its assessment.

3.128 We agree with CityFibre that, as a point of principle, Ofcom could have chosen to take more account of spill-over benefits in setting the LLCC. However Ofcom's judgement was that the direct link between investment in fibre rings for business connectivity and future residential roll-out was weak. In its view it was better to address the potential benefits of fibre roll-out directly through its regulation of the FAM, rather than indirectly through the LLCC.

3.129 In order to conclude that Ofcom was wrong to take this approach we would need to be convinced:

- (a) that widespread residential fibre roll-out may be expected to follow a model where competitors such as CityFibre first build a network dedicated to serving business customers with leased lines;
- (b) that increasing the LLCC would have a material effect on investment in the BCM, which would have a consequential material effect on the scale of fibre roll-out in the FAM; and
- (c) assuming both these points hold, that Ofcom could not have achieved the investment it sought in the FAM through its interventions directly in that market.

3.130 We note that CityFibre has told us that approximately [X]% of the overall costs of a fixed access network will be common with the business connectivity network.<sup>196</sup> While this is a material portion of the overall investment, it also means that approximately [X]% of the costs of building a full FTTP network for the FAM would not be shared with the BCM network.

3.131 Ofcom also stated that the incremental costs of a large scale fixed access roll-out are high, and there are a wide range of factors which will determine whether investments by CityFibre or other infrastructure competitors would in fact take place even if there were to be a higher LLCC.

3.132 CityFibre explained that it designs its networks in such a way that they can be readily expanded into the residential market. It provided details about how, in

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<sup>196</sup> CityFibre main party hearing transcript (CityFibre appeal), page 102.

the context of its business model, it is advantageous to have first constructed a ‘spine network’ serving business customers before expanding this to cover residential customers.<sup>197</sup> We accept that this provides a way of managing the risk of a full scale network roll-out in the FAM and would be consistent with CityFibre’s statement that it is currently looking to fund a roll-out of FTTP to residential users in [redacted] where it already serves business customers. However, the evidence from both Ofcom and CityFibre suggests that the incremental costs of extending a business connectivity network into a much larger FTTP network to serve the FAM are substantial. Therefore, once an operator has built a network in the BCM in a particular local area, there remains material uncertainty about whether it will be viable to invest in FTTP in that area.

- 3.133 CityFibre emphasised that it does not consider that it could avail itself of the remedies applied in the FAM, in order to build a FTTP network for that market. In its view Ofcom’s regulatory interventions in the FAM would only be enough to make FTTP investments viable if the business also benefited from the scope economies between the BCM and the FAM. CityFibre stated that it was “entirely incredible that Ofcom purports to not understand that [redacted] investment in the UK”.<sup>198</sup>
- 3.134 While CityFibre has explained that, in its view, constructing a BCM network is a logical entry method and a valuable launch pad for subsequent FTTP investments, our assessment of CityFibre’s evidence is that it does not demonstrate that there is a strong causal link between a change in the level of the LLCC and a material increase in fibre roll-out in the FAM. There are a number of factors which will weaken this link.
- 3.135 CityFibre’s analysis indicates that if leased line prices were higher there would be areas where there would be no effect on investment in the BCM. There would also be areas where there would be investment in the BCM which could be linked to the LLCC, but where it would remain uneconomic to invest in the FAM. As CityFibre said, its initial BCM network is designed to be [redacted]. Whether or not such a roll-out takes place would ultimately depend on the market context of the residential market in each city, and this illustrates that there is significant uncertainty about the scale of the effect. We also note that, if CityFibre anticipates significant scale economies from leveraging its investments in the BCM into future investments in the FAM, it should take account of these spill-overs within its own investment and pricing decisions in the BCM.

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<sup>197</sup> CityFibre main party hearing transcript (CityFibre appeal), pages 26–28.

<sup>198</sup> CityFibre response to the provisional determination, paragraph 53.

- 3.136 While we accept that there may be advantages associated with serving customers in the BCM and FAM over a single network, we agree with Ofcom that the separate regulation of leased lines and fixed access does not prevent CityFibre from making investments with a view to operating across both of these markets. This is consistent with CityFibre's current business model. Ofcom is seeking to promote the roll-out of FTTP by intervening directly in the FAM rather than indirectly through the LLCC, and this may reduce the costs of making investments in the FAM.
- 3.137 To find that Ofcom was wrong, we would have to have evidence that the benefits of a material increase in FAM investment can be linked to an increase in the LLCC. CityFibre has provided evidence that there might be some increase in its investment programme in the FAM as a direct consequence of a higher LLCC, but this can be expected to be the case in certain areas only, and the scale of the effect is subject to significant uncertainty. The size of the investment, if any, which can be causally linked to a change in the LLCC appears therefore to be significantly smaller than the numbers contained in CityFibre's evidence on the potential spill-over benefits.
- 3.138 Ofcom and CityFibre appear to agree that there will be convergence over time between the FAM and the BCM if investments in the FAM lead to wider availability of FTTP networks nationally. CityFibre argued that this suggests that Ofcom was wrong to disregard the benefits that accrue to customers in the FAM as a result of its investments.
- 3.139 By contrast, Ofcom's expectation is that this convergence will result in some customers which currently purchase expensive leased line services eventually switching to lower priced FTTP broadband services.<sup>199</sup> This implies that, even if no competing infrastructure providers emerge in the BCM, at least some leased line customers will ultimately secure the benefits which CityFibre attributed to infrastructure competition, as long as Ofcom's regulatory interventions in the FAM lead to infrastructure investment in that market. Under Ofcom's scenario, where competition in the FAM will result in spill-over benefits into the BCM, this would also imply a lower benefit from regulatory interventions designed to promote infrastructure competition in the BCM itself.
- 3.140 We accept that CityFibre's new network is likely to attract at least some SME customers which do not currently purchase leased lines, thus providing these customers with a fibre connection for the first time. However, CityFibre has

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<sup>199</sup> Ofcom main party hearing transcript (CityFibre appeal), page 28.



not shown that this would result in benefits on the scale described in the academic studies referred to by CityFibre.

3.141 We therefore conclude that:

- (a) there would be likely to be benefits from innovation and stronger competition in the BCM if an alternative cost standard lead to increased infrastructure competition;
- (b) the benefits in the BCM would be linked to quality and innovation in customer offering, rather than a step-change in technical capability of the technology offered by CityFibre relative to BT;
- (c) there are material benefits associated with fibre investment in the markets characterised by Ofcom as the FAM, and these could form part of the benefits from investment in competing infrastructure, but CityFibre has not shown that there is a strong link between the level of charges in the BCM and investment in more fibre connectivity in the FAM; and
- (d) CityFibre has not shown that such spill-over benefits should be funded through additional charges in the BCM, rather than in the FAM, where the benefits would be realised.

## **Costs of CityFibre's alternative approach**

3.142 In this section, we consider the costs of CityFibre's alternative approach of using an REO or MEE0 standard rather than BT's CCA FAC.

### *Ofcom's and third parties' views on costs*

3.143 Ofcom said that CityFibre's proposal of using REO costs would result in BT's leased line customers paying £380 million more over the charge control period, with costs in 2018/19 being 49% higher than required for BT to earn its cost of capital. Ofcom also said that CityFibre's alternative proposal to impose a cap of CPI-CPI would have involved BT's leased lines customers paying £700 million more over this period, with costs in 2018/19 being 75% higher than required for BT to earn its cost of capital.<sup>200</sup>

3.144 Ofcom said that the consumer detriment of CityFibre's alternative approach is likely to be significantly greater than £380 million. If other infrastructure operators set their prices by reference to BT's prices in the LLCC, the overall impact of CityFibre's alternative approach across all customers in the BCM

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<sup>200</sup> Ofcom Defence (CityFibre appeal), paragraph 67(1).

(including customers of Virgin and other leased line suppliers, with a combined 40% market share) would be at least £600 million in the current charge control period. Furthermore, if CityFibre's proposal is that LLCC would result in a glide path down to cost by the end of the subsequent charge control period, Ofcom estimated that the total detriment could be around £1.1 billion.<sup>201</sup>

- 3.145 In addition the CP group said that there would be significant costs to moving to a REO or MEE0 approach for other CPs. The CP Group's evidence noted that such a move would be inconsistent with Ofcom's existing and well-established approach, increasing the actual or perceived regulatory risk which would in turn reduce investment by OCPs;<sup>202</sup> would make prices unstable due to the greater impact of subjective assumptions that need to be made as part of a REO/MEE0 approach than under a CCA FAC approach;<sup>203</sup> and, would impose a greater administrative burden on the industry.<sup>204</sup>

#### *CityFibre's case*

- 3.146 CityFibre suggested during the BCMR consultation that the LLCC should be set at a level that would provide sufficient economic headroom to allow infrastructure competition to develop. CityFibre indicated that this could be achieved at a price that was 10–15% below BT's 2014/15 prices by the end of the next charge control period (rather than 43% lower under Ofcom's final LLCC determination<sup>205</sup>). Ofcom used this illustrative example as the basis for estimating the potential costs of using an alternative REO or MEE0 approach.<sup>206</sup>
- 3.147 CityFibre did not directly contest Ofcom's analysis that, assuming prices were set at 10–15% below BT's 2014/15 prices, this would result in BT's leased line customers paying £380 million more over the charge control period.
- 3.148 CityFibre said that its objection to Ofcom's analysis which resulted in the estimate of £380 million was that Ofcom failed to estimate an REO/MEE0 based price, and therefore it could not say with any certainty what the additional cost to customers would be.<sup>207</sup> CityFibre said that Ofcom was

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<sup>201</sup> Ofcom main party hearing transcript (CityFibre appeal), page 18.

<sup>202</sup> CP Group Sol (CityFibre appeal) – Heaney witness statement, paragraphs 14–15.

<sup>203</sup> CP Group Sol (CityFibre appeal) – Heaney witness statement, paragraph 23 and Vodafone response to the provisional determination (CityFibre appeal), paragraph 8.

<sup>204</sup> CP Group Sol (CityFibre appeal) – Heaney witness statement, paragraph 24 and Vodafone response to the provisional determination (CityFibre appeal), paragraph 8.

<sup>205</sup> See paragraph 3.25.

<sup>206</sup> Ofcom Core Submission (Volume 1), footnote 10.

<sup>207</sup> CityFibre Core Submission (Volume 1), paragraph 16.

wrong to take this approach because Ofcom “knew the suggestion that prices would either fall or be reduced by 10 to 15% under a REO approach was not based on any modelling (and CityFibre had no access to cost information in relation to any players other than CityFibre itself)”.<sup>208</sup>

3.149 CityFibre did not state explicitly how Ofcom should have implemented an REO or MEE0 approach, but argued instead that Ofcom should have assessed these options as part of the BCMR. CityFibre said that it had not been able to undertake any detailed analysis, lacking Ofcom’s resources and access to confidential information from other operators.<sup>209</sup>

3.150 CityFibre also alleged that Ofcom’s quantification was wrong because it relied on circular logic. It suggested that Ofcom did not model the costs itself because it considered those costs to be disproportionately high, not because it rejected REO pricing ‘in principle’; but CityFibre contended that Ofcom could not know that the costs were disproportionately high, without modelling the costs itself.<sup>210</sup>

3.151 CityFibre said that, [REDACTED]:

[REDACTED]<sup>211</sup>

3.152 CityFibre explained in the hearing that it is initially disadvantaged in each location it enters<sup>212</sup> and as such its requirement for economic headroom applies for each town or city where it builds a fibre network.<sup>213</sup> We asked how quickly CityFibre would move down the cost curve. CityFibre said that, looking at it on a city unit basis, it anticipated reaching maturity, in the numbers of customers using its infrastructure, around [REDACTED] after market entry.<sup>214</sup>

3.153 CityFibre explained that the need for economic headroom in each area was particularly important given its funding model:

“CityFibre’s clear evidence is that it cannot fulfil its expansion plans and, in particular, raise finance as a result of the LLCC being set by reference to BT’s FAC. [REDACTED]”.<sup>215</sup>

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<sup>208</sup> CityFibre Core Submission (Volume 1), paragraph 49.

<sup>209</sup> CityFibre Core Submission (Volume 1), paragraph 16.

<sup>210</sup> CityFibre Core Submission (Volume 1), paragraphs 51–52.

<sup>211</sup> [REDACTED]

<sup>212</sup> CityFibre main party hearing transcript, pages 63–64.

<sup>213</sup> CityFibre main party hearing transcript, pages 53–54.

<sup>214</sup> CityFibre main party hearing transcript, page 65.

<sup>215</sup> CityFibre Core Submission (Volume 1), paragraph 57.

- 3.154 In relation to the time period over which prices would have to remain above those based on BT's CCA FAC, CityFibre clarified that it was not asking for economic headroom [redacted].<sup>216</sup> It said that, beyond this point, it would expect [redacted] as the business matures and [redacted].<sup>217</sup> CityFibre also said that Ofcom's estimates of costs of CityFibre proposals over two charge control periods, and taking into account that BT has a 60% market share, were wrong because the estimates did not take into account that more than half of the price cut had already been imposed and would not be unwound under CityFibre's alternative approach. Based on this assumption, CityFibre estimated that the overall cost would be at most £240 million.<sup>218</sup>
- 3.155 CityFibre also said that Ofcom failed to account for the fact that a substantial part of the claimed user benefits from lower prices under the LLCC will flow no further than the CP intermediaries which buy Openreach products and services in this charge control period, reflecting that only a proportion of customer contracts come up for renewal in a given year.<sup>219</sup>

#### *Our assessment*

3.156 The costs of an REO or MEE0 approach would depend on three factors:

- (a) What would be the increase in charges relative to Ofcom's determination?
- (b) How long would charges remain above those forecast under Ofcom's determination?
- (c) Would the increase in charges be implemented across the whole of the RoUK market?

3.157 As part of the BCMR, Ofcom did not attempt to model prices based on CityFibre's proposed REO or MEE0 standard. Ofcom's £380 million calculation cited in its Defence was based on the assumption charges under an REO or MEE0 would be 15% below the levels at the end of the 2015/16 charge control period, which was the level that CityFibre had submitted as an estimate of pricing under an REO approach; that these prices would apply in

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<sup>216</sup> CityFibre response to the provisional determination, paragraph 25.

<sup>217</sup> CityFibre response to the provisional determination, paragraph 20.

<sup>218</sup> CityFibre response to the provisional determination, paragraph 68.

<sup>219</sup> CityFibre Core Submission (Volume 2), paragraph 76(c).

one charge control period;<sup>220</sup> and that the difference in prices would apply to BT customers only (approximately 60% of the CISBO market).<sup>221,222</sup>

3.158 CityFibre argued that it was incumbent on Ofcom to identify a MEE0 or REO-based price rather than simply using CityFibre's own assumption about how prices might change.

3.159 We consider that Ofcom's estimate of these costs at £380 million is essentially a scenario analysis based on CityFibre's submission in the BCMR as to how much higher it considered the LLCC needed to be in order to enable new investment by competitors. Although this figure is therefore only illustrative, it is not wrong. We agree with CityFibre that modelling would be an important part of the implementation of a REO or MEE0 cost standard. However, we consider that Ofcom's assessment forms a reasonable starting point in understanding the impact of an alternative approach.

3.160 We note that, whilst CityFibre has not identified a particular level for an REO or MEE0 cost standard, it is by definition asking for a material upward adjustment in price compared with the CCA FAC approach; if not, there could be no material error in the price control, and therefore its appeal would fail. This is also consistent with CityFibre's submissions that a significant increase in the LLCC is necessary to allow its investment plans to be implemented. If the use of an REO or MEE0 approach in practice led to lower prices than those initially suggested by CityFibre, then the benefits to infrastructure competition would be expected to be lower.

3.161 We also note Ofcom's submission that the cost could be higher than £380 million if other infrastructure operators set their prices relative to BT's price in the LLCC. Given BT's 60% market share, this would imply, as Ofcom suggests, that the cost could be around £600 million over the first price control period. Furthermore, Ofcom estimated that, if CityFibre's proposal is that LLCC would result in a glide path down to cost [~~£~~], the total detriment could be around £1.1 billion.

3.162 In response to Ofcom's submission, CityFibre stated that Ofcom's adjustment to account for the fact that other firms have a 40% market share was in error as it did not account for the fact that these competitors are highly likely to

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<sup>220</sup> Ofcom Defence (CityFibre appeal), paragraph 67.

<sup>221</sup> Ofcom main party hearing transcript (CityFibre appeal), page 18.

<sup>222</sup> We note that these calculations assume that BT prices up to the price cap in all areas, and in principle it would be open to BT to price below the cap (for example in response to competition). However, the assumption that BT prices up to the cap appears reasonable as a starting point given that it does so currently, and that even under CityFibre's alternative proposal BT would be required to reduce its prices by around 15% from previous levels.

already be offering discounts against BT prices.<sup>223</sup> Additionally CityFibre said that the need to offer discounts might reduce over time as CityFibre builds its reputation in the market (see paragraph 3.60). Whilst it is feasible that there may be some customers for whom the level of discount is larger at the start of the period of any adjustment than at the end, we do not accept that that this will have a material effect on the costs of an REO or MEE0 approach.

- 3.163 During the appeal, CityFibre stated that it accepted that the initial reduction in leased line prices of approximately 25% which has already been implemented was unlikely to be reversed.<sup>224</sup> CityFibre said that it understood that it may be impractical to reverse price reductions already made<sup>225</sup> and argued that the static costs of its proposal should be based on the position as it is today rather than as it was at the time of the Final Statement.<sup>226</sup> In CityFibre's view, this would change the basis for Ofcom's cost estimates. CityFibre estimated the costs of its alternative approach, after these adjustments, would be between £76 million and £200 million.<sup>227</sup>
- 3.164 Our starting point in assessing CityFibre's appeal is its case that Ofcom should have applied an alternative REO or MEE0 cost standard. CityFibre's appeal did not specify a specific alternative price path.
- 3.165 As explained in paragraphs 3.159 and 3.160 above, we consider that it was reasonable for Ofcom to use the information provided by CityFibre at the time of the BCMR on an illustrative basis to assess the broad scale of the impact of CityFibre's proposal of an REO or MEE0 cost standard, whilst recognising that this was a scenario analysis. CityFibre's statement that a pricing approach based on maintaining the 25% price reduction in the first year of the charge control would have benefits for CityFibre at a lower cost does not change our assessment of whether Ofcom was wrong not to apply an REO or MEE0 approach.
- 3.166 Both Ofcom and CityFibre have presented evidence consistent with the assumption that [redacted]. We note that there appears to be some tension between CityFibre's argument that prices would not need to be higher than BT's CCA FAC after two periods and its explanation that it would need economic headroom in each local area that it entered, potentially for a period of [redacted] from its initial investment in an area (see paragraphs 3.152 and 3.153). However we also note that Ofcom's estimates of the cost of CityFibre's

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<sup>223</sup> It noted that even if they offered the same percentage discount to BT's reduced prices at the end of the LLCC, this would result in a smaller cash discount (CityFibre response to the provisional determination, paragraph 69).

<sup>224</sup> CityFibre response to the provisional determination, paragraph 29.

<sup>225</sup> CityFibre Core Submission hearing transcript, page 29.

<sup>226</sup> CityFibre response to the provisional determination, paragraph 66.

<sup>227</sup> CityFibre response to the provisional determination, Annex 2A paragraph 10 and associated table.

alternative proposal were consistent with CityFibre's assumption that [X]. In respect of the costs of CityFibre's alternative approach, we therefore agree that the assessment can be based on the assumption of higher prices for two charge control periods.

- 3.167 We note further that Ofcom's initial cost calculations were based on the assumption that there is a single LLCC applied to BT in all areas outside the CLA. As a point of principle, it would be appropriate for Ofcom to weigh the benefits deriving from entry against the total cost of applying an REO or MEE0. Accordingly, we interpret CityFibre's NoA as proposing that higher prices should apply throughout the RoUK, and that the benefits and costs should be measured on that basis. We note that CityFibre is appealing the geographic market definitions set out in the Final Statement in the CAT. In this appeal, our assumption is that the market definitions are unchanged.
- 3.168 Finally, CityFibre also emphasised that the LLCC applies in the wholesale market, and the rate at which Openreach price reductions are passed on to customers will be affected by end-user contracts with CPs. We consider that this does not materially affect the assessment of costs. CityFibre's argument is that there may be some delay in the benefits of lower wholesale prices being passed onto retail customers.<sup>228</sup> This suggests only that the timeframe for considering the benefits of lower wholesale prices at a retail level would extend beyond the relevant price control periods.
- 3.169 In summary, our assessment of the evidence provided as to the costs associated with CityFibre's REO or MEE0 standard is that:
- (a) Ofcom was not wrong to follow an approach to calculating the potential costs of CityFibre's proposals, based on an increase in charges to a level 15% below the price control in 2015/16, to form a judgement on the level of a charge control that would provide CityFibre with the economic headroom that it said it would need to roll out fibre networks to a further 50 towns and cities.
  - (b) Ofcom's initial estimate of £380 million is likely to be a lower bound estimate of the costs of an REO or MEE0 approach to the LLCC, given that (i) other infrastructure providers would likely be able to charge more than they otherwise could if BT were to charge a higher price, and (ii) to provide CityFibre with economic headroom, any change would need to apply for more than one control period. In combination, these factors

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<sup>228</sup> CityFibre response to the provisional determination, paragraphs 70–71.

suggest that the actual cost to customers of using an REO or MEE0 approach rather than BT's CCA FAC might be greater than £1 billion.

- (c) Ofcom was not wrong to have considered costs on the basis that an REO or MEE0 standard would be implemented across the whole of the RoUK market instead of being targeted at areas where investment was most likely.

## **Ofcom's balancing of costs and benefits**

3.170 The previous three sections set out CityFibre's arguments and Ofcom's responses in relation to the impact of Ofcom's approach, the potential benefits of CityFibre's alternative approach in encouraging greater infrastructure competition and investment, and the costs to customers resulting from the higher prices associated with CityFibre's alternative approach. This section considers Ofcom's overall assessment of the balance of benefits and costs in reaching its decision to use BT's CCA FAC as the cost standard for the LLCC.

### *CityFibre's case*

3.171 CityFibre argued that:

- (a) Ofcom failed to quantify the benefits of infrastructure competition in a way which would enable it to make a comparison with the costs of an alternative price control approach;
- (b) Ofcom did not itself make any assessment of what an REO or MEE0 cost standard would be and the prices this would imply; and
- (c) Ofcom failed to give appropriate weight to the benefits of competition in applying its regulatory discretion.

3.172 CityFibre said that, given both the propensity to error, and the asymmetric consequence of any error in frustrating infrastructure competition, Ofcom should have exercised its regulatory discretion by erring on the side of making a Type 2 error (ie imposing an REO/MEE0 cost standard which sets prices unnecessarily high) rather than a Type 1 error (ie imposing a CCA FAC standard which sets prices too low). In CityFibre's view Ofcom should have taken this approach given that a Type 2 error can be corrected by the normal working of the market or future regulation, whereas a Type 1 error can only be



corrected by regulation and might have already resulted in entrants exiting the market.<sup>229</sup>

### *Ofcom's response*

- 3.173 Ofcom said that it considered that it did not need to model an REO to make an assessment of the benefits and costs of CityFibre's approach.<sup>230</sup> It accepted many of the categories of benefits to business connectivity customers that CityFibre described,<sup>231</sup> but it said that dynamic benefits were less easy to predict and more difficult to quantify.<sup>232</sup> Ofcom said that this uncertainty arose in part because CityFibre's growth plans are ambitious and, as a result, some of its investments are not expected to take place for many years.<sup>233</sup> It also noted that CityFibre's business model requires it to achieve contracted revenues before it can commit to the associated capital expenditure.<sup>234</sup>
- 3.174 Ofcom also said that the assessment of future benefits (and costs) of an investment programme that would extend beyond the current charge control period is inherently uncertain.<sup>235</sup>
- 3.175 Ofcom's judgement was that, when set against the potential costs, it was not necessary to quantify the benefits in order to reach a conclusion.<sup>236</sup> Ofcom's judgement was that the likely dynamic benefits arising from further infrastructure investment in the BCM would not outweigh the short to medium term detriment in the form of higher costs to customers.<sup>237</sup>
- 3.176 Ofcom said that the benefits of competition in the BCM were considered both in relation to the current charge control period and beyond, and even on this basis would be insufficient to offset the static costs associated with a higher level of the LLCC.<sup>238</sup> Ofcom also said that its judgement was that it did not see the scale and certainty of benefits over time as being sufficient to offset that detriment.<sup>239</sup>

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<sup>229</sup> CityFibre NoA, paragraph 69 and CityFibre NoA – Cadman 1 witness statement, paragraphs 11–14.

<sup>230</sup> Ofcom main party hearing transcript (CityFibre appeal), pages 13–15.

<sup>231</sup> Ofcom Defence (CityFibre appeal), paragraph 96.

<sup>232</sup> Ofcom Defence (CityFibre appeal), paragraph 95.

<sup>233</sup> [Final Statement Annex 20](#), paragraph A20.128 and Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 43–44.

<sup>234</sup> Ofcom main party hearing transcript (CityFibre appeal), page 31.

<sup>235</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 43.

<sup>236</sup> Ofcom main party hearing transcript (CityFibre appeal), pages 20–21.

<sup>237</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 42.

<sup>238</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 43–45.

<sup>239</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 45.

3.177 Ofcom also noted that it did not agree with CityFibre that “Type 2 errors are to be preferred because they can be corrected by the market, while Type 1 errors require a regulatory solution”.<sup>240</sup> Ofcom said it shared a preference for market solutions over regulatory solutions if each is equally effective in remedying the problem at hand. However, this should not stop Ofcom from preferring a regulatory solution where it is more effective.

### *Our assessment*

3.178 The key questions raised by CityFibre in relation to Ofcom’s approach to balancing are:

- (a) Did Ofcom do enough to assess the potential benefits of infrastructure competition?
- (b) Did Ofcom balance costs and benefits in an appropriate way?

3.179 We agree with CityFibre that Ofcom did not assess the potential benefits of infrastructure competition in detail. Rather its assessment was based on an understanding of the nature of the benefits which would result from infrastructure competition, which was drawn from its analysis in the BCMR.<sup>241</sup> It then balanced this assessment of benefits with an assessment of the costs of the alternative approach, which it measured as the increase in charges across the LLCC that would result from a change to the charge control.

3.180 We consider that CityFibre has not demonstrated that Ofcom should have factored in significant spill-over benefits in the FAM as part of its assessment of the charge control in the BCM (see paragraphs 3.141(c) and 3.141(d)).

3.181 In order to show that Ofcom was wrong in its approach to balancing its qualitative evidence of benefits in the BCM with its quantification of the potential costs of an REO or MEE0 approach, CityFibre would need to have demonstrated that there is an expectation that the benefits of competition would outweigh the costs of the approach proposed by CityFibre.

3.182 Ofcom's core argument is that, given the path of prices implied by CityFibre's alternative approach compared with Ofcom’s LLCC for [X], it would need to expect either a very sharp reduction in future prices as a result of infrastructure competition, or believe that the qualitative benefits of

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<sup>240</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 112.

<sup>241</sup> [Final Statement \(Volume 2\)](#), paragraph 5.75.

competition would be very large, in order to outweigh the short-run costs to customers.<sup>242</sup>

3.183 Our view is that CityFibre has not shown that Ofcom's judgement was wrong in this regard.

3.184 The evidence suggests that the costs of CityFibre's alternative approach could be substantial. CityFibre's evidence appears consistent with Ofcom's estimate that the costs to customers of using an REO or MEE0 approach rather than BT's CCA FAC could be greater than £1 billion over the next two charge control periods (see paragraph 3.169(b)).

3.185 On this basis, we conclude that Ofcom was not wrong to make a qualitative judgement in respect of the comparison with benefits within the BCM:

(a) CityFibre has not provided evidence or examples as to how a quantitative assessment could have been carried out in relation to the dynamic benefits it identified within the BCM. In that context, a qualitative approach would be more consistent with normal practice in competition assessment, in part reflecting that the factors identified by CityFibre such as innovation are inherently difficult to quantify.

(b) The nature of the benefits identified by CityFibre, whilst credible and likely to have a positive effect in the BCM, are not likely to result in a material change in the technical specification of the products available, and would depend on market developments in the use of dark fibre and active services by OCPs (see paragraphs 3.121 to 3.141).

3.186 We note that the scale of the estimated costs is in part because CityFibre's REO or MEE0 is assumed to apply across the RoUK market, [REDACTED].<sup>243</sup> CityFibre's statements indicate [REDACTED].

3.187 However, in our view the implication of setting higher prices [REDACTED] is that the direct benefits in the BCM would be limited to networks that would be built and reach sufficient scale during this period. On the basis of CityFibre's own plans this is a significantly smaller number than the 130 cities it has identified or the 100 it submitted to us that it intended to enter by 2025.<sup>244</sup>

3.188 We also note that CityFibre has indicated that there may be a change to its financial circumstances [REDACTED], which would imply that it will be able to invest in other areas without an REO or MEE0 being applied beyond this period. Even

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<sup>242</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraphs 57–61 and 142.

<sup>243</sup> CityFibre said that [REDACTED].

<sup>244</sup> CityFibre NoA, paragraph 9.

if this were to be the case, CityFibre has not provided direct evidence to this appeal in support of this argument. In addition, there remains material uncertainty about the extent to which an increase in charges in the LLCC in this control period can be linked to CityFibre's financing, or that of other competing infrastructure providers, [§]. At this point, it is highly speculative to make any assumption about whether this adjustment would be sufficient to change the potential scale of the roll-out of fibre networks in future periods.

- 3.189 We recognise that an REO or MEE0 would have some impact on infrastructure competition generally, not only on CityFibre, and the benefits need to be considered in that context. However, in any case, it appears from CityFibre's evidence that its approach would result in higher prices across the RoUK as defined by Ofcom, and only some of these customers would receive the benefits of infrastructure competition.
- 3.190 In relation to Ofcom's approach to weighing up costs and benefits, we would expect Ofcom to consider the potential consequences of both Type 1 errors and Type 2 errors. We agree that there may be circumstances where a Type 1 error may be preferable to a Type 2 error. We are not persuaded, however, that Ofcom should, as a matter of principle, permit BT to charge prices above cost simply to avoid the risk of frustrating infrastructure competition. The appropriate question is whether Ofcom has properly assessed the likely benefits and costs to customers of a particular regulatory solution. The exception to this would be if Ofcom had a specific duty to promote infrastructure competition over other forms of competition. We consider CityFibre's arguments on the legal framework in the following section.
- 3.191 In this case, it appears to us that Ofcom did weigh the benefits and costs of the different approaches, and concluded that an approach based on CCA FAC would better balance its duties than one based on REO or MEE0. We understand that this is because it did not consider that there would be an improvement in service comparable to that from the introduction of widespread FTTP, which might suggest a change from the approach it has taken in previous reviews; and also because the approach proposed by CityFibre could not be implemented without significant cost to customers of leased lines.
- 3.192 In summary, we consider that Ofcom did not err in concluding that there was no clear case that the benefits of CityFibre's alternative approach would outweigh the costs. We also consider that Ofcom was not wrong in following the approach that it did when assessing the costs and benefits, and that it was not an error for it not to undertake more detailed analysis of the scale of the possible benefits of an alternative cost standard. As a result, we consider that

CityFibre has not demonstrated that Ofcom was wrong in its assessment in the Final Statement of the benefits and costs of an REO or MEE0 approach. This relates to part (a) of CityFibre's reference question and aspects of part (c) of CityFibre's reference question.

3.193 This assessment does not represent the whole of CityFibre's appeal. We have also been asked to consider two additional reasons why CityFibre considers that Ofcom was wrong, which are included in parts (b) and (c) of the reference question:

- (a) that Ofcom's analytical framework was wrong as it failed to give sufficient weight to infrastructure competition contrary to its broader duties and policies; and
- (b) that Ofcom failed to reflect the pricing in the competitive market in London (the CLA) in its decision.

## **Ofcom duties and policies and consistency with EU guidance and law**

3.194 The previous section considered whether Ofcom made an error in balancing the costs and benefits of CityFibre's proposed approach. In reviewing its approach, we assumed that Ofcom had discretion in making its judgement as to how best to balance its various duties and objectives. This section considers CityFibre's arguments that Ofcom has a specific duty to promote infrastructure competition, even if Ofcom did not make an error in finding that the benefits of CityFibre's alternative approach were unlikely to outweigh the costs.

### *CityFibre's case*

3.195 CityFibre submitted that Ofcom had applied an erroneous approach to its duties under EU and domestic law, and that Ofcom failed to give sufficient weight to its duty to promote competition, in particular infrastructure competition, and its duty not to favour one form of electronic communication network over another.<sup>245</sup> It further submitted that Ofcom should have set a price cap which would encourage investment in building more efficient networks and give CityFibre and others economic space to increase market share.<sup>246</sup>

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<sup>245</sup> CityFibre NoA, paragraphs 57–58 and CityFibre response to the provisional determination, paragraph 88.

<sup>246</sup> CityFibre NoA, paragraph 64.

- 3.196 CityFibre said that Ofcom cannot set an SMP condition under [section 88](#) of the Act where there is a ‘relevant risk of adverse effects’ arising from price distortion. Adverse effects are defined as (a) to fix and maintain some or all of its prices at an excessively high level, or (b) to impose a price squeeze (and so to cause adverse consequences for end-users of public electronic communication services).<sup>247</sup>
- 3.197 CityFibre said that the CRF,<sup>248</sup> which has been transposed into national legislation through the Act, established high-level regulatory objectives including the promotion of infrastructure competition and of efficient investment and innovation in new and enhanced infrastructures<sup>249</sup>; and that ex-ante regulation must be proportionate by imposing remedies that do not unnecessarily restrict market dynamics.<sup>250</sup>
- 3.198 CityFibre submitted that case law showed that the CRF and the Act created a legal framework which is hostile to ex ante regulation, so that the power to impose SMP price control conditions is substantially circumscribed. It said that, in *BT v Telefónica O2 UK Ltd*, Lord Sumption (with whom Lords Neuberger, Mance, Toulson and Hodge agreed) considered the policy objectives of the CRF and stated that “[s]ubject to *ex ante* regulation in circumstances where there is not effective competition, the scheme of the Directives is permissive” (at [5]), going on to refer to the “essentially permissive character” and “market-oriented and essentially permissive approach” of the regulatory scheme under the Directives (at [33] and [43]).<sup>251</sup>
- 3.199 CityFibre submitted that an *ex ante* remedy will only be proportionate where no alternative, less intrusive or less damaging remedy is available (given the bias against such remedies as a matter of clear policy). It stated that any *ex ante* regulatory intervention having the effect of actively inhibiting actual and potential competition would, on this rationale, be subject to special scrutiny as being *prima facie* unlikely to accord with the principles set out in the CRF.<sup>252</sup>
- 3.200 CityFibre said that Ofcom’s decision to use BT’s CCA FAC was also inconsistent with European guidance,<sup>253</sup> including: EC Recommendation on

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<sup>247</sup> CityFibre NoA, paragraph 18.

<sup>248</sup> In particular the ‘[Framework Directive](#)’ 2002/21/EC and ‘[Access Directive](#)’ 2002/19/EC as modified in 2009 by the ‘[Better Regulation Directive](#)’ 2009/140/EC.

<sup>249</sup> [Framework Directive](#), Article 8.5(c) and (d)

<sup>250</sup> [Framework Directive](#), Article 8.5(f).

<sup>251</sup> *BT v Telefónica O2 UK Ltd and others* (Cases 1151/3/3/10, 1168-1169/3/3/10, 1195/3/3/12 and 1211/3/3/13) (UKSC 42) (9 July 2014).

<sup>252</sup> CityFibre NoA, paragraph 28 and CityFibre’s note on the applicable legal framework and principles, paragraph 32 (as submitted to the CMA and the confidentiality ring on 5 December 2016).

<sup>253</sup> CityFibre NoA, paragraphs 61–63; CityFibre NoA – Cadman 1 witness statement, paragraphs 138–139; and CityFibre NoA – Collins 1 witness statement, paragraphs 213–218.

regulated access to Next Generation Access networks (2010);<sup>254</sup> EC recommendation on consistent non-discrimination obligations and costing methodologies (2013);<sup>255</sup> BEREC guidance on the regulatory accounting approach to the economic replicability test (2014);<sup>256</sup> and BEREC common position on Best Practices to remedy SMP on Wholesale Leased Lines Markets (2012).<sup>257</sup>

3.201 CityFibre said that Ofcom had used a MEE0 approach to access pricing for VULA on the basis that this will avoid a margin squeeze,<sup>258</sup> and an REO methodology in the WLA Market Statement. CityFibre said that Ofcom had made a point in support of the use of REO of “noting that this was consistent with other regulatory pricing decisions”.<sup>259</sup>

3.202 Finally, CityFibre said that Ofcom’s key findings in the Final Statement are inconsistent with the strategic direction of the DCR.<sup>260</sup> CityFibre said that the DCR concluded in February 2016 that Ofcom should aim to facilitate investment and innovation, sustainable competition, and light touch regulation of the communications market.<sup>261</sup>

#### *Ofcom’s response*

3.203 Ofcom denied that its design of the LLCC and the knock-on effect on the DFA price constituted a failure to promote competition and encourage investment (as required by section 3(4)(b) and (d) of the Act) or to encourage network access for the purpose of securing efficiency and sustainable competition and the maximum benefit for consumers of communications providers and persons who make associated facilities available (as required by section 4(8) of the Act).

3.204 Ofcom submitted that it had to strike a balance between a number of regulatory objectives and exercise its judgement as an expert regulator. Those objectives, as set out in the EU regulatory framework, are:

(a) protecting consumers from excessive prices;

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<sup>254</sup> Commission Recommendation 2010/572/EU (20 September 2010).

<sup>255</sup> European Commission ‘Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment’ C(2013) 5761.

<sup>256</sup> BEREC guidance on the regulatory accounting approach to the economic replicability test BoR (14) 190.

<sup>257</sup> BEREC Common Position on Best practices in remedies imposed as a consequence of a position of SMP in the relevant market for wholesale Leased Lines, BoR (12) 126.

<sup>258</sup> FAMR: Approach to the VULA margin (2015), paragraphs 3.125–3.127.

<sup>259</sup> CityFibre NoA, paragraph 63, and Review of the WLA market: statement on market definition, market power determinations and remedies, paragraph. 8.136.

<sup>260</sup> Making communications work for everyone: Initial conclusions from the Strategic Review of Digital Communications (February 2016).

<sup>261</sup> CityFibre Core Submission (Volume 2), paragraph 8.

- (b) ensuring a fair opportunity for full cost recovery;
- (c) preserving investment incentives;
- (d) promoting competition upstream;
- (e) promoting competition downstream; and
- (f) encouraging investment in infrastructure.

3.205 Ofcom recognised that the objectives being pursued were to some extent in tension, but considered that giving protection to consumers from excessive charges and promoting competition in the downstream market was particularly important.<sup>262</sup> Nevertheless, Ofcom stated that its regulatory approach also created scope for efficient upstream competition (including efficient infrastructure investment), since an operator as efficient as BT would be able to compete with BT at the upstream level (eg by deploying a more efficient network design and investing selectively in areas with lower costs).<sup>263</sup> Ofcom agreed with CityFibre that the statutory scheme aims to confine *ex-ante* regulation to cases where it is needed and that the targeting of regulation is achieved through a process of market analysis. Ofcom submitted that, once SMP has been identified, there is no presumption against regulation. In fact, the framework requires the regulator to impose *ex ante* measures to address the SMP which has been found.

3.206 Ofcom pointed out that [Article 8](#), paragraph 2 of the Access Directive states, 'Where there has been an SMP finding, national regulatory authorities shall impose the obligations set out in 9 to 13 'as appropriate'. The regulator must proceed in a targeted, proportionate manner by reference to its statutory objectives'.

3.207 Ofcom stated that the EU guidance to which CityFibre referred is relevant in circumstances where the main regulatory objective is to safeguard downstream or retail competition, particularly in situations where upstream prices are not regulated or not cost-oriented. Ofcom said that the REO and MEO tests are most commonly used for setting minimum margins downstream, rather than for setting the maximum charge upstream, and may tend to put downward pressure on access charges, rather than raising them.<sup>264</sup>

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<sup>262</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraphs 17–20.

<sup>263</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 21.

<sup>264</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 33.



- 3.208 Ofcom said that an approach based on the incumbent's costs is normal in situations such as the BCMR, ie where the main regulatory concern is the level of wholesale and therefore retail prices. Ofcom said that using the incumbent's CCA FAC costs is not a departure from ordinary practice in a context where it is setting a maximum charge at the upstream (wholesale) level.<sup>265</sup>
- 3.209 Ofcom said that the competitive situation which Ofcom was addressing in the VULA and WLA decisions referred to by CityFibre was different from the circumstances being considered in this appeal. In those cases, the REO approach was adopted by Ofcom in order to regulate the incumbent's retail margins, as there was a risk of margin squeeze. In the VULA case, there was no direct control on BT's wholesale or retail charges.<sup>266</sup>
- 3.210 Ofcom said that the aim of the DCR is to ensure that the digital communications markets work for consumers, in line with Ofcom's principal duty. Ofcom said that the DCR sets out, amongst other things, how Ofcom will encourage infrastructure investment and network-based competition, particularly in relation to FTTP services for the delivery of ultrafast broadband. Ofcom said that its decision in this BCMR to provide regulated DFA was consistent with its overall strategy established in the DCR of exposing as much of the value chain to competition as is sustainable and efficient. Ofcom also said that direct measures to encourage investment in residential broadband in the WLA review rather than through setting high prices for leased lines was consistent with the approach set out in the DCR.<sup>267</sup>

### *Our assessment*

- 3.211 We agree with Ofcom that the EU regulatory framework comprises a number of high level regulatory objectives and regulatory principles, which do not necessarily imply one regulatory approach should be used rather than another. We also agree that [Article 8](#), paragraph 2 of the Access Directive and [section 87](#) of the Act require Ofcom to set such authorised SMP conditions as it considers it appropriate to apply, where it has made, as here, a determination of SMP in a specific market.
- 3.212 We do not agree with CityFibre that statements made by Lord Sumption in *BT v Telefónica O2 UK Ltd* support CityFibre's case. In particular, we note that

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<sup>265</sup> Ofcom Defence (CityFibre appeal), paragraph 112.

<sup>266</sup> Ofcom Defence (CityFibre appeal), paragraph 71; and Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraph 41.

<sup>267</sup> Ofcom Core Submission (Volume 1) (CityFibre appeal), paragraphs 4–5 & 49.

Lord Sumption expressly excluded from the scope of his comments “ex ante regulation in circumstances where there is not effective competition”.<sup>268</sup>

Furthermore, the statement – made in the context of a dispute resolution<sup>269</sup> – was intended to describe some of the CRF regulatory principles, which do not contradict our assessment about the range of Ofcom’s regulatory objectives and the fact that it has discretion on how to balance competing objectives.

3.213 Furthermore, section 3(4)(b) and (d) of the Act place a duty on Ofcom to have regard to the desirability of promoting competition in relevant markets and the desirability of encouraging investment and innovation in relevant markets. In addition, [Article 8](#) paragraph 5(c) of the Framework Directive places a duty on Ofcom to apply the principles by ‘safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition’. We consider that the language of these provisions suggests that the provisions cannot be read as creating an overriding duty for the purposes of Ofcom’s LLCC decision or DFA remedy.

3.214 We therefore consider that the duty to promote competition, which in certain circumstances Ofcom can implement at the upstream level (ie promoting infrastructure-based competition), is just one of the different duties which Ofcom has to balance when making *ex ante* charge control decisions. We consider that sections [3\(7\)](#) and [4\(11\)](#) of the Act make it clear that Ofcom should resolve conflicts between its general duties under [section 3](#), or between its EU obligations under [section 4](#), ‘in the manner they think best in the circumstances’.

3.215 As a result, we do not agree with CityFibre that Ofcom was required to give particular weight to infrastructure competition even where that would not be justified by the underlying economics. Ofcom has a duty to promote competition, and, where appropriate, to promote infrastructure competition, but it has to balance this duty with its other duties. CityFibre has not provided any evidence that it should diverge from these duties and promote infrastructure competition without due consideration of the broader effects.

3.216 In our view Ofcom did consider its regulatory objectives, including promoting infrastructure competition. Based on its assessment in the BCMR, Ofcom exercised its discretionary judgement as the expert regulator deciding to attach particular importance to consumer protection from excessive retail prices and to the promotion of downstream competition at a service level.

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<sup>268</sup> *BT v Telefónica O2 UK Ltd and others* ([Cases 1151/3/3/10, 1168-1169/3/3/10, 1195/3/3/12 and 1211/3/3/13](#)) (UKSC 42) (9 July 2014).

<sup>269</sup> Article 20 of the Framework Directive and section 190 of the Act.

- 3.217 We also agree with Ofcom on the relevance to this case of the guidance and precedents cited by CityFibre (see paragraph 3.198 to 3.200). We also consider that the impacts on competition of an REO or MEE0 approach in the context of a margin squeeze case will be different from the impact in this case.
- 3.218 Finally, we do not agree with CityFibre that Ofcom’s approach to setting the LLCC is inconsistent with Ofcom’s statement of its strategy as set out in the DCR. The DCR establishes high-level strategic objectives for Ofcom in the digital communications markets. It is for Ofcom to determine how best to achieve such strategic objectives in market reviews such as the BCMR, taking into account its duties under the Act.
- 3.219 We therefore consider that neither the precedents nor the guidance to which CityFibre has referred suggest that Ofcom erred in setting the LLCC with reference to BT’s costs. We consider that the legislative framework would not prevent Ofcom from using an REO/MEE0 approach for the BCMR, but that this would be a matter of regulatory discretion.
- 3.220 Therefore, we do not agree with CityFibre’s argument that Ofcom should have given special weight to infrastructure competition as a result of application of its legal duties.

### **Central London Area ‘sense check’**

- 3.221 In this section, we consider aspects of the LLCC analysis which are raised in Question 1(c) from CityFibre and which relate to the difference between prices in the CLA and the regulated price across the RoUK.

#### *Ofcom’s approach in the BCMR*

- 3.222 In the BCMR, Ofcom assessed a proposal from IIG that it should price dark fibre by benchmarking it against the prices of commercial dark fibre supplied in the CLA. In that context, Ofcom stated that it considered that benchmarking may be useful under a cost-based approach, if the benchmark provides a reliable indicator of the costs of a remedy. However, it did not consider that the prices in the CLA would be a suitable benchmark in the context of dark fibre as they would be a poor proxy for the costs of supplying dark fibre in the rest of UK.<sup>270</sup>

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<sup>270</sup> [Final Statement Annex 21](#), paragraphs A21.61–21.64.

## *CityFibre's case*

- 3.223 As part of its appeal, CityFibre asked us to consider whether Ofcom failed to take properly into account pricing in the CLA.
- 3.224 CityFibre said that, in 2018/19, the regulated dark fibre price outside the CLA would be 35 to 85% lower than the competitive dark fibre prices that existed in the CLA in 2014/15.<sup>271</sup>
- 3.225 CityFibre alleged, therefore, that either prices outside the CLA are being set too low, or that the CLA is not effectively competitive. In CityFibre's view, as Ofcom had determined that the market in the CLA is competitive, it must be the case that the prices under the LLCC and DFA remedy are, on the evidence of pricing in the CLA, below competitive levels.<sup>272</sup>
- 3.226 CityFibre suggested that this provides support for its view that the LLCC will amount to a substantial impediment to infrastructure competition and investment. It considered that it can be assumed that, in an effectively competitive market, as Ofcom has found the CLA to be, the price of a product or service will be approximately equal to its cost.<sup>273</sup> CityFibre stated that no rational firm would enter a market if the market price was below its costs.<sup>274</sup>
- 3.227 CityFibre considered the possibility that pricing in the CLA may reflect supply-side considerations, ie that there may be different unit costs in the CLA. CityFibre noted that it is possible that cost conditions are not the same in the CLA as they are in RoUK, which could imply a difference in competitive prices inside and outside the CLA. For example, civil engineering costs in London may be higher.<sup>275</sup>
- 3.228 However, CityFibre noted that these might be offset by higher business density, which would tend to reduce average costs per customer, and that, as most customers of business connectivity services are likely to be in urban areas, such cost differences as do exist are likely to be minimal.<sup>276</sup>
- 3.229 CityFibre said that it did not consider that Ofcom had provided a satisfactory explanation of the price differential. In CityFibre's view, market conditions and, most importantly, cost conditions are not different in the way that they would need to be to justify Ofcom's LLCC resulting in higher prices inside the CLA

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<sup>271</sup> CityFibre NoA, paragraph 65.

<sup>272</sup> CityFibre Core Submission (Volume 1), paragraph 56.

<sup>273</sup> CityFibre Core Submission (Volume 2), paragraph 91.

<sup>274</sup> CityFibre Core Submission (Volume 2), paragraph 94.

<sup>275</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 88.

<sup>276</sup> CityFibre NoA – Cadman 1 witness statement, paragraph 88.

than outside it.<sup>277</sup> CityFibre stated that Ofcom provided no analysis of whether cost conditions in the CLA are different from those in RoUK, or in any other urban areas.

3.230 However, CityFibre also stated that, although both Ofcom and CityFibre had expressed the view that unit costs may be lower in London than in other parts of the country, without doing a full analysis of costs elsewhere, this conclusion is not supported by evidence. In CityFibre's view, the appropriate conclusion is simply that unit costs vary by location.<sup>278</sup>

#### *Ofcom's response*

3.231 Ofcom said that the CLA is a separate market with different market conditions which, as it concluded in the BCMR, would not provide an appropriate benchmark for the setting of the regulated dark fibre price outside the CLA.<sup>279</sup>

3.232 Ofcom considered that there are a number of key differences which mean that prices in the CLA are not directly comparable in the context of dark fibre:

- (a) historically CLA prices represented a poor competitive benchmark because of the high profitability of BT in the CLA in the relevant period;
- (b) the dark fibre price in the CLA is not a reliable measure of competitive level, as dark fibre sales in the CLA constitute a small and highly concentrated sector;
- (c) there is a high degree of heterogeneity in the supply of dark fibre in the CLA, meaning that prices cannot be reliably translated to a comparable Openreach or CityFibre service outside the CLA; and
- (d) there are differences in cost and demand conditions between the CLA and RoUK.

#### *Profitability of BT in the CLA*

3.233 Ofcom provided evidence showing that the profitability of BT's leased lines business in 2014/15 in London (including both the CLA and LP which was the

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<sup>277</sup> CityFibre Core Submission (Volume 2), paragraph 85.

<sup>278</sup> CityFibre response to the provisional determination, paragraph 79.

<sup>279</sup> Ofcom Defence (CityFibre appeal), paragraph 117.

geographic market in the previous determination) was 48%, significantly higher than the 22% BT earned elsewhere in the UK.<sup>280,281</sup>

- 3.234 Ofcom stated that, for this reason, the prevailing CLA prices at the time of the Final Statement are not a good indicator of the unit costs of providing the active services covered by the LLCC.<sup>282</sup> It also explains why an efficient price at the end of the charge control period in 2018/19, based on BT's CCA FAC plus a reasonable rate of return, could well be less than the price prevailing in the CLA in 2014/15. Ofcom's hope and expectation was that, given the number of suppliers and well informed customers in the CLA, prices would come down over time.<sup>283</sup>

*Dark fibre sales in the CLA constitute a small and highly concentrated sector*

- 3.235 Ofcom said that there are a small number of dark fibre circuits in the CLA ([§]) provided by a small number of operators, three of which ([§]) between them have a market share of over [§]%.<sup>284</sup> Its view was that the low volume of commercial dark fibre (both in total and relative to total circuit volumes) provided in the CLA, in addition to the high degree of concentration, lead to the risk than any benchmark price would be skewed by the price offered by an individual CP or by the price of individual circuits.<sup>285</sup>

*There is a high degree of heterogeneity in the supply of dark fibre in the CLA*

- 3.236 Ofcom noted the high degree of variation in the structure and level of prices of dark fibre supplied, the customer types using the product and the uses to which it is put and the product features of that dark fibre. In its view, this would mean that any benchmark would not be robust, as it would not be based on the prices of homogenous products such that a competitive price could be clearly observed.<sup>286</sup>
- 3.237 Expanding on these points, Ofcom said that part of the variation in prices is likely to reflect the fact that suppliers take a different approach to structuring the prices of the dark fibre they supply. For example:

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<sup>280</sup> Ofcom 6 January 2017 response to CMA 23 December 2016 clarification question 6.

<sup>281</sup> Percentage value is BT's reported Return on Capital Employed (ROCE) in wholesale leased lines markets.

<sup>282</sup> Ofcom 6 January 2017 response to CMA 23 December 2016 clarification question 6.

<sup>283</sup> Ofcom main party hearing transcript (CityFibre appeal), pages 44 & 45.

<sup>284</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 93(a) and Ofcom 6 January 2017 response to CMA 23 December 2016 clarification question 7.

<sup>285</sup> [Final Statement Annex 21](#), Table A21.2.

<sup>286</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 93(b) and [Final Statement Annex 21](#), Table A21.2.

- (a) some suppliers set charges that vary by distance, others do not; and
- (b) some suppliers may set connection charges relatively low, generating their revenues largely through rental charges, while other suppliers seek to recover high upfront costs by setting higher connection charges.<sup>287</sup>

3.238 Ofcom also said that the three principal suppliers each had different business models, focusing on different customer requirements (eg low latency connections, reliance and diversity of routing or the provision of separate network services) and targeting different customer groups (for example, finance, other enterprises or sales to other CPs).

*There are differences in competitive conditions between the CLA and RoUK*

3.239 Ofcom considered that supply and demand conditions in the CLA are materially different from those in the LP and the RoUK.<sup>288</sup> Ofcom said that, on the supply side, the density of existing infrastructure and costs of building network are much greater. On the demand side, the number and density of users seeking connectivity at and above 1Gbit/s are higher in the CLA, as is the proportion of users wishing to use dark fibre and pay for greater control over connectivity.<sup>289</sup> Ofcom considered that, in combination, these factors mean that the unit costs of building a new network in London would likely be lower than elsewhere in the UK.<sup>290</sup> Overall, Ofcom's view was that these differences in supply and demand conditions in the CLA compared with RoUK make benchmarking inappropriate.<sup>291</sup>

3.240 In addition Ofcom said that it considers that regulated dark fibre (similar in design to BT's EAD products) will be unlikely closely to resemble commercial dark fibre services, which reduces the validity of benchmarking the prices of regulated dark fibre to prices of commercial dark fibre.<sup>292</sup>

*Our assessment*

3.241 Ofcom accepted that unit costs are likely to be lower in London than elsewhere. For this reason, we accept CityFibre's view in its NoA that, at first

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<sup>287</sup> Ofcom 6 January 2017 response to CMA 23 December 2016 clarification question 9(a).

<sup>288</sup> [Final Statement Annex 21](#), Table A21.2.

<sup>289</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 93(c).

<sup>290</sup> Ofcom main party hearing transcript (CityFibre appeal), page 43.

<sup>291</sup> Ofcom Defence (CityFibre appeal) – Culham 1 witness statement, paragraph 93(c).

<sup>292</sup> Ofcom 6 January 2017 response to CMA 23 December 2016 clarification question 8.

sight, it appears surprising that the determination has resulted in regulated prices outside the CLA being lower than those prevailing in the CLA.<sup>293</sup>

3.242 Ofcom's main point of defence is that the prices observed in the CLA in 2014/15 were not robust 'competitive' prices, and as such are not reliable as a comparator with regulated prices in the RoUK at a later period.

3.243 Our review of the evidence suggests that conditions in one market such as the CLA do not need to be the same as conditions in another market, such as the RoUK, for a comparison to be valid. For example, the CLA price could be a relevant benchmark for the RoUK, as long as it was:

- (a) adjusted for differences in unit costs between the CLA and RoUK;
- (b) adjusted for differences in product (eg differences in quality of product or differences in approaches to pricing) between the CLA and RoUK; and
- (c) otherwise on a like-for-like basis (for example, comparing 2014/15 prices with 2014/15 prices).

3.244 We accept therefore that Ofcom could have done this comparison, even if only as a 'sense-check', for pricing outside the CLA. If a like-for-like comparison did show a significant differential this could be relevant to our assessment.

3.245 However, this does not mean that Ofcom was wrong in its approach to RoUK pricing because of the differential identified by CityFibre. There appear to be a number of possible reasons for the differential alleged by CityFibre. Ofcom has identified a number of ways in which the pricing of CLA dark fibre cited by CityFibre was not comparable on a like-for-like basis with the regulated price of DFA under the LLCC. The pricing was based on evidence from a small number of operators, and represented market conditions in 2014/15. In the absence of further information about the likely future trends in commercial dark fibre pricing, and any differences in the technical offering of commercial and regulated dark fibre, it is difficult to draw any conclusions from the data.

3.246 CityFibre has also not presented any evidence showing how active leased lines charges (the subject of the appeal) differ inside and outside the CLA. The IIG analysis presented by CityFibre compares the dark fibre price inside and outside the CLA. It is for CityFibre to provide evidence that Ofcom was wrong, and neither CityFibre or the IIG analysis provided any reasons which

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<sup>293</sup> However, we note that, in its response to the provisional determination (paragraph 79), CityFibre has instead emphasised that there is in fact no supporting evidence that unit costs are likely to be lower in London than elsewhere, as there are a number of factors that influence the cost of construction.



would suggest that active leased line charges for directly comparable circuits differ inside and outside the CLA to any meaningful extent.

3.247 We note that CityFibre has suggested that the differential between CLA prices and regulated dark fibre could not be explained by a lack of competition in the CLA as this would not be consistent with Ofcom's conclusion that BT did not have SMP in the CLA. However, in the hearing, Ofcom emphasised that its SMP determination did not mean that it considered that prices had been cost reflective at the time of the determination, but rather that its hope and expectation was that, given the number of suppliers and well informed customers in the CLA, prices would come down over time.<sup>294</sup>

3.248 For these reasons, we do not consider that CityFibre has provided sufficiently reliable and directly comparable analysis of pricing inside and outside the CLA to suggest that Ofcom was wrong to set the LLCC based on BT's CCA FAC.

## **Our overall assessment of CityFibre's case**

3.249 Our assessment is as follows:

- (a) we do not consider that CityFibre has shown that Ofcom was wrong in its approach to balancing the benefits and costs of using an alternative cost standard such as REO or MEE0, or in its overall assessment of the benefits and costs;
- (b) our review of the relevant legal framework suggests that Ofcom was not wrong in the approach it took to assessing the impact of infrastructure competition, and we do not agree with CityFibre that it had a particular obligation to give greater weight to infrastructure competition; and
- (c) we do not agree with CityFibre that the pricing comparison in the CLA presented by CityFibre means that Ofcom was wrong to use CCA FAC in the LLCC.

3.250 We therefore find that, in designing the LLCC and the DFA Cap, Ofcom was not wrong to set the LLCC by reference to BT's costs of replacement of its network (albeit with modern equivalent technology, specifically BT's CCA FAC), instead of the costs of an REO or MEE0.

3.251 As discussed in section 1, we have considered CityFibre's appeal on its own merits, and our assessment of the CityFibre reference question takes into account the evidence provided to us in that appeal. CityFibre said that, in

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<sup>294</sup> Ofcom main party hearing transcript (CityFibre appeal), pages 42–47.

relation to the TalkTalk appeal, the CMA's provisional determination is relevant to the effect of the BCMR on CityFibre and on infrastructure competition generally. CityFibre said that the CMA should take this impact on infrastructure competition into account in its decision concerning CityFibre's case.<sup>295</sup>

- 3.252 This is not the reference question which we were asked by the CAT in respect of the CityFibre appeal. As discussed in section 6, we will give guidance to the CAT that the pricing of DFA should be considered further by Ofcom, and we would expect that Ofcom's consideration would be made in light of all the relevant circumstances.

## 4. TalkTalk appeal

### Introduction

- 4.1 Under the TalkTalk appeal, the CAT asked us to consider one question:<sup>296</sup>

“Was Ofcom wrong to decide that, in the event that Ofcom's recommendation to the Government described in paragraph A23.111 of the [Final Statement](#) is not adopted, the NDR costs to be deducted from the price of the reference active products in deriving the price for DFA at paragraph 10.C.1 of the Condition should be based on an attribution of BT's rates costs to the fibre (rather than on some other appropriate measure) for reasons set out in paragraphs 32 to 44 of the NoA”.

- 4.2 TalkTalk's question relates to the level of the charges set by BT for DFA. In particular, it relates to Ofcom's assumption regarding NDRs in the calculation of the price of DFA.
- 4.3 Before considering TalkTalk's appeal, we set out the background to TalkTalk's question. We describe Ofcom's approach to the pricing of DFA (paragraphs 4.14 to 4.23). We explain what NDRs are and how they are calculated for telecoms network operators (paragraphs 4.24 to 4.35). Finally we set out Ofcom's approach to NDRs in setting the DFA remedy (paragraphs 4.36 to 4.44).
- 4.4 Much of TalkTalk's appeal relates to the difference between the cost attribution of BT's NDRs to leased lines and the level of OCPs' NDRs costs for comparable services. We refer to this difference as the 'NDR Differential'.

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<sup>295</sup> CityFibre response to the provisional determination, paragraph 2.

<sup>296</sup> See Appendix B.

We also note that BT's NDR costs are in practice an allocation of shared NDR costs relating to BT's network. Ofcom's rules for allocating costs to products are described as a 'Cost Attribution' methodology, and TalkTalk's question refers to an attribution of BT's costs. As a result, we therefore also use the term 'attribution' in our review of TalkTalk's appeal when discussing NDR cost allocation.

### ***Our approach***

- 4.5 The question in TalkTalk's appeal concerns whether Ofcom was wrong in its decision on the price to be applied by BT in respect of the DFA remedy and in particular whether Ofcom was wrong to base the NDR costs in its 'active-minus' methodology on an attribution of BT's NDR costs.
- 4.6 TalkTalk pleaded three reasons in support of its case, which are:<sup>297</sup>
- (a) that the NDR decision (to use an attribution of BT's NDR costs) is contrary to Ofcom's objectives;
  - (b) Ofcom's reasons for not setting the active differential by reference to the NDRs payable by OCPs are flawed; and
  - (c) that a clearly superior approach was available to Ofcom.
- 4.7 As discussed in Section 2, the question that we are asked to consider is whether Ofcom was wrong. It is accepted case law that the CMA should not take the role of a second-tier regulator (as explained in paragraph 2.25). That the CMA might have reached a different decision to Ofcom had it been the decision maker does not, in itself, indicate that Ofcom was wrong. That the CMA might have considered an alternative approach advanced by an appellant to be superior is not, in itself, sufficient for the appeal to succeed.
- 4.8 In considering whether Ofcom was wrong, we have taken an approach which is consistent with precedent on the test required to find an error in such appeals.
- 4.9 First, we have reviewed the background material to Ofcom's decision, and the facts as presented by the parties. In this case this particularly relates to the size of the differential between an attribution of BT's NDR costs and the NDRs incurred by OCPs such as TalkTalk, and the reasons why Ofcom made the decisions to impose the DFA remedy and chose the form of the DFA remedy as set out in the Final Statement.

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<sup>297</sup> TalkTalk NoA, paragraphs 32–44.

- 4.10 Second, we have reviewed TalkTalk's reasons for stating that Ofcom was wrong in its decision in respect of (a) and (b) in paragraph 4.6 above. We have considered the evidence provided as to Ofcom's objectives, and whether the NDR Decision was consistent with those objectives.
- 4.11 The issue we are considering is whether Ofcom was wrong in the approach it chose to take, should its preferred approach to resolution of the NDR differential not be feasible – ie should the Government not change the rating rules. In particular:
- (a) this case relates to a scenario in which Ofcom decided to proceed with the DFA remedy notwithstanding that the NDR Differential is not resolved by the Government;
  - (b) we have therefore considered the evidence submitted to this appeal on whether, in that scenario, Ofcom was wrong to take the approach of using an attribution of BT's NDR costs in setting the price of DFA given the evidence of what it stated about its objectives; and
  - (c) we have not considered the broader question of whether Ofcom was right to proceed with the DFA remedy at all, either with or without the NDR Differential, which is a question for the CAT under BT's appeal.<sup>298</sup> In this appeal, we assume that the DFA remedy is otherwise implemented as intended by Ofcom.
- 4.12 As discussed in paragraphs 4.151 and 4.144 below, we agree with TalkTalk's case as set out in paragraph 4.6(a) and paragraph 4.6(b) above. We agree with TalkTalk that Ofcom's approach was not consistent with its objectives, and that Ofcom's reasons for rejecting an alternative approach based on access-seekers' NDR costs were flawed.
- 4.13 Having first established that Ofcom adopted an approach that was not consistent with its objectives, we then consider TalkTalk's statement that a 'clearly superior' approach was available to Ofcom. In particular we examine whether an approach was available to Ofcom that would have been consistent with Ofcom's objectives and accordingly whether Ofcom was wrong to have used an attribution of BT's costs. TalkTalk is not asking us to impose a specific alternative approach. Nor have we based our assessment on whether there is a different approach that the CMA would have preferred. Rather we have assessed whether TalkTalk has demonstrated that there was an alternative approach available to Ofcom that would have been consistent with Ofcom's own objectives in introducing the DFA remedy. We consider that our

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<sup>298</sup> CAT appeal, Case no 1260/3/3/16, [BT vs Ofcom](#).

approach in this regard is consistent with the legal framework described in Section 2.

### ***Background: Pricing of Dark Fibre Access***

- 4.14 The LLCC sets the rule by which BT calculates the maximum charges it is able to impose for DFA. The charges are calculated by BT relative to the prices of comparable 'active' wholesale leased line products, which are described as circuits. The cap on BT's DFA prices (the DFA Cap) is calculated as the cost of the comparable active or 'lit' services, less an amount calculated by BT using rules specified by Ofcom. The adjustment to active prices is intended to reflect the long-run incremental costs (LRIC) for BT associated with active products in comparison with dark fibre. In this section we refer to the cost adjustment used in calculating the level of the DFA Cap as the 'Active Differential'. This approach to calculating the DFA Cap is described by Ofcom as an 'active-minus' calculation.
- 4.15 The calculation of the DFA Cap therefore requires two inputs: first, the price of the active reference product; second, a calculation of the Active Differential. Under the DFA remedy, BT will calculate the DFA price based on its own analysis of the active reference product price and the Active Differential.
- 4.16 BT currently prices active circuits on the basis of a 'bandwidth gradient', with different prices for 10Mbit/s, 100Mbit/s, 1Gbit/s and 10Gbit/s services. We understand from the parties' submissions that, whilst there are differences in the costs of providing these products, the cost of the fibre components is independent of the bandwidth.
- 4.17 Under the LLCC, BT has flexibility as to how it chooses to set different prices for the different services within the scope of the charge control.<sup>299</sup> At present, BT sets prices such that it makes higher margins on the higher bandwidth services (10Gbit/s and 1Gbit/s) and lower margins on lower bandwidth (10Mbit/s and 100Mbit/s) services.<sup>300</sup>
- 4.18 As a result of the different margins associated with the different active products, the DFA price based on the active-minus approach will depend on the choice of the active reference product. Ofcom decided to set the DFA price at the same price as the 1Gbit/s active service, minus the LRIC of the costs avoided by BT in providing dark fibre relative to a 1Gbit/s active service. It considered that the introduction of a passive remedy on this basis "would

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<sup>299</sup> [Final Statement Annex 19](#), paragraph A19.85.

<sup>300</sup> [Final Statement Annex 19](#), figure A19.3.

deliver substantial benefits relative to imposing active remedies alone while mitigating the risks [we] had identified”.<sup>301</sup>

4.19 Ofcom identified the three following components in the Active Differential:

- (a) the costs avoided by BT when providing DFA, as opposed to a corresponding active service (‘first component’);
- (b) the NDRs associated with the corresponding active service (‘second component’); and
- (c) any objectively justifiable cost differences between dark fibre and the corresponding active service (‘third component’).<sup>302</sup>

4.20 This approach to setting the price for DFA based on BT’s 1Gbit/s active service, less BT’s avoided costs, means that the cost for OCPs of providing active 1Gbit/s products will be lower using dark fibre than active products, where the OCPs face lower incremental costs, including NDRs, than BT. In the BCMR Final Statement, Ofcom estimated that the consequence of this approach to the pricing of DFA would be as follows:

**Table 4.1: Ofcom’s estimation of the Active Differential for 1Gbit/s services**

<i>Active product</i>	<i>Active Differential</i>
EAD 1Gbit/s rental	£719.32 per circuit
EAD LA 1Gbit/s rental	£693.66 per circuit

Source: Ofcom. Extract from [Final Statement Annex 23](#), Table A23.4.

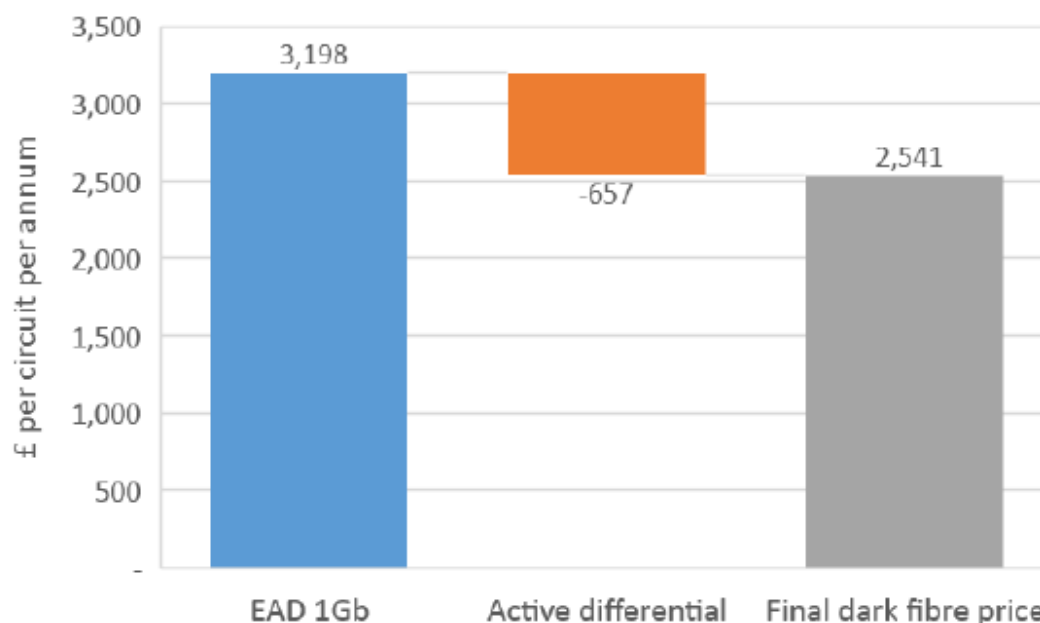
4.21 In December 2016, BT published information in respect of its final reference offer prices for DFA from 1 October 2017. Active prices including the relevant 1Gbit/s prices, and dark fibre prices, are both published by Openreach on its website.<sup>303</sup> The calculation of the Active Differential used by BT in developing its pricing was illustrated by Ofcom in the evidence it provided at the hearing, which is reproduced as Figure 4.1. below:

<sup>301</sup> [Final Statement \(Volume 1\)](#), paragraph 7.43.

<sup>302</sup> [Final Statement Annex 23](#), paragraph A23.40.

<sup>303</sup> Active price is the EAD 1000 Extended Reach price, available at the following [Openreach webpage](#) (accessed on 24 February 2017). Dark fibre price taken from Openreach DFA Final Reference Offer – Pricing, December 2016, available at the following [Openreach webpage](#) (accessed on 24 February 2017).

**Figure 4.1: Pricing of active leased lines and DFA**



Source: Ofcom main party hearing (TalkTalk appeal), presentation slide 5.

4.22 Ofcom provided evidence, in the form of a submission from Openreach provided approximately one month before the dark fibre pricing shown in Figure 4.1 above was confirmed, that the breakdown of the £657 shown in Figure 4.1 in the Active Differential is approximately as follows:<sup>304</sup>

- (a) first component: equipment costs of approximately £[REDACTED];
- (b) second component: NDRs of approximately £[REDACTED]; and
- (c) third component: costs associated with incremental activities undertaken by Openreach to provide DFA (and not required to provide active services) (£[REDACTED]).

4.23 As the third component calculated by BT is an additional cost incurred by BT in providing DFA, it is subtracted from the first and second components (which are avoided costs) to calculate the level of the Active Differential.

<sup>304</sup> Openreach, 'Dark Fibre Access – Final Reference Offer, Ofcom Update' (1 November 2016), submitted by Ofcom on 31 January 2017. These provisional figures add up to £[REDACTED], rather than £657. We understand that the NDRs of £[REDACTED] estimated in this document dated 1 November 2016 should be calculated on a comparable basis to the estimates of approximately £[REDACTED] provided in BT's Sol which were based on Ofcom estimates.

## **Background: The Non-Domestic Rate regime for telecoms networks**

4.24 In this section we consider the following:

- (a) What are NDRs?
- (b) How are OCPs' NDRs likely to be calculated in relation to the use of DFA?
- (c) How are BT's NDRs calculated, and how might this change following the introduction of DFA?
- (d) How are BT's NDRs allocated to products including active leased lines circuits?

4.25 NDRs are a tax payable on non-domestic rateable assets.<sup>305</sup> In relation to dark fibre, the Valuation Office Agency (VOA) has determined that "as a general rule of thumb, the person who lights the fibre is considered to be in a rateable occupation". Therefore, Ofcom considers that the CP which lights the fibre will be responsible for paying the NDRs.<sup>306</sup>

4.26 The evidence provided by the parties showed that this principle, that NDRs are payable by the CP that lights the fibre, has been confirmed following a legal case which was referred to in evidence by TalkTalk.<sup>307</sup> For the purposes of this appeal, it appears to be accepted by the parties that the NDRs payable on dark fibre will be paid by OCPs and we do not consider further the reasons for the VOA's approach.

4.27 In general, NDRs are calculated by reference to the rateable value of an asset, which is then multiplied by the Uniform Business Rate.<sup>308</sup> The methodology under which rateable values, and hence NDRs, are determined by the VOA is not consistent across network operators. Whilst most OCPs, including TalkTalk, are assessed under the Direct Rental Comparison (DRC) method, BT, KCOM and Virgin are assessed under the Receipts and Expenditure (R&E) method.

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<sup>305</sup> [Final Statement Annex 23](#), paragraph A23.98.

<sup>306</sup> [Final Statement Annex 23](#), paragraph A23.102.

<sup>307</sup> TalkTalk NoA – Stevens 1 witness statement, paragraph 2.10. *Vtesse Networks Limited v Alan Roy Bradford (Valuation Officer)* [2006] EWCA Civ 1339.

<sup>308</sup> TalkTalk NoA, paragraph 11.



- 4.28 Under the DRC method, the rateable value varies according to a number of factors which are specific to the relevant circuit.<sup>309</sup> The factors described in the evidence provided by TalkTalk are:<sup>310</sup>
- (a) **Circuit length** – The level of NDRs increases as the length of a circuit increases.
  - (b) **Contiguity** – The level of NDRs for an incremental circuit is influenced by whether that circuit is ‘contiguous’ with other rateable assets in the CP’s network. In particular, the larger the size of the existing network with which the new circuit is assessed to be ‘contiguous’, the lower the NDR of the new circuit.
  - (c) **Number of lit fibres** – The level of NDRs relates to the fibre asset itself, and the NDR per circuit varies according to the number of lit fibres in that circuit. In other words, if an OCP could use a dark fibre circuit for more than one lit active circuit for its end users, its NDR per active circuit would be lower.
- 4.29 BT’s NDRs, and those of other CPs using the R&E method, are calculated differently. The R&E method assesses BT’s rateable assets together and provides the framework within which this combined asset base is rated at each valuation date, to create what is described as the ‘cumulo’ rating assessment. This means that there is no rateable value for an individual circuit forming part of BT’s network.<sup>311</sup>
- 4.30 In theory, the rateable value for an individual circuit could be estimated through analysis of its contribution to the overall value of the assets subject to the cumulo assessment. However, as noted in the Final Statement, the VOA previously stated that its determination of BT’s cumulo rates was “generally done at the aggregate level and did not consider a disaggregation of the existing valuation model” to be possible in practice.<sup>312</sup> As a result, there is no reliable estimate of the NDRs payable by BT associated with any particular circuit or group of circuits.
- 4.31 Both TalkTalk and BT employed independent rating experts, who agreed with Ofcom’s assessment that a cumulo rate would be difficult to disaggregate, and therefore that a calculation of the incremental NDRs associated with any switch to dark fibre could not be reliably assessed.<sup>313</sup>

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<sup>309</sup> Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 27.

<sup>310</sup> TalkTalk NoA – Stevens 1 witness statement, paragraph 3.4.

<sup>311</sup> [BT presentation to Ofcom](#), August 2011

<sup>312</sup> [Final Statement Annex 23](#), paragraph A23.107.

<sup>313</sup> TalkTalk main party hearing transcript, page 81.

- 4.32 Since it is not feasible to allocate BT's NDR costs to individual products including leased lines circuits, the NDRs used for regulatory purposes are based on an attribution of the cumulo rates. This approach to product costs, ie an attribution by BT, is consistent with the approach used by Ofcom in relation to other shared costs of BT's business.
- 4.33 BT is required to calculate the attribution under rules specified by Ofcom. These attribution rules are scrutinised in detail by Ofcom<sup>314</sup> and BT is required to have elements of its attribution independently audited.<sup>315</sup> The approach taken by BT to attribution of NDRs can be broken down into three steps:<sup>316</sup>
- (a) the total amount of NDRs is identified from invoices received from the VOA;
  - (b) The NDRs are attributed to asset components based on Profit Weighted Net Replacement Costs. In the case of the 1Gbit/s EAD service, the principal source of NDR costs is the EAD Access Fibre component; and
  - (c) the EAD fibre component is allocated to the 1Gbit/s EAD service and to all other EAD services based on volumes weighted by usage factors.
- 4.34 Each of BT's 1Gbit/s EAD circuits for each service type is then attributed the same level of NDR. This attribution does not vary with the factors that affect OCPs' NDRs as described in paragraph 4.28 above.
- 4.35 Thus, under the current regime, there is a difference between the attribution of BT's NDRs and the NDRs actually incurred by OCPs in relation to comparable circuits. This difference varies in relation to different circuits, depending on the characteristics of the circuits concerned. It is this difference which is the subject of TalkTalk's appeal, and which we refer to in our assessment as the NDR Differential.

***Background: Ofcom's approach to Non-Domestic Rates in the Dark Fibre Access remedy***

- 4.36 In the Final Statement, Ofcom noted that NDRs are different for BT than for OCPs such as TalkTalk.<sup>317</sup> As discussed below, it is not straightforward to identify NDRs on a like-for-like basis for BT and OCPs.

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<sup>314</sup> [Final Statement Annex 28](#).

<sup>315</sup> BT Sol (TalkTalk appeal), paragraph 24.

<sup>316</sup> BT 6 January 2017 response to CMA 23 December 2016 clarification question 2.

<sup>317</sup> [Final Statement Annex 23](#), paragraph A23.104.

- 4.37 As discussed in more detail in 4.137 below, if BT and OCPs face different NDRs, a measure of the Active Differential used in setting the DFA Cap could have regard to either BT's or OCPs' NDRs. If BT's NDRs are significantly different from those of OCPs such as TalkTalk, the decision on whether to use an attribution of BT's NDRs or OCPs' NDRs could significantly change the effects of the DFA remedy.
- 4.38 As part of the BCMR process, Ofcom recognised that there were problems associated with using an attribution of BT's NDR costs. It had received submissions to the BCMR which identified the risk that the DFA remedy would not be effective due to the NDR Differential. The Passive Access Group, which includes TalkTalk, submitted that "the broader approach to non-domestic rates by the VOA could affect (and undermine) take-up of the DFA remedy (particularly at 1Gbit/s)".<sup>318</sup>
- 4.39 Although, as noted by BT,<sup>319</sup> this submission was only received a few weeks before Ofcom was due to publish its Final statement, Ofcom reviewed these submissions and appears to have accepted that the NDR Differential would have an impact on the effectiveness of the DFA remedy. In the Final Statement, Ofcom said: "We have reviewed the concerns raised by stakeholders. Our concern is that any differences in the non-domestic rates payable by different CPs in using the same regulated dark fibre circuit from Openreach could frustrate the design of the DFA remedy we have decided to introduce".<sup>320</sup> Ofcom therefore recognised that its objectives could be adversely affected by the NDR Differential.
- 4.40 Ofcom concluded that the best approach would be for NDRs to be calculated in the same way for BT providing active circuits and OCPs using comparable dark fibre circuits. Ofcom therefore asked the Government to change to the system for calculating NDRs with the intention of removing the NDR Differential.<sup>321</sup> It proposed an approach whereby BT would continue to pay NDRs for fibre which was lit by OCPs under a regulated passive access remedy. Ofcom indicated that it intended to seek to resolve this issue prior to the launch of DFA in October 2017. However, there is currently no indication that the rating rules will be changed.

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<sup>318</sup> [Final Statement Annex 23](#), paragraph A23.95.

<sup>319</sup> BT's Sol (TalkTalk), paragraph 8(c).

<sup>320</sup> [Final Statement Annex 23](#), paragraph A23.110.

<sup>321</sup> Specifically, Ofcom stated that it had discussions with Department of Communities and Local Government (DCLG), with the Department of Culture, Media and Sport (DCMS) and with the VOA. In this appeal we refer generally to the Government, consistent with the reference question. [Final Statement Annex 23](#), paragraph A23.110.

- 4.41 As a result, Ofcom had to make a decision on the level of NDRs to be used in the Active Differential which would apply if there were no changes to the rules. In the Final Statement, Ofcom assessed three options for setting the NDR component in the active-minus calculation:<sup>322</sup>
- (a) an attribution of BT's NDRs, based on rules set by Ofcom consistent with its broader approach to the attribution of BT's NDRs, which were revised following the 2014 Fixed Access Review;
  - (b) an estimate of BT's incremental NDR costs assuming a move from active circuits to dark fibre, based on the VOA rules; and
  - (c) a measure of access-seekers' NDRs.
- 4.42 Ofcom rejected the second option on the basis that identifying incremental NDR costs for BT "would be unlikely to be feasible as such a degree of disaggregation had proved difficult in the past".<sup>323</sup>
- 4.43 Ofcom also rejected the third option of using access-seekers' NDRs. It agreed that using access-seekers' NDRs would "have the advantage of, all else equal, not distorting the access-seeker's choice between the active and dark fibre products". However, it provided the following reasons why it did not consider that using an access-seeker's NDRs would be appropriate:<sup>324</sup>
- (a) the use of BT's costs, rather than those of the access-seeker, is consistent with Ofcom's regulatory principles;
  - (b) using an estimate of OCPs' NDRs risks setting a price below BT's costs of supply, which would not give BT the opportunity to recover its efficiently incurred costs; and
  - (c) the level of the dark fibre price would not be stable or predictable for a number of practical reasons and uncertainties associated with the levels of OCPs' NDRs.
- 4.44 Ofcom therefore decided, if the Government did not change the NDR rules, to base the NDR adjustment in the Active Differential on an attribution of BT's cumulo rating costs.<sup>325</sup> It is this decision, to use an attribution of BT's costs and not to use access-seekers' NDRs, which is subject to appeal by TalkTalk.

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<sup>322</sup> [Final Statement Annex 23](#), paragraphs A23.104–108.

<sup>323</sup> [Final Statement Annex 23](#), paragraph A23.107.

<sup>324</sup> [Final Statement Annex 23](#), paragraph A23.105.

<sup>325</sup> [Final Statement Annex 23](#), paragraphs A23.107–A23.108.

## TalkTalk's appeal

- 4.45 TalkTalk's appeal relates to Ofcom's decision in respect of the second component in the Active Differential. Ofcom decided that, in the absence of action by the Government, the Active Differential used to determine the DFA price should be based on an attribution of BT's NDRs.
- 4.46 In its NoA, TalkTalk said that Ofcom was wrong to use an attribution of BT's NDRs, as opposed to a measure of OCPs' NDRs, because, where dark fibre is provided to OCPs, it is OCPs, rather than BT, that become liable for paying the NDRs on the circuit.<sup>326</sup> TalkTalk estimated that it may pay NDRs between 11 and 35 times the attribution of BT's NDRs for 2014/15, depending on the characteristics of the circuit concerned.<sup>327</sup>
- 4.47 In its NoA, TalkTalk called the decision to use BT's NDRs rather than OCPs' NDRs 'the NDR Decision'. There are three core aspects to TalkTalk's appeal against the NDR Decision, reflected in the subsections in paragraphs 32 to 44 of TalkTalk's NoA. They are:
- (a) TalkTalk said that the NDR Decision was contrary to Ofcom's objectives for the DFA remedy.
  - (b) TalkTalk said that Ofcom came to the wrong decision because, having considered the option of using a measure of access-seekers' NDRs, in the Final Statement its reasons for rejecting this option (ie. the reasons set out in paragraph 4.43 above) were flawed.<sup>328</sup>
  - (c) TalkTalk proposed that Ofcom could and should have used a measure of access-seekers' NDRs, and that this would "substantially reduce competitive distortions and the failure to promote investment, innovation and the take up of DFA which is implied by Ofcom's approach", and therefore that Ofcom was wrong as "a clearly superior approach was available to Ofcom".<sup>329</sup>
- 4.48 We consider TalkTalk's points below, using the following structure:
- (a) We assess the evidence provided on the level of the NDR Differential, including the evidence from Ofcom's Defence and BT's Sol as to the size of the NDR Differential (paragraphs 4.50 to 4.77).

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<sup>326</sup> TalkTalk NoA, paragraph 25.

<sup>327</sup> TalkTalk NoA, paragraph 13.3.

<sup>328</sup> TalkTalk NoA, paragraphs 34–41.

<sup>329</sup> TalkTalk NoA, paragraphs 42–44.

- (b) We assess the arguments and evidence provided on Ofcom's objectives for the DFA remedy and the impact of the NDR Differential on those objectives (paragraphs 4.78 to 4.151).
- (c) We assess Ofcom's reasons for not applying an alternative approach of using OCPs' NDRs, both in the Final Statement and in its Defence and we review the practicalities of an approach based on access-seekers' costs, which we describe as 'TalkTalk's alternative approach' (paragraphs 4.152 to 4.199).

4.49 We then consider, taking the evidence together, whether TalkTalk has demonstrated that Ofcom was wrong to use an attribution of BT's costs.

### **The differences between Non-Domestic Rates for other communication providers and BT**

- 4.50 The starting point for TalkTalk's case is that its NDRs are significantly higher than BT's attributed NDR costs for the activity of providing active services to users using BT's dark fibre. As described in the previous section, this relates to the fact that there are different regimes for rating BT's network assets and OCPs' network assets. BT's rateable value is based on a single cumulo assessment which it allocates across its network assets.
- 4.51 The extent to which BT's attribution of NDRs to active leased lines circuits differs from the NDRs payable by TalkTalk and other OCPs using dark fibre to provide comparable services to users depends on the characteristics of the relevant circuit. In the context of this appeal, we assess the evidence which has been provided in respect of the size of the NDRs incurred by OCPs across a range of leased lines circuits. On that basis, we assess the likely range of NDRs for a provider such as TalkTalk, relative to the comparable costs assumed for BT in the Active Differential.

#### *TalkTalk's case*

- 4.52 In support of its case that there is a significant difference between the NDRs of OCPs and those of BT (the NDR Differential), TalkTalk provided witness statements from Alexander Stevens, a specialist in non-domestic rates at Bilfinger GVA, and Martin Duckworth, a regulatory finance expert at Frontier Economics. TalkTalk's analysis is set out in Mr Duckworth's first witness statement and compares the NDRs of BT and TalkTalk. It draws on an explanation of how NDRs are calculated from Mr Stevens's first witness statement.

4.53 The comparison of NDRs presented by TalkTalk at the hearing is provided in Table 4.2 below. This analysis is based on a 1Gbit/s EAD circuit and uses NDR estimates to illustrate how the length and contiguity of a circuit affect the level of OCPs' NDR costs.

**Table 4.2: TalkTalk's estimate of non-domestic rates during the 2018/19 financial year**

<i>Circuit route length (km)</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>10</i>	<i>20</i>
<i>OCP NDR cost (£ per circuit)</i>							
Non-contiguous	£713	£808	£902	£998	£1,093	£1,568	£3,135
Contiguous to 30km n/w	£157	£314	£470	£627	£784	£1,568	£3,135
Contiguous to 100km n/w	£161	£322	£483	£644	£805	£1,610	£3,221
Contiguous to 500km n/w	£132	£264	£395	£527	£659	£1,318	£2,635
Contiguous to 1,000km n/w	£98	£195	£293	£390	£488	£976	£1,952
<i>TalkTalk's estimate of BT NDR cost</i>	£70–100	£70–100	£70–100	£70–100	£70–100	£70–100	£70–100

Source: TalkTalk main party hearing, presentation slide 1.

Notes:

1. Costs shown are applicable in last year of charge control (2018/19). The BT figure shown is estimated NDR attribution in 2017/18 since this figure is used in the 'minus' calculation for 2018/19.

2. OCP figures are based on VoA fibre tables (ie not based on receipts and expenditure method).

3. Figures are for a single fibre.

4. BT have asserted confidentiality over its NDR cost attribution –the figures shown are derived from non-confidential figures and estimates of the impact of BT's revaluation.

4.54 TalkTalk's analysis was made in the context that it does not have access to BT's NDR costs, which are confidential. We note that, in calculating the DFA price for October 2017, the NDR allocated by BT was approximately £[REDACTED]. We therefore do not consider that the evidence of the actual NDR affects TalkTalk's argument.

4.55 The information provided in Table 4.2 shows that, for circuits with length above 1km, OCPs face a much higher NDR cost than BT, whether or not circuits are connected to a larger network. Mr Duckworth said that 'typical' circuits would be 5km or 10km long. Mr Duckworth concluded that an OCP which is otherwise as efficient as BT would be materially worse off by taking up dark fibre rather than an active service, because it would face such a significantly higher NDR cost than BT's attributed NDR cost assumed in the Active Differential.<sup>330</sup>

4.56 Table 4.2 also demonstrates that the contiguity of circuits can have a significant impact on an OCP's NDR liability. TalkTalk submitted that the proportion of circuits which are contiguous is likely to grow over time. TalkTalk said that it would like to use dark fibre for [REDACTED]% of its backhaul links over a [REDACTED], which would increase contiguity. However, 2018/19 is the last year of the current LLCC period and TalkTalk said that it only expects a few of its circuits

<sup>330</sup> TalkTalk Core Submission – Duckworth 1 witness statement, page 18.

to be contiguous during this period.<sup>331</sup> TalkTalk said that, if the DFA remedy was successful in leading to dark fibre take up, the contiguity of its circuits would be likely to reach 100km or 500km over time.<sup>332</sup>

- 4.57 On the basis of Mr Duckworth's evidence, TalkTalk proposed that the effect of the DFA remedy should be assessed on the assumption that a suitable measure of the NDR costs it would face should be based on a 5km to 10km circuit. Based on Mr Stevens's analysis, it proposed a level of NDRs for comparison: "Mr Stevens estimates that in the absence of a Central Rating List assessment an OCP in 2014/15 paid NDRs of between £480.20 and £1,544.30 on a circuit".<sup>333</sup> TalkTalk compared this to its estimate of attributed NDRs at the same period for BT of £55.84, on which basis it stated that it faced NDRs 11 to 35 times higher.<sup>334</sup> As discussed above, the confidential information available from BT indicates that the NDR Differential is currently [REDACTED].

#### *Ofcom's Defence and BT's Statement of Intervention*

- 4.58 In its Defence, Ofcom said that TalkTalk had provided a "worst case scenario" for the NDR Differential.<sup>335</sup> Ofcom said that it was not clear that there would be the significant differences in NDRs that were put forward by TalkTalk. Ofcom put forward a number of reasons why NDRs might be lower than indicated by TalkTalk:

- (a) length of the fibre;
- (b) contiguity of the network;
- (c) whether the circuit is in London; and
- (d) the number of 'lit' fibres in a circuit.<sup>336</sup>

- 4.59 At the Core Submissions hearing, Ofcom provided a range of circuit lengths which it considered demonstrated that many circuits would be shorter than 5km, which TalkTalk described as a 'typical length'. Specifically, Ofcom submitted that [REDACTED]% of 1Gbit/s active circuits were shorter than 3km and [REDACTED]% were shorter than 5km.<sup>337</sup> Since NDRs calculated under the DRC

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<sup>331</sup> TalkTalk Core Submission (Volume 2) – Heaney 1 witness statement, paragraphs 22–23.

<sup>332</sup> TalkTalk main party hearing transcript, page 14.

<sup>333</sup> TalkTalk NoA, paragraph 13.1.

<sup>334</sup> TalkTalk NoA, paragraphs 13.2–13.3

<sup>335</sup> Ofcom Defence (TalkTalk appeal), paragraph 148(2).

<sup>336</sup> Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 27. It does not appear that the relevance of London has been explained further in the evidence, and we do not therefore consider it below.

<sup>337</sup> Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 40.



method increase as circuit lengths increase, Ofcom submitted that a significant portion of circuits would have lower NDRs than those presented as a 'typical' circuit by TalkTalk.

- 4.60 Ofcom noted that, unlike the assumptions underlying TalkTalk's estimates of NDRs payable, the Openreach lines to be used as dark fibre tend to be connected to a larger network which would significantly reduce the NDRs payable by the OCP concerned.<sup>338</sup>
- 4.61 Ofcom also referred to the VOA's recent publication of the draft rateable values for BT. Ofcom submitted that this will further reduce the gap between BT's and OCPs' NDRs because the VOA proposes to increase BT's NDR liability by approximately 4.5 times, although this is subject to transitional relief.<sup>339</sup>
- 4.62 In the main party hearing, Ofcom presented a range of NDRs for different circuits which were, on a like-for-like basis, comparable to those presented by TalkTalk (see Table 4.2). We provide more details on the data Ofcom presented at the hearing in our assessment below.
- 4.63 BT, in its Sol on behalf of Ofcom, also referred to the recent VOA draft decision to increase its NDRs. According to BT, after taking account of the VOA's proposed transition scheme, BT's total NDR costs will be [£X]<sup>340</sup> and [£X], in 2018/19 and 2022/23 respectively, than its total NDR costs in 2014/15.<sup>341</sup> Using these figures, BT estimated that its attributed NDR cost per 1Gbit/s EAD product will be £[£X] in 2018/19, the last year of the BCMR review period.
- 4.64 BT's expert witness, Laurence Hatchwell, also submitted a number of tables which showed that NDRs could vary significantly across a range of circuits. In these tables, BT illustrated the impact of having 6 or 48 'lit' fibres in an extra-urban and urban circuit respectively, which would reduce the NDR liability by several multiples and align it or reduce it below BT's attribution of NDRs to a 1Gbit/s EAD circuit.<sup>342</sup> However, BT was not able to demonstrate that these scenarios were realistic.<sup>343</sup>

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<sup>338</sup> Ofcom Defence (TalkTalk appeal), paragraph 148(2).

<sup>339</sup> Ofcom Defence (TalkTalk appeal), paragraph 148(1).

<sup>340</sup> Specific figure not stated in Stevens report but multiple was [£X] in 2017/18, when rateable value is due to be £[£X]. Given that rateable value in 2018/19 is expected to be £[£X], the equivalent multiple would be [£X].

<sup>341</sup> BT Sol (TalkTalk appeal) – Hatchwell 1 witness statement, paragraph 6.3.

<sup>342</sup> BT Sol (TalkTalk appeal) – Hatchwell 1 witness statement, Table 2.

<sup>343</sup> BT Sol (TalkTalk appeal) – Hatchwell 1 witness statement, paragraph 4.6(ii).

- 4.65 BT also submitted that [X]% of Openreach's fibre network in 2013/14 was made up of 'pre-1995' fibre and that OCPs would be eligible to a 36.5% discount on the NDRs paid when lighting this fibre. However, BT subsequently confirmed that this would not be used for dark fibre.<sup>344</sup> We do not consider this further.
- 4.66 BT also provided data on the variation of NDRs across OCPs. This data illustrated that NDRs vary significantly across OCPs and that TalkTalk has higher NDRs than some other OCPs. The data indicated that, where TalkTalk's NDR is £[X] per km, Vodafone's is £[X] and Colt's is £[X].<sup>345</sup>

*Our assessment – differential between NDRs for BT and OCPs*

- 4.67 In this section, we assess the main factors which affect the NDRs faced by OCPs under the DRC valuation method in order to determine how different these are likely to be when compared with BT's attribution of NDRs to the 1Gbit/s EAD product.
- 4.68 It appears that it is now largely accepted that, for most circuits, there can be expected to be a significant difference between the NDRs attributed by BT and those paid by OCPs, and that the scale of this difference varies depending on the characteristics of the different circuits. We illustrate this in two stages:
- (a) we consider evidence from Ofcom's Defence and BT's Sol that the scale of the differential might be overstated by TalkTalk; and
  - (b) we present evidence from the main party hearings that appears to present a more aligned view of the range of NDR costs.
- 4.69 In the first stage, we consider the following points from Ofcom's Defence and BT's Sol which might indicate an overstatement by TalkTalk of the NDR Differential:
- (a) whether 5km – 10km represents a reasonable measure of length of a 'typical' circuit';
  - (b) whether other factors, such as multiple lit circuits, will materially reduce NDRs for OCPs;
  - (c) whether TalkTalk has an unusually high level of NDRs; and

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<sup>344</sup> BT intervener hearing transcript (TalkTalk appeal).

<sup>345</sup> BT's Sol Annex 2 (TalkTalk appeal).

(d) whether recent revaluations will reduce the NDR Differential.

- 4.70 It is agreed by all parties that circuit length has a significant impact on the NDR costs faced by an OCP. In addition, the evidence regarding circuit length shows a wide variation in the lengths of 1Gbit/s EAD circuits, making any assessment of what would be a 'typical' length more difficult.
- 4.71 Ofcom submitted evidence at the hearing which indicated that the median circuit length is approximately [X]km.<sup>346</sup> TalkTalk said that the circuit lengths shown in this evidence were based on radial distances which understates the relevant measure of circuit lengths for rating purposes because, under the DRC method, the relevant length is route distance.<sup>347</sup>
- 4.72 TalkTalk suggested that the most appropriate method for converting the radial distances into route distances would be to multiply them by the square root of 2, increasing the median length up to approximately [X]km. Ofcom acknowledged that this was an appropriate approach.<sup>348</sup> Ofcom provided further analysis of the distribution of circuit lengths, which we have been able to use in our analysis when testing the impact of TalkTalk's alternative approach for a broader mix of circuits. We also understand that approximately [X]% of circuits have a route distance greater than 10km,<sup>349</sup> and therefore the mean circuit length is likely to be considerably greater than the median length. Accordingly, TalkTalk's use of 5km and 10km circuit lengths for the purposes of illustrative examples appears to be reasonable.
- 4.73 Regarding the number of 'lit' fibres in a circuit, as noted above, BT illustrated the impact of lighting 6 of 48 fibres in a circuit, which would reduce the NDR liability per lit fibre very significantly. TalkTalk stated that it is 'almost inconceivable' that an OCP would light that many fibres on a particular DFA circuit.<sup>350</sup> TalkTalk submitted that the vast majority of circuits it would like to take up as dark fibre would be single fibre circuits,<sup>351</sup> with dual fibres used in limited cases only.<sup>352</sup> Ofcom confirmed that this was its understanding.<sup>353</sup> Given that the figures presented by BT represent the maximum number of 'lit' fibres per circuit in the VOA's calculations, and do not bear relation to how

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<sup>346</sup> TalkTalk Core Submission hearing transcript, pages 40–41.

<sup>347</sup> TalkTalk Core Submission (Volume 2) – Heaney 1 witness statement, paragraphs 9–10.

<sup>348</sup> TalkTalk main party hearing transcript, pages 72–73.

<sup>349</sup> Ofcom main party hearing (TalkTalk appeal), presentation slide 7.

<sup>350</sup> TalkTalk Core Submission (Volume 2) – Heaney 1 witness statement, paragraph 16.

<sup>351</sup> TalkTalk Core Submission (Volume 2), paragraph 14.2.

<sup>352</sup> TalkTalk Core Submission (Volume 2) – Heaney 1 witness statement, paragraph 15.

<sup>353</sup> Ofcom main party hearing transcript (TalkTalk appeal), page 82.

many fibres an OCP would light in practice, we consider that this factor will not materially reduce OCPs' NDR costs.

- 4.74 We note that BT submitted evidence that average NDRs for TalkTalk were significantly above those of some other OCPs. However, as discussed below, it is not surprising that OCPs have different average NDRs as NDRs per circuit vary according to length and contiguity. At the TalkTalk hearing, it appeared to be accepted that the level of NDRs did not depend on the identity of the OCP, but that OCPs with different network characteristics would be likely to face different NDRs.<sup>354</sup>
- 4.75 Finally, we note the VOA's recent announcement that the value of BT's overall rateable assets will increase by four and a half times.<sup>355</sup> BT stated that the transitional arrangements will limit this increase in the LLCC period. In 2018/19, the last year of the current LLCC period, its NDRs will be [X] times greater than those paid in 2014/15. Given the evidence provided by TalkTalk on the scale of the NDR Differential, such an increase, whilst very significant for BT, would have only a limited effect on the scale of the NDR Differential. To the extent that OCPs face NDRs of the order of £500 to £1,000 per annum for a new circuit, an increase in BT's NDRs from below £[X] or, following the removal of transitional relief [X], would not significantly reduce the impact of the NDR Differential on take-up of DFA.
- 4.76 Ofcom, TalkTalk and BT all provided analysis of the impact of the NDR Differential on the take-up of dark fibre.<sup>356</sup> The analysis provided by each party was based on a similar scale of NDRs, varying by circuit in respect of contiguity and length. We also observe that the numbers calculated by Mr Hatchwell for the same length and contiguity of circuits in his witness statement appear to be consistent with the numbers in Mr Stevens's table. Taking Mr Stevens's analysis from Table 4.2, BT's updated NDRs following revaluation, and Ofcom's analysis of proportions of circuits by length, gives us the following analysis of the NDR Differential.

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<sup>354</sup> TalkTalk main party hearing transcript.

<sup>355</sup> Ofcom Defence (TalkTalk appeal), paragraph 148(1).

<sup>356</sup> All tables and analysis in this section was provided to accompany oral submissions at the main party hearings and intervenor hearings in respect of the TalkTalk appeal.

**Table 4.3: Comparison of estimated attribution of BT's NDRs with estimated NDRs for OCPs**

<i>Circuit route length (km)</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>10</i>	<i>20</i>
<i>OCP NDR cost £ per circuit</i>							
Non-contiguous	£713	£808	£902	£998	£1,093	£1,568	£3,135
Contiguous to 30km n/w	£157	£314	£470	£627	£784	£1,568	£3,135
Contiguous to 100km n/w	£161	£322	£483	£644	£805	£1,610	£3,221
Contiguous to 500km n/w	£132	£264	£395	£527	£659	£1,318	£2,635
Contiguous to 1,000km n/w	£98	£195	£293	£390	£488	£976	£1,952
<i>Proportion of circuits (cumulative) (%)</i>	[X]	[X]	[X]	[X]	[X]	[X]	[X]
<i>BT attributed NDR cost (as used in initial DFA price) (£)</i>	[X]	[X]	[X]	[X]	[X]	[X]	[X]
<i>BT attributed NDR cost (estimated, 2018/19) (£)</i>	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: Table 4.2 above for NDR estimates; Ofcom main party hearing (TalkTalk appeal) presentation slide for proportion of circuits by length; and Openreach pricing analysis, BT Sol (TalkTalk appeal) – Allen 1 witness statement.

4.77 We therefore conclude that TalkTalk has demonstrated that there is a material differential between OCPs' NDRs and the attribution of BT's NDRs in respect of the significant majority of circuits.

## **Will the Non-Domestic Rate Differential affect the take up of dark fibre?**

4.78 This section considers the likely effect of the NDR Differential outlined above on the take-up of dark fibre.

### ***TalkTalk's case***

4.79 In its NoA, TalkTalk stated that 'the NDR Decision will disincentivise it from [using dark fibre], and indeed is likely to render it entirely uneconomic to do so in many cases.'<sup>357</sup> TalkTalk agreed that there are cost savings which could be achieved by using dark fibre rather than active services, but said that these cost savings do not offset the additional NDR costs faced by OCPs.<sup>358</sup>

4.80 TalkTalk said that these efficiencies should be viewed as an objective of the DFA remedy that will not be achieved. TalkTalk does not consider it is appropriate to include such efficiencies in an economic assessment as a compensating factor which may offset the NDR Differential.<sup>359</sup>

4.81 In its NoA, TalkTalk said that the effect of the DFA remedy would in practice be largely to frustrate any take-up of Dark Fibre from Openreach. It stated "such DFA pricing would almost completely undermine and frustrate Ofcom's

<sup>357</sup> TalkTalk NoA, paragraph 33.4.

<sup>358</sup> TalkTalk Core Submission (Volume 2), paragraph 18.2.

<sup>359</sup> TalkTalk Core Submission (Volume 2), paragraph 18.1.

objective for competition for active circuits between BT and OCPs at 1Gbit/s”.<sup>360</sup> Consequently, TalkTalk submitted that the NDR differential “will prevent competition from developing and thus suppress both productive and dynamic efficiencies”.<sup>361</sup>

- 4.82 TalkTalk said that, given the difference between OCPs’ NDRs and BT’s NDRs for any circuits longer than 1km, the take up of dark fibre by OCPs will be very limited.<sup>362</sup> TalkTalk said that this outcome is inconsistent with Ofcom’s forecasts, which anticipated significant migration of 1Gbit/s active services to dark fibre, particularly for new circuits, where for some services Ofcom assumed 95% take-up.<sup>363</sup> Therefore, even if there will be a few cases in which OCPs will purchase dark fibre rather than active services, the anticipated benefits of the DFA remedy will be not be realised<sup>364</sup> and therefore Ofcom will fail to realise its stated objective of promoting competition in respect of services at and above 1Gbit/s.<sup>365</sup>
- 4.83 TalkTalk did not dispute that DFA can be expected to be used by OCPs for higher bandwidth applications, due to the use of BT’s 1Gb/s product as the active reference product in setting the price of dark fibre.
- 4.84 At the hearing, TalkTalk illustrated its case and presented Table 4.4 below. The table illustrates that, under Ofcom’s approach and TalkTalk’s assumptions for contestability of circuits, an operator which was otherwise as equally efficient as BT would be at such a disadvantage in relation to NDR costs that it would be only able to compete for circuits which were 1km long or shorter.<sup>366</sup>

**Table 4.4: TalkTalk’s analysis of take-up of DFA under Ofcom’s approach**

Circuit route length (km)	1	2	3	4	5	10	20
<i>OCP NDR cost £ per circuit</i>							
Non-contiguous	£713	£808	£902	£998	£1,093	£1,568	£3,135
Contiguous to 30km n/w	£157	£314	£470	£627	£784	£1,568	£3,135
Contiguous to 100km n/w	£161	£322	£483	£644	£805	£1,610	£3,221
Contiguous to 500km n/w	£132	£264	£395	£527	£659	£1,318	£2,635
Contiguous to 1,000km n/w	£98	£195	£293	£390	£488	£976	£1,952

Source: TalkTalk main party hearing, presentation slide 2.

	Contestable – difference in costs <+/-£100
	Not contestable – OCP NDR costs >£100 more than BT

<sup>360</sup> TalkTalk NoA, paragraph 33.5.

<sup>361</sup> TalkTalk Core Submission (Volume 2), paragraph 18.3.

<sup>362</sup> TalkTalk Core Submission (Volume 2), paragraph 18.2.

<sup>363</sup> TalkTalk Core Submission (Volume 2), paragraph 10.

<sup>364</sup> TalkTalk Core Submission (Volume 2), paragraph 18.3.

<sup>365</sup> TalkTalk NoA, paragraphs 33.8–33.9.

<sup>366</sup> TalkTalk main party hearing, presentation slide 2.

4.85 In the Final Statement, Ofcom assumed that 1Gbit/s circuits would in most cases be contestable.<sup>367</sup> TalkTalk's figure illustrates that, under the assumptions in its table, the majority of circuits would not be contestable. TalkTalk then provided an assessment of the benefits of an approach based on OCPs' costs. This analysis, presented in Table 4.5. below, illustrated that, if Ofcom made an adjustment to reflect NDRs of £500 per circuit per annum, many more circuits would become contestable.<sup>368</sup>

**Table 4.5: TalkTalk's analysis of take-up of DFA under TalkTalk's alternative approach**

Circuit route length (km)	1	2	3	4	5	10	20
<i>OCP NDR cost £ per circuit</i>							
Non-contiguous	£713	£808	£902	£998	£1,093	£1,568	£3,135
Contiguous to 30km n/w	£157	£314	£470	£627	£784	£1,568	£3,135
Contiguous to 100km n/w	£161	£322	£483	£644	£805	£1,610	£3,221
Contiguous to 500km n/w	£132	£264	£395	£527	£659	£1,318	£2,635
Contiguous to 1,000km n/w	£98	£195	£293	£390	£488	£976	£1,952

Source: TalkTalk main party hearing, presentation slide 3.

	Contestable though only between OCPs – NDR costs >£100 less than BT
	Contestable – difference in costs <+/-£100
	Not contestable – OCP NDR costs >£100 more than BT

Note: OCP NDR cost used in minus calculation and dark fibre price reduced by £400.

4.86 In assessing whether Ofcom was wrong to use BT's attributed NDR costs, we are not simply comparing TalkTalk's approach with Ofcom's approach and deciding which we consider to be superior. Our task is to ask what Ofcom's objectives were and whether the NDR approach adopted by Ofcom was consistent with those objectives. We present the analysis above as relevant background as to what could be the impact of an approach based on TalkTalk's alternative approach. We consider below alternative scenarios presented by Ofcom and BT.

### *Ofcom's response*

4.87 Ofcom accepted that the difference between BT's and OCPs' NDRs may disincentivise the take up of dark fibre.<sup>369</sup> However Ofcom considered that TalkTalk had presented a 'worst case' in respect of the impact on take-up. In its Defence, it noted that there would be cost savings for OCPs in buying dark fibre. As a result, an OCP facing higher NDRs would still have the incentive to purchase dark fibre.

4.88 Ofcom gave examples of this. In his witness statement for Ofcom, Mr Senensieb said: "dark fibre would also allow an OCP in many cases to

<sup>367</sup> See for example, [Final Statement \(Volume 2\)](#), Table 5.3.

<sup>368</sup> TalkTalk main party hearing, presentation slide 3.

<sup>369</sup> Ofcom Defence (TalkTalk appeal), paragraph 155(1).

eliminate the need for most of [the active] network elements. This is because most of the functionality of those elements is incorporated in the equipment which a CP would need to deploy in any case, whether it uses Openreach's active leased line services or Openreach's dark fibre. This allows CPs using dark fibre to save costs of equipment, power and accommodation. We estimated that these saving will amount to a value of £[£] per EAD 1Gbit/s circuit".<sup>370</sup>

- 4.89 BT also commented on this issue in its Sol. In his witness statement for BT, Dr Allen noted that an OCP saving £[£] per annum would still have the incentive to purchase dark fibre for a typical 5km circuit.<sup>371</sup>
- 4.90 At the main party hearing, Ofcom expanded on its analysis of the potential savings associated with dark fibre. It provided analysis which suggested that an OCP using dark fibre might save as much as £580 per circuit per annum. It considered that, in some circumstances, the incremental costs for OCPs lighting dark fibre might be as little as £11 per circuit per annum, relative to the costs incurred in using active products. In subsequent written submissions Ofcom provided a revised estimate for the incremental cost of £25 per circuit per annum, which would imply the potential for OCPs to make annual savings of £568 per circuit per annum.<sup>372</sup>
- 4.91 In performing this assessment, Ofcom assumed that OCPs may be able to save all the equipment costs avoided by BT when providing dark fibre instead of a corresponding active service by moving from a 'two-box solution' to a 'one-box solution'. This was described in Ofcom's presentation at the hearing, with reference to evidence provided in the BCMR.<sup>373</sup> In oral evidence, Mr Senensieb confirmed that Ofcom's interpretation of the £580 per annum figure quoted at the main party hearing was as a potential saving, although the actual approach taken by OCPs would be subject to broader commercial considerations and the needs of dark fibre customers: "We say those are the cost savings that are available. It doesn't mean to say that every CP will want to take advantage of the savings in that way, but they are available".<sup>374</sup>
- 4.92 On this basis, Ofcom concluded that OCPs would be able to take up the majority of circuits as dark fibre because the additional NDR costs could be offset by these savings. Ofcom provided analysis in support of this at the hearing. Its analysis is shown as Table 4.6, where the numbers in the table

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<sup>370</sup> Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 45.

<sup>371</sup> BT Sol (TalkTalk appeal) – Allen 1 witness statement, Annex B.

<sup>372</sup> Ofcom's estimates of savings were based on an estimate of the Active Differential for 2018/19 of £593, which it calculates based on the Active Differential of £657, with an efficiency assumption of 5% applied for two years.

<sup>373</sup> Ofcom main party hearing transcript (TalkTalk appeal), page 71.

<sup>374</sup> Ofcom intervener hearing transcript (TalkTalk appeal), page 10.



represent an estimate of an OCP's NDR costs, net of a potential £580 productive efficiency saving.

**Table 4.6: Ofcom's evidence on DFA take-up under Ofcom's approach**

Circuit route length (km)	Network type				Cumulative share of circuits (%)
	Non-contiguous circuit cost	Added to 10 km network	Added to 500 km network	Added to 1,000 km network	
1	139	-422	-451	-484	[X]
2	234	-264	-321	-388	[X]
3	330	-106	-192	-293	[X]
4	426	52	-63	-197	[X]
5	522	210	67	-101	[X]
6	618	368	196	-5	[X]
7	713	526	325	91	[X]
8	809	685	455	186	[X]
9	905	843	584	282	[X]
10	1,001	1,001	713	378	[X]
20	2,581	2,581	2,007	1,336	[X]

Source: TalkTalk main party hearing, Ofcom presentation slide 7.

Note: Cost differences are £ per circuit and reflect the NDRs payable by OCPs assessed using the Direct Rental Comparison method, and the assumed cost savings of £580 p.a. per circuit in 2018/19.

4.93 In Ofcom's view, taking into account that many OCPs have large networks to which they will attach dark fibre circuits, it would be reasonable to assume that the most appropriate comparison is the column headed 'added to 1,000km network'. Mr Senensieb stated in explanation that because of "two effects, of the £580 per annum actual cost saving and the fact that most uses of dark fibre by CPs other than BT will be to attach dark fibre to networks longer than the 1,000 kilometres would mean that a majority, in fact, of dark fibre circuits would be viable on a pure cost comparison basis between dark fibre and active service".

4.94 Based on the evidence from Table 4.6, Ofcom disputed TalkTalk's case that it will not achieve its objectives. It stated that TalkTalk has not included in its analysis the savings that an efficient OCP will be able to achieve. Ofcom therefore said that TalkTalk had exaggerated the extent to which the NDR Differential will affect OCPs' take up of dark fibre.

#### *Further evidence from interveners (BT and CityFibre)*

4.95 At the interveners' hearings, we asked BT and CityFibre to respond to Ofcom's suggestion that the Active Differential would all be available as savings for OCPs, other than the cost of a laser of £11 per annum (later revised to £25 per annum).

4.96 Although BT is intervening on behalf of Ofcom, BT considered it to be unrealistic of Ofcom to expect that the only incremental cost OCPs would incur in providing lit fibre services by using dark fibre relative to active

services would be the cost of an enhanced laser.<sup>375</sup> BT said that, whilst there are clear savings in capital expenditure for an OCP adopting a one-box solution, there are likely to be additional operational expenses, given that responsibility for equipment faults will accrue to the OCP.<sup>376</sup> Given that DFA is a new product for Openreach, BT stated that it was not possible to identify exactly which additional activities would need to be undertaken by OCPs or therefore how these costs could be quantified.

- 4.97 BT provided its own estimate of take-up, which is replicated in Table 4.7 below. BT presented its findings using Ofcom’s assumption regarding the savings that might be achieved by OCPs using dark fibre. BT’s analysis included an estimate of higher NDRs that it will incur following the VOA’s recent revaluation. It also said that, when assessing whether circuits are contestable, or ‘red’ and not contestable, that, rather than considering a margin for competition of £100, as TalkTalk did, this margin of tolerance should be +/-10% of pricing, and therefore that all circuits with pricing of +/- £300 would be contestable. As a result, it concluded that more circuits would be contestable than assumed by Ofcom in Table 4.6 above.

**Table 4.7: BT’s evidence on DFA take-up under Ofcom’s approach**

Circuit route length (km)	1	2	3	4	5	10	20
Non-contiguous	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Added to 10 km network	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Added to 500 km network	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Added to 1,000 km network	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: BT intervener hearing (TalkTalk appeal), presentation slide 2.

	Contestable – difference in costs <£300 (10%)
	Not contestable – difference in costs >10%

**Notes:**

1. Ofcom’s cost difference figures are presented in the same format as TalkTalk’s (but with a 10% cost difference criterion rather than £100, including the effects of the BT NDR revaluation, a three year average BT NDR from 2017/18 – 2019/20 from Mr Hatchwell’s estimates, and Mr Hatchwell’s estimates of incremental OCP NDRs) (£ per circuit).
2. BT stated that there were fewer ‘circuit length’ columns and the ‘10km’ total network is a ‘9km’ total network as these were cases that BT had available.

- 4.98 CityFibre considered that, in principle, an OCP’s costs would be “broadly similar” to BT’s and raised the possibility that an OCP might want to replicate Openreach’s current two-box solution,<sup>377</sup> a suggestion which was also considered to be plausible by BT.<sup>378</sup> Under this scenario, OCPs taking up dark fibre would not benefit from an equipment cost saving. CityFibre also stated that it does not present such efficiency savings to customers as a competitive

<sup>375</sup> BT intervener hearing transcript (TalkTalk appeal), pages 20 & 21.

<sup>376</sup> BT intervener hearing transcript (TalkTalk appeal), page 21.

<sup>377</sup> CityFibre intervener hearing transcript (TalkTalk appeal), pages 11 & 12.

<sup>378</sup> BT intervener hearing transcript (TalkTalk appeal), page 18.

advantage when it markets CityFibre dark fibre in competition with Openreach's active services.<sup>379</sup>

### *Our assessment*

- 4.99 As described above, TalkTalk, Ofcom and BT all submitted evidence on the impact of the NDR Differential on take-up. This evidence varied significantly, primarily due to different assumptions regarding productive efficiencies.
- 4.100 TalkTalk's analysis was based on an 'as-efficient' competitor, ie an OCP purchasing DFA and incurring the same active costs as BT. Ofcom provided analysis on the assumption that an OCP which is equally efficient for the same activities might in fact have different costs as a result of the potential to avoid duplication of equipment. The difference is significant; Ofcom assumed potential savings of over £500 per circuit per annum, whereas TalkTalk's analysis effectively assumed an equivalent figure of zero, or up to £100 per annum. BT assumed that there would be contestability for pricing within +/- 10%, ie approximately £300 per annum. CityFibre stated that, in certain scenarios, OCPs taking up dark fibre would not benefit from an equipment cost saving. In response to Ofcom's hearing evidence, TalkTalk said that it disagreed with Ofcom's revised estimate of the savings that an OCP would be able to achieve from using dark fibre, based on Ofcom's assumption of £11 per annum costs that OCPs could incur in providing active services using dark fibre. TalkTalk noted that Ofcom had revised this cost assumption to £25 per annum for an enhanced laser.
- 4.101 Based on statements made at the interveners' hearings and in subsequent clarification submissions, we understand that there is a difference in views on the level of potential equipment cost savings. The evidence indicated that the scale of the savings may depend on:
- (a) whether OCPs choose to duplicate the equipment at the end of the circuits as is currently the case;
  - (b) the nature of the customer and what its objectives are in using dark fibre; and
  - (c) what assumptions are made about the management of the maintenance and testing of OCPs' dark fibre circuits relative to active circuits.
- 4.102 The evidence we have received suggests that the answers to these questions cannot be known with certainty since DFA has not been launched, and also

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<sup>379</sup> CityFibre intervener hearing transcript (TalkTalk appeal), page 14.

that they may vary in relation to different circuits, for different OCPs, and for different customers.

- 4.103 Taking account of Ofcom's analysis, we consider it likely that dark fibre take-up would be greater than the 'minimal' levels indicated by TalkTalk (which are based on an assumption of an as-efficient operator with the same active layer costs as BT). However, we agree with TalkTalk that Ofcom's NDR approach would significantly reduce the take-up of DFA compared with a scenario in which there was no NDR Differential or where the assumed level of NDRs in the DFA price was significantly more reflective of OCPs' costs.
- 4.104 Under Ofcom's approach, some OCPs may be able to achieve sufficient cost savings from the use of DFA such that they would have the incentive to switch from active to passive circuits for the shorter circuits with the lowest NDRs, on the basis of the lower total input cost that they would be able to achieve. Where there is a relatively small difference in input cost between active and passive circuits, OCPs may also be willing to purchase dark fibre to reflect the potential for wider commercial benefits.
- 4.105 However, in any event, in all these scenarios, it is likely that all or most OCPs would nevertheless be at a significant commercial disadvantage because of higher NDRs, as indicated by TalkTalk's evidence. If this distortion, which results from the NDR Differential, were significantly reduced, then significantly more circuits would be contestable. This would increase the potential for productive and dynamic efficiencies. We consider the implications of this, and in particular whether, in light of this, the use of the NDR approach was consistent with Ofcom's objectives, in the next section.

### **Ofcom's objectives for the Dark Fibre Access remedy and the impact of the Non-Domestic Rate Differential on those objectives**

- 4.106 The first of TalkTalk's reasons in its Ground of Appeal is that, as a result of the NDR Differential, Ofcom's approach fails to achieve its objectives. We therefore consider the evidence provided by TalkTalk on what Ofcom's objectives were in implementing DFA, followed by TalkTalk's case as to why those objectives were not met and Ofcom's response to TalkTalk's case.

#### *TalkTalk's case*

- 4.107 As to Ofcom's objectives, TalkTalk's case is that Ofcom, in imposing the DFA remedy, had the objective of promoting efficiency in the provision of leased lines to end customers using services with bandwidth 1Gbit/s and above. TalkTalk stated that "Ofcom selected this approach in preference to setting a cost-based charge control or using 10Gbit/s reference products since it

claimed that using a 1Gbit/s active service as a reference product would promote productive and dynamic efficiency in relation to active elements, whilst balancing potentially negative effects in terms of allocative efficiency and dynamic efficiency in relation to passive elements”.<sup>380</sup>

- 4.108 TalkTalk stated that the intent behind Ofcom’s DFA remedy is that “an operator which is equally efficient as BT would be able to compete with BT in the provision of active circuits at 1Gbit/s and above 1Gbit/s. Accordingly, bandwidths at and above 1Gbit/s would be contestable by an equally efficient operator, which will promote both productive and dynamic efficiency”.<sup>381</sup> TalkTalk’s expert indicated that the Final Statement confirmed this, stating “Such a differential allows downstream firms that are at least as efficient as BT to make an efficient choice to purchase the dark fibre input when providing 1Gbit/s services, which account for the majority of the usage we anticipate for dark fibre in this review period”.<sup>382</sup>
- 4.109 As to whether the NDR approach was consistent with Ofcom’s objectives, TalkTalk said that Ofcom’s forecasts significantly overestimate the amount of dark fibre take up that will result from the DFA remedy. Consequently, in TalkTalk’s view, the benefits that Ofcom was aiming to achieve “in terms of productive and dynamic efficiency will not materialise”.<sup>383</sup>
- 4.110 TalkTalk further stated that the context of this case is that there is a competitive distortion created by the NDR Differential and that, because NDRs are not resource costs, the NDR Differential should be treated differently from resource cost differentials resulting from productive efficiencies. It stated that Ofcom had itself acknowledged in a different context that only differences in resource costs should influence investment decisions.<sup>384</sup>
- 4.111 In the hearing,<sup>385</sup> TalkTalk clarified that its appeal was intended to have particular regard to productive efficiency. It considered that Ofcom’s objective was to promote productive efficiency. Mr Heaney stated: “However, in their statement, Ofcom clearly stated that the most important efficiency consideration was productive efficiency and that they did not give significant weight to allocative or dynamic efficiency considerations. Therefore, we say, it

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<sup>380</sup> TalkTalk NoA, paragraph 20.

<sup>381</sup> TalkTalk NoA, paragraph 21.

<sup>382</sup> TalkTalk Core Submission – Duckworth 1 witness statement, paragraph 4.8 and [Final Statement Annex 23](#), paragraph A23.14.

<sup>383</sup> TalkTalk NoA, paragraph 33.5.

<sup>384</sup> TalkTalk NoA, paragraph 33.6.

<sup>385</sup> TalkTalk main party hearing transcript, page 6.

is wrong to try to shift their focus away from productive efficiency to allocative and dynamic”.

4.112 TalkTalk noted that Ofcom had assumed 95% take-up of new EAD circuits at 1Gbit/s. It considered that this was because OCPs would aim to achieve productive efficiency benefits, and that therefore an approach which did not deliver these benefits was wrong.<sup>386</sup>

4.113 On the basis that productive efficiency is particularly important, TalkTalk considered that Ofcom should be concerned about the distortion that results from the NDR Differential, even if the scope for cost savings may in part offset the effect on take-up of the NDR Differential. In his oral evidence, Mr Heaney said that, if OCPs were able to achieve incremental cost savings relative to Openreach, this would support the case for greater DFA take up and, therefore, greater productive efficiencies.<sup>387</sup>

4.114 TalkTalk said that, unless its appeal is upheld or Ofcom’s recommendation to Government is adopted, Ofcom will fail in its duty to “promote competition in relation to the provision of electronic communication networks”<sup>388</sup> and specifically “in respect of services at and above 1Gbit/s where those OCPs are capable of providing the active network elements as efficiently as BT”.<sup>389</sup>

#### *Ofcom’s response and BT’s intervention*

4.115 In response to TalkTalk’s case that the NDR Decision was not consistent with Ofcom’s objectives, Ofcom made a number of points which related to the scale of the NDR Differential, which we considered in the previous sections. In this section we consider Ofcom’s other points in its Defence.

4.116 Whilst Ofcom accepted that its decision to base the NDR Differential on BT’s costs may deter take up of dark fibre by OCPs in relation to certain circuits, it also said that TalkTalk had mischaracterised its approach to and objectives in setting the DFA price,<sup>390</sup> a view which was endorsed by BT.<sup>391</sup> In particular, Ofcom argued that TalkTalk has mischaracterised its arguments to suggest that its objective was for an equally efficient operator to be able to compete for 1Gbit/s circuits. Ofcom stated that it would be wrong to assume that its

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<sup>386</sup> TalkTalk main party hearing transcript, page 10.

<sup>387</sup> TalkTalk main party hearing transcript, page 10.

<sup>388</sup> TalkTalk NoA, paragraph 15.1.

<sup>389</sup> TalkTalk NoA, paragraph 33.8.

<sup>390</sup> Ofcom Defence (TalkTalk appeal), paragraph 150.

<sup>391</sup> BT Sol (TalkTalk appeal), paragraph 11.

objectives for the DFA remedy in the context of the NDR Differential were the same as its objectives if the Government were to change the rating rules.<sup>392</sup>

- 4.117 Ofcom agreed that productive efficiencies were among the benefits it hoped to achieve through the DFA remedy.<sup>393</sup> However, Ofcom disputed TalkTalk's claim that the sole or primary aim of introducing the DFA remedy was that "an operator which is equally efficient as BT would be able to compete with BT in the provision of active services at 1Gbit/s and above".<sup>394</sup> Ofcom said that it needed to strike a balance between the benefits and risks of the DFA remedy, and therefore productive efficiencies were just one relevant factor in Ofcom's decision making.<sup>395</sup>
- 4.118 Ofcom noted that active services will remain available at controlled prices throughout the market review period and that, if the DFA remedy does not lead to the benefits it anticipates, it will be able to amend the remedy, if deemed appropriate, in future market reviews.<sup>396</sup> Consequently, Ofcom considered the NDR Decision to be a reasonable exercise of its judgement<sup>397</sup> and that the NDR Decision would promote its duties, including that of promoting efficiency objectives, better than the other available options.<sup>398</sup>
- 4.119 In hearing evidence, Ofcom confirmed that, whilst it had predicted high take-up, this was an assumption for the purpose of calculating costs. Mr Senensieb said: "The significance of the 95% is that 95% was our considered assumption of the take up of new 1Gbit/s circuits in the event that we went ahead with dark fibre, for the purposes of assessing the impact of dark fibre on the design of the charge control of active circuits".<sup>399</sup> Ofcom stated that this was not a target, and also that this assumption was made on the basis that the Government would make the recommended change to the tax regime, not under the scenario where the NDR Decision would apply.
- 4.120 Ofcom said that there was no specific target for the level of take-up. In the hearing, Mr Matthew said: "[...] we are not seeking in the next couple of years to drive a particular level of dark fibre take up here. We don't have in mind a transformative outcome by the end of this review period. In fact, we are being really quite careful to ensure that we have what we think of as a managed

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<sup>392</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 11.

<sup>393</sup> Ofcom Defence (TalkTalk appeal), paragraph 150.

<sup>394</sup> Ofcom Defence (TalkTalk appeal), paragraph 150.

<sup>395</sup> Ofcom Defence (TalkTalk appeal), paragraphs 151–152.

<sup>396</sup> Ofcom Defence (TalkTalk appeal), paragraph 153.

<sup>397</sup> Ofcom Defence (TalkTalk appeal), paragraph 153.

<sup>398</sup> Ofcom Defence (TalkTalk appeal), paragraphs 158 & 163(1).

<sup>399</sup> TalkTalk main party hearing transcript, page 92.

transition. We see this as the beginning of a process of transition, not its end point”.<sup>400</sup>

- 4.121 We note that Ofcom also considered that its objectives needed to have regard to the costs associated with promoting additional competition. In response to TalkTalk’s submission that the NDR Differential should be treated differently as NDRs are not resource costs, Ofcom said that it does not accept that “only differences in resource costs should influence the charge differential”. It said that while it is a “laudable goal for regulation” and indeed, had been recognised as such in this context in Ofcom’s recommendation to Government to change its approach to NDRs, it is not an “absolute principle”. Ofcom also stated that this would not be the case under TalkTalk’s approach.<sup>401</sup>

### *Our assessment*

- 4.122 TalkTalk’s first reason for its Ground of Appeal is that Ofcom’s decision was wrong because it was contrary to Ofcom’s regulatory objectives. TalkTalk’s case is that Ofcom was seeking to promote productive efficiency for circuits at 1Gbit/s and above, and that Ofcom failed to achieve those objectives. Ofcom’s defence is that productive efficiency was only one objective, and therefore TalkTalk has mischaracterised its case. We first consider what Ofcom’s objectives were and then consider whether the approach which Ofcom took to the NDR differential was consistent with those objectives.
- 4.123 In its summary in the Final Statement, Ofcom said that it was introducing passive remedies to “promote efficiency and sustainable competition in fibre-based leased lines better than is currently possible with active remedies alone”. The evidence presented in this case on the potential for efficiencies is consistent with the Final Statement. It appears to be agreed by TalkTalk and Ofcom that there is the potential for significant productive efficiency benefits from the introduction of DFA and that Ofcom’s objectives in introducing the DFA remedy included to achieve these benefits. The previous section identified a range of projections for productive efficiencies resulting from equipment cost savings. Although TalkTalk’s evidence has focused on productive efficiencies, it also appears to be largely agreed that there is the potential for dynamic benefits; OCPs will no longer be reliant on the products

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<sup>400</sup> TalkTalk Core Submission hearing transcript, page 39.

<sup>401</sup> Ofcom Defence (TalkTalk appeal), paragraph 156.



offered by Openreach and this will provide greater commercial flexibility and the potential for innovation.<sup>402</sup>

- 4.124 In order to meet this aim, Ofcom said that it followed an approach to setting the DFA price which balanced the benefits offered by the DFA remedy and the risks associated with it.<sup>403</sup> As discussed above, this approach was to use the 1Gbit/s active product price, less the Active Differential.
- 4.125 Based on the analysis in the Final Statement, we understand that the benefits of DFA can be broadly split into three categories: productive efficiency, dynamic efficiency and a long term goal of relaxing downstream regulation in the active leased lines market.<sup>404</sup> In this appeal, which focuses on the initial take-up of DFA, the objectives of productive efficiency and dynamic efficiency appear to be most directly relevant. Ofcom stated in the Final Statement that it had not given allocative efficiency considerations significant weight when forming a view on the best approach to calculating the Active Differential.<sup>405</sup>
- 4.126 We note that Ofcom used a projection in the BCMR, before taking account of the NDR Differential, that it expected dark fibre to be taken up in respect of 95% of new circuits at 1Gbit/s. This suggests that it expected OCPs to be able to realise significant benefits from the remedy, which could be passed onto consumers. Ofcom said that it had had no particular level of take-up in mind, but Ofcom clearly considered that dark fibre would bring sufficiently significant benefits to encourage take-up in relation to a very large proportion of new 1Gbit/s circuits.
- 4.127 In its response to the provisional determination, Ofcom indicated that it did not agree. It stated that we “irrationally inferred from the 95% assumption that Ofcom’s objective was to achieve a “high level” of take up without any evidence or reasoning to support that inference”.<sup>406</sup>
- 4.128 This is a misunderstanding of our reasoning in reaching the view that Ofcom’s objectives included the achievement of a high level of take-up. In considering this aspect of TalkTalk’s appeal, we have not made any specific assumptions on the level of take-up. We agree that the 95% figure for take-up of new circuits at 1Gbit/s was an input to its impact assessment modelling rather than

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<sup>402</sup> We note that BT is challenging the imposition of the DFA remedy in the CAT and has indicated in its response to the provisional determination that it does not agree that the DFA remedy will deliver sufficient benefits to outweigh its costs. However, in its submissions to this appeal, BT’s evidence was not provided on the basis that there would not be the potential for efficiencies. In any case, we are being asked by TalkTalk to assess whether Ofcom’s approach was consistent with its own objectives in introducing the DFA remedy, and the Final Statement states clearly that Ofcom expected the DFA remedy to result in efficiencies.

<sup>403</sup> [Final Statement \(Volume 1\)](#), paragraph 7.79 and Ofcom Defence (TalkTalk appeal), paragraph 151.

<sup>404</sup> [Final Statement \(Volume 1\)](#), paragraphs 1.35, and [Final Statement Annex 18](#), paragraph A18.2.

<sup>405</sup> [Final Statement Annex 23](#), paragraph A23.17.

<sup>406</sup> Ofcom response to the provisional determination (TalkTalk appeal), page 5.

an objective in itself. Ofcom's objective was to promote efficiency through DFA, and its approach was based on a cost standard designed to promote competition for new circuits at 1Gbit/s and above. The 95% figure suggests that Ofcom expected that the effect of its approach would be a high level of take-up for these circuits.

4.129 We also recognise that this projection was an estimate made before Ofcom became aware of the NDR Differential. However, we consider that this projection is a good example of the indications, made throughout the Final Statement, that Ofcom's objectives included the achievement of a significant level of take-up of dark fibre pursuant to the remedy which it decided to introduce.

4.130 The Final Statement contained a number of other statements which indicate that Ofcom expected material or significant take-up as part of the achievement of its objectives for the DFA remedy. By way of example:<sup>407</sup>

- (a) Annex 21 Table A21.2: "Our objective is for dark fibre to be taken-up and used on a significant scale";
- (b) Annex 21 Footnote 921: "We explained that we did not regard EAD 10Gbit/s – which BT was planning to launch at the time of our Consultation – as a suitable reference product as it would not be likely to support material take-up of dark fibre, therefore offering little net benefit"; and
- (c) Annex 21 paragraph A21.155: "We seek to introduce a DFA remedy that supports widespread take-up of dark fibre, as this is required for dark fibre to deliver significant benefits. We recognise that widespread take-up requires a dark fibre price that is not too high and not subject to great uncertainty".

4.131 In the Final Statement, Ofcom considered the choice of approach to pricing designed to meet its objective to promote competition based on dark fibre, while also having regard to the risks associated with the introduction of DFA. It considered a number of risks, including the risks to infrastructure investment, and of promoting inefficient entry.<sup>408</sup> It decided that setting prices by reference to the prices of 1Gbit/s services would deliver these benefits, and manage the risks associated with the transition to dark fibre. Ofcom said: "In our judgement, setting the price of dark fibre on an 'active minus' basis relative to Openreach's 1Gbit/s EAD services achieves the best balance

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<sup>407</sup> Final Statement, Annex 21.

<sup>408</sup> Final Statement (Volume 1), paragraph 7.41.

between the benefits on the one hand and the risks and potential negative impacts on the other”. In other words, the use of a price which was set by reference to 1Gbit/s would have the benefits described above, and mitigate the risks.

- 4.132 We do not therefore accept Ofcom’s position that, in adopting the DFA remedy, it was not hoping to achieve a high level of take-up, or that it is mischaracterising the objectives to suggest that Ofcom expected material productive efficiencies in relation to 1Gbit/s and higher bandwidth circuits. In light of the many statements in the Final Statement indicating Ofcom’s intention that there should be a high level of take up, we do not agree with Ofcom’s statement in its response to the provisional determination, that we were wrong to conclude that a high level of take-up of dark fibre for 1Gbit/s circuits was one of Ofcom’s objectives.<sup>409</sup> The Final Statement makes this plain. Ofcom said that, in implementing the DFA remedy, it was not seeking solely to maximise productive efficiency – rather, it was balancing the productive efficiency benefits against the risks of a lower dark fibre price.<sup>410</sup> This led it to choose the reference point of 1Gbit/s.
- 4.133 In its response to the provisional determination,<sup>411</sup> Ofcom also said that we should not assume that it still expected material take-up in the context of the NDR Differential. In the Final Statement, Ofcom recognised that the NDR Differential existed, and could frustrate the design of the DFA remedy. Ofcom therefore asked the Government to change the NDR rules. It therefore appears that Ofcom accepted that the DFA remedy was sufficiently important to justify the significant and unusual intervention by Ofcom of seeking a change to the rating rules. This further indicates to us that Ofcom’s objectives included encouraging a high level of take up and avoiding competitive distortions between active products and dark fibre, even after Ofcom had recognised that the NDR Differential presented it with an issue in relation to the implementation of the DFA remedy.
- 4.134 Ofcom said that the CMA was wrong to make any link between the assumptions in the Final Statement and those which Ofcom would expect in the scenario where there is a NDR differential. It stated that “The CMA has erred because it has inferred that Ofcom’s objectives for dark fibre under the NDR Decision were the same as those under the Government solution”.<sup>412</sup>

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<sup>409</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 11.

<sup>410</sup> [Final Statement \(Volume 1\)](#), paragraph 7.42-7.43.

<sup>411</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 11.

<sup>412</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 11.

- 4.135 We disagree with this. We recognise that the realisation, relatively late in the process leading up to the Final Statement, that there was a significant NDR differential presented Ofcom with the question as to how to implement the DFA remedy. The Government solution and the approach to NDRs in the Final Statement were not ends in themselves; they were means by which Ofcom attempted to implement and achieve the aims of the DFA remedy which it had decided to adopt, in the context that Ofcom realised that there was an NDR differential that would distort competition. Nowhere in the Final Statement did Ofcom suggest that, if the Government solution was not achieved, Ofcom no longer retained the objectives which underpinned the decision to adopt the DFA remedy (namely, achieving a high level of take up, increasing productive efficiency and making circuits above 1Gbit/s contestable). On the contrary, Ofcom expressed a concern that the NDR issue could frustrate the design of the DFA remedy and acknowledged the desirability (absent the three perceived disadvantages of an approach based on access-seekers' NDR costs identified in the Final Statement<sup>413</sup>) of the DFA remedy being implemented in a way which reduced the distortion.
- 4.136 We recognise that the scope for efficiencies will be different in a scenario in which the Government does not intervene, as there will be some circuits for which it will be uneconomic to use DFA. However, Ofcom continued to use the 1Gbit/s active price, and the 'active-minus' approach, for the reasons stated in the Final Statement. We do not accept that Ofcom abandoned or materially adjusted the objectives of the DFA remedy once it realised that there was an NDR differential and if the Government would not take action to address that differential. What is in question in TalkTalk's appeal is whether Ofcom was wrong, in that context, not to make an amendment to the approach used to calculate the Active Differential.
- 4.137 In designing the DFA remedy, Ofcom was seeking to promote competition with BT in respect of the provision of active services through the use of DFA.<sup>414</sup> In the Final Statement, Ofcom said: "we wanted to create incentives for access-seekers to base their choices between dark fibre and active products on the productive and dynamic efficiencies they could achieve with dark fibre".<sup>415</sup> Ofcom did consider making an amendment to the approach to the Active Differential. In the Final Statement, it stated: "We noted that basing the amount included in the Active Differential on the likely cost to an access-

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<sup>413</sup> Final Statement Annex 23, paragraph A23.105.

<sup>414</sup> Final Statement Annex 18, paragraph A18.186.

<sup>415</sup> Final Statement Annex 23, paragraph A23.5.

seeker would have the advantage of, all else equal, not distorting the access-seeker's choice between the active and dark fibre products".<sup>416</sup>

- 4.138 We have considered Ofcom's argument that it needed to strike a balance between the benefits and risks of the DFA remedy, and therefore productive efficiencies were just one relevant factor in Ofcom's decision making. We agree that there were a range of objectives for DFA, and that Ofcom's approach to the DFA Cap was to balance the productive efficiency and other benefits against the risks of an alternative approach. We note that, in making its assessment between different options, Ofcom will always need to balance a range of different considerations.
- 4.139 Ofcom addressed the risks of the DFA remedy and struck a balance between those risks and the benefits of dark fibre in the design of the DFA remedy and, in particular, in the use of the active minus approach rather than a cost based approach. Under Ofcom's preferred approach, which is that the Government intervenes to change the rating rules, and in its choice of a 1Gbit/s reference product, it expected that there would be high levels of take up of dark fibre. We therefore do not accept that the reduced take up which would occur under the NDR Decision reflects a deliberate balance struck by Ofcom to mitigate against the risks of the DFA remedy. Those risks were addressed by the design of the DFA remedy and the risks which Ofcom identified when deciding to adopt an approach to NDRs based on an attribution of BT's NDR costs were not the wider risks of the DFA remedy. We consider the specific risks that Ofcom identified in rejecting the use of access-seekers' costs in setting the DFA Cap in the next section.
- 4.140 In summary, we consider that Ofcom's objectives in introducing the DFA remedy were to promote efficiency and innovation through the promotion of efficient investment in the provision of 1Gbit/s services and above. We consider that Ofcom expected and aimed to achieve significant levels of take-up of these services pursuant to the DFA remedy. We consider that, to the extent that Ofcom was seeking a managed transition, it put this into effect through its choice of design for the DFA Cap, and it expected that the benefits of the remedy would be achieved through material take-up of DFA for 1Gbit/s circuits.
- 4.141 Ofcom also rejected TalkTalk's case that only resource costs, and not NDRs, should influence the price differential. We acknowledge that, if NDRs were treated as being equivalent to resource costs, Ofcom's approach of using an attribution of BT's NDR costs would result in incentives for OCPs to choose

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<sup>416</sup> [Final Statement Annex 23](#), paragraph A23.105.

dark fibre where the aggregate costs, including NDRs, are lower, and that TalkTalk's alternative approach may result in an increase in the aggregate costs in the LLCC. We consider below those aspects of Ofcom's reasons for rejecting TalkTalk's alternative approach which relate to the need to make an adjustment to the LLCC to ensure cost recovery.

- 4.142 In respect of consistency with Ofcom's objectives, we agree with TalkTalk that NDRs are not equivalent to resource costs in this case, where the NDR Differential results in a distortion to competition between BT and OCPs. NDRs are a form of taxation, and hence an economic transfer rather than an economic cost. By this we mean that, to the extent that increased take-up of dark fibre increases the overall level of NDRs paid by operators in the BCM, because OCPs' NDRs on dark fibre are higher than the NDRs avoided by BT, this would result in a transfer to Government which would be expected to benefit taxpayers, including telecoms customers. As a result, to the extent that Ofcom considered that it should use BT's costs as a result of its decision to use a "general principle of setting charges (and indeed basing the active differential) on BT's costs", we consider it is wrong to consider NDR costs in the same way as resource costs in such an assessment.<sup>417</sup>
- 4.143 Ofcom argued that there was no detailed examination of this issue in the process.<sup>418</sup> This issue was addressed in the process before the CMA. It was raised in TalkTalk's NoA and in Ofcom's Defence, as discussed at paragraphs 4.110 and 4.121 above.<sup>419</sup> TalkTalk also said that Ofcom had itself acknowledged in a different context that only differences in resource costs should influence the charge differential. Ofcom said that it was wrong to extend the scope of that example to the present case.<sup>420</sup>
- 4.144 In this case, the NDR Differential results from the different approaches to rating BT as the incumbent network operator on the one hand, and OCPs on the other. This reflects the context in which the rating rules have been developed by the VOA for BT and OCPs, rather than any deliberate attempt to have regard to the underlying differences in these firms' production costs, technology or quality of service which would be relevant to an assessment of efficiency. We understand from the expert witness evidence that, in principle, the rating methods for BT and OCPs are intended to produce comparable results.<sup>421</sup> However, the analysis in paragraphs 4.67 to 4.77 above indicates that this is not expected to be the case in practice for the foreseeable future.

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<sup>417</sup> [Final Statement Annex 23](#), paragraph A23.105.

<sup>418</sup> Ofcom response to the provisional determination (TalkTalk appeal) paragraph 13.

<sup>419</sup> Ofcom Defence (TalkTalk appeal), paragraph 156(2).

<sup>420</sup> Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 58.

<sup>421</sup> BT Sol (TalkTalk appeal) – Hatchwell 1 witness statement, paragraph 1.4.



- 4.145 The lack of a clear understanding of BT's incremental NDR costs, and therefore of whether BT's attribution of NDR costs is a good estimate of BT's incremental NDR costs, supports our conclusion that, in this case, it was wrong for Ofcom to treat the attribution of BT's NDR costs in the same way as its estimates of BT's avoidable resource costs in setting the dark fibre price. On the basis of the evidence presented, we consider that the attribution of BT's NDR costs is unlikely to represent a good estimate of the incremental costs associated with dark fibre for BT. For example, Ofcom said that the attribution was the best estimate available, but only a proxy for the incremental costs.<sup>422</sup> Another scenario was indicated by TalkTalk, based on its surveyor's analysis, which indicated that the underlying incremental costs for BT may be "a lot higher".<sup>423</sup>
- 4.146 The problems created by the NDR Differential are specific to this case. TalkTalk's appeal relates to the promotion of competition between BT and OCPs facing significantly different tax regimes. We agree with Ofcom's statement in its Defence that it is not an "absolute principle" that differences in fiscal treatment should be considered differently from differences in resource costs. However, in this case, Ofcom considered that the tax differences will distort competition to an extent which it considered so significant and undesirable in the context of its aims in imposing the DFA remedy that it asked the Government to intervene. Whilst there may be circumstances in which it would be appropriate for Ofcom to treat tax costs as equivalent to resource costs, in this context, we consider that Ofcom's treatment of tax costs is inconsistent with its aims in imposing the DFA remedy.
- 4.147 We note that Ofcom had other reasons for rejecting TalkTalk's alternative approach, which it set out in the Final Statement and in its Defence. We discuss these reasons in the next section. We now conclude on whether Ofcom's NDR approach was consistent with its objectives.
- 4.148 We consider that the evidence supports TalkTalk's suggestion that there is likely to be a significant NDR Differential and that, as a result, under Ofcom's approach, OCPs are likely to be deterred from using dark fibre for 1Gbit/s services, even in cases where it would be productively efficient for them to do so. This was acknowledged by Ofcom in the Final Statement, where it stated that "Our concern is that any differences in the NDRs payable by different CPs in using the same regulated dark fibre circuit from Openreach could frustrate the design of the DFA remedy we have decided to introduce".<sup>424</sup>

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<sup>422</sup> Ofcom main party hearing transcript (TalkTalk appeal), page 77.

<sup>423</sup> TalkTalk main party hearing transcript, page 55.

<sup>424</sup> [Final Statement Annex 23](#), paragraph A23.110.

- 4.149 We have concluded that the DFA remedy was designed to make 1Gbit/s and above services contestable and that Ofcom's balancing of benefits and risks was on the basis that the remedy would achieve a high level of take-up. Therefore, in the circumstances in which the NDR Differential would result in a large reduction in the proportion of 1Gbit/s services which would be contestable, we consider that Ofcom's approach was not consistent with its objectives.
- 4.150 As explained above, we agree with TalkTalk that Ofcom's NDR approach would significantly reduce the take-up of DFA, compared with a scenario in which there was no NDR distortion or where the DFA price is based on an assumption for OCP NDRs which is significantly more reflective of OCPs' costs, and that this will result in Ofcom's objectives not being achieved. We do not accept that Ofcom's decision to adopt an approach based on an attribution of BT's costs reflected some form of deliberate balancing relating to the desired level of take up or the promotion of productive efficiencies, as there is no evidence that Ofcom revisited its objectives at the point when it identified the NDR Differential.
- 4.151 In summary, we accept TalkTalk's case that the NDR Decision was not consistent with Ofcom's objectives of promoting efficiency through the implementation of DFA. In the next section we consider whether there was an alternative approach open to Ofcom which would have been consistent with Ofcom's objectives and whether Ofcom was wrong to reject an alternative approach, as TalkTalk contends.

### **TalkTalk's alternative approach and Ofcom's reasons for rejecting the use of access-seekers' costs**

- 4.152 Ofcom acknowledged in the Final Statement that the use of access-seekers' costs would have the advantage, all else equal, of not distorting access-seekers' choices between active and dark fibre products.<sup>425</sup>
- 4.153 The disadvantages of an alternative approach based on access-seekers' NDRs identified in the Final Statement were:<sup>426</sup>
- (a) the approach would be contrary to Ofcom's general principle of setting charges (and indeed basing the Active Differential) on BT's costs, and not those of the access-seeker;

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<sup>425</sup> Final Statement Annex 23, paragraph A23.105.

<sup>426</sup> Final Statement Annex 23, paragraph A23.105.



- (b) it risked setting a price for the dark fibre product below BT's cost of supply, which may not give BT the opportunity to recover its efficiently incurred costs; and
- (c) there were practical considerations that would mean this approach was unlikely to produce a stable and predictable access price given the variation in costs for different access-seekers.

4.154 These are the three reasons for not adopting the OCP based approach that TalkTalk alleges were flawed.

#### *TalkTalk's case*

4.155 TalkTalk said that alternative approaches were available to pricing DFA which would be superior to the approach adopted by Ofcom in the Final Statement, as long as the NDR assumption within the Active Differential was based on a level of NDRs faced by OCPs. Its Reference Question does not require us to consider a particular approach. What we are required to consider is whether Ofcom was wrong to use an approach based on an attribution of BT's NDR costs. In carrying out this assessment it is, however, important for us to consider whether there was an alternative approach open to Ofcom that was consistent with its objectives in imposing the DFA Remedy. TalkTalk presented us with an example of such an approach.

4.156 TalkTalk made the following submissions:

- (a) Ofcom could have used an 'average' OCP NDR;
- (b) Ofcom could have used a choice of NDR level to promote its preferred level of competition; and
- (c) Ofcom's approach was wrong and we should remit.

4.157 As part of its Ground of Appeal, TalkTalk said that Ofcom should have considered one of two options: '(i) setting the differential by reference to some average of the NDRs payable by all OCPs, and/or (ii) setting the Active Differential by reference to the NDRs payable by OCPs but subject to appropriate caps or floors.' TalkTalk stated that these options were not considered by Ofcom in the Final Statement, in which Ofcom compared approaches based on BT's attributed costs with an approach of setting NDRs by reference to the NDRs payable by the specific OCP seeking access.<sup>427</sup>

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<sup>427</sup> TalkTalk NoA, paragraph 36.

- 4.158 The example provided by TalkTalk in its NoA was to calculate the Active Differential and therefore the DFA price using a measure of the ‘average’ NDRs faced by OCPs, which could be subject to a price floor to ensure that BT recovers its costs.<sup>428</sup> TalkTalk said that basing the NDR adjustment in the dark fibre price on an average NDR cost faced by OCPs would substantially reduce competitive distortions and lead to greater dark fibre take-up.<sup>429</sup>
- 4.159 Ofcom’s reasons for rejecting the use of OCPs’ costs in the Final Statement were regulatory consistency, cost recovery and stability of the DFA price. These reasons are explained in greater detail in paragraph 4.153 above. TalkTalk’s appeal contended, under its second limb, that these reasons were flawed.
- 4.160 On the first reason of regulatory consistency, TalkTalk considered that it has demonstrated that in this case Ofcom’s DFA remedy fails to meet its objectives. In those circumstances, it said it would be inappropriate of Ofcom to follow a principle of regulatory consistency, particularly given that it has deviated from this principle in the past.<sup>430</sup>
- 4.161 On the second reason of cost recovery, TalkTalk noted that its approach would have a direct effect on BT’s cost recovery, but considered that it would be possible to introduce an uplift to the cost base used for the Ethernet charge control to take account of any shortfall (or over-recovery) of fixed and common costs if the differential is set with respect to OCPs’ NDRs.<sup>431</sup>
- 4.162 On the third reason of price stability, TalkTalk did not propose a variable NDR which would be unstable, but a pricing rule set in advance by Ofcom based on OCP data.<sup>432</sup> In the TalkTalk NoA, TalkTalk did not provide specific examples of how average NDRs for OCPs would be calculated. TalkTalk subsequently stated that such a measure could be calculated by Ofcom, were Ofcom to collect the relevant data using its information-gathering powers.<sup>433</sup>
- 4.163 TalkTalk provided further clarification on how Ofcom could have used a measure of OCPs’ NDRs in promoting competition, based on its assessment of the model of competition which it was seeking to promote. TalkTalk said

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<sup>428</sup> TalkTalk NoA, paragraph 43. Ofcom’s Defence focuses on the risk to cost recovery relating to the use of OCPs’ NDRs in the DFA price, which is unaffected by the introduction of a price floor. We note that a price floor could be used and it does not seem to be disputed that it is feasible. It is not clear from the evidence that it would be needed. We do not consider this further but we agree with TalkTalk’s suggestion that this would be a feasible alternative in future if necessary.

<sup>429</sup> TalkTalk NoA, paragraph 43.

<sup>430</sup> TalkTalk NoA, paragraphs 37–38.

<sup>431</sup> TalkTalk NoA, paragraph 39.2.

<sup>432</sup> TalkTalk NoA, paragraph 43.

<sup>433</sup> TalkTalk Core Submission (Volume 2), paragraph 35.

that OCPs' NDRs could be used in order to incentivise take-up of dark fibre and that this would be practicable: 'Ofcom could therefore straightforwardly design the cost measure it wishes to use and [...] calculate an appropriate reference level of NDR costs, based upon the extent or type of competition it wishes to develop.'<sup>434</sup>

4.164 TalkTalk confirmed that it was not challenging Ofcom's conclusion that an approach based on NDRs which varied for different circuits was not practicable.<sup>435</sup> Further, TalkTalk argued that Ofcom's reasons for rejecting the use of OCPs' NDRs in the Final Statement resulted from the fact that Ofcom constrained itself by its assumption that OCPs' NDRs would need to be measured on a circuit-by-circuit basis.<sup>436</sup>

4.165 At the hearing, Mr Heaney stated that TalkTalk was presenting scenarios based on a £500 assumption for the level of OCPs' NDRs in the Active Differential used to calculate the DFA price. This was not assumed to be specifically an average OCP NDR; but to represent TalkTalk's illustration of an approach that would promote competition.<sup>437</sup>

4.166 In addition to these specific suggestions, TalkTalk noted that other solutions based on OCPs' NDRs may be available and that, in any case, we should find that Ofcom was wrong to use an attribution of BT's costs; and that we should find that the matter should be remitted to Ofcom to determine the 'precise measure' of OCPs' NDRs.<sup>438,439</sup>

#### *Ofcom's response and BT's Statement of Intervention*

4.167 Although Ofcom recognised that its approach to NDRs results in distortions, it said that these are unavoidable under the current tax system. Further to the reasons given in the Final Statement, Ofcom said in its Defence that the approach of using an attribution of BT's costs remains preferable to the approach suggested by TalkTalk for several reasons.

4.168 Ofcom repeated its view expressed in the Final Statement that, under TalkTalk's alternative approach, BT's cost recovery would be threatened. If BT were unable to recover its efficiently incurred costs, this would affect

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<sup>434</sup> TalkTalk Core Submission (Volume 2), paragraph 34.

<sup>435</sup> TalkTalk main party hearing transcript, page 46.

<sup>436</sup> TalkTalk NoA, paragraph 35.

<sup>437</sup> TalkTalk main party hearing transcript, page 12.

<sup>438</sup> TalkTalk NoA, paragraph 44.

<sup>439</sup> In paragraph 3.10.4 of TalkTalk Core Submission (Volume 2) – Duckworth 3 witness statement, Mr Duckworth said that OCPs' NDRs may also be a better proxy for BT's incremental NDR costs and therefore may more accurately reflect the costs avoided by BT in providing DFA than the attribution of BT's NDR costs currently used in Ofcom's DFA pricing. This theme was also discussed at the TalkTalk main party hearing.

investment incentives in this market.<sup>440</sup> During the hearing, Ofcom estimated that the need to compensate BT for the lower DFA price could cost as much as £17 million, which would need to be recovered through higher prices for end users of its active services.<sup>441,442</sup>

- 4.169 In its Sol, BT agreed with Ofcom and said that there was a “very material risk” that, under TalkTalk’s proposal, BT would not recover its efficiently incurred common costs. BT stated that, unless an uplift was made to prices in the LLCC, Ofcom would risk imposing a remedy that goes beyond its legal powers.<sup>443</sup>
- 4.170 On the assumption that higher NDRs would increase the total costs associated with the provision of the services covered by the LLCC, Ofcom concluded that prices for consumers would have to increase to enable BT to recover its costs overall.<sup>444</sup> It noted that using BT’s NDRs will ensure that consumers can continue to purchase active products and dark fibre at prices reflective of BT’s costs. It stated that has benefits for consumers where BT’s costs are lower because of BT’s lower NDRs.
- 4.171 In addition to its reasons relating to cost recovery, Ofcom said that TalkTalk’s proposal had implementation issues and would be “cumbersome in practice”.<sup>445</sup> As well as requiring Ofcom to gather information and pass this on to BT, it would be necessary to calculate the NDR component within the Active Differential by reference to a range of NDRs. Ofcom submitted that determining this range would be particularly difficult given that the level of demand from OCPs for dark fibre is currently unknown and some rating valuations are still under review.
- 4.172 BT said that this factor undermined the reliability of the figures put forward in TalkTalk’s analysis and demonstrated the unpredictability of the DFA price under TalkTalk’s alternative approach.<sup>446</sup> Therefore Ofcom considered that it would not be able reliably to estimate an average NDR cost for OCPs.<sup>447</sup> BT supported Ofcom’s position that these practical issues would create significant uncertainty and difficulties in determining an appropriate average NDR figure

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<sup>440</sup> Ofcom Core Submission (Volume 1), paragraph 52.6.

<sup>441</sup> TalkTalk Core Submission hearing transcript, pages 19 & 20.

<sup>442</sup> Mr Senensieb estimated this figure under the assumption that 17,000 circuits would be taken up as dark fibre, which was Ofcom’s estimate in the Final Statement assuming that there were not NDR differences, and an NDR adjustment of £1,000 per circuit (Core Submission hearing transcript, page 47).

<sup>443</sup> BT Sol (TalkTalk appeal), paragraphs 26 & 28.

<sup>444</sup> Ofcom Defence (TalkTalk appeal), paragraph 162(2)(iii) and Ofcom Defence (TalkTalk appeal) – Senensieb 2 witness statement, paragraph 56.

<sup>445</sup> Ofcom Defence (TalkTalk appeal), paragraph 169 (4).

<sup>446</sup> BT Sol (TalkTalk appeal), paragraph 51.

<sup>447</sup> Ofcom Defence (TalkTalk appeal), paragraph 169(4).

for OCPs.<sup>448</sup> By contrast, BT said that its methodology for attributing its NDR costs is scrutinised in detail by Ofcom and elements of it are independently audited.<sup>449</sup>

4.173 In its Defence, Ofcom also submitted a further reason why TalkTalk's proposed solution is distortive, which is that DFA take up would be driven by an NDR advantage rather than productive efficiencies, such that OCPs which have lower NDRs and are as efficient as BT will have a greater incentive to take up DFA,<sup>450</sup> an issue which Ofcom refers to as a 'new problem'.<sup>451</sup> BT supported this description and said that, rather than fixing a distortion, TalkTalk's proposal would create other distortions.<sup>452</sup>

4.174 Ofcom stated that a consequence of TalkTalk's proposal would be that BT would be paying some or all of the NDRs of OCPs purchasing dark fibre, an outcome which is undesirable and inappropriate, as well as being in tension with Government policy.<sup>453</sup> BT also stated that TalkTalk's proposal would lead to it having to pay for OCPs' NDRs.<sup>454</sup>

#### *Our assessment – Ofcom's reasons for rejecting the alternative approach*

4.175 In this section we consider the reasons provided by Ofcom for rejecting TalkTalk's approach, which are summarised in paragraphs 4.167 to 4.174 above.

(a) In the Final Statement, Ofcom included the following reasons for rejecting an approach based on access-seekers' costs:

- (i) Ofcom's approach reflects the principle of regulatory consistency;
- (ii) TalkTalk's approach would threaten cost recovery; and
- (iii) TalkTalk's approach would result in an unstable DFA price.

(b) In its Defence, Ofcom included further reasons why it did not consider that it was appropriate to follow an approach based on access-seekers' costs:

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<sup>448</sup> BT Sol (TalkTalk appeal), paragraphs 30 & 57.

<sup>449</sup> BT Sol (TalkTalk appeal), paragraph 24.

<sup>450</sup> Ofcom Defence (TalkTalk appeal), paragraph 169(5).

<sup>451</sup> Ofcom Core Submission (Volume 1), paragraph 52.2.

<sup>452</sup> BT Sol (TalkTalk appeal), paragraph 57 and illustrated in BT Sol (TalkTalk appeal) – Allen 1 witness statement, paragraph 34.

<sup>453</sup> Ofcom's defence, paragraph 169(2)

<sup>454</sup> BT Sol (TalkTalk appeal), paragraph 66.

- (i) there may be some take-up of DFA which reflects NDR differentials, not OCPs being more efficient than BT;
- (ii) BT would be paying OCP's NDRs; and
- (iii) aggregate charges would rise across the LLCC.

4.176 First we consider regulatory consistency. As a general principle we would say that references to consistency are unlikely to be determinative, but can be instructive.

4.177 In this case, Ofcom concluded that the use of passive remedies in the BCM would promote efficiency and sustainable competition in fibre-based leased lines better than active remedies alone. Ofcom concluded that DFA was the most appropriate passive remedy.<sup>455</sup> Ofcom discussed at the main party hearing the importance of DFA to OCPs providing leased lines to their customers. While this does not mean that using BT's NDR costs is wrong, it does appear that Ofcom was in a position in which it was engaged in an extensive process to identify a new and effective DFA remedy designed to promote competition in the BCM. In that context it was open to it to consider an access-seeker's costs, rather than BT's costs, in relation to the implementation of the DFA remedy. Ofcom acknowledged in the Final Statement that the use of access-seekers' costs would have the advantage, all else equal, of not distorting access-seekers' choices between active and dark fibre products.<sup>456</sup>

4.178 We agree with TalkTalk that there have been other instances in setting margins when promoting access-based competition where OCPs and BT had different costs where Ofcom had used OCPs' costs.<sup>457</sup> We noted in the previous section that this is particularly relevant in this case, where the difference relates to NDR costs which are not resource costs. We therefore do not consider that regulatory consistency is conclusive in determining the appropriate choice of approach.

4.179 In assessing the threat to cost recovery, we recognise that TalkTalk has not set out all of the parameters as to how exactly an alternative approach based on an access-seeker's costs should work. However, it appears clear that TalkTalk is asking for a single adjustment to the DFA price, through an amendment to the number used in the second component in the Active Differential. This appears clear from the NoA and was confirmed in the

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<sup>455</sup> Final Statement (Volume 1), paragraphs 1.33–1.39.

<sup>456</sup> Final Statement Annex 23, paragraph A23.105.

<sup>457</sup> TalkTalk NoA, paragraph 37.

hearings.<sup>458</sup> Consistent with the description of DFA pricing in paragraph 4.19 above, TalkTalk's approach would set the DFA price at the active price less the following:

- (a) The costs avoided by BT when providing DFA, as opposed to a corresponding active service ('first component').
- (b) A measure of OCPs' (not BT's) NDRs ('second component').
- (c) The costs of any objectively justifiable differences between dark fibre and the corresponding active service ('third component').<sup>459</sup>

4.180 As a result, if BT's attribution of NDRs was, for example, £100, and a suitable measure of OCP NDRs would be, for example, £500, then the result of TalkTalk's approach would be to reduce DFA charges by £400 (all figures per circuit, per annum). In that case, an OCP which chose to purchase a number of DFA circuits with average NDRs of £500, and which was otherwise as equally efficient as BT, would have an incentive to take up dark fibre as an alternative to purchasing BT's active circuits.

4.181 It appears to be accepted from the analysis presented at the main party hearings that this is a fair representation of TalkTalk's approach, and that TalkTalk's alternative approach would result in an Active Differential greater than the Active Differential calculated by BT under Ofcom's approach. Therefore, if Ofcom were to make this adjustment to DFA prices and no other changes, the price of DFA would fall, the revenues recovered from DFA customers would fall, and the revenue recovered from all other customers would stay the same. As a result, BT's aggregate revenues would fall.

4.182 In the LLCC as implemented by Ofcom, the cap on BT's charges is set such that aggregate revenues are assumed to be equal to its costs of the services within the scope of the LLCC.<sup>460</sup> Therefore, under TalkTalk's approach, which would reduce revenues associated with DFA, the consequence would be that BT's revenues across the LLCC would be lower than costs. We understand that this is the threat to cost recovery identified by Ofcom and BT.

4.183 As a result, TalkTalk's proposal would be likely to require an adjustment to the LLCC to ensure that BT recovered its efficiently incurred costs. TalkTalk's approach of making an 'average' 1Gbit/s DFA circuit contestable could imply

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<sup>458</sup> TalkTalk main party hearing transcript, page 46.

<sup>459</sup> [Final Statement Annex 23](#), paragraph A23.40.

<sup>460</sup> We understand that this is done through setting charges such that costs equal revenues in the final year of the charge control.

that the DFA remedy would be set such that 50% of 1Gbit/s circuits become contestable. If 50% of 1Gbit/s EAD circuits were to be taken up as dark fibre, and 100% of 10Gb/s circuits were taken up as dark fibre, this would imply a total of around 10,500 dark fibre circuits by 2018/19, out of the 17,000 new circuits forecast by Ofcom.<sup>461,462</sup> If TalkTalk's adjustment were to be based on an assumption of OCPs' NDRs of £500 as indicated in the hearing, and if BT's attribution of NDRs were £100, this would result in a reduction of £400 in the DFA price. Based on 10,500 circuits, this would result in a £4.2 million revenue shortfall for BT, which could be recovered through an adjustment to the LLCC.

- 4.184 Based on our understanding of the workings of the LLCC, it would be feasible for Ofcom to adjust the LLCC in order to ensure that BT fully recovered its efficiently incurred costs under TalkTalk's DFA pricing proposal. Ofcom has the tools to calculate this adjustment and has already performed this type of calculation to compensate BT for lower common cost recovery through cannibalisation and stranded asset and implementation costs associated with the DFA remedy in its current form, as set out in [Annex 33](#) of the Final Statement.<sup>463</sup> The extent of the adjustment required would depend on the precise measure of OCP NDRs which, under TalkTalk's approach, would be a matter for Ofcom to determine.
- 4.185 TalkTalk submitted a report from Frontier Economics for the Passive Access Group which responded to Ofcom's consultation on the adjustment and suggested that Ofcom's modelling approach to this adjustment also depended on the volume of take-up.<sup>464</sup> It appears to us that the adjustment necessary to implement TalkTalk's alternative approach would be broadly comparable both in scale and in complexity.<sup>465</sup> We do not therefore accept that the threat to BT's cost recovery is a reason in itself not to make an adjustment to the Active Differential based on the approach proposed by TalkTalk.
- 4.186 We next consider the stability and practicability of measuring OCPs' NDRs. We agree with Ofcom that it would be complex to determine a suitable average for NDRs if this was not set on a stable basis, but was updated to reflect changes over the charge control period. There are a number of implementation issues associated with determining an appropriate measure of

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<sup>461</sup> [Final Statement Annex 33](#), Table A33.25.

<sup>462</sup> Assuming the 17,000 circuits are split between 13,000 1Gbit/s EAD circuits and 4,000 10Gbit/s EAD circuits, 10,500 circuits was calculated as 50% of the 1Gbit/s EAD circuits and all 10Gbit/s EAD circuits.

<sup>463</sup> [Final Statement Annex 33](#), paragraphs A33.356–A33.357.

<sup>464</sup> We note that Frontier's report also highlights a risk of over-recovery due to the adjustments, in the case where actual take-up of DFA is lower than projected by Ofcom. Frontier Economics: 'Ofcom's proposals on regulated dark fibre pricing. A report prepared for the Passive Access Group', July 2015, page 18.

<sup>465</sup> [Final Statement Annex 33](#), paragraph A33.356.



the NDRs faced by OCPs, given the number of different factors that can affect the level of NDRs, such as contiguity and length of circuits.

- 4.187 Furthermore, an adjustment based on the average NDRs faced by OCPs on 1Gbit/s EAD circuits would not reflect the average NDRs of circuits taken up as dark fibre, given that OCPs would incur significantly higher NDRs and therefore be unlikely to take up dark fibre for the longest circuits under TalkTalk's approach.
- 4.188 However, we consider that this is not the correct interpretation of the case set out in TalkTalk's NoA. Given Ofcom's objectives to promote competition and given the acknowledged NDR Differential, TalkTalk proposed that Ofcom should use a number which "would substantially reduce competitive distortions and the failure to promote investment, innovation and the take up of DFA which is implied by Ofcom's approach".<sup>466</sup> In the main party hearing TalkTalk provided further illustrations of this.
- 4.189 Our understanding of TalkTalk's case is therefore that it proposed that an alternative measure should be determined by Ofcom to represent the NDRs of access-seekers, having regard to an average or 'typical' circuit, and that such a measure would reduce the distortions to competition which will result from the NDR Differential. It is not intended that BT or Ofcom should perform some ongoing measure of average NDRs, which could be unstable and difficult to implement in practice. TalkTalk's analysis acknowledged that such an approach would not be reflective of the NDRs of all OCPs and that there would be residual distortions. We therefore do not agree with Ofcom that stability is a concern with TalkTalk's alternative approach in this appeal.
- 4.190 We next consider Ofcom's statement in its Defence that there may be DFA take-up where it is not productively efficient. We agree with Ofcom that an implication of TalkTalk's approach would in theory be that there would be an incentive for OCPs to use dark fibre even where it is not productively efficient to do so. This is because of the variation in NDRs arising from different lengths of circuit and contiguity. For short circuits, OCPs' actual NDRs would be lower than the adjustment in the dark fibre price— so OCPs would stand to gain from switching to dark fibre even if this was productively inefficient.
- 4.191 However, all of the evidence presented, not least by Ofcom, indicates that this scenario is unlikely. The objective of DFA is to provide the option to deliver productive efficiencies which Ofcom has identified can be achieved through the removal of the requirement to buy active products from BT. We have seen

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<sup>466</sup> TalkTalk NoA, paragraph 43.

no evidence made available in this appeal of a material risk of productive inefficiencies from a move to DFA. We note that BT is challenging the implementation of DFA remedy in the CAT. At the hearing, BT confirmed that, for the purposes of the determination of the price control matters, it provided evidence on the assumption that the DFA remedy will proceed as intended by Ofcom.<sup>467</sup>

4.192 It also does not appear that there is a risk that a lower DFA price would result in higher profitability for OCPs in circumstances where they face lower NDRs, for example on short circuits. We agree with TalkTalk, that, whilst this does imply that OCPs are more likely to use dark fibre in this segment of the market, the existence of a number OCPs downstream using dark fibre and competing for end customers should put downward pressure on prices and margins.

4.193 TalkTalk's alternative approach appears to have the benefits of promoting the efficient use of DFA by OCPs; it proposed an approach which would not eliminate, but which would significantly reduce the distortions which will be faced by OCPs in making investment decisions between Openreach's active products and products based on the use of dark fibre. We therefore agree with TalkTalk that the effect of its proposal would be to reduce the distortions to competition resulting from the NDR Differential.

4.194 We next consider the suggestion that the alternative approach would mean that BT would be paying OCPs' NDRs on their behalf.<sup>468</sup> The setting of margins with regard to access-seekers' costs is a form of regulation which can be used for promoting competition, where appropriate, and was considered accordingly by Ofcom. It is not clear to us why this should be characterised in this way in this case, or that it is directly relevant to an assessment of the benefits and costs of an alternative approach in this case. To the extent that Ofcom and BT are making the point that the charges BT would recover from active leased lines customers would need to increase, and that this increase results from the higher level of NDRs incurred by OCPs, we consider this in response to the next argument.

4.195 Finally, we consider the response that the LLCC in aggregate would need to increase to reflect OCPs' higher NDRs. We agree that, in the short term, there would be expected to be a cost associated with setting the dark fibre price based on access-seekers' NDRs rather than an attribution of BT's NDR costs. This reflects the net effect of higher NDRs paid by OCPs in taking up dark

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<sup>467</sup> BT intervener hearing transcript (TalkTalk appeal), page 4.

<sup>468</sup> Ofcom Defence (TalkTalk appeal), paragraph 163(2)(ii).

fibre and any increase in productive efficiencies for the circuits which become contestable as a result of TalkTalk's approach.

4.196 We have considered the scale of this net effect. We noted above that, based on TalkTalk's stated approach, a realistic scenario for the gross cost of an adjustment to the LLCC could be as much as £4.2 million. We consider that the net effect on aggregate charges paid by leased line customers would be far smaller, as:

- (a) in respect of any circuits which would be competitive either under Ofcom's approach or TalkTalk's approach, such as 10Gbit/s circuits or very short circuits, the effect would be a redistribution between DFA and LLCC customers, reflecting that DFA customers would pay lower prices and active leased line customers would pay higher prices, but with no net increase in charges (because the absolute level of NDRs paid would remain unchanged); and
- (b) in respect of incremental circuits which would be taken up as dark fibre rather than active circuits as a result of the alternative approach, there would be an increase in the aggregate NDRs paid, which would be reflected in higher prices to the end customers of leased lines. However, the net effect on aggregate charges would be smaller, having regard to the incremental efficiencies which would be achieved.

4.197 Ofcom considered that adjustments of this scale were appropriate in the context of other areas where BT's cost recovery would otherwise have been affected by the introduction of DFA, such as that relating to stranded assets.<sup>469</sup> We also note that the scale of the adjustment required would depend on the precise measure of OCPs' NDRs which, under TalkTalk's approach, would be a matter for Ofcom to determine.

4.198 We consider that the net effect of this aspect of TalkTalk's approach is not a reason in itself why that approach ought not to be adopted. The cost adjustments could be made in a manner which is consistent with Ofcom's approach to regulation of the active products which are the subject of the LLCC. Given that we agree with TalkTalk that NDRs should not have been given the same weight as resource costs in the design of the DFA remedy, we consider that the overall assessment should depend on a balanced assessment of the broader objectives, including the efficiency objectives, against the costs, including the scale of any increase in charges. That would be a task for Ofcom upon remittal. In this case (based on the £500 figure used

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<sup>469</sup> [Final Statement Annex 33](#), paragraph A33.353.

in TalkTalk's example), the net effect on charges appears to be small. We therefore conclude that, for an adjustment to the DFA price of the scale indicated by TalkTalk, the size of the potential increase in aggregate charges is not a sufficient reason to reject TalkTalk's alternative approach.

- 4.199 We note that in response to the provisional determination, Ofcom said that this aspect of our assessment might represent an error of law. Ofcom said that "In setting price controls Ofcom is also under a duty to set conditions which are appropriate for the purposes of conferring the greatest possible benefits 'on the end-users of public electronic communications services'. The CMA's conclusion might be read to require Ofcom to act in a manner contrary to these duties because it would be required, in comparable situations, to ignore the consequence of consumers in relevant markets facing higher prices".<sup>470</sup> We disagree, for the reasons given above. Our analysis is specific to this case.
- 4.200 In summary, TalkTalk has shown that the reasons given by Ofcom in the Final Statement for rejecting an approach based on OCPs' costs were flawed, and that the costs and practical consequences identified by Ofcom are not sufficiently material in themselves to provide a reason to reject TalkTalk's alternative approach or its case that its suggested approach would be likely to lead to a significant increase in take-up of DFA.

### **Was a 'clearly superior' approach available to Ofcom?**

- 4.201 TalkTalk's third stated reason in its Ground of Appeal is that a clearly superior alternative approach was available to Ofcom. TalkTalk stated that, "there are clearly preferable alternatives which better promote the specific objective that Ofcom has set for itself of promoting competition in relation to services at or above 1Gbit/s and better promote Ofcom's statutory objectives".<sup>471</sup>
- 4.202 TalkTalk said, in support of this, that "for example, as set out above, the use of an average of NDRs borne by OCPs would substantially reduce competitive distortions and the failure to promote investment, innovation and the take up of DFA which is implied by Ofcom's approach".
- 4.203 TalkTalk did not, however, ask that a specific approach should be imposed by the CMA. TalkTalk "acknowledges that there may be solutions which are

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<sup>470</sup> Ofcom response to the provisional determination (TalkTalk appeal), paragraph 14.

<sup>471</sup> TalkTalk NoA, paragraph 41.

preferable to that suggested above”, and requested that the decision be remitted to Ofcom to decide.<sup>472</sup>

4.204 As discussed in Table 4.5 above, TalkTalk provided an alternative scenario in the hearing, where it provided analysis based on the assumption of a £500 NDR for OCPs being used in setting the DFA price.

4.205 Ofcom submitted in response to TalkTalk that the mere existence of a solution which might be viewed as preferable does not mean that Ofcom’s decision was wrong. Ofcom considers that the CMA should give appropriate deference to Ofcom’s exercise of expert regulatory judgement.<sup>473</sup>

4.206 As described in paragraph 4.13 above, under the legal framework, Ofcom is correct that it is not sufficient that an alternative solution is available, and that the CMA might view that solution as preferable. However, it is relevant to our decision to consider whether an alternative solution was available to Ofcom. If there were no feasible alternative to Ofcom’s approach that would be consistent with Ofcom’s objectives in introducing the DFA remedy then we would not consider Ofcom’s decision to have been wrong.

4.207 Therefore, in this appeal we have focused on the question as to whether TalkTalk has made the case, for reasons set out in the NoA, that Ofcom was wrong to adopt the NDR approach. In our overall assessment, we have then also considered whether TalkTalk has demonstrated in its NoA that an alternative approach would be available which would be consistent with Ofcom’s objectives.

## **Our overall assessment of TalkTalk’s case**

4.208 In this section, we consider whether, based on the evidence above and for the reasons stated in the NoA, Ofcom erred in making the decision to use an attribution of BT’s costs. We consider the evidence in stages:

- (a) First, we describe the background to our decision;
- (b) Second, we assess the evidence on Ofcom’s objectives for the DFA remedy, and therefore whether TalkTalk has made the case that Ofcom failed to meet its objectives;

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<sup>472</sup> TalkTalk NoA, paragraph 44.

<sup>473</sup> Ofcom Defence (TalkTalk appeal), paragraph 168.

- (c) Third, we assess Ofcom's reasons for choosing an attribution of BT's costs rather than a measure of OCPs' costs, and whether TalkTalk has shown that these were flawed; and
- (d) Finally, we consider whether an alternative approach was open to Ofcom of using OCPs' costs which would have been consistent with Ofcom's objectives in introducing the DFA remedy, and therefore whether Ofcom was wrong to use an approach based on BT's costs.

4.209 In the Final Statement, Ofcom put forward a number of reasons for imposing the DFA remedy. These were that it would promote efficiency and sustainable competition in fibre-based leased lines better than is currently possible with active remedies alone, for three main reasons. These are (i) that it would stimulate innovation; (ii) that it would eliminate duplication of equipment; and (iii) that, once competition based on passive remedies is established, Ofcom would be able to remove the regulatory burden on active products.<sup>474</sup>

4.210 Ofcom recognised that there were risks associated with a remedy that would achieve those objectives. It decided on a design of the DFA remedy which it concluded "addresses these risks by requiring BT to provide dark fibre in a manner and at a price consistent with 1Gbit/s wholesale Ethernet leased line services". The consequence of this form of pricing was that 1Gbit/s active services, and faster services which are currently priced significantly higher than 1Gbit/s services, would become contestable by OCPs using dark fibre.

4.211 The evidence indicates that much of Ofcom's analysis in designing and implementing the DFA remedy assumed that no NDR differential exists. For example, all of Ofcom's estimates of take-up were based on the assumption that there would be no NDR differential. Prior to the Final Statement, Ofcom did not address the NDR Differential in designing the DFA remedy. The evidence suggests that, in February 2016, one month before it issued the Final Statement, Ofcom became aware of the significance of the NDR Differential. In the Final Statement, Ofcom identified the risk that the NDR Differential might frustrate the design of the DFA remedy, and stated that its preferred solution was for this to be resolved by a change to the NDR rules.

4.212 Both Ofcom and TalkTalk have provided evidence that the NDR Differential exists and is material. In other words, there is a material difference in the NDRs payable by OCPs and those calculated based on the attribution methodology used by BT. It seems to be broadly accepted that the NDR

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<sup>474</sup> [Final Statement \(Volume 1\)](#), paragraph 1.35.

Differential can be expected to be significant for the foreseeable future, unless the Government changes the rating rules.

4.213 The background to this appeal is therefore that:

- (a) Ofcom designed the DFA remedy before the significant differential in NDRs became apparent.
- (b) On identifying that the NDR Differential existed and could frustrate the design of the remedy, Ofcom asked the Government to intervene.
- (c) Assuming no intervention by the Government, Ofcom rejected the option of changing the DFA remedy to take account of the significant NDR Differential.

4.214 It is the last step which is subject to appeal by TalkTalk.

4.215 We now consider TalkTalk's case that Ofcom's approach failed to meet its objectives. TalkTalk's case is that it is contrary to Ofcom's objectives to set the active-minus based on an attribution of BT's costs, since it faces NDRs for a typical circuit which are '11 to 35' times higher than the attribution. It therefore said in its NoA that there would be 'minimal' take-up of DFA. We have reviewed this analysis above. We accept that Ofcom has provided evidence that some aspects of the TalkTalk case may have overstated the effects, as there may be take-up where OCPs are able to make significant productive efficiencies. However, we agree with TalkTalk's core argument that there will be a significant adverse impact on the level of take-up of dark fibre, and therefore on the extent of the potential benefits which will be achieved from the implementation of the DFA remedy.

4.216 Ofcom considers that it is not rational to link any assumption on take-up in the context of the NDR Differential with its assumptions on take-up in the Final Statement. However, in considering this aspect of TalkTalk's appeal, we have not made any specific assumptions on the level of take-up. We have, however, considered the broad objectives in the BCMR. It is clear from the Final Statement, as stated in more detail above, that Ofcom's objectives included promoting dynamic and productive efficiency, with a particular focus on productive efficiency, and that Ofcom expected and intended that there would be a high level of take up of the DFA remedy.

4.217 Accordingly, the use of an attribution of BT's NDR costs, which are significantly below OCP's NDR costs, to the extent that the level of take-up for 1Gbit/s services would be significantly reduced, would not result in Ofcom achieving these efficiency objectives. Ofcom gave a number of reasons why it did not follow TalkTalk's alternative approach, which are discussed below.

However, most of these reasons do not relate directly to the promotion of efficiency, and therefore do not relate to the question of whether Ofcom's approach was consistent with Ofcom's objectives. Our conclusion is that Ofcom's response to the NDR Differential was not consistent with its objective to promote efficiency.

- 4.218 We agree with TalkTalk that NDRs are not resource costs, and that differences in fiscal treatment should not be given the same weight as efficiencies.
- 4.219 In summary, we agree with TalkTalk that the NDR Differential is so material that the DFA price is not consistent with Ofcom's stated objectives, in particular to increase efficiency in the provision of leased lines services through the promotion of competition based on the use of dark fibre for 1Gbit/s services. We therefore agree with TalkTalk that Ofcom's approach was not consistent with its objectives in designing the DFA remedy.
- 4.220 TalkTalk's second reason is that Ofcom's reasons for not setting the Active Differential by reference to the NDRs payable by OCPs are flawed. Ofcom has provided a number of reasons which are discussed above which are linked to the practicality or the wider consequences of TalkTalk's approach. We note that Ofcom's reasons as quoted in the TalkTalk NoA were stated on the basis of an approach to NDRs within the Active Differential which assumed that NDRs would vary with the access-seeker. We have therefore considered these reasons alongside the additional reasons set out in Ofcom's Defence.
- 4.221 Ofcom said that adjustments would need to be made to the LLCC to ensure cost recovery, and that there would also be a change to the proportions of costs recovered from different classes of leased lines customers. However, if this were necessary for the achievement of Ofcom's regulatory objectives, we would expect that Ofcom would be able to make these adjustments, as it has done in relation to the adjustments it made to the LLCC for factors such as stranded assets.
- 4.222 The adjustments that Ofcom has already made as a result of the introduction of the DFA remedy<sup>475</sup> appear to represent an example of how an adjustment could be implemented, and in combination are of a comparable scale to those which would be required under TalkTalk's alternative approach. Ofcom has not provided evidence in its Defence to indicate that there are material costs

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<sup>475</sup> [Final Statement Annex 33](#).



associated with TalkTalk's alternative approach, other than the additional NDR costs which result from incremental dark fibre take-up.

- 4.223 Our assessment is that TalkTalk has demonstrated that Ofcom's reasons in the BCMR for not setting the active differential by reference to the NDRs payable by OCPs are flawed, and that the other reasons provided by Ofcom within its Defence similarly do not demonstrate that TalkTalk's approach was not an effective alternative available to Ofcom.
- 4.224 Taken together with our assessment of TalkTalk's first reason, that the decision did not meet Ofcom's regulatory objectives, we consider that this indicates that Ofcom erred in deciding to use an attribution of BT's NDR costs. Ofcom had clearly signalled what it sought to achieve in the design of the DFA remedy. It had balanced the benefits and costs of dark fibre on the assumption of achieving efficiency objectives that would result from significant take-up at 1Gbit/s and above, and its decision in the Final Statement after it became aware of the NDR Differential did not achieve those objectives. It made this decision for reasons which we agree were flawed, and we consider that the evidence provided to this appeal does not change the conclusion that Ofcom has relied on flawed reasons in support of its decision to use an attribution of BT's NDR costs.
- 4.225 We finally consider whether this resulted in an error in the determination, based on whether an approach was available which would have met Ofcom's objectives.
- 4.226 We have considered TalkTalk's alternative approach as described in the evidence presented to this appeal. We consider that TalkTalk has demonstrated that other approaches could be implemented which would increase take-up and efficiency. TalkTalk has therefore demonstrated that an approach existed which is feasible, which would deliver improved efficiency, and would meet Ofcom's objectives in a way that the current DFA remedy fails to achieve.
- 4.227 As a result, we consider that TalkTalk has made its case that Ofcom was wrong, as it has shown that Ofcom adopted an approach which was not consistent with its stated objectives for the DFA remedy, for reasons which were flawed and that there was an alternative solution available to Ofcom, without disproportionate cost, which was consistent with Ofcom's objectives.
- 4.228 We therefore find that Ofcom was wrong to decide that, in the absence of a change to the rating rules by the Government, the NDR costs to be deducted from the price of the reference active products in deriving the price for DFA

should be based on an attribution of BT's rates costs (rather than on some other appropriate measure).

## **5. Determination**

### **CityFibre appeal**

- 5.1 Our determination on the reference question which has been referred to us by the CAT in the CityFibre appeal is that Ofcom was not wrong to set the LLCC by reference to BT's costs of replacement of its network (albeit with modern equivalent technology, specifically BT's CCA FAC), instead of the costs of an REO or MEE0.

### **TalkTalk appeal**

- 5.2 Our determination on the reference question which has been referred to us by the CAT in the TalkTalk appeal is that Ofcom was wrong to decide that, in the absence of a change to the rating rules by the Government, the NDR costs to be deducted from the price of the reference active products in deriving the price for DFA should be based on an attribution of BT's rates costs to the fibre (rather than on some other appropriate measure).

## **6. TalkTalk appeal: assessment of remedy**

### **Introduction**

- 6.1 As set out in paragraph 5.2, we have determined that, in relation to the reference question, Ofcom erred in deciding that the NDR costs to be deducted from the price of the reference active products, in deriving the price for DFA, should be based on an attribution of BT's costs to the fibre (rather than on some other appropriate measure).
- 6.2 We are therefore required, in accordance with the CAT order, to include in our determination, insofar as is reasonably practicable, guidance as to what directions (if any) the CAT should give to Ofcom on remittal.

### **Procedure**

- 6.3 On 27 February 2017, we notified the parties that we had provisionally determined that Ofcom had erred in basing the DFA price on an attribution of BT's costs to the fibre.

- 6.4 On the same date, we sent the parties a remedies letter ('the Remedies Letter'), in which we invited initial submissions as to an appropriate remedy on the basis of the provisional determination. We received the parties' responses to the Remedies Letter on 17 March 2017, having allowed all parties a four day extension to respond following a request from Ofcom.

### **Our proposed approach to remedy**

- 6.5 The Remedies Letter set out our proposed approach to implementation of the remedy.
- 6.6 Our initial view was that the CMA should not propose a specific remedy. Instead, we provisionally decided to give guidance to the CAT that, on remittal, it would be for Ofcom to consult on how the DFA price may best be set in a manner which takes into account our determination.
- 6.7 We also provisionally decided to give guidance to the CAT to direct that Ofcom's decision is not suspended pending Ofcom making a new decision.

### **Responses to the proposed remedy**

- 6.8 In this section, we summarise the parties' responses to our Remedies Letter and our assessment of the issues raised.
- 6.9 Responses to the Remedies Letter were received from CityFibre, Vodafone, BT and TalkTalk. Other respondents, including Ofcom, did not provide comments concerning remedies. The four issues that respondents referred to were:
- (a) impact on the LLCC;
  - (b) Ofcom's cost benefit analysis;
  - (c) timing of implementation of the DFA remedy; and
  - (d) whether to provide guidance to Ofcom.

### ***Impact on the LLCC***

- 6.10 CityFibre noted that a change to DFA pricing, arising from not using an attribution of BT's NDR costs, would result in BT receiving significantly lower revenues for the same level of DFA services than estimated in the modelling

by Ofcom to set the LLCC. Hence CityFibre anticipated that a reduction would be needed in the LLCC.<sup>476</sup>

- 6.11 BT stated that it is for Ofcom, rather than the CMA, to determine the extent of any adjustment required to the LLCC. BT said that the CMA determination should refer to a duty on Ofcom to ensure that any re-design of the DFA remedy does not entail a situation whereby BT is required to sell DFA at a price below its costs.<sup>477</sup>

### ***Ofcom's cost benefit analysis assessment***

- 6.12 CityFibre noted that any changes to DFA pricing would impact on pricing differentials and therefore, as take up rates would differ, it would be necessary for Ofcom to reassess its cost benefit analysis of the DFA remedy.<sup>478</sup>

### ***Timing of implementation of the DFA remedy***

- 6.13 BT noted that there was a significant risk that Ofcom's revised pricing decision for dark fibre would not be in place and effective before 1 October 2017. BT stated that the CMA should not provide guidance, and that it is for the CAT to determine this.<sup>479</sup>
- 6.14 Vodafone considered that Ofcom should not use the DFA price which the CMA has found to be wrongly determined when the regulatory period commences on 1 October 2017. It also expressed a view that Ofcom has had ample time to prepare and implement an alternative approach.<sup>480</sup>
- 6.15 TalkTalk also encouraged early implementation and said that it would not be appropriate to use a DFA price which is incorrectly determined and does not meet Ofcom's objectives.<sup>481</sup>

### ***Whether to provide guidance to Ofcom***

- 6.16 BT stated that all items relating to the redesign of the SMP remedy are issues for Ofcom. It said that the CMA should focus on its specific appeal remit only.<sup>482</sup>

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<sup>476</sup> CityFibre response to the provisional determination, paragraph 107.

<sup>477</sup> BT response to the provisional determination, pages 4–5.

<sup>478</sup> CityFibre response to the provisional determination, paragraph 108.

<sup>479</sup> BT response to the provisional determination, page 5.

<sup>480</sup> Vodafone response to the provisional determination (TalkTalk appeal), paragraph 6(a).

<sup>481</sup> TalkTalk response to provisional determination, paragraphs 5.2–5.3.

<sup>482</sup> BT response to the provisional determination, pages 4–5.

- 6.17 TalkTalk considered that, in the remittal to Ofcom, the CMA should provide advice on the matters to be taken into account, such as the need to promote productive efficiency. TalkTalk considered such guidance should also make clear that it may or may not be necessary for an upward adjustment to the LLCC to be made.<sup>483</sup>

## **Conclusion on remedy**

- 6.18 It appears to be accepted that the appropriate remedy on remittal is to require Ofcom to determine an appropriate DFA pricing methodology. Ofcom is the specialist regulator and has information and expertise to enable it to make such decisions. Further, remittal to Ofcom will provide the opportunity for consultation on its revised proposals.
- 6.19 We note that some parties have indicated that there may be risks associated with proceeding with the DFA remedy based on a price which has been found to be in error. However, it may not be feasible for Ofcom to complete the process of redesigning the DFA remedy prior to 1 October 2017, in particular given that the DFA remedy is subject to separate review in the CAT.
- 6.20 We therefore consider that it is necessary for Ofcom to review and use its reasonable endeavours to implement an amended remedy which reflects the findings of the CAT appeal as a whole, including our findings in this appeal. Based on our findings in this appeal, we do not consider it would be appropriate to suspend the DFA remedy pending the completion of Ofcom's review.
- 6.21 We have therefore decided to give the following guidance to the CAT:
- (a) that Ofcom should determine an amended DFA pricing methodology in accordance with its regulatory objectives;
  - (b) that, pending the determination of an amended DFA pricing methodology, Ofcom should not suspend the implementation of the DFA remedy; and
  - (c) that, in identifying an amended methodology for the DFA price, Ofcom should take account of our findings in this determination.

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<sup>483</sup> TalkTalk response to provisional determination, paragraph 5.4.