2015 BCMR and LLCC Consultations

Non Confidential Version

Response submitted by CityFibre Holdings Limited

7th August 2015

Contents

CityFibre’s combined response to:

Business Connectivity Market Review (BCMR) published 15th May 2015

and

Leased Line Charge Control (LLCC) published 12th June 2015

1 Introduction

1.1.1 CityFibre welcomes this opportunity to respond to the 2015 BCMR and LLCC Consultations. As stated in our letter to Ofcom of 31st July 2015, we have chosen to respond to both the BCMR and the LLCC in this combined response. We have done this as the comments we make are intrinsically linked to both consultations.

1.1.2 Our response does not follow Ofcom’s document structures and questions. However, in Annex C we provide a guide to where in our response Ofcom can find information relevant to questions posed in the two consultation documents.

1.1.3 CityFibre is also a member of the Infrastructure Investors Group (IIG) whose members include CityFibre, Virgin Media, Zayo Group and euNetworks. The IIG has submitted a combined response to the BCMR and LLCC (‘IIG Submission’), and we make reference to the IIG Submission, or sections of the IIG Submission, where appropriate.

1.1.4 [✂]

1.1.5 On 17th March 2015 we wrote to Ofcom’s BCMR team [✂]. We demonstrated a sustainable model for infrastructure competition, based on the model of a reasonably efficient operator in the upstream infrastructure market. We encouraged Ofcom to consider it appropriate to base its analysis of costs and scale economies for the BCMR & LLCC on either an REO or a modified EEO approach.

1.1.6 At a meeting held on 25th March 2015 Ofcom requested information relating to CityFibre’s current networks and the towns and cities we target for investment. We furnished this information to Ofcom on the 7th April 2015, listing UK towns and cities that are either competitive or prospectively competitive based on Ofcom’s criteria in the 2012 BCMR.

1.1.7 On the 28th April 2015, we submitted a further letter to Ofcom in which we proposed options for addressing price floors and the treatment of any resulting excess profits by BT.

1.1.8 [✂]

1.1.9 Where necessary we make references to the communications in paragraphs 1.1.4 to 1.1.8 above in this response.

2 Executive Summary

2.1 About CityFibre

2.1.1 CityFibre is an investor in and operator of wholesale fibre networks in major UK towns and cities. We design, build, operate and own passive fibre infrastructure that is deployed on a citywide basis serving the business connectivity market. Our infrastructure is used by ISPs, integrators and MNOs ("CPs"), providing fibre optic connectivity to public services, cell-sites, and businesses.

2.1.2 With networks in 61 towns and cities and significant fibre deployments being made in our Gigabit City projects, CityFibre is investing significantly in areas outside of London where BT has SMP. We are delivering the benefits of upstream competition to these towns and cities and, in infrastructure terms, making these markets competitive.

2.1.3 Our ambition is significant and our current commitments and rollout plans will bring the prospect of upstream infrastructure competition to many further towns and cities within the UK.

2.1.4 CityFibre is a member of a joint venture with Sky and TalkTalk bringing Gigabit FTTH to residents in the City of York, utilising a pure fibre network that is independent of BT Openreach. The parties have announced their intention to expand the venture to a further two cities, with an ambition for nationwide rollout if initial deployments are successful.

2.1.5 The York deployment demonstrates our model to expand from the business connectivity market to the fixed access market.

2.1.6 [✂]

2.2 Summary of fundamental problems arising from Ofcom's BCMR and LLCC proposals

2.2.1 CityFibre has carefully reviewed and considered Ofcom's analysis and proposals in the BCMR and the associated analysis and proposals in the LLCC. The points that we wish to make are fundamental in nature and we are not therefore responding to each specific question posed by Ofcom in the consultation documents. Instead we will focus on the vital issues of competition and investment.

2.2.2 The fact that CityFibre has not responded to a specific question should not be interpreted as implicit agreement. We have simply had to focus our resources and efforts on the critical policy issues relevant to infrastructure investment and competition and have not been able to address all of Ofcom's questions.

2.2.3 We outline our fundamental issues in the following overarching points.

2.3 [✂]

2.4 The BCMR is not forward looking

2.4.1 Ofcom have failed to take a forward-looking view in the BCMR & LLCC analysis. Ofcom's conclusion that there is no likely prospect of effective upstream competition in areas outside the CLA indicates that Ofcom have overlooked current and prospective investments by OCPs.

2.4.2 In concluding that CPs should build services on BT's infrastructure using DFA (as indicated by Ofcom's forecasts on cannibalisation), Ofcom demonstrate that:

- They have not undertaken qualitative analysis of the infrastructure needs of the market and the investment required to obtain fit-for-purpose digital networks.
- The benefits of upstream competition on market innovation and the spill-over benefits to other markets have been ignored.
- The deployment of open access wholesale infrastructures by OCPs is not acknowledged; in particular, the arbitrary criterion that a competitive market requires BT + 5 OCPs overlooks competitive open access wholesale provision.
- In setting a DFA product pricing using a benchmark of 1 Gbit/s EAD, Ofcom have failed to take into consideration the substantial growth and value in connectivity > 1Gbit/s.

2.5 Ofcom are wrong to base their analysis solely on BT's scale economies

2.5.1 The market is demonstrating that it is becoming competitive, with a number of OCPs active in the upstream market.

2.5.2 Ofcom have failed to take into consideration the costs and economies associated with smaller scale reasonably efficient OCPs building competitive upstream access infrastructure, and have instead based their analysis solely on the cost and scale economies of BT's dominant position. We believe this is a fundamental error [✂] and ignores real market developments.

2.5.3 [✂]

2.5.4 By adopting this approach, Ofcom are tipping the build or buy decision firmly in the direction of buy, and in doing so, will be regulating towards a monopoly of access infrastructure by BT. [✂]

2.5.5 [✂]

2.6 [✂]

2.7 Ofcom's proposals are not based on objective market data

2.7.1 In our opinion, Ofcom have not undertaken sufficient analysis to understand the costs of infrastructure deployment by OCPs and the pricing for dark fibre access in the competitive market.

2.7.2 Considering that the competitive market in the CLA hosts a number of competing dark fibre providers, it would be appropriate to conclude that dark fibre pricing of OCPs is based on reasonably incurred costs. By proposing to set regulated DFA pricing at a level of up to 80% less than dark fibre prices in the competitive market, it would appear that Ofcom has either not properly understood the current competitive market [and] the costs associated with building access network infrastructure [✂].

2.7.3 We note that Ofcom have only recently issued section 135 notices to CPs to collect such cost data, after making their proposals in the BCMR. This suggests that Ofcom did not undertake basic analysis before making their proposals, which would constitute a fundamental error, demonstrating that Ofcom's proposals are not based on objective market data.

2.8 *<u>Ofcom's proposals would substantially harm competition in the CLA</u>*

2.8.1 Ofcom set out in their analysis that the proposed CLA is competitive and, therefore, SMP conditions would not be imposed in the CLA. However, history informs us that BT is likely to offer its regulated products and prices in the CLA, as it has done with its portfolio of regulated active products in WECLA.

2.8.2 We believe that mandating disproportionately low DFA prices outside the CLA would have material adverse impact on the adjacent, competitive market. [✄]

2.8.3 It would be ironic if Ofcom's proposals, that acknowledge a healthy competitive market with one hand, materially harm the competitive market with the other.

2.8.4 Analysis to support these arguments is provided in the IIG Submission.

2.9 *<u>[✄]</u>*

2.10 *<u>[✄]</u>*

2.11 *<u>Ofcom have not presented a clear and compelling case for the introduction of the DFA remedy</u>*

2.11.1 CityFibre supports the development of a vibrant competitive market for network services across the UK, including the provision of dark fibre services. CityFibre does not see the need for the imposition of the DFA remedy as it is clear that a competitive dark fibre market has developed in the Central London Area and is developing in several other parts of the UK.

2.11.2 Reviewing Ofcom's justification for the imposition of the DFA remedy, it is striking that there is no separate justification for the DFA remedy in addition to the active remedies. In fact, the exact same market problems are used to justify both active and passive remedies with no discussion of which market problem is addressed by which proposed remedy.

2.11.3 Given the level of harm that would result from the proposed DFA remedy, CityFibre finds this lack of justification to be a serious failing in the BCMR – one that Ofcom must rectify before it could proceed with the proposed DFA remedy.

2.12 *<u>The DFA remedy should be divorced from the BCMR & LLCC process</u>*

2.12.1 Given our view that the market for access infrastructure is becoming competitive through current and planned investments of OCPs, we do not feel that mandating DFA is justified.

2.12.2 Irrespective of this opinion, we strongly urge Ofcom to divorce the proposal of the DFA remedy from the BCMR for active leased lines. This would allow for the remedy to be better considered on the basis of clear and objective market data, and, furthermore, in the context of a broader review of regulation and of passive infrastructure. In particular:

- **The DCR**, which is an overarching review of the sector's structure and regulation with a view encourage investment, improve competition and seek opportunities for de-regulation. We believe the BCMR & LLCC proposals are contrary to the objectives of the DCR.

- **The Civil Infrastructure Directive**, which is still in the process of being transposed and Government has not yet commenced stakeholder consultation. Therefore, its implications for BT and OCPs are not yet fully quantified.

- **The Digital Communications Infrastructure Strategy**, which set outs Governments ambitions for the UK's digital infrastructure and seeks significant private sector investment in passive access infrastructure.

2.13 *The DFA remedy, if imposed, should not be based on a 1Gbit/s benchmark*

2.13.1 In order to achieve benefits from increased innovation [✂] Ofcom must abandon the active minus approach with the 1Gbit/s benchmark.

2.13.2 Instead, we strongly urge Ofcom to analyse in more detail the advantages of using a cost based approach of either:

1. The Reasonably Efficient Operator principle to set the relevant cost base; or
2. Pricing based on a benchmark of the competitive price level in the competitive market for dark fibre services in Central London.

2.13.3 Whilst we believe that Ofcom is wrong to link DFA to an active service, should Ofcom proceed with a DFA remedy using an 'active minus' approach then Ofcom should consider basing this on BT's active 10Gbit/s products.

2.13.4 If Ofcom proceeds with a DFA remedy, Ofcom must consider appropriate terms for contract length to ensure that upstream providers of dark fibre can compete on fair terms. It is typical for fibre investment to be recovered over multiple year contracts, so a minimum term criterion for DFA should be introduced.

2.14 *Ofcom should replace the CPI-X on active products with a safeguard cap of CPI-CPI*

2.14.1 The aggressive reductions proposed through the one-off reduction of 9% and then three annual reductions of CPI-13.75% are based entirely on BT's scale economies. As this scale is not achievable in a multi-provider competitive market, it should not be used [✂].

2.14.2 We demonstrate that BT's network is not more efficient than those being constructed by CityFibre; networks which offer significant additional benefits in terms of design and capacity.

2.14.3 A safety-cap of CPI-CPI would retain investment incentives to create future-proof efficient networks to support the UK economy in the future. The proposed charge control would put the UK further back in terms of fit-for-purpose infrastructure to support the needs of the information age.

2.15 *Ofcom's formal duties as set out in the 2003 Communications Act.*

2.15.1 CityFibre's analysis of Ofcom's duties and powers under the 2003 Communications Act suggests that Ofcom have acted outside its powers and not observed its specific duties.

CityFibre is surprised at the lack of adherence to these duties and recommends that Ofcom reconsider their proposals in the light of the analysis presented.

3 Impact Analysis

[✂]

4 Ofcom's Market Definitions

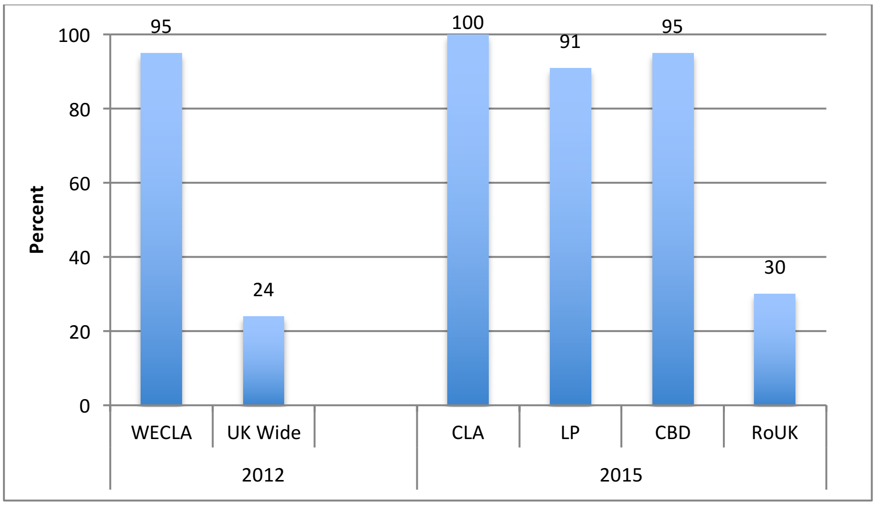
4.1.1 We believe that Ofcom have made significant errors in their market analysis, both regarding geographic market definitions and products market definitions.

4.2 *Geographic markets*

4.2.1 Ofcom provide a substantial amount of data and analysis relating to the level of competition in different geographical locations in the UK (outside Hull). Unfortunately, having decided to redefine the boundaries of geographic markets, Ofcom do not provide the data and analyses by the existing market definitions. This makes a comparison complicated.

4.2.2 We have however attempted such a comparison in the submission prepared for the IIG, of which CityFibre is a member. Below is the comparison table we have created:

Percentage of area covered by at least 2 OCPs within 200m of Business Sites



Source, Ofcom data and IIG analysis August 2015

4.2.3 It seems clear to us that there has been a substantial increase in the percentage of the country which complies with Ofcom's criteria for defining a separate geographic markets in the 2012/13 BCMR (the presence of BT and at least 2 OCPs within 200 metres of the business premises).

4.2.4 Despite this being the case, Ofcom have decided to change the criteria for determining a separate geographic market from the presence of BT and at least ***2 OCPs within 200 metres of business premises*** to the presence of BT and at least ***5 OCPs within 100 metres of business premises***. Ofcom have thus not only more than doubled the number of OCPs that need to be present, but have also halved the distance these OCPs can be from the vast majority of business premises in order for the area to qualify as a separate geographic market.

4.2.5 Ofcom provide no justification for this change, nor can CityFibre find any precedents of these criteria being used. The IIG Submission details how Ofcom, in introducing these criteria, not only contradict their own previous analyses but also the conclusions of academic studies and empirical analyses as well as recommendations by the EC.

4.2.6 For illustrative purposes, CityFibre has undertaken an analysis of the approximate unit price impact that would result from an REO costing approach if the market were to be evenly split between 6 providers (BT + 5 OCPs). Using the CityFibre model and assuming a 16.67% market share, the cost-based price for active circuits would be circa 84% above BT's price at the end of the forthcoming charge control period (assuming Ofcom's proposed CPI-X%).

4.2.7 We have also considered the impact of reduced market share on BT's current active circuit prices. If BT's current market share were reduced to around one sixth to reflect the BT + 5 OCPs scenario (i.e. around a quarter of the current share) across the existing AISBO and MISBO markets, the unit costs would be increased by circa 220%.

4.2.8 Therefore, as can be seen from this analysis, it is difficult to understand how Ofcom's proposed criterion of BT + 5 OCPs could be considered either efficient or appropriate, especially in areas outside of the CLA where business density can be expected to be lower.

4.2.9 Furthermore, Ofcom's new criteria result in a reduction in the size of the market previously determined by Ofcom as effectively competitive (the West, East, and Central London Area (WECLA) market) to now only covering the smaller CLA. Further they ignore increases in competitive intensity in many other parts of the country, particularly in Central Business Districts (CBDs), where OCPs are building competing infrastructures. It is a well-known fact that there is a lag between the investment and the resulting change in market shares. It is therefore highly likely that, with investments already made, the level of competition observed by Ofcom is understating the actual presence of competing infrastructure and thus alternatives available to businesses in these areas.

4.2.10 Based on these criteria, Ofcom conclude that there is no prospect of effective upstream competition outside the CLA[3]. CityFibre refers Ofcom to the IIG Submission which provides more analysis of this issue. CityFibre considers Ofcom's conclusions to be fundamentally wrong, founded on an unreasonable and unprecedented criteria and significantly detrimental to investment in local access infrastructure by OCPs.

4.2.11 CityFibre urges Ofcom to recognise where OCPs, including CityFibre, are making substantial investments in competing access infrastructure and to observe extreme caution when designing remedies in markets where this is happening. The IIG Submission presents strong evidence of the benefits from upstream competition, these benefits are being offered to the UK through efficient investment in competing access infrastructures, [✂].

4.3 Product markets

[3] 2015 BCMR: para 9.50-9.52

4.3.1 Ofcom propose to combine the existing AISBO and MISBO markets into a single CISBO market. The primary rationale for this change in market definition is that, in using the chain of substitution approach, there is substitution between each leased line product and that either just below and/or just above it in terms of speed. Ofcom state that whilst in the last BCMR there was a clean break at 1Gbit/s this break cannot be observed as clearly in the current BCMR.

4.3.2 Whilst this in principle may be true, this is only one dimension of the market characteristics. Another critical component is the level of competition and whether this is homogeneous across the whole set of products.

4.3.3 In this respect Ofcom contend that although there is clearly stronger competition for high speed leased lines, OCPs could in principle provide connectivity to supply low speed leased lines but chose to not do so because BT sets higher mark-ups on higher speed services. Ofcom conclude that therefore the reason for differences in competitive intensity is BT's pricing approach, rather than OCPs inability to provide low speed leased lines.

4.3.4 Despite the evidence that there is a significant difference in the competitive intensity between low and high speed leased lines, Ofcom use the above contention and the lack of a clear break in the chain of substitution to argue that all speeds should be in the same market.

4.3.5 CityFibre considers Ofcom's analysis superficial and potentially self-serving (as a single CISBO market facilitates the introduction of the DFA remedy). The substantial difference in competitive intensity cannot be dismissed and provides a strong rationale for retaining the two separate markets.

4.3.6 CityFibre therefore urges Ofcom to reconsider this decision and re-establish the AISBO and MISBO markets. In this context, Ofcom should consider whether the 1Gbit/s circuits should move to the MISBO market, given that the competitive levels for 1Gbit/s appears to be more similar to what is observed in the higher speed products than the lower speed products.

4.4 Results of errors in market definitions

4.4.1 The errors pointed out above result in Ofcom proposing aggressive regulatory remedies that are not based on proven market failures.

- Large parts of the UK, which should be categorised as competitive, or at the very least prospectively competitive, are subject to aggressive remedies, and
- Very high speed leased lines products are regulated when the facts clearly show a high level of competition and relatively modest market shares for BT.

5 Ofcom's SMP Analysis

5.1.1 CityFibre can find no evidence that Ofcom has undertaken a genuinely forward-looking analysis. For example, sections 4.4.3 and 4.4.4 of the BCMR consultation limit their assessment to current and past BT market shares and to the presence of alternative providers - they do not provide any perspective on the likely development over the period of the charge control.

5.1.2 Despite this, Ofcom proceed in sections 4.176-177 to declare that based on the analysis undertaken they find that BT has SMP and that BT *"will retain a strong position over the period of the review".* CityFibre cannot find analysis in the consultation document to support this statement.

5.1.3 As a minimum, CityFibre would expect Ofcom to present a view of the likely future developments in each of the relevant markets defined. This analysis should include discussions of how the SMP framework set out in Annex 13 of the BCMR is applied to each relevant market.

5.1.4 For example, in section 4.167 of the BCMR Ofcom states: *"There is insufficient rival infrastructure to provide for effective competition. As the table in paragraph 4.2.2 shows, measures of network reach are broadly similar to the LP. Average network reach tends to be a little higher, whilst the "depth of network reach" is somewhat lower".* This statement has no reference whatsoever to what is likely to happen during the review period – it is based entirely on the status of competition more than a year before the commencement of the review period.

5.1.5 Similarly, where Ofcom discusses the levels of market shares that BT has in each of the relevant markets, there is no reference to future development. As previously mentioned, it is a well-known fact that there is a time-lag between the building of competing infrastructure and resulting changes in market shares. CityFibre would expect Ofcom to take such parameters into account.

5.1.6 Another important aspect of determining market power is the level of change to market shares over the preceding period. If there has been a significant movement in market shares, then this may signify that there is emerging competition and it would be wrong to impose strong regulatory constraints in such market conditions. Ofcom have not presented any such analysis in the BCMR document and the accompanying annexes.

5.1.7 As Ofcom have redefined the proposed relevant markets, it does not present comparable data for the current market definitions. CityFibre considers this to be an oversight which makes it very difficult for third parties to understand the extent of competition dynamics in the market overall and in each individual relevant market as is today.

5.1.8 Throughout both consultation documents CityFibre is deeply concerned at the lack of forward-looking analysis. It is striking that in a document that *should* present a forward-looking analysis that considers the emergence of prospective competition, the word 'prospective' appears only twice in the entire BCMR document.

5.1.9 In addition to the lack of transparent SMP analysis, CityFibre is struck by the way Ofcom's new (and arbitrary) criteria for defining separate geographic markets have in effect been used to determine SMP.

5.1.10 It appears that Ofcom use the requirement of BT + 5 OCPs within 100 meters of business premises to effectively determine where subsets of the RoUK market are competitive and therefore justify the creation of separate geographic markets. These criteria are not formally used to determine SMP, but it seems clear that this is in effect what they do.

5.1.11 CityFibre does not recognise Ofcom's new criteria for determining separate geographic markets as valid for that purpose, nor for the determination of SMP.

6 Ofcom's Proposals for Active Remedies

6.1.1 Ofcom propose a charge control on a number of baskets of services. In this response we only address the proposals for the proposed CISBO market.

6.2 Selecting the appropriate cost base

6.2.1 Ofcom proposes a charge control of CPI-13.75% on virtually all CISBO products outside the CLA. This has been calculated in order to reduce BT's return on these products to the proposed WACC, assuming an efficiency improvement year-on-year of approximately 5%.

6.2.2 All of Ofcom's analyses, however, use BT's costing information. This is despite the fact that Ofcom is very well aware of the significant economies of scale in the operation of fixed telecommunications networks. Ofcom's own AVE and CVE data from the 2012/13 BCMR and LLCC consultations indicate clearly the significance of the scale economies relevant to BT's provision of business connectivity services[4].

6.2.3 In order to meet its duty to encourage sustainable competition, we believe Ofcom must reconsider its approach to the proposed price controls. This section provides arguments to why that is the case and suggests an approach that would be more consistent with Ofcom's aims.

6.3 Background

6.3.1 The choice of cost base to be used in determining the charge control for active leased lines is an important issue, which is not given sufficient consideration in the BCMR & LLCC consultation. Ofcom assume that the FAC CCA cost base of BT (with some starting adjustments) is an appropriate target, and they define the CPI-X% control to define a glide path to those costs at the end of the charge control period. However, there are strong reasons why this approach is not appropriate for a regulatory approach which is intended to encourage dynamic efficiency and infrastructure competition.

6.3.2 Firstly, new all-fibre high-penetration networks are designed differently to BT's legacy network and so the costs of constructing these networks will differ from BT's historical costs. The use of CCA adjustments is unlikely to be sufficient to reflect the differences in cost structure and CityFibre therefore believes that the cost base used for price regulation of business connectivity products should take account of these network topology differences.

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[4] LLCC 2012 Annexes: Table A5.12, page 39

6.3.3 Secondly, BT's scale is not replicable by CPs without considerable investment in new infrastructure; [✂]. The investment being undertaken is not a simple replication of BT's infrastructure; it is a different type of network which is designed to deliver high-penetration ultra-fast services to business and residential users alike. It is therefore justifiable to avoid prices being regulated down to BT's current cost base, in order to secure these future-proof networks for the UK.

6.3.4 CityFibre believes that the most appropriate method to derive a suitable cost base for regulation of BT's prices is to define the principle of *reasonable costs*, which would be costs calculated either using a Modified Equally Efficient Operator (MEEO) approach or a Reasonably Efficient Operator (REO) approach. This would allow for adjustments to the cost base to be made for different network topologies and different scale effects, as well as any other relevant factors that may be identified through more detailed analysis.

6.3.5 The use of costing approaches to determine wholesale product pricing which ensure the feasibility of market entry at different points on the investment ladder is widely established. For example, the Irish regulator ComReg in its approach to the wholesale leased line market[5] highlights the non-eviction principle and the application of an appropriate economic space. The European Regulators Group (ERG), in its Common Position papers,[6,7] supports the concept of an appropriate economic space between wholesale products. ARCEP, in its leased lines market analysis,[8,9] sets out an approach regarding the application of the non-eviction principle, which ensures that wholesale tariffs set by France Telecom do not evict operators that have deployed their own infrastructure.

6.3.6 We also note the European Commission Decision in 2007 from Case COMP/38.7841034 relating to a proceeding under Article 82 of the EC Treaty where it notes that:

'It is therefore necessary that there should not be any margin squeeze in relation to any "step" of the ladder, i.e. in relation to any wholesale product. If there was such a margin squeeze, new entrants that are climbing the ladder of investment, would be foreclosed. … All national regulatory authorities agree that the process of climbing the ladder of investment can only be effective if there is a margin between all the steps of the ladder'

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5 ComReg: A final decision further specifying the price control obligation in the market for wholesale terminating segments of leased lines. Document 12/03 Decision D02/12 2 February 2012

6 Report on ERG best practices on regulation regimes in wholesale unbundled access and bit stream access: ERG (07) 53 WLA WBA BP final 080604

7 Report on price consistency in upstream broadband markets June 2009: ERG (09) 21

8 ARCEP: Décision n° 06-0592 de l'Autorité de régulation des communications électroniques et des postes en date du 26 septembre 2006 portant sur la définition des marchés pertinents des services de capacité, la désignation d'opérateurs exerçant une influence significative sur ces marchés et les obligations imposées à ce titre

9 ARCEP: Décision portant sur la définition des marchés pertinents des services de capacité, la désignation d'opérateurs exerçant une influence significative sur ces marchés et les obligations imposées à ce titre Décision n° 2010-0402 en date du 8 avril 2010

6.3.7 ComReg further note that:

*"The imposition of a **price floor** for WLLs should encourage OAOs onto the ladder of investment and encourage infrastructure investment while promoting sustainable competition in the retail market, based on the pricing mechanism established in this decision. This should also meet ComReg's regulatory objective to encourage infrastructure based competition, under Section 12 of the Act."*

6.3.8 The ERG states that:

"NRAs may want to pay attention to the relative prices of wholesale services on the value chain if their ultimate aim is to promote efficient investment in infrastructure (to the deepest level possible)."[10]

6.3.9 ERG also states, in the context of dealing with potential foreclosure and pricing:

"Furthermore, still according to this Common Position, NRAs must ensure that investment incentives are such that alternative operators are able to replicate the incumbent's infrastructure where this is technically possible and economically feasible."[11]

6.3.10 The EC's European Access Directive states:

"The imposition by national regulatory authorities of mandated access that increases competition in the short-term should not reduce incentives for competitors to invest in alternative facilities that will secure more competition in the long-term."

6.3.11 Ofcom's own analysis concerning superfast broadband services in its statement on the approach to the VULA margin[12] resulted in the use of a modified EEO approach to assessing costs, whereby BT's costs were adjusted to compensate for advantages they may have.

6.3.12 These references indicate a consensus among European regulators that in setting the prices for wholesale products, close attention should be paid to ensure adequate economic space between the different stages on the investment ladder. Ofcom's approach fails to achieve this in the following ways:

- It uses BT's cost base, without any adjustment for the economies of scale that a new entrant might achieve, and this results in active price reductions which undermine infrastructure-based operators at either the active or passive levels of the value chain;

- It does not recognise the benefits of modern network architecture, which may cost more than BT's CCA costs in the short term, but lead to more efficient outcomes in the longer term; and

- There is no provision for price floors on BT's active prices, which gives potential for BT to manipulate prices to undermine emerging competitors.

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[10] Page 2: Report on price consistency in upstream broadband markets June 2009: ERG (09) 21
[11] Page 4: Report on price consistency in upstream broadband markets June 2009: ERG (09) 21
[12] Ofcom Statement: Fixed Access Market Reviews: Approach to the VULA margin 19th March 2015, para 5.54

6.4 *Efficiency of the CP business model*

6.4.1 It is clearly important that short-term regulatory action by Ofcom over the period of the next charge control takes full account of the need to encourage investment by new and existing CPs, leading to greater competition and higher efficiency in the longer term. In this context, it should be noted that CP business models may show higher efficiency than BT to deliver business connectivity services, if they were able to achieve similar market share.

6.4.2 We have run a sensitivity on the CityFibre business model to show the prices that could be delivered, while maintaining acceptable investor returns, if CityFibre's market share in a town were broadly equivalent to that of BT's current share in RoUK. In Table 6.4.3the cost-based prices of CityFibre active circuits at the end of the forthcoming charge control period are compared with BT prices after the proposed CPI-X% control. The CityFibre prices exclude any erosion due to the proposed charge control.

6.4.3 Table: Impact of market share on REO active unit price:

Impact of market share on unit prices	CityFibre Base Case (30% market share after 10 years)	CityFibre Scenario (60% market share after 10 years)
CityFibre prices in 2019 compared to expected BT price at end of charge control (2019)	[✂] % higher	[✂] % lower

6.4.4 On the assumption that Ofcom's modelling of the LLCC delivers a cost-reflective price from BT by the end of the forthcoming charge control period, it is clear from this analysis that CityFibre's business model is more efficient than that of BT in delivering a high penetration of business connectivity services.

6.4.5 It should also be noted that the analysis does not take into account that BT's economies of scale are also driven by its market share in other markets such as broadband and PSTN. CityFibre's network will allow services such as residential and business broadband and telephony; if these were factored into the model, as they are in BT's case, then the unit prices could be improved further.

6.4.6 We note Ofcom's statement in the LLCC consultation that: *"where competition leads to inefficient duplication of investment, it can reduce economic efficiency. We consider that it is appropriate to promote and safeguard competition on its merits. By basing BT's regulated charges on the basis of BT's own costs of provision, we encourage competition to arise where other operators are more efficient than BT in providing those services. This is consistent with competition on its merits."* [13]

6.4.7 However, as our analysis demonstrates, more efficient network infrastructure may appear to be more costly than less efficient infrastructure due to differences in economies of scale. Basing the CISBO charge controls on BT's own costs of provision without adjusting for economies of scale clearly does not encourage more efficient infrastructure competition to arise, and is definitely not consistent with competition on its merits.

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[13] 2015 LLCC: para 4.27

6.4.8 We further note that Ofcom state: *"we recognise that competition that may seem to be inefficient in the short term can give rise to improvements in economic efficiency in the longer term. In such cases, there may be an argument to depart from setting charges solely on the basis of the regulated firm's charges. For example, it may be appropriate to make an adjustment to reflect economies of scale advantages that are enjoyed by the regulated firm."* [14]

6.4.9 As Ofcom recognise that economies of scale adjustments are appropriate in cases where the regulated firm enjoys advantages in this area, it is difficult to understand why Ofcom have not applied such an adjustment to the active CPI-X% cost analysis. It is clear that such an adjustment should be applied in order to recognise and promote efficient competition which is inhibited only by the incumbent advantage enjoyed by BT.

6.4.10 The key point here is that a new fibre infrastructure designed to deliver high penetration will ultimately give greater efficiency, as well as being suitable for widespread deployment of ultrafast broadband services to the wider market. The widespread availability of such networks in the future would provide competitive pressure on BT to improve the quality of its own offering, leading to greater levels of efficiency in the market as a whole.

6.5 *Proposed price control for CISBO market*

6.5.1 The approach taken by Ofcom to the CPI-X% regulation of BT's active products will lead to significant short term price erosion [✂]. This approach would result in transfer of market share back to BT (as discussed in Section 3), [✂] and result in monopoly network infrastructure which, while low cost in the short term, will not deliver long term efficiency.

6.5.2 Our analysis indicates that the prices of BT's Ethernet connectivity products are currently at a level which allows CPs such as CityFibre to invest in alternative infrastructure and to offer services in the short term which compete with BT. We believe that prices should be maintained at this level, allowing continued economic space to encourage wholesale market entry at all levels of the value chain. A safeguard price cap of CPI-CPI on the CISBO market would appear to be appropriate to achieve this.

6.5.3 We note that if, as suggested in Section 4.3.6, Ofcom were to separate the CISBO market into AISBO and MISBO, with the 1Gbit/s and higher Ethernet products in the MISBO market, then we believe that Ofcom could consider applying a CPI-X% charge control on the AISBO market, and a safeguard cap of CPI-CPI on the MISBO market.

6.6 *Price floors are needed*

6.6.1 We also believe that it is necessary to define a price floor for BT's active products, in order to maintain economic space to allow infrastructure competition to develop, and to provide a degree of protection against opportunities BT may have to price tactically and hence undermine CPs.

6.6.2 In the LLCC consultation[15], Ofcom dismiss CityFibre's proposals for price floors on two grounds. Firstly, that BT's costs are not likely to be anti-competitive by being below DLRIC.

[14] 2015 LLCC: para 4.28
[15] 2015 LLCC: para 5.19

There is substantial international precedent for the use of REO costs as a determinant of anti-competitive pricing, but we are not aware of any such precedent for the use of DLRIC of incumbent costs in this regard. As there is no reason to suppose that incumbent DLRIC costs are similar to REO costs, we believe that Ofcom's conclusion on this aspect is flawed.

6.6.3 Secondly, Ofcom consider that price floors would reduce productive and allocative efficiency, and state that it is "not clear" whether they would result in better outcomes for leased line customers in the long run. We believe that Ofcom would be acting irresponsibly if they introduce remedies which foreclose the development of infrastructure which could lead to substantial benefits in dynamic efficiency and hence to end customers in the longer term without conducting substantial analysis to assess the matter. "Not clear" is simply not good enough.

6.6.4 Given the need to encourage the development of modern networks using the most appropriate topologies and with high fibre counts, we believe that a Reasonably Efficient Operator (REO) approach would be most appropriate to set the price floors. This should be based on a forward-looking bottom-up model, calculating the prices that would be needed to provide a reasonable return to investors and assuming that each operator is able to achieve a substantial but non-dominant market share. Our analysis suggests that such a model would imply a price floor of around 10-15% below BT's current active prices.

6.7 <u>Market development in the long term</u>

6.7.1 We note that such an approach to the LLCC could result in BT making substantial profits over its FAC CCA costs in the short term. However, as competition develops and is increasingly able to challenge BT's offering, BT will not only be incentivised to invest in modern network infrastructure, it will also lose market share. This will tend to drive BT's unit costs to eventual convergence with those of the infrastructure OCPs, resulting in a competitive market and remove or at least reduce the need for regulation.

6.7.2 As suggested in our letter of 28th April 2015, we recognise that if price floors were established for active/passive connectivity products, based on reasonable costs of an efficient new entrant operator, then it is clear that BT could continue to make substantial accounting profits on delivering those services over the period of the change control. In order to address concerns that BT may use such profits to cross-subsidise services in other competitive markets, CityFibre suggests that Ofcom may wish to consider measures to encourage BT to deploy its profits in this area towards improving and extending fibre infrastructure networks in the UK. This would give further benefits to the introduction of price floors, as the fibre infrastructure footprint would be extended by BT as well as by new entrant investment.

6.7.3 There would clearly be difficulties in establishing a direct and quantitative linkage between profits from BT's existing fibre connectivity portfolio and investment in fibre infrastructure; such an approach could also be seen as interventionist, difficult to monitor and enforce, and as increasing the level and complexity of regulation. However, CityFibre suggests that Ofcom might consider adopting an approach whereby BT agrees to provide a minimum level of incremental FTTP/H investment, with the level determined by an ex ante assessment of the projected profitability of the wholesale connectivity portfolio over the charge control period Such investment by BT should be beyond the planned "business as usual" investments, and in areas where the risks to the investment case may be high in the short term, and returns made in the medium to long term. It would be seen as a way to kick-start the deployment of FTTP/H infrastructure and allow the UK to catch up with countries that are considerably more advanced in this area. It would be expected that BT would collaborate with Ofcom, providing a proposed plan for such investments, with supporting information to justify that the investments fall within criteria defined by Ofcom. Ofcom would then approve the approach, or agree a modified approach, and ensure that the agreed plan is implemented as a part of the regulatory framework.

6.7.4 CityFibre suggest that, while such an approach may be outside the scope of remedies currently applied by Ofcom, it would offer substantial benefits to market players and end-consumers:

- Increased infrastructure investment leading to accelerated rollout of ultrafast FTTP services to businesses and consumers;
- Nurturing the development of new entrant players, leading to a multi-operator infrastructure market with healthy competition;
- Price stability for wholesale products for a defined period, allowing the market to develop in a controlled and stable manner and giving investor confidence over the medium term.

6.8 Approach to discounts

6.8.1 CityFibre is concerned that discounts could be used to give BT competitive advantage against infrastructure OCPs competing in the upstream market. We urge Ofcom to consider the regulation for price discounts carefully to ensure that cannot be used anti-competitively.

6.8.2 Geographic discounts

6.8.3 CityFibre understands that Ofcom may find prohibiting BT from offering geographically bounded discounts too intrusive, but it is critical that, if such discounts are allowed, they are tested not only for undue discrimination against individual or classes of downstream customers of the relevant services, but also that BT's upstream infrastructure competitors are protected against potential predation.

6.8.4 Although some geographic areas (in particular CBDs) display characteristics different from those in the RoUK area, it should also be recognised that those are the areas where the highest number of OCPs are present, many with competing infrastructures. Therefore, although the density of businesses in some areas may be substantially higher than in others, these businesses are served by a larger number of providers. This reduces the scale economies effect and thus would also reduce the level to which BT could potentially reduce its prices. CityFibre would expect that a predation test for a geographic discount should be undertaken using the specific costs of services that specific geographic area.

6.8.5 Volume discounts

6.8.6 In addition to any tests to determine whether a volume discount is discriminatory (addressed at downstream users of BT's services) volume discounts should also be tested against predation of BT's upstream infrastructure competitors.

6.8.7 *Term discounts*

6.8.8 In addition to any tests to determine whether a term discount is discriminatory (addressed at downstream users of BT's services) term discounts should also be tested against predation of BT's upstream infrastructure competitors.

6.9 *Ofcom's proposed CPI-X charge control for active services*

6.9.1 CityFibre does not present analysis of this part of the consultations, [✂].

6.9.2 That CityFibre has not [presented analysis of this part of the consultation] should in no way be interpreted as meaning that CityFibre agrees with Ofcom's proposals. The impact section of this response (in section 3) shows the hugely detrimental effect the proposed CPI-X charge control [✂].

6.9.3 We have demonstrated in this response that our business model is at least as efficient as BT's current network, given similar market share assumptions, and it is clear that if Ofcom implement the proposed CPI-X proposals then they will [✂].

6.9.4 A safety-cap of CPI-CPI would retain investment incentives to create future-proof efficient networks to support the UK economy in the future. The proposed charge control would put the UK further back in terms of fit-for-purpose infrastructure to support the needs of the information age.

7 Ofcom's Proposals for Passive Remedies

7.1.1 [✂].

7.2 Ofcom do not present a strong and convincing case for mandating DFA

7.2.1 Ofcom's proposal to impose a dark fibre remedy is set out in sections 7.76 – 81 of the BCMR consultation. This proposal follows a discussion of the risks and benefits of introducing a dark fibre remedy which are further elaborated in Annex 24 to the consultation.

7.2.2 Following the trail of references in the BCMR consultation from section 9, which sets out the specific DFA proposals, to section 4, where Ofcom conduct the SMP analysis of the wholesale CICBO market, CityFibre has attempted to identify which market failure Ofcom seek to rectify by the introduction of the DFA remedy. The market failures are listed in sections 7.11-13, but none of these appear to require the imposition of the DFA remedy. The one possible competition problem that the DFA could be considered to address would be the concern about BT's Quality of Service. That concern would, however, evidently be better addressed through the existence of competing network infrastructures which could differentiate on all aspects of the services, including Quality of Service in ways not possible if the CP depends on access to BT's infrastructure.

7.2.3 Further, it appears unusual that Ofcom use the same range of competition problems (market failures) to justify both the active and passive remedies contained in the current proposals without clearly defining which remedy address each specific market failure.

7.2.4 In any case, it is CityFibre's strong view that the imposition of the DFA remedy is not proportionate to any relevant market failure identified by Ofcom, when considered together with the imposition of the active remedies. The incremental benefits are unlikely to outweigh the substantial harm that would result from the proposed remedy. Ofcom do not attempt to quantify or even analyse such harm, being of the belief that the proposed pricing approach will reduce the harm to a level not to be concerned about.

7.2.5 As presented earlier in this response, CityFibre considers that Ofcom have severely underestimated the impact of existing and prospective competition from OCP networks outside the CLA and that Ofcom is proposing to impose the DFA remedy in geographic markets where there is already effective competition or where such competition is likely to emerge during the period of the review. Ofcom's arbitrary market definition criteria will cause the imposition of the DFA remedy where existing and planned OCP networks already offer dark fibre services in a commercial market that is likely to develop substantially over the period of the review (in the absence of the proposed remedies). [✂].

7.2.6 In addition to underestimating the harm that would result from the proposed DFA remedy, Ofcom also overestimate the likely benefits. In particular, Ofcom assume that the DFA remedy will cannibalise the 1Gbit/s services and above by 50% in its first year and by 100% in its second year[16], but we cannot see how these assumptions are consistent with the Ofcom's proposed pricing.

[16] 2015 LLCC: para 6.83.

7.2.7 In section 8.16 of the LLCC, Ofcom reasons that *"Moreover, we would expect to see dark fibre used where it offers additional benefits, such as innovation, beyond those using active products alone. This would be achieved by a pricing differential based on LRIC. Increasing the differential beyond this amount may lead to dark fibre being used in situations where it does not offer additional innovation benefits and instead is used because of arbitrage between the active and dark fibre products".* This wording suggests that for 1Gbit/s products the DFA remedy would only be attractive if the CP were to add value to the final product through innovation and is entirely incompatible with the assumption of 100% cannibalisation of all active products at and above 1Gbit/s in year two of the DFA product.

7.2.8 Further, in Section 8.190 of the BCMR, Ofcom state "*We expect the dark fibre remedy will be used mainly to provide very high CISBO services"* This further conflicts with Ofcom's assumption of the very high levels of cannibalisation of active 1Gbit/s products.

7.2.9 Without prejudice to CityFibre's view that there is no objective and economic justification for the introduction of the DFA remedy (as discussed in other parts of this response) CityFibre agrees with Ofcom's statements in the two quotes immediately above in respect of where a DFA remedy should be pitched in order to produce long-term benefits (primarily in the period after the duration of this review) [✂].

7.2.10 To achieve the innovation benefits addressed primarily at the very high CISBO market, Ofcom do not need to use the active 1Gbit/s product pricing as a benchmark. The harm caused by the use of that price level is likely to substantially outweigh any likely benefits. [✂].

7.2.11 Whilst CityFibre supports the development of a vibrant market for infrastructure services in the UK, including dark fibre services, we do not consider that Ofcom have presented a clear and convincing case for the imposition of DFA and have either ignored or underestimated the adverse effects this could have by stating that these can be mitigated by selecting the 'right' pricing approach for the DFA.

7.2.12 We discuss below why be believe that Ofcom have not managed to select the 'right' price for the DFA remedy and why the proposed pricing approach and level would cause significant and irreparable harm to the development of efficient access network infrastructure competition in the UK.

7.3 *Ofcom's proposed definition of the DFA product*

7.3.1 *Single fibre vs. dual fibre*

7.3.2 In 8.81-85 of the LLCC Ofcom details their considerations of the use of a single fibre or two fibres, depending on products usage. Ofcom conclude "*that the pricing of a dual fibre circuit should be based on a single fibre service, adjusted for any incremental cost savings to BT from supplying multiple fibres*"[17]

7.3.3 CityFibre believes that the number of connectivity applications that require the use of dual fibre is very limited, in that the modern optical electronics can deliver very high bandwidth transmission over a single fibre. Furthermore, price premiums for single fibre optics have

[17] 2015 LLCC: para 8.85

eroded significantly such that there is only a minor price difference of approximately 3% to 7% of total equipment value, which we consider to be marginal.

7.3.4 Therefore, from technical perspective, delivering very high bandwidth services is agnostic of fibre count used. [✂].

7.3.5 Furthermore, WDM systems that prefer dual fibre delivery are normally used in long-haul networks that Ofcom recognise as being largely competitive. We believe that WDM is unlikely to be utilised to any large extent in local access networks.

7.3.6 Therefore, we consider that demand for BT's DFA products will be predominantly for single fibre, and therefore from the perspective of evaluating the pricing impacts of Ofcom's proposals, we consider single fibre prices.

7.4 *DFA pricing*

7.4.1 In the IIG Submission, three options for pricing are identified which should be analysed further by Ofcom and which could result in a more appropriate remedy in the case that Ofcom decide to proceed with a DFA remedy as a part of the current BCMR/LLCC consultation.

7.4.2 The three options identified are:

1. Pricing Based on Costs
2. 10Gbit/s EAD as the Reference
3. Benchmark to CLA Competitive Dark Fibre Prices

7.4.3 We now consider these options in more detail

7.5 *Pricing based on costs*

7.5.1 While Ofcom have briefly considered the use of cost-based pricing for the DFA remedy[18], there are several aspects to such an approach that are not discussed in detail.

7.5.2 We fully accept Ofcom's view that a cost-based approach using BT's costs and economies of scale would lead to a significant decline in infrastructure investment and loss of dynamic efficiencies, but we believe there are other approaches to cost-based pricing which could be explored. We consider that it would be erroneous for Ofcom to use BT's cost levels to calculate the relevant cost base for the DFA product.

7.5.3 Ofcom's own modelling shows that, as expected, there are very significant economies of scale in BT's passive infrastructure. The duct and fibre network contains a large proportion of fixed costs, as reflected by the AVE/CVEs used in Ofcom's modelling[19], and this results in substantial changes to unit costs as volumes vary. Our high-level analysis indicates that the unit costs of the passive infrastructure relevant to DFA would increase by around 87% in response to a 50% reduction in volume.

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[18] 2015 BCMR Annex 26

[19] Our analysis uses AVE/CVE data from Ofcom's 2013 LLCC modelling. Although the cost categories used in the proposed LLCC are different, and are not compatible with our analysis, the underlying methodology is the same and we believe that the elasticities will not have changed materially.

7.5.4 To meet its objective of promoting competition, Ofcom must set charges using the conditions that would prevail in a competitive market, [✂].

7.5.5 If Ofcom decide to use a cost-based approach, the methodology should be based on the full costs of either a Reasonably Efficient Operator (REO), which could be modelled using a bottom-up method, reflecting the volumes and costs that a new entrant would expect, or at the very least a Modified Equally Efficient Operator (MEEO), whereby BT's costs would be adjusted to reflect the much reduced volumes that a new entrant infrastructure-based CP could expect and adjustment of other relevant factors.

7.5.6 Of these two approaches, we believe an REO cost base is the most appropriate. The bottom-up model used to calculate REO costs would be based on a modern, high fibre-count network architecture suitable to achieve high penetrations in the future. This would be a truly forward-looking approach which would set prices at the right level to attract efficient new entrants to the market, and taking account of the returns needed for investors.

7.5.7 While an MEEO approach could be designed to take account of the economies of scale and market share expected by a new entrant, it would be virtually impossible to adjust BT's cost base to reflect a modern, optimised and forward looking network infrastructure. BT's CCA approach, while going some way towards adjusting asset values to today's situation, does not optimise the network structure sufficiently to reflect the type of infrastructure that would be built today.

7.5.8 While an REO approach would yield initial DFA prices considerably higher than the FAC CCA costs of BT at its current scale, the issues raised by Ofcom and discussed in this paper relating to investment incentives and resulting dynamic efficiency for passive infrastructure[20] would be addressed to a considerable extent. We would anticipate that as new entrants gain market share and build scale, the unit costs would reduce and converge to a long-term level which reflects the efficient costs consistent with a competitive infrastructure market.

7.5.9 Based on an analysis of CityFibre's business model, we have calculated the impact of market share on CityFibre's forecast dark fibre price compared to the equivalent BT DFA product (priced according to Ofcom's proposals).

7.5.10 In Table 7.5.11 the cost-based prices of CityFibre dark fibre circuits at the end of the forthcoming charge control period are compared with the proposed BT DFA prices after the proposed CPI-X% control. The CityFibre prices exclude any erosion due to the proposed charge control.

7.5.11 Table: Impact of market share on REO unit prices.

Impact of market share on dark fibre unit prices	CityFibre Base Case (30% market share after 10 years)	CityFibre Scenario (60% market share after 10 years)
CityFibre dark fibre prices in 2019 compared to expected BT DFA price at end of charge control (2019)	[✂] % higher	[✂] % lower

[20] 2015 BCMR Annex 26: table A26.4

7.5.12 On the assumption that Ofcom's approach to the DFA pricing delivers a cost-reflective price from BT by the end of the forthcoming charge control period[21], it is clear from this analysis that CityFibre's business model is more efficient than that of BT in delivering a high penetration of business connectivity services.

7.5.13 It should also be noted that the above analysis does not take into account that BT's economies of scale in its passive network are also driven by its volumes in other markets such as broadband and PSTN.

7.5.14 CityFibre's network is designed so that in the future it can be used to provide FTTH/FTTP services. A large part of the core city network will be common between business connectivity and broadband services; this will lead to considerably lower average unit costs for the infrastructure. Such developments are already in progress (for example, in York where CityFibre has a JV with Sky and TalkTalk) and are a good example of how initial investment in fibre infrastructure for the business connectivity market can be leveraged to support larger scale deployments with higher levels of investment but lower unit costs.

7.5.15 The points we made in Section 6 regarding Ofcom's statements in the LLCC consultation concerning efficient competition[22] apply equally to the pricing of DFA. More efficient network infrastructure may appear to be more costly than less efficient infrastructure due to differences in economies of scale, and basing DFA pricing on BT's own costs of provision without adjusting for economies of scale clearly does not encourage more efficient competition to arise, and is definitely not consistent with competition on its merits.

7.5.16 As Ofcom recognise that economies of scale adjustments are appropriate in cases where the regulated firm enjoys advantages in this area[23], it is difficult to understand why Ofcom have not applied such an adjustment to the active CPI-X% cost analysis, given that this has a direct impact on the pricing of the DFA product. It is clear that such an adjustment should be applied in order to recognise and promote efficient competition which is inhibited only by the incumbent advantage enjoyed by BT.

7.5.17 In the BCMR consultation, Ofcom state that "*if the price of regulated access is "too low" relative to self-build costs (i.e. it is not cost-reflective), it may undermine incentives to self-build in areas where it would have been commercially viable to do so and where it would offer additional benefits over and above the passive remedy.*"[24]

7.5.18 It is surprising that Ofcom, given this association of self-build costs with "cost-reflective", have not considered that the use of BT's FAC CCA costs is inconsistent with this approach, and that an MEEO or REO approach would be more relevant.

7.5.19 Ofcom further state that "*where the passive remedy matches all the benefits of self-build but for a lower cost, this type of investment is more likely to be undermined by regulated passive*

[21] We recognise that the active minus approach may not exactly reflect costs even if the 1Gbit/s reference product does, due to the common cost of the active product. However, we believe that the difference will be small.

[22] 2015 LLCC: para 4.27

[23] 2015 LLCC: para 4.28

[24] 2015 BCMR Annex 24 para A24.88

access. However, given it would not provide additional dynamic efficiencies, self-build in this scenario is more likely to be inefficient (providing the passive price is not below cost).”[25]

7.5.20 In this, Ofcom fail to take account of the fact that self-build infrastructure may deliver greater dynamic efficiencies due to the use of modern infrastructure with potential to support high penetration, and yet show higher unit costs than BT's legacy infrastructure in the early stages of deployment due to the lower economies of scale. In the case of CityFibre's approach, the benefits are further enhanced by the deployment of an open access wholesale-only infrastructure which is available for use by all CPs. [✂].

7.5.21 In the BCMR consultation[26], Ofcom state that “*there are considerable sunk costs associated with building networks to provide leased lines services. We consider it is unlikely to be economically viable or efficient to build competing access networks on a sufficient scale to provide effective constraint on BT's SMP in the downstream markets.*”, yet no quantification of the level of these sunk costs is given, nor analysis made of the cost threshold at which infrastructure building becomes a viable approach. We believe that Ofcom have drawn an incorrect conclusion in their statement without conducting any analysis to back it up. CityFibre's business plans indicate that new entrant infrastructure is viable under current market conditions, and is successfully competing with BT and other CPs in RoUK areas.

7.5.22 We note, curiously, that Ofcom appear to treat the development and prospect of competition in the Hull area differently to the rest of the UK. They recognise the investments made by CityFibre and others in the Hull area and note that CityFibre has completed the first phase of a 62km access network to provide dark fibre to mobile base stations and that it intends to expand to provide services to other industry sectors. Ofcom go on to say that they “*consider these developments important as they indicate a potential for competition in the longer term*”[27]. If investments by CityFibre and others in Hull “*indicate a potential for competition*”, why do Ofcom not recognise a similar potential in other UK cities and regulate accordingly? It is our view that a similar potential also exists on other major CBDs and many other towns and cities, but that this potential is severely threatened by Ofcom's proposed remedies. We can see no rational reason why Ofcom should apply different approaches and methodologies in the Hull area from the rest of the country.

7.5.23 Our analysis indicates that an REO approach whereby the cost base reflects the optimised costs of an efficient market entrant, assuming a competitive market share, would be a far more appropriate means of pricing DFA than the proposals made by Ofcom, giving the following advantages:

- Costs would be set at a level to encourage efficient new entrants and allow adequate return to investors;
- Dynamic efficiency would be greatly improved, and in the long term a competitive infrastructure market would be established, bringing benefits to other markets as well as business connectivity;

[25] 2015 BCMR Annex 24 para A24.89(c)
[26] 2015 BCMR paras 9.50-9.52
[27] 2015 BCMR: paras 14.7 – 14.8

- Competitive forces will incentivise BT to improve its network infrastructure and quality of service.

7.6 *<u>10Gbit/s EAD as the reference</u>*

7.6.1 Our impact analysis presented in Section 3 has shown that pricing DFA circuits by using the 1Gbit/s EAD/EAD-LA active prices as a reference would result in [✂] massive price erosion caused by the BT DFA product compared to existing market prices for both dark fibre and active Ethernet circuits.

7.6.2 Ofcom should consider how they could use BT's forthcoming 10Gbit/s EAD and EAD-LA products as references instead of the 1Gbit/s products.

7.6.3 Although this would result in a higher price for the DFA remedy initially, which would restrict cannibalisation to active circuits of 10Gbit/s and above, it would represent a much more orderly and lower risk transition while DFA is launched and in the period after.

7.6.4 We note that Ofcom have briefly considered using the 10Gbit/s EAD product prices as references, but have rejected the approach[28]. However, we do not believe that Ofcom have given sufficient consideration to this option, given the enormous consequences the use of 1Gbit/s EAD would have on the market.

7.6.5 In particular, Ofcom state that 100Mbit/s and 1Gbit/s circuits represent the vast majority of new connections of CISBO[29] circuits. While this may be the current situation, DFA will not be launched until 2017 and is, in Ofcom's own words, intended as a remedy for which the majority of related benefits will materialise beyond the timeframe of the coming Charge Control period. Between now and 2017 it is likely that BT's new 10Gbit/s product will have considerable growth, and the take-up of very high speed services is likely to accelerate into the period following this Charge Control period. Ofcom present no analysis of the likely size of the 10Gbit/s market in this forthcoming and future charge control periods; the option of using 10Gbit/s products for reference pricing is simply summarily dismissed in a paragraph of six lines within a document of over 1000 pages.

7.6.6 We also note that Ofcom recognise that in the next charge control period (from 2019) the approach to pricing of DFA may change, and that this may involve changing the benchmark product.[30] It seems inconceivable that Ofcom would increase the price of DFA as a result of these changes, yet if Ofcom's views regarding uptake of 10Gbit/s are correct, any move to a 10Gbit/s benchmark would surely imply higher prices. This highlights the absurdity of Ofcom's proposals in this area, and indicates a shallow analysis with little consideration given to the consequences of the proposed solution.

7.6.7 We consider that the use of the 1Gbit/s benchmark would constrain Ofcom's position for the future and render it impossible to adapt their approach once the market impact of the remedy is seen. On the other hand, using a 10Gbit/s benchmark would provide Ofcom more flexibility for future pricing adjustments. The DFA prices would be able to follow a downwards glide path, based on competitive pressures on 10Gbit/s active pricing and

[28] 2015 BCMR: Annex 26 para 152
[29] 2015 BCMR: Annex 26 para 151
[30] 2015 BCMR: Annex 26 para 158

increased demand for the 10Gbit/s active circuits. This would appear to be a much more rational and defensible approach.

7.6.8 While higher initial prices and consequent reduced DFA uptake would be a result of using the 10Gbit/s pricing benchmark, the longer-term benefits of availability of the DFA product for the purpose of innovation, rather than price arbitrage, could still be achieved, as the demand for 10Gbit/s circuits and above increases.

7.6.9 There would be considerable benefits resulting from the infrastructure investments made by CPs in competing access infrastructures, which would be more likely to continue if 10Gbit/s EAD were to be used as the reference for DFA prices. The infrastructure market would be more competitive as compared to using a 1Gbit/s benchmark, providing a combination of competition benefits and the benefits on new fit-for-purpose fibre-only networks to serve the needs to tomorrow's business and users. The increase in innovation and the availability of high quality infrastructure able to support high penetration is likely to result in increased dynamic efficiency in the longer term. We believe that Ofcom's choice of the 1Gbit/s products as the DFA pricing benchmark is overly focused on short term downstream benefits and would result in a [✂] retrograde step in the development of competition in the UK.

7.7 Benchmark to CLA competitive dark fibre prices

7.7.1 In Section 88(4)(a) of the Communications Act 2003 Ofcom are invited to take account of the price at which services are available in comparable competitive markets. This opens up the opportunity for Ofcom to set DFA prices by reference to prices currently charged by CPs in the competitive CLA market.

7.7.2 There is now a vibrant and growing market for dark fibre provision in the CLA (to both retail and wholesale customers), and the pricing can therefore be considered to be cost-reflective. Such information is readily available to Ofcom via Section 135 data requests.

7.7.3 While it is likely that the costs to install fibre infrastructure in the CLA are higher than in some areas of the RoUK and LP, due to the higher costs of civil works, this may be at least partially offset by greater density of connections leading to greater economies of scale. It is also likely that the dark fibre cost base for many CBD areas, which would be the primary focus of investment in dark fibre for business connectivity, would have similar characteristics to the CLA.

7.7.4 Setting BT's DFA prices by reference to CLA benchmarks would have the significant advantage that the prices would track the dynamics of the competitive market, without the need for Ofcom to engage in extensive analysis or forecasting and without the inevitable uncertainties and errors arising in such a process. Ofcom's current proposals for setting the DFA price will involve future changes to the methodology, for example to change the active benchmark product[31]; This is likely to have a disruptive effect, and may even require regulated prices to be increased. Use of competitive CLA prices as a benchmark would avoid this problem, and allow Ofcom to review prices annually based on information received from BT and the CPs.

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[31] 2015 BCMR: Annex 26 para 158

7.7.5 Another benefit is that the DFA price would be decoupled from any particular active product, allowing the market to determine the use which is made of DFA in an efficient manner. This is an example of "light-touch" regulation, and would allow Ofcom to regulate in a way which mimics the effects of competition.

7.7.6 Given the clear benefits of such an approach, Ofcom should certainly consider and consult on using a benchmarking method to set BT's DFA prices.

8 Regulatory Policy and Processes

8.1 <u>Ofcom's process</u>

8.1.1 CityFibre has severe concerns regarding Ofcom's compliance with its duties under the Communications Act 2003 (the Act) as the remedies proposed in the BCMR and LLC consultations appear to be entirely disproportionate to the problems identified by Ofcom.

8.1.2 We set out below examples of areas where our analysis suggests that Ofcom's proposals are not in compliance with the provisions of the Act:

8.1.3 Section 3 (1) (b) requires Ofcom to further the interests of consumers in the relevant markets, where appropriate by promoting competition.

8.1.4 The IIG Submission provides clear documentation that long term interests of consumers are best served by infrastructure competition, but instead Ofcom proposes remedies that will have a strong adverse effect on existing and prospective infrastructure competition.

8.1.5 Section 3 (3) (a) of the Act requires that Ofcom must have regards to the principle under which regulatory activities should be transparent, accountable, **proportionate**, **consistent,** and target only at cases in which action is needed [emphasis added].

8.1.6 Ofcom's proposed measures with regards to the regulation of both active and passive pricing are extremely aggressive and would result in a significant diminishment of competition; CityFibre cannot understand how this can be considered proportionate.

8.1.7 Further, Ofcom's arguments for the introduction of the DFA remedy are entirely inconsistent with the arguments presented in the 2012/13 BCMR, where Ofcom presented strong and convincing arguments against the introduction of a dark fibre remedy. Ofcom subsequently presented similar and credible arguments when their decision was challenged at the Competition Appeals Tribunal in 2013. Nothing has changed in the intervening period which would invalidate those arguments, and Ofcom therefore are clearly not demonstrating consistency in their approach to dark fibre. Regulatory inconsistency increases the perceived regulatory risk and presents a significant barrier to investment.

8.1.8 With regard to proportionality, Ofcom do not demonstrate that the proposed remedies (in particular the imposition of the DFA remedy and its pricing) are proportionate to the market failure identified. In fact CityFibre struggles to identify the specific market failure identified by Ofcom to justify the proposed remedy. Ofcom do not present any analysis of different options of addressing the issues they seek to remedy in order to identify the least intrusive of these. CityFibre does not consider that Ofcom have satisfied the requirement to justify that the proposed DFA remedy and the associated pricing are proportionate to any specific market failure.

8.1.9 Sections 3 (4) (b), (d) and (e) require Ofcom to have regard to the desirability of promoting competition in relevant markets; the desirability of encouraging investment and innovation in relevant markets; and the desirability of encouraging the availability and use of high speed data transfer services throughout the United Kingdom, respectively.

8.1.10 Ofcom's proposed measures would appear to satisfy none of these requirements. [✂].

8.1.11 Section 4 (3) (a) requires Ofcom to act in accordance with the Community Requirements including the requirement to promote competition in relation to the provision of electronic communications network and electronic communication services.

8.1.12 As already explained, CityFibre believes strongly that the proposals will be detrimental to competition, and will not promote competition.

8.1.13 Also in Section 4 – subsections (6) (a) and (b) require Ofcom to not favour one form of electronic communications network, electronic communications service or associated facility; or one means of providing or making available such a network, service or facility over another.

8.1.14 It is CityFibre's view that by setting regulated prices at a level only attainable to a provider with a very large market share, Ofcom have preferred BT's network over other networks being established by OCPs in the UK; networks that are equally (or more) efficient and often more modern and better suited to meet the needs of high-bandwidth data services.

8.1.15 Further in Section 4 – subsections 8 (a) and (b) require Ofcom to secure efficiency and sustainable competition in the markets for electronic communications networks, electronic communications services, and associated facilities; and the maximum benefit for the persons who are customers of communications provides who make such facilities available.

8.1.16 It has been widely proven that sustainable competition is best ensured through the deepest possible level of competition. This is documented extensively in the IIG Submission. It is further proven and documented that maximum long term benefits are derived through infrastructure competition where the providers have long-term commitment to the markets and consumers and who can compete at all levels in the services value chain.

8.1.17 Section 47 (2) (a), (b), (c), and (d) requires that Ofcom must not set or modify a condition unless the condition is objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it applies; not such as to discriminate unduly against particular persons or against a particular description of persons; proportionate to what the condition or modification is intended to achieve; *and in relation to what it is intended to achieve, transparent.*

8.1.18 CityFibre notes that Ofcom have used exactly the same wording to justify both the imposition of active and passive remedies, namely that the proposed conditions are "*objectively justifiable, in that they facilitate and encourage access to BT's network and therefore promote competition to the benefit of consumers*"[32]; This wording is so generic that it bears no direct

[32] 2015 BCMR: Sections 8.34, 9.55, 10.79, and 12.43.

relevance to each of the specific conditions proposed and would seem to justify any possible condition which would facilitate and encourage access to BT's network.

8.1.19 CityFibre considers that Ofcom have paid lip service to this legal compliance test and the same comments apply to Ofcom's presentation of how they consider they have complied with the remainder of this text. CityFibre is far from satisfied that Ofcom have demonstrated compliance with the section 47 (2) provisions of the Act. In particular, CityFibre does not consider that Ofcom have demonstrated how the application of *both* active and passive remedies satisfy the test of proportionality. This is exacerbated by the fact that Ofcom do not demonstrate a clear market failure which justifies the imposition of the DFA remedy. In CityFibre's view Ofcom's compliance with Section 47 (2) should be justified in relation to the particular market failure identified and Ofcom have patently not done so.

8.1.20 CityFibre further considers that Ofcom's proposals discriminate against OCPs for whom it would be impossible to replicate BT's economies of scale.

8.1.21 Section 48 (2) (b) provides that before setting conditions, Ofcom must publish a notification setting out the effect of those conditions, modification or revocations.

8.1.22 Although Ofcom have issued the BCMR & LLCC consultations, CityFibre considers that they have failed to set out the effects of the conditions proposed in that they have not adequately considered the effect on upstream competitors of BT of neither the charge control remedies on BT's active services, nor the introduction of the DFA remedy and its proposed pricing method and level.

8.1.23 Section 87 (4) (a) and (d) provide respectively that Ofcom must take into account, when determining conditions, the technical and economic viability, having regard to the state of market development, of installing and using facilities that would make the proposed network access unnecessary; and the need to secure effective competition in the long term.

8.1.24 CityFibre considers that Ofcom have not taken due account of the recent, current and planned investment in fibre access networks by OCPs in many CBDs and other towns and cities. It is CityFibre's view that the effect of these investments would be to render the DFA remedy unnecessary [✂].

8.1.25 Ofcom's conclusions in sections 9.50 – 9.52 of the BCMR consultation summarily dismiss the development of effective competition outside the CLA. This conclusion is not supported by evidence or analysis.

8.1.26 Section 88 (1) (a) and (b) provide that Ofcom must not set an SMP condition relating to pricing of access unless [ ] there is a relevant risk of adverse effects arising from price distortion; and [ ] the condition is appropriate for the purpose of promoting efficiency; promoting sustainable competition; and conferring the greatest possible benefits on the end-users of public electronic communications services.

8.1.27 Given that a commercial market exists for the provision of dark fibre in the CLA and that one is emerging in many other parts of the UK (in particular CityFibre's networks are open wholesale access facilities, open to any CP to use), Ofcom have not demonstrated that there is a real risk of adverse effects from price distortion and therefore not the need to regulate the price of the proposed DFA remedy.

8.1.28 Further, although Ofcom argue that regulating the price levels of BTs active business connectivity products down to the level of BT's efficiently incurred costs may encourage efficiency in BT, it is clear that this approach will also act as a direct constraint on infrastructure investment in new fit-for-purpose and efficient access networks. As demonstrated in numerous articles and papers and explained in detail in the IIG Submission, the greatest possible benefits to end-users are produced through effective competition at the deepest network level, not through the perpetual regulation of a dominant provider.

8.1.29 Further in section 88 (4) (a), Ofcom may have regard to the prices at which services are available in comparable competitive markets.

8.1.30 In two extremely large consultation documents, Ofcom do not make a single reference to the existence of a competitive market for dark fibre in the CLA, nor to the commercial price levels of competitive dark fibre providers outside the CLA (such as CityFibre). This appears to be a glaring omission, which is partly explained by Ofcom's recent Section 135 data request for such information more than a month after the LLCC consultation was issued. It would appear that Ofcom had not considered this obvious and highly relevant data at all when developing its proposals.

8.2 *<u>Timing</u>*

8.2.1 CityFibre has concerns that Ofcom's proposals to introduce passive remedies would be introduced in parallel with the recently launched Digital Communications Review (DCR).

8.2.2 The introduction of passive remedies (and in particular the remedies proposed by Ofcom and their proposed pricing) is a significant and irreversible step that could significantly change the competitive landscape of electronic communications networks in the UK. [✂].

8.2.3 A decision of this magnitude should be made in the context of a clear view of how Ofcom see the competitive landscape in the UK developing over the next 10-20 years. It is therefore extremely worrying that the present timetable sees the decision on passive remedies made before the DCR has been completed.

8.2.4 CityFibre has already provided inputs to the initial phase of the DCR and will submit a response to Ofcom's current discussion document in line with the stipulated deadline. In the context of the BCMR, however, we feel it is imperative that we draw Ofcom's attention to the significant contradictions between what appears to be the clearly stated objectives of the DCR and the indisputable consequences of the proposed passive remedies.

8.2.5 The DCR states as its objectives (among others):

"Investment and innovation, delivering widespread availability of services. *Our strategy must provide the right incentives for private sector investment and innovation, so that the full range of services is widely available. We will also focus on what needs to be done to make sure services are available in areas that are not deemed to be commercially viable."*

"Sustainable competition, delivering choice, quality and affordable prices. *In general, we believe that the best mechanism for delivering choice, quality and affordable prices is a healthy competitive market. We will continue to encourage this through regulation that protects both competition and incentives for efficient investment."*

8.2.6 Further the DCR states under the heading of "Investment and innovation, delivering widespread availability and higher quality" the following statements:

"Fixed broadband technology is available almost everywhere, but the speeds that consumers experience vary considerably. The dynamic nature of the evolution of broadband is driven by successive waves of technology investment over time. Today this results in three challenges:

[ ]

***Ultrafast broadband**. In recent months BT has announced that it would deliver ultrafast speeds of up to 500Mbit/s to most of the UK within a decade. Virgin Media has also announced plans to extend its cable network to cover two-thirds of UK premises and its own ultrafast programme. CityFibre has completed the first phase of its trial fibre-to-the-home deployment in York, with TalkTalk announcing prices for this trial. These commercial developments are encouraging. "*[33]

8.2.7 Further, the DCR states under the title "Competition as an enabler of investment and innovation":

*"(1.20) Our approach to improving availability has relied mainly on private sector investment, driven by competition; **we intervene directly only where geography makes commercial investment unviable**. This is unlike other utility regulation, where there is typically a greater degree of central planning, and we believe it remains the most effective approach.*

*(1.21) A particular reason for this market-based philosophy is **that competition drives innovation**. This is not just about new infrastructure, but harnessing technology advances such as processing power that can improve customers' experience of digital communications. For example, in the evolution from 2G to 3G to 4G, the mobile operators are now using spectrum more than 10 times more efficiently. Similarly, the amount of bandwidth that can be carried over a fixed copper access network has increased significantly. In 2005, ADSL-based broadband delivered speeds of 8Mbit/s. BT has recently announced its intention to invest in the next generation of copper broadband technology (called G.Fast) which is expected to deliver speeds of 500Mbit/s. …*

(1.24) Both access-based and end-to-end competition can stimulate innovation and investment:

- *There is evidence that access-based competition, especially that based on access to passive infrastructure, can drive network innovation. For example, local loop unbundling was an important factor in driving early improvements in the exchange-based ADSL broadband technology. Today, some European countries have seen competitive investment in ultrafast broadband supported by passive infrastructure access (e.g. ducts, poles, in-building wiring).*
- *There is also evidence across a number of countries that end-to-end competition, between the incumbent telecoms operator and cable network operator, has been important in driving superfast broadband. Cable networks are more straightforward to upgrade initially, and typically this then stimulates a competitive response from the incumbent.*
- *Commentators have noted that Europe has lagged behind the US in 4G mobile services, and have used this to argue that there's a structural problem in European markets.*

[33] DCR s 1.17

However, the late start was due to a variety of reasons; most notably, the time needed to clear the necessary radio spectrum. End-to-end competition in the UK is driving a rapid deployment of 4G services, with availability now reaching 90% of UK premises.

(1.25) We continue to believe that, wherever possible, effective competition helps to encourage efficient investment, led by the private sector. However, where economic ***bottlenecks deter competition, we must regulate in a way that protects the incentive to make significant, and potentially risky, investments.*** *[emphasis added]."*

8.2.8 The above provide only a few examples of statements in the DCR Discussion Document which we believe to indicate that Ofcom consider the continued and even increased level of investment in networks capable of delivering high speed connectivity to business and private users alike. These statements and others in the DCR appear to be in direct conflict with statements in the BCMR including sections 9.50 – 9.52 in which Ofcom dismiss any prospect of investment in access networks outside the CLA to deliver effectively competitive markets and the benefits of that competition of a wide range of users.

8.2.9 CityFibre presents strong arguments in other parts of this response that Ofcom's DFA remedy is not justified in terms of targeting a specific market failure and that Ofcom have substantially underestimated the negative consequences of the remedy should it be implemented. Should Ofcom, however, decide to proceed with a DFA remedy then CityFibre urges Ofcom to postpone any decisions relating to the specific nature and pricing of the remedy until the DCR process has been concluded and Ofcom can ensure that the remedy supports the strategic direction resulting from the DCR process. CityFibre considers that proceeding with the DFA remedy in advance of the DCR being completed would constitute an irresponsible and irrational action.

8.2.10 In addition to the DCR, the UK is also in the process of transposing the Civil Infrastructure Directive (CID), which may give rise to mandated access to duct infrastructures. The IIG paper discussed the impact of the CID and its relevance to Ofcom's proposals for the DFA remedy and CityFibre refers Ofcom to that paper. Suffice to state here that the uncertainty surrounding the transposition of the CID provides another strong reason for why Ofcom would be irresponsible to proceed with the DFA remedy at this time.

8.2.11 CityFibre urges Ofcom to postpone any DFA decisions until the CID and DCR processes have been completed.

Annex A – [✂]

[✂]

Annex B – [✂]

[✂]

Annex C – Cross Reference of Ofcom Questions to CityFibre's Submission

As we stated in 1.1.2, our response does not follow Ofcom's document structures and questions. Here we provide a guide to where in our response Ofcom can find information relevant to questions posed in the two consultation documents.

BCMR Questions

Q#	Question number in BCMR 2015	Addressed in Section
4.1	Do you agree with our approach to wholesale product market definition and our proposed wholesale product market definitions in relation to services provided using contemporary interfaces? In particular, do you agree with our proposal to define a single product market for Contemporary Interface Symmetric Broadband Origination (CISBO) services? If not, what alternative would you propose and why?	4.2
4.2	Do you agree with our assessment of competitive conditions for very high CISBO services? If not, what alternative would you propose and why?	4.2, 5
4.3	Do you agree with our approach to geographic market definition and our proposed geographic market definitions? In particular do you agree with our proposals to define the Central London Area (CLA) and the London Periphery (LP) as separate geographic markets? If not, what alternative would you propose and why?	4.2
4.4	Do you agree with our approach to SMP assessment? In particular, do you agree with our proposals to find no CP to have SMP in the market for CISBO services in the Central London Area (CLA), and to find BT to have SMP in the markets for CISBO services in the London Periphery (LP) and the Rest of the UK (RoUK). If not, what alternative would you propose and why?	4.2, 5, 8.1
7.1	Do you agree with our approach to assessing what remedies are appropriate to address the competition problems we have identified in the markets in which we propose to find that BT and KCOM have SMP? If not, please explain why, and what alternative approach you consider we should take.	0, 0, 7.2, 7.4, 8.1
7.2	Do you agree with our assessment of the benefits that a package of passive and active remedies can offer relative to a package of active remedies only? If not, please explain why, giving your views on our assessment of these benefits, and providing any relevant evidence in support.	5, 7.2, 7.4, 8.1
7.3	Do you agree with our assessment of the risks associated with imposing passive remedies? If not, please explain why, giving your views on our assessment of these risks, and providing any relevant evidence in support.	0, 0, 0, 7.2, 7.4
7.4	Do you agree that our proposal of a dark fibre remedy priced and designed in the way we have described in this consultation provides the best balance between the benefits and risks that we have identified? If not, please explain why, providing any relevant evidence in support, referencing specific aspects of our proposed remedy design where appropriate, and taking into account any comments you have made in response to questions 7.2 and 7.3.	0, 7.2, 7.4, 7.5, 7.6, 7.6.9
7.5	Do you agree with our assessment of passive remedies, and our proposal to include dark fibre in the package of remedies we propose to impose on BT? If not, please explain why.	0, 7.2
8.1	Do you agree with the general remedies that we propose for BT in the wholesale TISBO and CISBO markets? If not, what alternative remedies would you propose and why?	0, 7.2
9.1	Do you agree with our proposals in relation to the dark fibre remedy? If not, what alternative dark fibre remedy would you propose and why?	0, 7.2, 7.4

Q#	Question number in BCMR 2015	Addressed in Section
9.2	Do you agree with our proposals in relation to the pricing of dark fibre? If not, please explain why, and what alternative approach you consider we should take.	0, 7.2, 7.4, 7.5, 7.6, 7.6.9
10.1	Do you agree with the specific active remedies that we propose for BT in the wholesale CISBO markets? If not, what alternative active remedies would you propose and why?	6.5, 6.6, 6.8, 6.9

LLCC Questions

Q#	Question number in LLCC 2015	Addressed in Section
5.2	Do you agree with our approach to deriving our base year costs for Ethernet and TI services, including: a. our proposal to forecast costs based on BT's costs of providing business connectivity services; b. our proposal to apply CCA FAC as our cost standard; and c. our proposal that the base year for the 2015 LLCC Model is the financial year 2013/14 and that our base year for the model for the 2016 BCMR Statement should be the financial year 2014/15? If not, what alternative would you propose and why?	6.2, 6.3, 6.4, 6.5
5.3	Do you agree with our approach to forecasting costs and revenues over the period of the charge controls for Ethernet and TI services, including: a. our AVEs and CVEs assumptions; b. our input price inflation assumptions; and c. our WACC assumptions? If not, what alternative would you propose and why?	6.3, 6.4
5.4	Do you agree with our proposals in relation to the types of discount that would contribute towards BT meeting its charge control obligations for Ethernet and TI services? If not, what alternative would you propose and why?	6.8
6.1	Do you agree with our basket design proposals for Ethernet services, including the need for sub-caps and/or sub-baskets? If not, what alternative would you propose and why?	6.9
6.3	Do you agree with our approach to forecasting costs and revenues over the period of the charge control in relation to Ethernet services, including in particular: a. our volume forecasting assumptions; b. our efficiency forecasting assumptions; and c. our proposal to reflect the impact of the proposed dark fibre remedy? If not, what alternative would you propose and why?	6.9
6.5	Do you agree with our proposals in relation to the value of X for Ethernet services. If not, what alternative would you propose and why?	6.9
8.1	Do you agree with our proposals regarding dark fibre pricing? If not, what alternative would you propose and why?	0, 7.4, 7.5, 7.6, 7.6.9

--- END OF RESPONSE ---