CityFibre

Response to Ofcom consultation on recovering the costs of investment in network expansion

Non-Confidential Version

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1.1.1 CityFibre was surprised at Ofcom's approach to recovering Openreach's network expansion costs (NEC) associated with voluntarily delivering improved broadband connectivity in hard to reach areas.

1.1.2 Ofcom's proposals in the Network Expansion Consultation are effectively a proposal to return to explicit cross-subsidies, not just between different geographic areas of the UK, but also between different services. In particular between standard broadband services and superfast broadband services. CityFibre finds these proposals to be seriously flawed both from the perspective of setting cost reflective access charges that encourage investment by providing efficient make or buy signals; and from the perspective of determining that customers using the lowest cost broadband service available (standard broadband using a copper-only link) should pay the cost of delivering broadband services that include a fibre element.

1.1.3 CityFibre finds that Ofcom's proposals distort the cost (and price) relationship between the wholesale MPF and GEA services and as a result also the retail pricing of standard and superfast broadband services. If Ofcom's proposals are motivated by making superfast broadband as accessible as possible (by reducing the price increase between standard and superfast), then that is misguided and in any case not within Ofcom's remit particularly as a response to a voluntary network expansion by Openreach. This is particularly concerning as the consequence of Ofcom's proposals could be reduced competitive FTTP investment and the ability of BT to move a large number of customers to the superfast product and thus making it less likely that they would be willing to move to FTTP-based services in the near future.

1.1.4 CityFibre does not in this response comment in detail on whether it considers BT's voluntary offer to meet the BB USO a desirable outcome for the UK, only on Ofcom's proposal for how to estimate the NEC and how to recover the NEC through wholesale access charges in the Wholesale Local Access market. In general, though we are concerned that the proposed 'UBC' is a less transparent and robust mechanism to deliver improved broadband connectivity in rural areas than a properly defined USO and we note the concerns raised by other stakeholder companies with a rural focus, such as Gigaclear, that this proposal would remove the scope for contestible delivery of a broadband USO. Given the shaky public policy arguments for accepting the UBC, it seems particularly ill-considered to exacerbate the risks of this approach by making harmful ad hoc adjustments to cost recovery to accommodate it.

1.2 CityFibre's comments on Ofcom's specific proposals

1.2.1 Ofcom has chosen to create an add-on model to that developed for the purposes of the WLAMR charge control, using a different MEA, to that used for the WLAMR and resulting in the need to restructure the charge control proposed in March this year.

1.2.2 Additionally, despite BT's proposal to Government being issued July 30th 2017 it seems that Ofcom has been aware of this proposal for some time, including having commissioned

modelling and analysis from Cartesian and also having been in correspondence with Openreach about the outcome of Ofcom's (including Cartesian's) analysis prior to this consultation being issued on 9th August 2017.

1.2.3 CityFibre has made efforts to understand Ofcom's analysis but we have not been able to assess the rationale behind the variations in unit costs between FTTC, FTTP and G.fast technologies. As the models have some inputs redacted/randomised, it is possible that may be the cause of some seemingly counter-intuitive trends. Due to this lack of transparency of Ofcom's analyses and conclusions, it has been difficult to undertake detailed and rigorous analysis of the proposals in the consultation.

1.2.4 CityFibre considers that Ofcom's decision to build a separate model for calculation of the network expansion costs (NEC) is flawed and that the NEC should be incorporated into a revised version of the main WLAMR model (the CC model). Ofcom includes the costs of other incremental changes to Openreach's network into the CC model[1], so there is no rational reason why these incremental changes to the network should not be included as well. The CC model already calculates geographically averaged costs for MPF services covering the premises that would receive the improved broadband service if the NEC is incurred, so there is no reason why the GEA costs should not cover the same footprint to calculate geographically averaged GEA costs and charges. Further, once the network is built (i.e. for the next charge control model), we assume that the new network components will simply be modelled as part of Openreach's network as a whole. If it is appropriate to do so in the future, why is it not appropriate at this time? CityFibre therefore believes that Ofcom should modify the March 2017 WLAMR model to accommodate the additional investment. If Ofcom concludes that a separate add-on model is definitely the best way to address the issue of cost recovery of the incremental investment, then it should share its rationale for and consult on that conclusion.

1.2.5 By choosing to develop a separate overlay model that generates a single total cost figure to the recovered through surcharges, Ofcom is not reflecting the nature of the mixture of costs included in the NEC. Had the NEC (that is, not just a single the total amount but all the individual cost elements) been included into the CC model, then those costs would have been allocated into the appropriate cost categories, resulting is changes to the MPF and GEA prices that include the NEC, but which would be very different to the prices resulting from Ofcom's over-simplistic application of a single surcharge. Further, the additional NEC should result in a different distribution of common costs between the MPF and GEA products as a consequence of the changed costs and volumes of these services.

1.2.6 CityFibre has already expressed its concerns in relation to the use of FTTC for the main WLAMR charge control model, but we note that Ofcom's choice to have no single MEA for the network expansion, but to model the costs of a mixture of technologies based on the least cost option to deliver 10Mbps in different circumstances[2] appears inconsistent with the WLAMR and unduly complex. CityFibre considers that the technology mix calculations are likely to project a false sense of accuracy. Additionally, specifically identifying the least cost technology to deliver 10mbps (and potentially not more than that) appears to give Openreach the incentive to make

[1] CityFibre recently received a request to use data submitted in other contexts to Ofcom to assist Ofcom in calculating costs to Openreach of deploying LR-VDSL, for inclusion into the WLAMR model.

[2] See Network Expansion Costs consultation paragraphs 4.5-4.8.

short-sighted investments rather than investing in future-proof networks and technologies such as FTTP.

1.2.7 CityFibre further disagrees with the exclusion of FWA as a viable technology from Ofcom's analyses. The fact that no wholesale FWA product exists today should not be used as a rationale for excluding it as a choice available to Openreach for addressing the broadband USO. In any event, Openreach can determine which technologies to use and would rationally include FWA in its assessment. If Ofcom is signalling that if Openreach deploys FWA then it would not be subject to a wholesale access obligation, then this would on one hand provide a perverse incentive to Openreach to deploy FWA in places where it is not the optimal technology, simply to ensure that it does not have to offer EOI access as with other technologies; whilst on the other hand the exclusion of the FWA costs from Ofcom's cost recovery model could disincentivise Openreach from using FWA where this is clearly the optimal technology choice.

1.2.8 CityFibre considers that Ofcom's proposal for how to calculate the NEC (using the technology mix) may incentivise Openreach to make short-sighted technology investments. Ofcom's approach to explicitly allow Openreach to recover all 'reasonable' costs of expanding its network to deliver 10Mbps sends a signal to Openreach that if it does that using technologies that are not future-proof (e.g. can only deliver the 10mbps required by the USO at this time), then Openreach can expect to be allowed to recover all its costs of upgrading that network again once the government decides that 10Mbps is no longer sufficient as the broadband USO level. CityFibre considers that this sets an unhelpful precedent which provides perverse incentives to Openreach and further delays the roll-out of FTTP across the UK.

1.2.9 Ofcom proposes to recover the NEC over all broadband lines. CityFibre considers this inconsistent with Ofcom's framework of selecting the cost allocation approach using six well-established principles. In fact, Ofcom has selected the cost recovery method primarily using a completely separate principle – namely that the actual price differential between MPF and GEA pricing must not be 'distorted'. CityFibre considers that Ofcom's approach is flawed and results in a distortion of both the actual price levels of MPF and GEA as well as the relative and actual price differential between the two. Ofcom's proposed cost recovery approach implements an explicit cross-subsidy from customers using copper services only to customers using services with a fibre element. This is akin to the historical cross-subsidy between calls and line rental, which Ofcom's predecessor (Oftel) spent many years working hard to remove in order to facilitate a market in which competition could develop and thrive. It would appear that Ofcom's current proposed approach may be motivated by a desire to keep the price difference between standard and superfast broadband services to a minimum (such as to encourage uptake of superfast broadband services), but it is not Ofcom's remit to manipulate access charges (distorting make or buy signals to the detriment of effective competition and investment) to achieve such objectives.

1.2.10 As a matter of general approach to transparency and stakeholder engagement, CityFibre considers it inappropriate that Ofcom has evidently been in correspondence with Openreach about its proposal to voluntarily cover the 10Mbps broadband USO and has shared the outputs from its analysis with Openreach before doing so with other stakeholders.

2 Introduction

2.1 About CityFibre

2.1.1 CityFibre provides fibre connectivity services through designing, building, owning, and operating fibre optic network infrastructure. The Group is a wholesale operator of fibre networks in towns and cities outside London which provide open access, shared fibre infrastructure that enables gigabit-capable connectivity for service providers and mobile network operators, who in-turn deliver digital connectivity solutions to their end customers spanning the public sector, business, mobile operator and residential markets.

2.1.2 CityFibre operates across the UK, and currently has full fibre optic metropolitan area networks in 42 towns and cities including: Aberdeen, Bristol, Coventry, Edinburgh, Glasgow, Manchester, Milton Keynes, Peterborough, and York. Furthermore, the Company owns and operates a long-distance fibre-optic network that interconnects 24 of its current towns and cities. In York, we are a partner in a joint venture that has constructed a Fibre to the Premises (FTTP) network connecting homes, small businesses and public buildings.

2.1.3 CityFibre is a provider of 'full fibre' infrastructure, meaning there is no copper or co-axial cable used for the provision of data connectivity services in CityFibre's networks. This sets it apart from other infrastructure competitors, who rely heavily on legacy copper and co-axial cables connecting to premises on all but a small percentage of their networks.

2.1.4 CityFibre has recently securing equity funding to commence rollout of FTTP during 2018 in up to 10 towns and cities, totalling not less than 1 million homes. We expect to complete that phase of network build by 2020. This is the first phase of our FTTP rollout to homes. We will at the same time be expanding our network rollout to a further 8 cities. During 2019 and 2020, we plan to commence a second phase of FTTP rollout within that expanded 50 city footprint, giving us the potential subject to obtaining further funding to expand FTTP to circa 5.0 million premises by no later than 2024.

2.1.5 CityFibre's network is constructed to provide high capacity fibre infrastructure that serves four primary market verticals:

- Public sector – fibre connectivity to council buildings, schools, hospitals, CCTV;
- Business – fibre connections to enterprises and SMEs;
- Mobile operators – fibre connections to mobile base stations and small cells for 4G and future 5G mobile services; and
- Consumers – fibre connections to homes. The York trial, referred to above, is a first step in what we expect to be a substantial expansion of our networks to deliver 'full fibre' (FTTP) in a growing number of the towns and cities where we have physical presence (see below).

2.1.6 As at 31 December 2016, CityFibre operated 2,244 kilometres of metro local access duct and fibre networks across 42 towns and cities, as well as a 1,139 kilometres national long distance network connecting 22 towns and cities to data centres in London and the UK regions, as illustrated in the map below.

2.2 *<u>The Structure of this response</u>*

Section 3 addresses Ofcom's approach to identifying qualifying premises;

Section 4 considers Ofcom's approach to determining the technology mix for the costing model

Section 5 reviews Ofcom's approach to modelling of the network expansion costs; and

Section 6 analyses Ofcom's proposal for how to recover the network expansion costs.

3 Identifying qualifying premises

3.1.1 CityFibre considers that Ofcom's approach to identifying qualifying premises appears reasonable and has no significant comments on this. We do, however, have a number of comments and queries to specific points covered in that section of Ofcom's consultation document.

3.1.2 CityFibre notes that Ofcom have chosen to assume a Committed Information Rate (CIR) for download speeds of 1.5Mbps, stating that this is consistent with Scenario 2 in Ofcom's December 2016 USO report.[3] However, this report appears to specify a contention ratio of 50:1[4], and it is unclear how Ofcom calculate the CIR of 1.5 Mbps from this. While CityFibre does not necessarily disagree with a CIR of 1.5Mbit/s, the basis for Ofcom's assumption is not clear.

[3] See Network Expansion Costs consultation paragraph 3.4.

[4] "Achieving decent broadband connectivity for everyone: Technical advice to UK Government on broadband universal service" 16 December 2016: paragraph 3.21 Figure 3.2

4 Assessing the technology mix

4.1.1 Ofcom appears to have gone to considerable effort to create a picture of which technologies would be the most appropriate in different circumstances according to the level of density of houses, the distance from distribution nodes to the premises to be connected, etc. The multitude of factors affecting the choice of a least-cost technology to suit these circumstances is a complex process, and the rationale used in the modelling is not clearly articulated.

4.1.2 Ofcom makes it clear that Openreach will choose which technologies it wants to deploy, so the purpose of the exercise undertaken appears to be to arrive at an amount Openreach should be allowed to recoup through access charges. That makes Ofcom's decision to undertake such detailed analysis of the cost of deployment of different technologies even the more puzzling, as only one thing can be certain about the results of that analysis – namely that they will be wrong. It is highly unlikely that Ofcom's analysis has accurately assessed the level of costs and thus the choice of the optimal technology for each additional premises to be connected. In fact that is proven by Ofcom's adjustments to the analysis results as a consequence of comments received by Openreach[5] prior to the publication of the consultation paper. It is CityFibre's view that Ofcom's detailed technology mix analysis creates a false sense of accuracy and that a more high-level approach using a single MEA for all the new connections would be more appropriate.

4.1.3 In stark contrast to the detailed technology mix analysis undertaken in the network expansion consultation, is Ofcom's choice to use FTTC as the MEA in the CC Model, citing the lack of detailed costing information for the deployment of FTTP in the UK as one of the main reasons for not using that as the MEA. It is striking that the use of FTTP for the MEA as the FTTP was discounted due to lack of detailed data of actual deployment costs in the UK – despite there being plenty network deployment costs data available from other countries, but for the NEC assessment it is deemed appropriate to estimate the costs of deploying a number of technologies for which there is little or no deployment cost information internationally, never mind for the UK.

4.1.4 It is CityFibre's strong view that a single MEA should be used for assessing the NEC and that that MEA should be consistent across the CC Model and the model used to assess the costs of the network expansion[6]. CityFibre further considers that FTTP is the only rational MEA to be deployed if the purpose is to set charges that encourage investment in new future-proof all fibre networks. Calculating the costs using a number of different technologies simply because they can deliver 10Mbps is short sighted and only prepares the path for another USO investment in a few years to upgrade the investment made at this stage. This is likely to result in higher costs than supporting future-proof network roll-out at this time.

4.1.5 CityFibre's views on the use of FTTP as the MEA have been addressed already in our response to the March consultation[7] and are not repeated here.

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[5] See Network Expansion Costs consultation paragraph 5.66.

[6] Please note that CityFibre believes that Ofcom should not deploy two separate models, but instead simply update the CC Model to reflect the additional network expansion proposed under the voluntary USO offer.

[7] See CityFibre's response to the March consultation paragraph 8.6.21,

5 Approach to cost modelling

5.1.1 Ofcom's modelling approach can be usefully split into three parts:

- Ofcom's choice of building a separate overlay model rather than incorporating the NEC into the CC Model;
- Ofcom's choice of MEA; and
- Ofcom's proposal to exclude FWA costs;

5.2 Ofcom's use of an overlay model

5.2.1 As mentioned above, CityFibre disagrees with Ofcom's proposed approach to model the net costs of the broadband USO separately from the main WLAMR. Whilst assessing the net costs of a USO in a separate model from the standard network costing model is the accepted standard approach to estimating the costs of a USO for an established operator, that is done because the USO costs need to be known separately from the remainder of the network costs for recovery outside the standard cost-oriented access charges framework. In this case, however, Ofcom is not looking to determine the USO costs as a separate element to be charged separately, but is simply looking to ensure that the incremental costs can be recovered through the charge control mechanism. CityFibre does not agree that a separate overlay model is the correct approach for the purpose of recovering the costs of incremental network investment through access charges, even if that is to meet a USO. We set out our reasons for that below.

5.2.2 Ofcom's proposed approach to modelling of the NEC creates an inconsistent overlay to the existing WLAMR model and results in the need to change the structure of the charge control structure proposed in the March consultation. Ofcom has not offered any reasoning for why this approach has been adopted and why a simple modification to the existing model would not be suitable. CityFibre notes that Ofcom considers that, in general, the NEC should be recoverable by Openreach through the charge control[8] and is therefore even more surprised at Ofcom's chosen approach to incorporate the costs of the NEC into the WLAMR charge control.

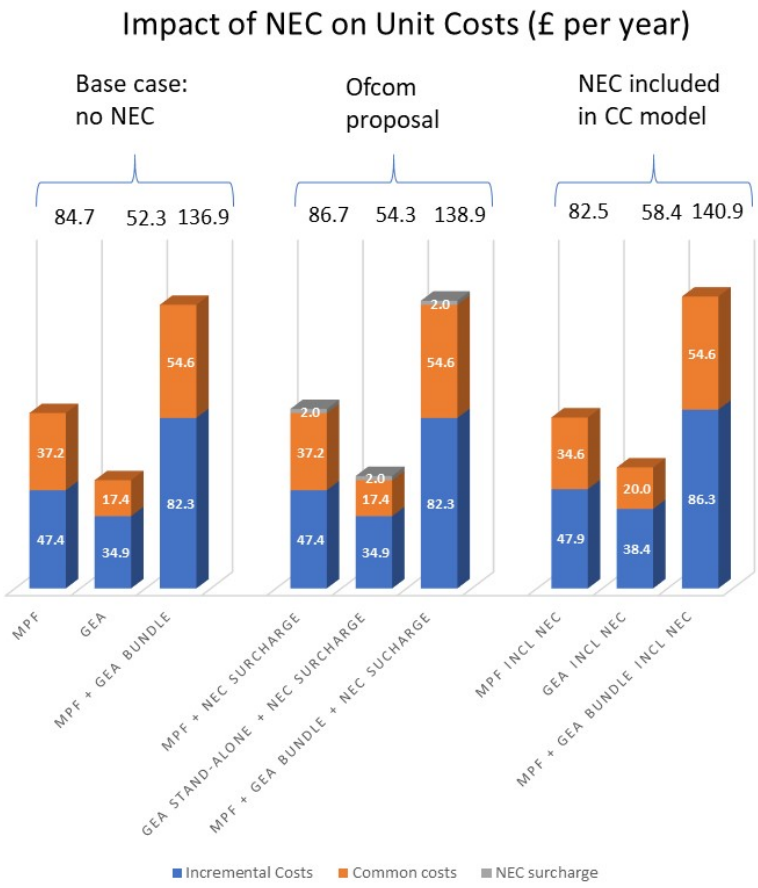
5.2.3 The use of the overlay model to calculate the net costs of the network expansion results in a single total cost figure to the be recovered in the way considered most appropriate[9]. That total network expansion cost includes cost elements would, if included in the main WLAMR costing model, have be directly allocated to the MPF and GEA products resulting in changes to the costs (and prices) of these two products reflecting the actual costs of each product. The results from a 'proper' cost allocation model approach would likely result in a smaller increase in the MPF cost (and price) and a correspondingly higher increase for GEA products. By applying the flat increase to MPF stand-alone and the MPF plus GEA bundle, Ofcom is unjustifiably loading costs to MPF-only lines and causing a distortion in price levels between MPF and GEA which is not justified by costs and which is likely to produce a lower MPF plus GEA bundle price than if the more appropriate costing approach had been adopted.

[8] See March consultation paragraphs 6.28 – 6.31.

[9] CityFibre's views on Ofcom's selection of cost recovery method are set out in section 6.

5.2.4 In addition to the above, the application of the flat increase to MPF and the MPF and GEA VULA bundle prices causes further cost and price distortion. This is because it does not allow for the redistribution of common costs which would have resulted from the incorporation of the NEC into the CC Model. As the NEC is likely to increase the number, proportion and therefore total costs of broadband lines using an GEA component, this would have resulted in an increase in the common costs allocated to the GEA product in the WLAMR model, resulting in a further increase of the GEA cost (and price) and a reduction in the MPF cost (and price).

5.2.5 Below is an illustration of what prices would result from the inclusion of the NEC into the CC model, as compared to Ofcom's proposal (the numbers used here are illustrative, and based on high-level assumptions to show the principle rather than a detailed calculation of the actual impact. The results from this analysis should not be relied upon other than to demonstrate the relative changes using different modelling approaches).



5.2.6 Ofcom has not explained and CityFibre does not understand why Ofcom has chosen to model the NEC separately and recover it differently from the rest of the WLA costs. Although the NEC costs have not yet been incurred and are outside the geographic footprint of where Openreach has rolled out commercial FTTC services, the inclusion of the additional FTTC (or other technologies including FTTP) connections to premises to which Openreach already operates copper lines would simply be a small amendment to the already extensive geographic averaging included in the setting of the MPF and GEA charges.

5.2.7 In fact, the MPF charges calculated in the March consultation model would already include the majority of premises for which the Broadband USO investment would be incurred[10], so inclusion of the NEC in the GEA costs would simply be aligning the geographic averaging between the MPF and the GEA products. If fibre costs to serve harder to reach premises should be treated separately from the costs to serve the remainder of the country, then that same rule should presumably apply to the copper costs of serving those same premises. The only difference between the nature of the costs being the time they are incurred.

5.2.8 CityFibre urges Ofcom to reconsider its approach and, if Ofcom decides to retain the current proposed approach to modelling, it should provide a clear rationale for why that is preferable to the use of a single consistent modelling approach for all the network costs to be recovered through the WLAMR access charges.

5.3 Ofcom's choice of MEA

5.3.1 As set out in section 4 above, CityFibre considers it inappropriate that Ofcom should use different MEAs for modelling of costs to be covered in the same access charges. Ofcom uses FTTC in the CC Model and, whilst CityFibre does not agree that FTTC is the most appropriate MEA for the WLAMR model, we consider it important that all modelling for setting the WLAMR access charges is done using the same fundamental assumptions. CityFibre therefore strongly recommends that Ofcom moves away from its (potentially misleading) technology mix MEA to a single MEA which is consistent with the MEA used in the CC Model.

5.4 Ofcom's choice to exclude FWA costs

5.4.1 Ofcom's proposal to exclude costs of FWA where used by Openreach for the network expansion[11] further serves to illustrate why it would be more appropriate to use a single MEA and leave it to Openreach to determine which technology to deploy in specific circumstances. Excluding FWA costs appears to, on the one hand, discourage Openreach from using that technology, even if it is the most appropriate technology in specific circumstances; whilst on the other hand encourage Openreach to use FWA due to Ofcom's presumption that no regulated access will be mandated where FWA is used. CityFibre does not agree with Ofcom that it is appropriate to exclude FWA costs. If Ofcom concludes that it wants to continue using the technology mix assumptions resulting from its analysis to establish the appropriate cost level, then FWA should be included and access across all Openreach's infrastructure should be mandated, regardless of technology chosen by Openreach.

5.5 General comments on Ofcom's modelling approach

5.5.1 On a more specific note, in Paragraph 5.49, Ofcom states that it includes a £10m allowance for system upgrades to support LR-VDSL, but as far as CityFibre can understand Ofcom does not include LR-VDSL in its base case. CityFibre therefore requests that Ofcom states clearly that the £10m system changes are only included in the case where LR-VDSL is incorporated.

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[10] As these premises already have a copper connection.

[11] See Network Expansion Costs consultation paragraph 5.21

5.5.2 Further, as referred to earlier in this response, in paragraph 5.66 of the NEC consultation, Ofcom refers to making adjustments to its calculations and assumptions to reflect comments received from BT. We discuss separately our view on Ofcom's pre-consultation with BT, here we only address the actual changes proposed by Ofcom as a consequence of inputs received from BT.

5.5.3 Ofcom proposes to reduce the number of premises assumed to be served by FWA and simply replaces these with FTTP premises. Whilst FTTP may be an appropriate technology for serving those premises, Ofcom's ex-post change to the analysis results puts a significant question mark against the appropriateness of attempting to estimate how many individual premises will be served by each technology. Ofcom further proposes to increase the costs of certain network elements (including duct and pole, fibre and planning) to reflect that the costs of those elements are higher in remote areas. Given, however, that the cost levels used in the CC Model presumably are BT's average costs, across its entire network (so reflecting a mix of cost levels) is it not appropriate to use that same average cost here? If anything, would it not be appropriate to slightly adjust the average cost used in the CC Model to reflect the extension of the network to more remote areas, rather than using an inconsistent set of costing assumptions for the calculation of the NEC?

6 Approach to cost recovery

6.1.1 Ofcom identifies three options[12] for how it can distribute the NEC:

- Across all lines (voice and broadband);
- Across all broadband lines; or
- Across all superfast broadband lines (that have a fibre component).

6.1.2 Ofcom then applies its six principles to assess which of these options is most appropriate in the specific prevailing conditions. Ofcom focuses on three of the six principles, namely:

- Effective competition,
- Cost causality, and
- Distribution of benefits.

6.2 Selecting the cost recovery method for the NEC

6.2.1 The question of how to recover the NEC as a stand-alone cost should not arise, as the NEC should simply be added to the CC model alongside other network expansion costs such as the costs of LR-VDSL which we understand Ofcom is currently looking into. The analysis below is therefore only presented in the event that Ofcom remains of the view that the NEC should not be integrated into the CC model.

6.2.2 As Ofcom has six well known and established cost recovery evaluation principles, which form part of Ofcom's commitment to transparency and consistency in making regulatory decisions, we agree that the appropriate way to determine the optimal cost recovery method is to apply those of the six principles that are clearly and directly relevant. CityFibre agrees that the three principles above provide the appropriate framework for the evaluation of how the NEC should be recovered.

6.2.3 Ofcom, however, has decided that a 4th and different principle should be applied – namely that the cost recovery must not distort the absolute price differential between MPF and GEA. Not only has Ofcom added this new principle, but it has been added as a 'gating' factor. Meaning that it is used to rule out any of the recovery methods that does not comply with it.

6.2.4 CityFibre fundamentally rejects the validity of that evaluation principle as it not only presumes that Ofcom's March proposals are set in stone, but also suggests that even if the profile of the costs to be recovered were to change, Ofcom would not want to reflect that in the regulated prices.

6.2.5 Through the application of the new principle of not distorting the absolute price differential, Ofcom dismisses the option of recovering the NEC over superfast broadband lines only (which have a fibre element) because this would change both the absolute and relative prices of MPF and GEA and therefore also the differential between these. CityFibre considers the use of this new principle in that gating function to be inappropriate and in conflict with Ofcom's stated

[12] See Network Expansion Costs consultation paragraph 6.8.

framework for the evaluation of different cost recovery methods and therefore in conflict with Ofcom's duties and commitments to make its decisions in a transparent and predictable manner.

The role and purpose of the new evaluation principle

6.2.6 What is puzzling, is that, if the six principles[13] were followed consistently across the WLAMR and this NEC exercise, we would expect a very different approach to be adopted to cost recovery. It appears to us that there are in fact some implicit social or political goals underpinning this exercise, involving welfare transfers between different groups of consumers. If so, these goals should be explicitly stated and therefore open to analysis and criticism. This is particularly important when such welfare transfers have other, distorting effects such as the blunting of investment signals or the sending of inefficient 'make or buy' signals.

6.2.7 If there are no social or political goals behind the application of the principle of not distorting the absolute price differential between MPF and GEA, then CityFibre invites Ofcom to present the rationale and justification for the application of that principle and for the relative importance with which it is treated compared to the established evaluation criteria.

6.2.8 It would seem that Ofcom may be designing the outcome of the WLAMR process to ensure that the price differential between standard and superfast broadband remains relatively small, such as to make the superfast service more affordable relative to the standard broadband price. This is akin to historical policies of cross-subsidies between calls and line rental to lower the barriers to take-up of telephony services, only now it is to encourage take up of superfast broadband services. This is however incompatible with a market where wholesale charges are set to encourage efficient make or buy decisions by competing providers. As a social policy goal, it also has the significant disadvantage of being regressive in effect: As a social policy goal, it also has the significant disadvantage of being regressive in effect. Where consumers have a choice between standard and superfast broadband (i.e. the vast majority), standard broadband customers are likely to be those on relatively lower incomes.

6.2.9 Whilst the NEC is incurred to achieve a social objective (the broadband USO of 10Mbps), if the cost recovery mechanism is to be through access charges, then those charges must send correct make or buy signals. This is particularly important as Ofcom's stated objective is to encourage investment in all-fibre networks such that 40% [14]of the UK will have a choice of three infrastructure providers and the majority of the remainder of the country a choice of two infrastructure providers.

6.2.10 This touches upon the general concern we have of attempting to 'fudge' rural broadband delivery through the UBC, with ad hoc adjustments to Openreach's cost-recovery, rather than through a properly defined and structured USO. Welfare transfers between groups of customers should be effected through a transparent and explicit mechanism. If the NEC were to be treated as a USO cost, then it would be recovered through a separate USO vehicle with its own funding mechanism and the distortions of access charges and resultant make or buy decisions would be kept to a minimum.

[13] Or in this instance the three principles selected by Ofcom.

[14] See DCR statement paragraph 4.32.

6.2.11 Moving onto Ofcom's assessment of recovery methods in relation to the three evaluation principles:

Applying the principle of cost causation

6.2.12 With regards to cost causation, Ofcom recognises that neither recovering the NEC over all lines or over all broadband lines would be consistent with the principle of cost causation[15]. This is because Ofcom recognises that the costs are primarily incurred by the need to upgrade the network infrastructure to include a fibre element. CityFibre agrees that when applying the principle of cost causation, the logical conclusion is that the costs should be recovered from lines that have a fibre component, simply because it is the installation of fibre connections that cause the costs to be incurred.

6.2.13 Ofcom, however, further states that "*An efficient way of recovering the costs is to allocate them to the services which are least price sensitive"*[16].

6.2.14 Our understanding of that statement is that, as broadband is now recognised as an essential service in order for citizens to participate in today's public and private interfaces (indeed many interfaces with public bodies are now only possible via internet connection), the least price sensitive broadband service would be the standard (copper only) connection as it is the entry service without which it is hard to function as a citizen. Ofcom therefore means to say (as far as we understood) that those customers who cannot afford superfast service and remain on the copper-only service, should carry the cost of the upgrade of a copper-only connection to an FTTC (or other technology) connection for other customers. Again, even if it is considered valid for Ofcom to engage in experiments in social policy, it is hard to see how it can be justifiable to introduce policies which are regressive in their impact. These are the customers and citizens who find it hardest to afford the broadband connection in the first place. Despite the actual impact of the NEC on the MPF charge would be relatively low, CityFibre considers the principle applied fundamentally wrong from a social perspective as well as being economically flawed.

6.2.15 If, by the least price sensitive service, Ofcom was referring to the basic (copper) voice connection. Including customers who today cannot even afford the basic copper-based broadband service[17] then by extension of our arguments in the preceding paragraphs, we consider that approach fundamentally flawed.

6.2.16 It appears to CityFibre that Ofcom is preoccupied by a desire to maintain the absolute price differential between MPF and GEA prices as proposed[18] in the March consultation, to the extent that it is creating arguments in support of that solution even if the achievement of one perceived social good (making superfast connection affordable to more people by limiting the actual price differential between MPF and GEA) is achieved at the cost of a social injustice,

[15] See Network Expansion Costs consultation paragraph 6.15.

[16] IBID.

[17] We consider it unlikely that somebody would have a fixed voice line only and no broadband, if they rely on mobile broadband. In that case we would expect them to have no fixed connection at all.

[18] And therefore, in principle at least, still not finally decided upon.

namely the increase in costs for customers currently using the copper-only broadband service or even also customers having a voice-only connection.

6.2.17 CityFibre considers that it is Ofcom's responsibility to make economically rational, transparent and consistent decisions to enable and encourage competition to the ultimate benefit of consumers and citizens. The proposed approach, however appears to be contrary to those duties and resembles political intervention to engineer a pre-specified outcome. Ofcom's predecessor (Oftel) spent many years overcoming the market distortions caused by such decisions from the past, including the pricing of line rental below costs to encourage higher take-up. The reason such cross subsidies had to be removed is that they are only workable in a monopoly situation, and creates arbitrage opportunities and is counter to the development of sustainable competition, in a multi-operator market. CityFibre invites Ofcom to reconsider this approach carefully, especially as, even after applying its flawed approach as set out above, Ofcom concludes that "*the all lines option is marginally preferable"*[19], [20].

Applying the principle of distribution of benefits

6.2.18 With regards to the distribution of benefits, Ofcom argues that (through externalities) all users of broadband lines benefit from the NEC. Ofcom offers no examples of the externalities at play. Given that the at least some of the premises to be served through the NEC can access a broadband service of some description today (whether through copper, satellite or other means), it is not clear what externalities other broadband users will benefit from by these premises being able to access a higher speed broadband service. Perhaps there would be externalities in relation to the citizens in those premises being able to make better use of public services on-line or use more commercial services, but for the majority of broadband users, it is hard to see what the benefits wold be. On the contrary, it is clear to see that the occupants of premises to which the new improved connections will be made will be the direct beneficiaries. As the improved connectivity will primarily be provided through some form of fibre connection, it would seem that the principle of considering the distribution of benefits points to a recovery of the NEC from broadband lines which include a fibre component and not all lines, nor all broadband lines.

6.2.19 Ofcom's initial conclusion when considering the principle of distribution of benefits is, however, that due to externalities, this principle supports the recovery of the NEC over all lines [21] (the same conclusion as Ofcom reaches when considering the principle of cost causation). But, when considering wider indirect benefits Ofcom changes that conclusion to a recommendation of recovering the NEC over all broadband lines, rather than over all lines (which include voice-only lines)[22]. CityFibre disagrees with that conclusion for the reasons set out above.

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[19] See Network Expansion Costs consultation paragraph 6.16.

[20] Please note that Ofcom here refers to 'all lines' which is not the option finally chosen. The footnote (56), which refers to the £.02 per line is therefore not the relevant cost uplift to consider when reviewing the impact of Ofcom's final proposal to recover the NEC over all broadband lines.

[21] See Network Expansion Costs consultation paragraph 6.18.

[22] See Network Expansion Costs consultation paragraph 6.21.

Applying the principle of encouraging effective competition

6.2.20 Moving on to the principle of encouraging effective competition, Ofcom does not provide any analysis using this principle at all. This is striking as Ofcom stated earlier in this consultation document that in the March WLAMR consultation it had focused primarily on this specific principle when determining which cost recovery approach to adopt[23].

6.2.21 Given that one of Ofcom's main objectives in the overall WLAMR (of which the NEC recovery has become part) is to encourage investment in new all-fibre networks, it is significant that Ofcom has not undertaken any analysis of how its chosen NEC cost recovery method would affect investment incentives. Below is CityFibre's analysis:

6.2.22 In our response to the March consultation, we explained that the relative price levels of MPF and GEA are of significant importance to the FTTP investment case (namely that a smaller difference between MPF and GEA (that is standard and superfast) would likely incentivise end customers to migrate to Superfast services and once there would not be inclined to move to FTTP-based services for some time). In short, if the price difference is very small then it is more likely that more customers will migrate to FTTC and be 'stuck' therefore some time, making it very hard to create a viable business case for FTTP[24]. It is CityFibre's view that the difference between the MPF and GEA prices was artificially reduced through Ofcom's proposed cost modelling approach (particularly using EPMU for the allocation of common costs) and the proposed cost recovery method (all lines, including voice-only lines). Ofcom's proposals in the March consultation are therefore detrimental to investment incentives.

6.2.23 Further, also of clear significance to the FTTP investment incentives is the absolute levels of the MPF and GEA charges, in particular the GEA charge level and the VULA price level (which combines the MPF and GEA services). This was also explored in detail in our response to the March consultation[25], but in summary, downstream CPs who will be marketing the FTTP services to end customers have communicated very clearly to CityFibre that they cannot commit to significant FTTP take-up if the price premium over the most popular FTTC service (currently the 40/10 service) is significant. In fact, several CPs have stated that they require parity with the 40/10 VULA price or only a very small premium on that price in order to be able to commit as anchor tenants on CityFibre's FTTP networks.

6.2.24 By making the preservation of absolute price differential between MPF and GEA proposed in the March consultation the over-riding principle to be applied to the evaluation of different cost recovery methods for the NEC, Ofcom is fossilising the very aspects of the March consultation which CityFibre has pointed out to have a negative impact on FTTP investment incentives.

6.2.25 More specifically, in relation to the recovery of the NEC, Ofcom's proposal that the NEC should be recovered over all broadband lines (which is inconsistent with its proposal to recover the

[23] Please note that CityFibre disputes that statement.

[24] As the FTTP business case would require relatively high levels of take up, even at the early stages of network roll-out.

[25] See CityFibre's response to the March consultation section 8.3 and a number of other places in that document.

WLA costs over all lines, including voice-only lines), results in an artificial reduction in the GEA costs (and price).

6.2.26 The MPF and GEA costs (and prices) as set out in the March consultation were calculated in the CC Model, using geographic averaging across Openreach's existing network. For the MPF costs and prices, that includes the copper connections to many of the premises for which the connection would be enhanced by the introduction of a fibre line to deliver the broadband USO of minimum 10Mbps. For MPF, it has therefore been considered acceptable to calculate a geographically averaged cost, including connections to these more remote premises. For GEA, however, it seems that Ofcom considers it inappropriate that the geographic averaging should cover the same footprint as for MPF. CityFibre considers Ofcom's approach to be inconsistent and causing an artificial suppression of the GEA price both in real terms and relative to the MPF price. CityFibre considers that the only reasonable cost recovery method for the NEC is that the NEC should be recovered across superfast broadband lines only (that is broadband lines that have a fibre component). The recovery of the NEC from the GEA only, would constitute not only a significantly more rational and defensible approach to cost recovery, but would also represent a significant pro-investment initiative.

6.2.27 Importantly, the result of recovering the NEC over the GEA service only would result in charges very similar to those which one would expect would have resulted if the NEC had simply been included in the CC Model. In fact, one would expect that the result from including the NEC into the CC Model would result in a higher GEA price than from the separate modelling of the NEC and recovering it across the GEA service only. This is because, when the direct GEA costs in the main model are increased (as would happen if the NEC were to be included into the CC Model), the GEA would also attract a larger portion of the common costs as these are presently proposed to be allocated using the EPMU principle.

6.2.28 With respect to evaluating the three possible cost recovery methods against the principle of encouraging effective competition (including investment), CityFibre has no doubt that Ofcom's proposal to recover the NEC over all broadband lines has a direct detrimental effect and would in no way satisfy that principle.

6.3 Cost recovery method proposed in March consultation

6.3.1 Ofcom states in the network expansion costs consultation that in selecting to recover the WLAMR costs over all lines in the March consultation, it focused primarily on the effective competition principle, in "*particular, incentivising competitive investment principles when considering how to allocate costs"*[26]. And the relevant footnote (52) refers to paragraphs 2.4 through 2.49 of the March consultation. Having reviewed those paragraphs again, we do not see where they refer to Ofcom's decision to recover costs across all lines. In fact, as stated in our response to the March consultation[27], we cannot see anywhere in the March consultation where Ofcom refers to its six principles for assessing the most appropriate cost recovery method.

[26] See Network Expansion Costs consultation paragraph 6.13.

[27] See CityFibre response to the March consultation paragraphs .6.50 – 8.6.62

6.3.2 CityFibre's response to the March consultation sets out clearly that had Ofcom reviewed the cost recovery options using its six principles, it would have found it very difficult to justify its choice of cost recovery method[28].

6.3.3 Ofcom's proposal to recover the NEC over all broadband lines is inconsistent with its proposal to recover all other WLA costs across all lines (including voice-only lines). Before we commence our review of Ofcom's justification for its chosen cost recovery method for the NEC, we wish to reiterate that it is our strong view that the NEC does not differ from the other WLA costs such as to justify a different treatment. We believe that Ofcom should incorporate the NEC into the CC Model which would ensure that the costs are allocated to the respective products as appropriate and that the costs will be recovered consistently with the remainder of the WLA costs.

6.3.4 In its response to the March consultation, CityFibre disagreed with Ofcom's proposal to recover the WLA costs over all lines[29], the arguments presented will not be repeated here unless they are directly relevant to Ofcom's NEC recovery proposal. It is however disconcerting to see that Ofcom appears to have fossilised the proposals contained in its March consultation to the extent that it now uses the absolute pricing differential between GEA and MPF, resulting from Ofcom's proposals in that consultation, as a state of affairs it wants to avoid 'distorting'[30] by the selection of the cost recovery method for the NEC.

"*We would not want the allocation of the costs associated with the network expansion to distort the absolute pricing differential set out in the March 2017 WLA consultation and so have sought to allocate costs to minimise this distortion"* [31]

6.3.5 Needless to say, that if Ofcom were to simply update the WLAMR main model to incorporate the NEC, then it would not need to select a separate cost recovery principle for the NEC at all.

6.3.6 CityFibre put forward strong arguments in its response to the March consultation to the effect that the absolute price differential proposed by Ofcom was wrong and would actively harm investment in new all-fibre networks[32]. To see that Ofcom has already at this time closed its mind to changes to that differential is troubling to say the least. We hope that Ofcom did not intend to suggest that it is not genuinely consulting on its March consultation proposals, but has already made up its mind prior to reviewing the consultation responses received.

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[28] IBID.

[29] IBID

[30] CityFibre considers it inappropriate that Ofcom's refers to its proposed MPF/GEA price differential as something that should not be 'distorted'. It is not a status quo (only a proposal open to consultation), nor is it in any way sacrosanct. The preservation of the outcome of a modelling exercise, which is under consultation and to which CityFibre and other stakeholders have submitted extensive comments and criticism, cannot and should not be an objective in itself.

[31] See Network Expansion Costs consultation paragraph 6.13.

[32] See CityFibre's response to the March consultation paragraphs 8.6.30 to 8.6.62

6.4 Conclusion

6.4.1 Having objectively reviewed Ofcom's justification for recovering the NEC across all broadband lines, we conclude that the only principle satisfied by this choice is the one created by Ofcom specifically for this analysis – namely that the actual price differential between MPF and GEA prices should not be 'distorted'. For the three relevant principles from Ofcom's standard evaluation framework, Ofcom's choice is inconsistent and in fact directly contrary.

6.4.2 CityFibre considers it highly inappropriate, and contrary to Ofcom's duties on transparency and consistency, that Ofcom can disregard its published evaluation framework (even if it is quoted in the consultation) and arbitrarily select a cost recovery method that supports the outcome of a proposal set out in an earlier consultation.

6.4.3 CityFibre considers that the most appropriate method for recovering the NEC would be for these costs to be incorporated in the CC model and for those costs to be recovered across all broadband lines (not all lines including voice-only lines as proposed by Ofcom in the March consultation). If Ofcom determines to retain the separate cost model for the NEC, then the NEC should be recovered from the superfast broadband lines only (e.g. lines that have a fibre component), as this would attribute the costs to the GEA service which is appropriate as the costs are caused by the introduction of additional fibre lines, it would be paid for by those who benefit and it would encourage effective competition.