Promoting competition and investment in fibre networks

Telefónica UK's response to Ofcom's consultation on Wholesale Fixed Telecoms Market Review 2021 – 26

Non-confidential

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1. Executive Summary

1.1 The Wholesale Fixed Telecoms market review (WFTMR) represents an important moment in Ofcom's strategic shift towards regulation that supports the development of competing fibre networks. This is Ofcom's first "full" market review since it spelt out its 'approach to future regulation' position in July 2018, and its first five-year review period[1]. It is vital that Ofcom now delivers on its policy objectives. This requires Ofcom to strike a careful balance between promoting investment in fibre networks and protecting consumers from excessive pricing in parts of the UK where there are no, or fewer, prospects for competing fibre networks.

1.2 We recognise the importance of this market review period and welcome the opportunity to shape it. The enablers set out for this review period will have a profound effect on the ability of mobile operators to roll-out 5G and meet the demands of UK consumers.

1.3 As Ofcom is aware, we are Telefónica UK, a wholly owned subsidiary of Telefónica S.A. We are a leading provider of retail mobile services and one of four mobile network operators in the UK. We offer communications solutions to over 33 million consumer and corporate customers through our O2 and giffgaff brands. We are also the mobile network operator of choice for a number of mobile virtual network operators, including Sky and Tesco Mobile.

1.4 In addition to our retail market presence we are also a substantial consumer of wholesale leased lines. Our network is supported by tens of thousands of connections across the UK, currently leased from national mobile backhaul providers such as BT Wholesale and Virgin Media.

Figure 1: ✂[2] [3]

✂

1.5 Ofcom's review comes at a critical time for us. The launch and evolution of 5G, which we introduced in October 2019, will place even greater demands on the capability, capacity, and performance of our network. ✂will not support the future capability and capacity that we require, and we are now seeking cost-effective and flexible solutions to meet the demands of our customers over this review period.

[1] We note that Ofcom's Physical Infrastructure Market Review and Business Connectivity Market review were both shorter, 'transitional' market reviews. Promoting competition and investment in fibre networks – review of the physical infrastructure and business connectivity markets, Introduction, para. 1.15 – 1.16.

[2] ✂

[3] ✂

1.6 Through our ongoing request for proposals (RFP), launched at the end of 2019[4], we have engaged numerous access and aggregation leased line providers to deliver our mobile backhaul services. Where possible we have sought to establish whether this can be provided using regulated and unrestricted physical infrastructure access (PIA). The initial proposals submitted to this RFP inform our responses to this Consultation[5].

1.7 Like Ofcom, we think that this will be best achieved through competition between rival networks. Long run, effective competition is best placed to deliver the dynamic efficiency and innovation required to address increasing customer demand, not market regulation.

1.8 However, this long-term aim of enabling the development of competing fibre networks must be balanced against the need to protect customers and ultimately consumers. Ofcom's statutory duties require that competition only be promoted where it is appropriate to do so in the context of protecting customers[6]. We consider that Ofcom's proposals do not always strike this balance well, and we call Ofcom out where it has failed to do so.

Large fibre investment requires an easier to use PIA remedy

1.9 We have observed that the PIA remedy, in its current form, is not fit for purpose. Whilst we welcome Ofcom's decision to maintain a requirement on Openreach to provide unrestricted access to its ducts and poles, there remain operational and behavioural barriers to consumption.

1.10 The implication of these barriers is that rival infrastructure providers are less inclined to extend their network to meet connectivity requirements (in particular for mobile operators). The corollary of this is that rival roll-out over this review period will be less than Ofcom forecasts, which in turn implies that Openreach will be constrained to a lesser extent in wholesale markets (including those for access leased lines).

1.11 Ofcom must address these operational and behavioural barriers to consumption now. We propose a pragmatic solution; implement a system SLA to drive improvements in Openreach's PIA systems and adjust Openreach's network adjustment obligation to facilitate a more automated process. Where these remedies fail to reduce these barriers, Ofcom should impose an EOI remedy in the next review period.

[4] Our RFP was published in December 2019, four months after unrestricted PIA became available as a regulatory remedy.
[5] Details of our RFP process are set out in Section 3.
[6] Communications Act 2003 – Section 3(1)

Rival presence does not always translate into actual competition, including in the CLA and HNR

1.12 Whilst supportive of Ofcom's proposals for the CLA and HNR, we recommend that Ofcom carefully evaluates the actual state of competition in the HNR and Area 2 before deciding that light-touch regulation is appropriate.

Competitive conditions in Area 2 do not support uniform, light-touch regulation

1.13 Conditions across Area 2 are too varied for a 'one-size-fits-all' approach to regulation. Imposing uniform, light-touch regulation will not appropriately protect consumers from excessive pricing. This will be especially true in the parts of Area 2 with no established rival and uncertain prospect of rival roll-out. Further delineation (preferably based on established rival presence[7]) is required as it allows varying regulation by conditions on the ground.

1.14 Ofcom's approach to delineating Areas 2 and 3 results in postcode sectors where effective competition is unlikely to emerge being included in Area 2. In our view, these sectors should be part of Area 3. More specifically, Ofcom has not thus far sufficiently justified its proposed reduction of the coverage threshold to 50% and relies disproportionately on rivals' build plans to predict prospects for competition over the review period.

Ofcom should reconsider the introduction of the dark fibre remedy in Area 3 at this stage

1.15 Regulation in Area 3 should first and foremost protect consumers from excessive prices. We anticipate that there will be limited appetite to use the dark fibre remedy in this area as it does not facilitate scale adoption. This would mean that Ofcom's proposed remedies would not sufficiently constrain BT's pricing of active services. Consumers in this area would then face very high prices without prospects of rival roll-out. Instead, tighter charge controls on active services are needed to address this.

1.16 We propose that Ofcom postpone the introduction of the dark fibre remedy to the next review period. This would allow for a more informed and time-resilient decision on where this remedy is needed and does not risk

[7] As opposed to planned build, which, while it could provide an indication as to which areas will become more competitive, cannot be relied upon to ensure that customers are appropriately protected in those areas. Plans can and do change after all.

deterring rival roll-out. In our view, a tighter charge control on active services, rather than a dark fibre remedy that is used infrequently, will be a more appropriate option for Area 3.

Pricing continuity may not be the most appropriate pricing option for Area 2

1.17 Ofcom's assessment of pricing options is unbalanced. It is overly sensitive to Ofcom's optimistic forecasts of rival roll-out, and it does not consider a more reasonable alternative to cost-based controls (for example, tighter charge controls on VHB, and possibly on 1Gb and below as well). It also understates the scale and implications of BT over recovering its costs. Ofcom should consider a pricing option that strikes a more appropriate balance between promoting rival roll-out and protecting consumers from excessive pricing.

Proposed regulation does not address prices of very high bandwidth services, which remain far in excess of cost

1.18 Ofcom's proposals would mean that mobile operators, and other users with 10Gb requirements (referred to as VHB (very high bandwidth) by Ofcom), would pay very significant overcharges. It is simply not appropriate for Ofcom to use very high VHB prices as an instrument to promote rival roll-out (or at a minimum, Ofcom should be transparent where it finds this an appropriate price). This is particularly true in Area 3, and in parts of Area 2 with less prospect of rival roll-out to constrain BT's pricing of VHB services. Tighter charge controls there are needed to ensure that users are adequately protected, in line with Ofcom's statutory requirements, as the constraint exercised by rival infrastructure will not be sufficient.

1.19 The remainder of our response is structured as follows:

- **Section 2** sets out our agreement with both Ofcom's strategic approach and the UK Government's 5G ambition, and why this market review is important to us.
- **Section 3** explains our concerns that the PIA remedy, in its current form, is not fit for purpose and will not support the investment in fibre networks needed to achieve Ofcom, the UK Government's and our own objectives.
- **Section 4** identifies a number of shortcomings in Ofcom's approach to, and proposals for, delineating Areas 2 and 3 of leased lines markets.
- **Section 5** recommends that Ofcom should hold off introducing the dark fibre remedy in leased lines access markets until a more informed, time-resilient decision can be made.

- **Section 6** discusses our concerns as that the proposed price regulation will not sufficiently protect users of leased lines over this review period. Tighter charge controls are required in Areas 2 and 3, in particular on VHB services.

2. Introduction

2.1 This section sets out our support for Ofcom's strategic approach and for the UK Government's prioritisation of 5G roll-out. We also describe why this market review is important to us, our customers, and to realising the UK Government's 5G ambitions.

We welcome Ofcom's strategic approach to this market review and support the UK Government's ambition for rapid 5G deployment

2.2 In its consultation, Ofcom again makes clear its strategic approach and priorities; seeking to promote competition and investment in fibre networks across most of the UK[8]. This focus on promoting investment in fibre (by rivals and Openreach) is complemented by lighter touch regulation in downstream wholesale markets.

2.3 We continue to support Ofcom's strategic approach, first adopted in its review of digital markets (DCR) and culminating in its July 2018 'approach to future regulation' publication. In particular, we agree with Ofcom's proposal to maintain an unrestricted PIA remedy. This is essential in enabling rivals to build their own fibre networks at scale.

2.4 Like Ofcom, our long-term preference is for competing fibre networks (instead of regulation) to deliver what customers need and want. Such networks, however, will take time to establish and will not cover the UK as a whole. In the meantime, it remains necessary for Ofcom to regulate wholesale markets in a way that balances promoting rival build and protecting customers in these markets (and their downstream consumers) from excessive pricing.

2.5 Ofcom must give regard to the UK Government's Statement of Strategic Priorities (SSP) [9]. Notably, the SSP sets out an ambitious target for 5G in the UK: *"the Government wants the UK to be a world leader in 5G, and for the majority of the population to have 5G coverage by 2027*[10]"

2.6 It is incumbent on Ofcom to consider whether or not its regulation fulfils the Government's strategic priorities. Particularly relevant to this market review is a requirement to:

1. ensure that regulatory intervention makes it easier and cheaper to deploy mobile infrastructure; and

[8] Wholesale Fixed Telecoms market review – Volume 1, para 2.21
[9] Wholesale Fixed Telecoms market review – Volume 1, para 2.22
[10] Statement of Strategic Priorities, October 2019 – para. 32

2. promote growth, competition, and investment in network densification[11].

2.7 We share the Government's ambition for the UK to become a world leader in 5G mobile services. In October 2019 we launched our 5G services in the UK. Since then we have rolled out 5G connectivity to over 30 towns and cities across the UK, with an established plan to reach a further 20 by the end of this calendar year.

2.8 The Government has directed Ofcom to consider alternative approaches where current market structures do not deliver sustainable investment in 5G. The Government's deadline for widespread 5G deployment is just over one review cycle away. Failure to put in place the right conditions for investment will result in the Government's deadline being missed. Therefore, in order to achieve our collective 5G ambition, Ofcom must put in place effective enablers now.

Meeting our customers' demand for 5G services will require substantial network development

2.9 The roll-out of 5G will place even greater demands on the capability, capacity, and performance of our network.

2.10 Data traffic on our network has been growing for some time, ✂. We forecast that this growth will be driven further by the increased take up of 5G, unlimited data allowances and increased download rates (facilitated by faster, higher capacity 5G networks). Figure 2 presents our forecasts – ✂.

Figure 2: ✂[12]

✂

2.11 To facilitate strong growth in mobile traffic, we will need to substantially upgrade our mobile backhaul over this review period and beyond. Today's 1Gb requirements will soon become 10Gb, and small cells will soon require 1Gb rather than existing 100Mb connections. This has two implications for our mobile backhaul needs: first, we require more high-speed connections, and secondly, we need to connect to a much larger number of small cells.

2.12 As Figure 3 presents, we anticipate that ✂. Demand for increased capacity is derived, driven by uptake of our retail 5G offerings, adoption of 'unlimited' tariffs and higher download rates. Our challenge is that, whilst we know that greater capacity will be required, we cannot determine when and where with any granularity. To meet our customers' 5G demands, we require access to an affordable, scalable, and flexible fibre infrastructure.

[11] Statement of Strategic Priorities, October 2019 – para. 33 - 34

[12] ✂

Figure 3: ✂

✂

2.13 The question then turns to how our requirements (and those of other users of leased lines) can be best met. In the long run, and where they can be supported, competing fibre networks are the best mode of providing the affordable and flexible infrastructure that users require. They offer users choice and enable dynamic efficiencies and innovation to be delivered. An easy-to-use PIA remedy is essential to unlock the required investment in fibre networks.

2.14 However, a balance needs to be struck. Competing fibre networks will take time to develop, and even then, will not cover all parts of the UK. As such, the promotion of investment in competing fibre networks needs to be complemented by regulation that protects customers from excessive pricing. This is particularly important in parts of the UK that are unlikely (if at all) to see competing networks emerge.

Mobile customers now expect more for less and are becoming increasingly data hungry

2.15 We operate in a highly competitive and dynamic retail mobile market. This market is delivering – and customers now expect – more for less[13]. The strength of competition in this market is evidenced by pricing and usage trends. Ofcom has observed that since 2016 the average price of mobile tariffs has reduced by 19%, whilst data usage has increased by 146%[14].

2.16 Our ability (and that of other mobile providers) to offer more for less relies heavily on the extent to which we can continually reduce fixed network costs. Where this is not possible, we will no longer be able to meet customers' expectations and consumer surplus will stagnate. We again refer to Ofcom's statutory duty to protect and further the interests of consumers[15].

2.17 Whilst still niche at this stage, we anticipate that ✂.

2.18 We already offer 4G and 5G 'unlimited' tariffs and it is our experience ✂.

Figure 4: ✂

✂

[13] Pricing trends for communications services in the UK, Ofcom - May 2018, Figure 4

[14] Pricing trends for communications services in the UK, Ofcom – January 2020, Key Metrics

[15] Communications Act 2003 – Section 3(1)

We expect increased 5G take up will fuel demand for 'unlimited' tariffs over this review period. The majority of customers adopting 5G in countries where 5G roll-out is more mature opt for 'unlimited' tariff options[16]. This choice can be explained by their preference for faster, lower latency data connectivity, along with the peace of mind that an 'unlimited' tariff can provide (i.e. no charges for exceeding allowances). ✂.

2.19 Taken together, the roll-out of 5G and the increased take-up of 'unlimited' tariffs will increase our backhaul requirements, particularly for very-high capacity backhaul. In the previous sub-section, we noted that ✂. Whilst mobile providers remain reliant on BT's network to do this, the shift from existing backhaul to very high bandwidth leased line (VHB) will exponentially increase the fixed costs – with the notable exception of EE, who are able (as part of BT Group) to internalise much of the cost of 10Gb connectivity to their cell sites[17].

Ofcom's approach must balance promoting investment in competing fibre networks with the need for continued regulation

2.20 The corollary of the above is intuitively clear. Absent competing networks and appropriate wholesale regulation, market shifts to 5G and high data tariffs will substantially increase mobile operators' fixed costs.

2.21 In our view, such an increase in costs will eventually harm retail customers in three ways:

1. **Lack of accessible pricing** – Where fixed costs remain high, mobile operators will have limited scope to discount prices. The result is that retail price competition is reduced, and consumers will have less access to 'unlimited' or large data tariffs at competitive prices– especially in the 5G market. The market will no longer be able to meet customers' more for less expectation.

2. **Reduced network performance** – At prevailing levels, the cost of upgrading backhaul capacity will be very high. Cognisant of the need to recoup greater fixed costs, mobile providers may slow down 5G roll-out to new locations and hold off on increasing capacity at existing sites. Retail customers would then get a worse 5G experience.

[16] For example, in South Korea, Korean Telecoms noted that 85% of early 5G adopters chose an unlimited plan – Analysis Mason – 5G Launch in South Korea, June 2018

[17] We note as well that EE will be further helped by Openreach's over-recovery on 10Gb leased lines, which remain excessively above cost. We discussed this in Section 6.

3. **Market distortion** – Competition in the retail mobile market could be distorted. As part of BT Group, EE will be able to internalise the cost of mobile backhaul in a way that other mobile operators cannot. This can then undermine the level playing field as EE's position versus other mobile providers is strengthened.

2.22 Ofcom has a statutory duty to further the interests of consumers, where appropriate through competition. In light of this, and the potential harm stemming from high backhaul costs, Ofcom should carefully assess how its proposed regulation may affect retail consumers both in this and subsequent review periods.

2.23 Our requirements as a mobile network operator in this review period are clear. To meet the demands of 5G (and by extension the needs of our retail customers) we require access to scale, rival fibre networks – facilitated by an easy-to-use PIA remedy. Where the PIA remedy is unlikely to deliver competing fibre networks – in areas where competitive build is unlikely to emerge – tighter regulation on leased lines is required. This will particularly be the case for VHB leased lines, which remain priced well in excess of costs.

3. Physical Infrastructure Access market

We agree with Ofcom's assessment of the Physical Infrastructure market

3.1. Ofcom has defined a single, national market for the supply of wholesale telecoms physical infrastructure for deploying telecommunications networks[18]. In this putative national market BT is considered to have significant market power.

3.2. We agree with Ofcom's assessment and conclusions.

3.3. We particularly agree with Ofcom conclusion that other forms of physical infrastructure, for example gas, electricity, and sewage infrastructure, are not sufficiently substitutable to be included within its putative product market[19]. This aligns with our experience. ✂. This supports Ofcom's finding that other forms of infrastructure will not sufficiently constrain telecoms physical infrastructure.

3.4. We also welcome Ofcom's decision to define a single, national geographic market. In response to Ofcom's 2019 PIMR we noted that we did not agree with Ofcom's decision to define multiple geographic markets, especially as Ofcom SMP assessment did not differ across these geographic areas. In our view, the market is national in nature (with the exception of the Hull area), because competitive conditions are broadly similar. Ofcom's SMP assessment clearly demonstrates this [20].

Our RFP provides an important insight into the effectiveness of Ofcom's current PIA remedy

3.5. In both its 2019 PIMR and its consultation for this market review, Ofcom has set out its expectation that the PIA remedy *can* facilitate commercial leased lines build in the access segment[21]. This is particularly the case where leased lines are used for the supply of 5G mobile access tails, where connections are shorter, higher value, high capacity circuits[22]. Consistent with its approach in the 2019 BCMR[23], Ofcom has taken a 'light touch' approach to remedies in the wholesale leased lines market in the parts of the UK where rivals are present or have plans to roll-out.

[18] Wholesale Fixed Telecoms market review – Volume 2, para. 3.35
[19] Wholesale Fixed Telecoms market review – Volume 2, para. 3.34
[20] Telefónica UK response to 2019 PIMR, response to Question 3.1
[21] Wholesale Fixed Telecoms market review – Annex 7, para A7.31
[22] Wholesale Fixed Telecoms market review – Annex 7, para A7.41
[23] Business Connectivity market review 2019 – Final Statement, para. 1.17

3.6. We have supported this strategy, although not without reservation. In our response to the 2019 PIMR and BCMR we noted that, at that stage, the effectiveness of a PIA remedy in supporting rival roll-out was unknown and that a successful PIA remedy has to support more competition between providers of mobile backhaul services[24].

3.7. Ofcom's unrestricted PIA remedy was made available in August 2019, and some 10 months have since passed. Whilst we recognise that both the unrestricted PIA remedy and our RFP are in their early stages, we believe that our initial results provide valuable insight into the extent to which his remedy promotes significant investment in rival fibre networks.

3.8. In December 2019, we issued an RFP for the provision of our mobile backhaul services. Our RFP seeks suppliers to build and manage an access and aggregation infrastructure in ✂[25]. Whilst still in its early stages, we have been engaged by ✂,[26] setting out their plans for how they can meet our requirements.

3.9. Our RFP aims to identify the most cost-effective solution that meets our growing demand for mobile backhaul capacity. When identifying this solution we consider a variety of price and non-price factors, including: ✂.

3.10. Figure 5 below provides an ✂[27]. We derive two conclusions:

1. providers do not have material appetite to meet our requirements using the PIA remedy; and
2. using the PIA remedy to meet our requirements will take much longer compared to relying on other existing infrastructure.

3.11. In our view, these responses illustrate that providers are reluctant to use regulated PIA (or otherwise to build new infrastructure) in order to meet our mobile backhaul requirements. ✂[28].

3.12. Where providers do not have extensive existing infrastructure they opt to not compete for our requirements - for example ✂.

3.13. We also noticed that relying on the PIA remedy to build results in longer build times. ✂.

[24] Telefónica UK response to the BCMR, para. 17 and PIMR, para. 5
[25] ✂
[26] ✂
[27] As we noted in paragraph 2.12, whilst we know that greater capacity and capability will be required, it is difficult to know when and where this additional capacity will be required. Scalability and flexibility are therefore critical non-price factors.
[28] ✂

3.14. We believe that providers' caution to use the PIA remedy to compete for the supply of connectivity to sites that they were not already connected is driven by a variety operational and behavioural barriers.

Figure 5: ✂
✂

Ofcom can address this apparent lack of appetite by making the PIA remedy easier to use

3.15. Our concerns about the effectiveness of the current PIA remedy (in light of our ongoing RFP) have been corroborated by the views of other CPs, especially by those that either already consume this remedy or want to do so. We form part of a group of Communication Providers (CPs) that share a common interest to address operational issues surrounding the consumption of the PIA remedy, represented by Towerhouse LLP. We direct Ofcom to the Towerhouse joint response and the detail it provides on the remaining flaws that make using the PIA remedy less attractive for rival providers.

3.16. In brief, recent negotiations to improve and industrialise the Openreach PIA systems and processes have been unsuccessful. Considerable work is still required to make regulated PIA truly capable of being consumed at scale. The Towerhouse response[29] identifies two particular operational issues that limit rivals' interest in using the PIA remedy to extend their networks:

- 'Openreach's PIA systems and processes remain slow and outdated. Consumption of the PIA remedy continues to rely heavily on manual, labour intensive processes, and procedures – for example submission of spreadsheets and email correspondence. Extensive back and forth communications between CPs and Openreach result in wasted time and limits the ability of those consuming the PIA remedy to compete with alternatives (for example Openreach actives).'
- 'The existing network adjustment process is, at present, flawed and a barrier to consumption. The cost and complexity of submitting a network adjustment request erodes the time savings which the PIA remedy in theory offers over CPs building network itself. Cognisant of this, CPs may be

[29] Towerhouse LLP response to the Wholesale Fixed Telecoms market review, April 2020

reluctant to use regulated PIA, instead opting for Openreach active products or not meeting requirements at all (as exhibited by responses to our RFP).'

3.17. As far as we are aware, BT itself does not need to utilise these systems[30] nor has to use the network adjustment process when extending its own fibre network. This raises concerns as to whether BT has the necessary incentives to improve and develop its PIA systems and processes.

3.18. We believe that there is a pragmatic solution to these operational issues: Openreach should be subject to both a systems service level agreement (SLA) which requires it to improve its dated systems and processes and to an enhanced network adjustments obligation.

Systems SLA

3.19. We believe that the relative lack of rivals' appetite to use the PIA remedy is driven by the PIA process being manual, slow, and complex – suitable only for small scale deployment.

3.20. To address this apparent issue, improvements need to be made to BT's systems and processes, along with assurances and protections that these systems will remain fit-for-purpose. Given that BT itself does not use the same inventory and ordering systems, these improvements are unlikely to occur without regulatory intervention[31].

3.21. One possible solution to this would be the imposition of a systems SLA on Openreach. This SLA would require Openreach to improve its systems and processes over the review period, becoming stricter as demand for PIA becomes greater. For example, a systems SLA could require that the performance of the industry PIA inventory and ordering system is reasonably equivalent to the systems used by BT – PIPeR. Where appropriate, this should include the development of APIs that will automate many of the manual processes that significantly slow down the consumption of PIA.

3.22. We believe that the imposition of a systems SLA will improve the systems and processes through which rival providers can use the PIA remedy. This should substantially improve the ability and incentives of rival providers to use the PIA remedy to extend their networks and to compete for the supply of leased lines.

[30] Openreach Internal Reference Offer – Physical Infrastructure Access, para. 41

[31] Further, we are concerned that BT may have incentives to frustrate this process.

Network adjustment remedy

3.23. Consistent with its decision in the 2019 PIMR Statement, Ofcom proposes to continue to require BT to make adjustments to its physical infrastructure in certain specific circumstances[32]. We agree that this is a necessary requirement.

3.24. However, we are concerned that BT's existing network adjustments process is contributing to the long build times apparent in our RFP responses[33]. When encountering blockages or a lack of space, CPs are required to report this to BT. BT will subsequently complete a desk-based or field-based verification and cost estimate for the work required. This is a significantly time-consuming process, with BT taking up to 13 working days to confirm whether the network issue will be fixed and how much it will cost. This process is followed for each network issue encountered by users of the PIA remedy.

3.25. In our view, this approach is cumbersome and costly. This could be remedied by Ofcom fine-tuning the network adjustments requirement to address these operational concerns. For example, Ofcom could require BT to facilitate autonomous network adjustments process, where providers can address network blockages themselves before claiming back the cost at a later date.

Non-discrimination remedy

3.26. We think that an effective non-discrimination remedy will be vital to ensuring large scale use of the PIA remedy. It can also play an important role in delivering outcomes where BT has no incentive to drive improvement. Where the proposed systems SLA and network adjustment remedies do not improve take up of the PIA remedy, Ofcom will have to consider an EOI remedy in the next review period.

[32] Wholesale Fixed Telecoms market review – Volume 3, para. 4.32

[33] In paragraph 3.11 we noted that those relying on the PIA remedy have presented significantly longer build times compared to those using their own networks in the same areas.

4. Leased lines geographic market analysis

We support Ofcom's proposals for CLA and HNR

4.1. Ofcom has proposed to define the Central London Area (CLA) and High Network Reach areas (HNR) as separate geographic markets, where BT enjoys SMP in HNR but not in CLA.

4.2. Given Ofcom's strategy (which we support), and greater rival presence in the HNR, we understand why Ofcom considers that a 'fair and reasonable prices' charge control on BT's active products strikes an appropriate balance between promoting rival roll-out and protecting consumers from excessive pricing. If anywhere, such light-touch regulation may be appropriate in HNR.

4.3. However, it is our experience (informed by the RFP discussed above) that rival presence does not always mean that light-touch regulation is appropriate. As such, we recommend that Ofcom carefully evaluates the actual state of competition in HNR and Area 2 before deciding that (very) light-touch regulation is appropriate. Ofcom should ensure that rivals to Openreach are willing and able to compete for the supply of leased lines to sites which they were not previously connected. Ofcom should consider evidence from tenders or other forms of request for proposal to assess the actual state of competition.

Ofcom's Area 3 delineation is too narrow

4.4. The approach that Ofcom has followed in delineating Areas 2 and 3 leads to the inclusion of postcode sectors where prospects for competition are rather unfavourable in Area 2. In our view, these sectors would be more appropriately categorised as part of Area 3, instead.

4.5. First, Ofcom fails to justify its proposal to reduce the coverage threshold from 65% to 50%[34]. It argues that a lower threshold is consistent with its strategy of promoting network investment and competition. We consider that Ofcom, in deciding on this threshold, should also put weight on the objective of protecting consumers from excessive pricing[35]. In doing so, Ofcom must acknowledge that applying a lower threshold exposes many consumers in postcode sectors where the sole rival has just above 50% coverage of premises (and quite possibly less for business sites) to material pricing risks. In our view, Ofcom would then conclude that a 65%

[34] See paragraphs 7.22-7.24, Volume 2: Market assessment of Ofcom's 2020 WFTMR Consultation.

[35] As per its statutory duty – Communications Act 2003 – Section 3(1)

threshold strikes a better balance between promoting rival roll-out and protecting consumers from excessive pricing.

4.6. Ofcom has not shown that sectors where one (prospective) rival extends to little more than 50% of premises can be prospectively competitive. This would only be the case where rivals are willing to dig to connect new sites within these sectors. Our experience does not support this.

4.7. Secondly, Ofcom's classification of rivals' build plans, based on internal planning status, makes it highly dependent on their planning and future decisions. Rivals' build plans are forward-looking projections and estimates, which provide less certainty than their actual track record.

4.8. Given its reliance on these plans, Ofcom should review companies' past delivery record, and consider the feasibility (in terms of time and funding) of rivals delivering on these plans before extrapolating plans into actual future build. We also note that when making these plans, rivals' will have been unable to take account of Ofcom's proposals for regulating fixed telecoms infrastructure for the next review period, as these had not been published yet. There is a risk that, in light of Ofcom's proposals, planned build could be subject to change. Regulation will significantly affect the prices that rivals can charge and thus on the investment case of their build plans.

4.9. Our recommendation to further delineate Area 2 (see below) would greatly mitigate these concerns. Tighter regulation would better protect users in postcode sectors that Ofcom has erroneously included in Area 2 from excessive pricing.

Competitive conditions across Area 2 too varied for 'one-size-fits-all' regulation

4.10. Ofcom proposes to delineate a very wide Area 2, containing 61% of leased lines in the UK (compared to 20% in Area 3, and 19% in CLA and HNR combined. Competitive conditions in it vary significantly; from postcode sectors of one established and two other 'build in progress' rivals, through to sectors with just one rival with uncommitted build plans. These conditions differ too much to adopt a 'one-size-fits-all', light-touch approach to regulation. This approach will not appropriately protect users in parts of Area 2 with no established rival and uncertain prospect of rival roll-out from high prices.

4.11. Further delineation of Area 2 can address this problem. It would allow Ofcom to strike a more appropriate balance between promoting rival roll-out and protecting consumers from high prices depending on conditions on the ground. That is, light-touch regulation where prospects are favourable (and promoting rival roll-out is key) and tighter regulation where prospects are less favourable (and users require better protection).

4.12. The question then turns to how to delineate, and how to regulate the differing parts of Area 2.

4.13. In our view, the best way to further delineate Area 2 is based on the presence of an established rival. This involves distinguishing between a putative 'Area 2a' as the area with one established rival, and 'Area 2b' without an established rival (though with one or more rivals with build plans). Prospects for competition are clearly more favourable in 'Area 2a', particularly so, over the initial years of the review period when a rival is present in 'Area 2a' but not in 'Area 2b'. Moreover, we note that conditions in 'Area 2b' involve greater uncertainty, as rivals may not roll out and in most cases not all rivals will build.

4.14. The regulation proposed for Area 2 could be appropriate for Area 2a. Whilst customers are subject to greater pricing risk, rival presence and roll-out will offer protection. There are also real prospects of customers benefitting from choice and competition towards the end of the review period. This is not the case for Area 2b. Regulation here should place greater emphasis on protecting protect consumers from excessive pricing. For instance (and assuming that Ofcom is not willing to make the dark fibre remedy available in this area), by means of a tighter charge control on active services.

4.15. We request that Ofcom consider the further delineation of Area 2 (preferably based on presence of an established rival), and subsequently consider what regulation would better protect users from excessive pricing in Area 2b (e.g. flat or reducing nominal VHB prices).

5. Dark fibre remedy

Ofcom puts too much weight on the dark fibre remedy in Area 3

5.1 We support the delineation of Area 3 as a separate geographic market. Competitive conditions across this area are homogeneous with rivals having neither presence nor build plans. Prospects for competition are clearly unfavourable. Delineating this area as a single market comprising all postcode sectors with no apparent prospects of rival roll-out allows Ofcom to impose regulation that appropriately protects users from excessive pricing.[36]

5.2 We are concerned though that the package of remedies proposed by Ofcom will not provide sufficient protection and is disproportionately based on Ofcom seeking to encourage take-up of the dark fibre remedy. Our concerns arise from our expectation that transition to the dark fibre remedy will be much slower than Ofcom assumes. The corollary is that the dark fibre remedy will deliver fewer benefits and, more importantly, that safeguard caps will not sufficiently constrain BT's pricing of active services.

5.3 Whilst generally supportive of a dark fibre remedy, we do not expect its introduction only in Area 3, at this early stage of Ofcom's new strategy, to be beneficial. As explained below, we advise that Ofcom considers postponing its introduction into the leased lines access market to a future review period. This will allow Ofcom to make the remedy available more widely and time resilient. This would more effectively support the step change of users increasingly relying on dark fibre to meet their connectivity needs.

5.4 We will unlikely use the dark fibre remedy whilst only available in Area 3. First, developing the capability to use regulated dark fibre will be costly and only makes commercial sense if we can use it at scale (which Ofcom's proposals, limited to Area 3, do not allow for). Second, our continued reliance on BT for transmission services in Area 3 restricts our ability to use the dark fibre remedy. The implication is that we – and likely other users – will be tied to using active services and that the transition to the dark fibre remedy will be slower than Ofcom assumes.

5.5 Slower transition to the dark fibre remedy reduces the extent to which BT will be constrained in its pricing of active services up to the permitted level. The consequence will be that users in Area 3 will have to pay very high prices in the absence of any prospect of rival roll-out near their sites.

[36] As discussed below, conditions seem rather similar in parts of Area 2, and we request that Ofcom considers if our concerns and suggestions below should not equally apply to these parts.

5.6 Notwithstanding our more pessimistic forecast around transition, our concern that consumers in Area 3 will not be sufficiently protected is real. Ofcom's own analysis shows that BT's cost over-recovery in this area will be very significant: estimated at £53m for 1Gb and below, and at £60m for VHB services[37]. With the dark fibre remedy priced at cost, such large over-recovery can only mean that the dark fibre remedy will not sufficiently constrain BT's active prices.

5.7 Ofcom concludes that alternative pricing options would not achieve its objectives. We disagree. First, Ofcom fails to consider regulation that includes tighter controls on active services (e.g. CPI-CPI on 1Gb and below services and nominal reductions of VHB prices) but no dark fibre remedy as an alternative option. This option would better protect consumers from excessive pricing. Secondly, Ofcom's conclusion seems to depend on it putting material weight on its objective to encourage take-up of the dark fibre remedy. This is not appropriate. Protecting consumers from excessive pricing should be Ofcom's first and foremost objective for Area 3.

5.8 With the above in mind, we ask that Ofcom considers an alternative approach; tighter charge controls on active services but no dark fibre remedy in its assessment of pricing options in Area 3. As part of this assessment it should evaluate the constraint that the dark fibre remedy puts on BT's active prices (relevant only to Ofcom's preferred pricing option) and be more transparent about its weighing of how options perform against Ofcom's two objectives. This alternative will better protect consumers from excessive pricing (which should be Ofcom's primary objective) and thus will likely be more appropriate for Area 3.

Postponing the introduction of a dark fibre remedy to the next review period seems appropriate

5.9 We understand that some leased lines users call for a dark fibre remedy to be made available more widely. Using dark fibre (whether commercial or remedy) gives users more flexibility to decide on electronic equipment, bandwidth etc. There is a clear benefit in this.

5.10 However, we do not believe that introducing a dark fibre remedy only in Area 3 for this review period is appropriate. As explained above, conditions for using this remedy will not be favourable as it cannot be used at scale, there will be few users with VHB requirements, and at least some users will not be able to transition for this remedy because of their dependence on BT for transmission. This means that the dark fibre remedy should not be the focus of regulation in Area 3, and that (instead) tighter charge controls on active services are needed.

[37] See paragraph A16.3 of Annex 16 of Ofcom's 2020 WFTMR Consultation. We note that the scale of over-recovery will be particularly significant on a per circuit basis given the small volume base in Area 3 (compared to Area 2 and national IEC).

5.11 Our recommendation is that Ofcom does not introduce the dark fibre remedy in Area 3 (and assuming Ofcom does not want to make it available more widely in this review period) and then revisit introducing this remedy in access markets (where possible more widely) in the next review period. By then, there will be much more clarity and certainty on where rivals have rolled-out and/or may wish to do so. This enables Ofcom to decide on a more informed basis on where to make this remedy available (and where not). It could introduce the dark fibre remedy only in areas where rivals have not rolled out and have no committed build plans. Whilst not obliged to offer dark fibre as a remedy elsewhere, the intensifying of competition because of rival roll-out will encourage BT to offer dark fibre on a commercial basis more widely.

6. Charge control

Ofcom did not appropriately assess pricing options for Area 2

6.1 Notwithstanding our disagreement with Ofcom proposing 'one-size-fits-all' regulation across Area 2 (see paragraphs 4.8 - 4.12), we consider its assessment of pricing options to be unbalanced for the subsequent three reasons.

1. The large scale of rival roll-out that Ofcom forecasts over this review period favours pricing continuity. It increases the benefits of this option (more rival roll-out) whilst reducing its costs (as more rival roll-out would constrain BT's pricing of active services to a greater extent). If rival roll-out turns out to be lower (as we anticipate because using PIA remedy is still not as easy to use as it should be), this would materially deteriorate this option's balance of benefits and costs.

2. Ofcom compares pricing continuity with the extreme case of cost-based controls, which indeed would fail to deliver against Ofcom's strategy. Ofcom should have identified a tighter charge control on VHB prices (e.g. flat nominal prices) as a more reasonable alternative to cost-based controls. This option will support rival roll-out (and thus aligns with Ofcom's strategy), whilst protecting consumers to a greater extent from excessive pricing. In particular, it would reduce the continuing unreasonably large price-cost gap for VHB services (see paragraphs 6.5 - 6.10).

3. Ofcom, in its assessment of pricing options, downplays the scale and implications of BT over recovering its costs over this review period. Ofcom's analysis shows that BT will over recover more than £0.5bn[38] on its supply of leased lines in Area 2, a very substantial figure, which would be greater still, if rival roll-out is less than Ofcom assumes. This analysis of over-recovery should feed into how options perform in protecting consumers from excessive pricing, and more broadly, it is appropriate for Ofcom to take a view on whether contributions to over-recovery are on par with the potential benefits that users can expect.

6.2 These reasons jointly mean that Ofcom has not considered a pricing option that could strike a better balance between promoting rival roll-out and protecting consumers from excessive pricing compared to pricing continuity. Ofcom should revisit its assessment of pricing options, determining benefits and costs based on reasonable (i.e. not too optimistic) roll-out assumptions. In doing so, it should also take greater account of over-

[38] See paragraph A16.10, Annex 16 of Ofcom's 2020 WFTMR Consultation. We determined the over £0.5bn figure by summing Ofcom's estimated over-recovery of £264m on 1Gb and below, and £277m on VHB services. These figures concern Ofcom's central forecasts and thus would be higher if BT's pricing of active services would be less constrained by rival presence.

recovery, and what this means for the prices that users in Area 2 pay over this review period and whether the potential benefits of rival roll-out justify such overcharges.

6.3 Our concern on BT over-recovery of costs applies more widely. Ofcom estimates total over recovery of more than £1.5bn[39] across the WLA and leased lines markets, a very high figure. This shows that BT Group is allowed to make enormous profits over this review period. Whilst this may support BT to further invest in its fibre network (and will help promoting rival roll-out), it can significantly distort competition in other (non-regulated) markets that divisions of BT compete in. The mobile retail market is one such market. The combination of a parent company that is given an opportunity to make very large profits (almost risk free) and higher backhaul costs being an internal transfer (from EE to Openreach), distorts the level playing field in this market as other mobile operators do not benefit from these advantages.

Proposed regulation does not address very high VHB prices, in excess of costs

6.4 Ofcom proposed to not vary its proposals of 'flat prices' charge controls on active services in Areas 2 and 3 by bandwidth. This would sustain the current situation of prices for 1G and below services being just above, and VHB services significantly above, costs. Ofcom's over-recovery analysis illustrates that VHB services would contribute much more to over-recovery compared to 1Gb and below services. It is important to note that this situation is the consequence of Ofcom having previously regulated these services differently: 1Gb and below services at costs before 2019, but pricing freedom for VHB.

6.5 Ofcom's proposal, if implemented, would mean that mobile operators rolling out their 5G networks (in areas with greater connectivity demand) and other users with 10Gb requirements would pay very significant overcharges. This would have two consequences. Firstly, the companies purchasing 10Gb leased lines would need to pass on their higher costs to retail customers who would face higher prices and/or less attractive offerings. Secondly (and specific to mobile operators), higher mobile backhaul costs would make it less attractive for mobile operators to roll-out 5G. They may roll-out slower and/or in fewer cities compared to when their backhaul costs would be lower[40]. This would go against the interest of both retail customers in these cities (as they cannot take advantage of 5G) and the UK Government (which has the ambition of ubiquitous 5G coverage by 2027).

[39] See paragraph A16.10, Annex 16 of Ofcom's Consultation on 2020 WFTMR. We determined the £1.5bn by summing the over recovery estimated across BT's regulated products in WLA and leased lines (Areas 2 and 3, plus national IEC).
[40] As we noted in paragraph 2.22, this constraint on roll-out effect will not impact EE, who is able to internalise the cost. The result will be further distortion of the retail mobile market.

6.6 Our response to the 2018 BCMR consultation illustrated these overcharges to Ofcom but these were not addressed in its 2019 BCMR Statement.

6.7 Ofcom has not explained why 'flat prices' charge controls on services across bandwidth is appropriate given the much greater price-cost gap for VHB services. The question then turns to whether and if so, where and how to revise the charge controls such that VHB users get better value for money.

6.8 It is simply not reasonable that users of VHB services – again and again – have to pay prices that are well in excess of costs. They have to disproportionately contribute to BT cost over-recovery and to Ofcom's objective of providing conditions that are supportive of rival roll-out.

6.9 This should be less of a concern in parts of Area 2 with an established rival, more so in Area 3 and parts of Area 2 without an established rival. The presence of an established rival (possibly complemented by rival roll-out) will constrain BT's pricing of VHB services to a greater extent. However, in the absence of an established rival, BT can never be constrained in its pricing of VHB services and thus a tighter charge control is needed.

6.10 We observe that Ofcom has not proposed to regulate 1Gb and below services at cost, and we agree with its rationale. The challenge for Ofcom thus is to design a charge control that reduces VHB prices but not down to costs. This could be flat nominal prices in Area 2b, and reductions in nominal prices in Area 3.

7. Annex

Volume 2:

Question 2.1: Do you agree with our description of retail markets? Please set out your reasons and supporting evidence for your response. N/a
Question 3.1: Do you agree with our provisional conclusion on physical infrastructure product market definition? Please set out your reasons and supporting evidence for your response. Yes, we agree with Ofcom's product market definition for the physical infrastructure market.
Question 4.1: Do you agree with our provisional conclusion on physical infrastructure geographic market definition? Please set out your reasons and supporting evidence for your response. Yes, we agree with Ofcom's decision to define a single, national geographic market.
Question 4.2: Do you agree with our provisional conclusion on the application of the three criteria test to the physical infrastructure market? Please set out your reasons and supporting evidence for your response. N/a
Question 5.1: Do you agree with our provisional finding on SMP and resultant competition concerns in the physical infrastructure market? Please set out your reasons and supporting evidence for your response. Yes. We agree that BT has SMP in the supply of telecommunications physical infrastructure.

Question 6.1: Do you agree with our provisional conclusions on product market definition for wholesale networks? Please set out your reasons and supporting evidence for your response. Yes, we agree that a single product market for leased lines, covering all bandwidths, is the correct approach.
Question 7.1: Do you agree with our provisional conclusions on geographic market definition for wholesale networks? Please set out your reasons and supporting evidence for your response. As set out in our response, we do not agree with Ofcom's conclusions on geographic market definition for the wholesale leased lines market. Whilst we generally agree with Ofcom's conclusions for the CLA and HNR, we are concerned that Ofcom has incorrectly delineated Area 2 and Area 3.
Question 7.2: Do you agree with our provisional conclusion on the application of the three criteria test to the wholesale inter-exchange connectivity market? Please set out your reasons and supporting evidence for your response. N/a
Question 8.1: Do you agree with our provisional SMP findings and resultant competition concerns for wholesale networks? Please set out your reasons and supporting evidence for your response. Yes, we agree with Ofcom's conclusion that BT has SMP in all wholesale leased lines markets (except for the CLA).
Question 9.1: Do you agree with our proposal not to regulate WFAEL, ISDN2 and ISDN30 markets on the basis that they no longer fulfil the three criteria test set out in the EC Recommendation? Please set out your reasons and supporting evidence for your response. N/a
Question 10.1: Do you agree with our proposal not to regulate WBA market on the basis that it no longer fulfils the three criteria test set out in the EC Recommendation? Please set out your reasons and supporting evidence for your response. N/a

Volume 3:

Question 1.1: Do you agree with our proposed approach to remedies? Please set out your reasons and supporting evidence for your response.
Question 2.1: Do you agree with our proposed approach to Copper retirement? Please set out your reasons and supporting evidence for your response. N/a
Question 3.1: Do you agree with our proposed general remedies? Please set out your reasons and supporting evidence for your response. Yes. We agree with Ofcom's proposed general remedies.
Question 4.1: Do you agree with our proposed specific PIA remedies? Please set out your reasons and supporting evidence for your response. We do not agree with all of Ofcom's specific PIA remedies. As set out in Section 3, Ofcom should impose a stricter network adjustment requirement and include a new 'systems SLA' to address the operational and behavioral barriers to consuming PIA in a timely manner.
Question 5.1: Do you agree with our proposed specific remedies in the WLA, LL Access and IEC markets? Please set out your reasons and supporting evidence for your response.

Question 6.1: Do you agree with our proposed dark fibre access and dark fibre inter-exchange remedies? Please set out your reasons and supporting evidence for your response. We do not agree with Ofcom's decision to impose a dark fibre remedy in the Area 3 access segment at this stage. As set out in Section 5, Ofcom should instead focus on protecting consumers through tighter regulation.
Question 7.1: Do you agree with our proposed approach to QoS? Please set out your reasons and supporting evidence for your response. N/a

Volume 4:

Question 1.1: Do you agree with our proposals for charge controlling WLA and LL access services in Area 2? Please set out your reasons and supporting evidence for your response. We do not agree with Ofcom's approach to charge controls in the Area 2 leased lines market. As set out in Section 6, Ofcom does not appropriately assess pricing options for Area 2 beyond pricing continuity.
Question 2.1: Do you agree that a RAB based control will achieve our objective in Area 3? Please set out your reasons and supporting evidence for your response. N/a
Question 2.2: Do you agree that is appropriate to impose a post-build RAB charge control in Area 3? Please set out your reasons and supporting evidence for your response. N/a
Question 2.3: Do you have any comments on our proposed design and method for calculating the proposed post-build RAB charge controls? Please set out your reasons and supporting evidence for your response. N/a

Question 2.4: Do you agree with our proposals to charge control LL access services and dark fibre in Area 3? Please set out your reasons and supporting evidence for your response. We do not agree. As set out in Section 6, Ofcom's proposed charge control does not address very high VHB prices, in excess of costs.
Question 3.1: Do you agree with our proposals in relation to charge control design and implementation? Please set out your reasons and supporting evidence for your response. N/a
Question 4.1: Do you agree with our proposals for charge controlling in the IEC markets? Please set out your reasons and supporting evidence for your response. N/a