

Openreach response to Ofcom's consultation on:

*"Wholesale Local Access Market Review  
Consultation on Duct and Pole Access remedies"*

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NON-CONFIDENTIAL VERSION

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## Foreword

On 20 April 2017, Ofcom published its consultation on Duct and Pole Access remedies also known as Physical Infrastructure Access as part of its Wholesale Local Access Market Review.

This submission is provided by Openreach, a functionally separate line of business within British Telecommunications plc (“BT”),<sup>1</sup> in response to proposals related to Openreach’s business. This document should be read in conjunction with Openreach’s other related responses to the WLA Market Review.

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<sup>1</sup> As part of BT’s implementation of its formal notification dated 10 March 2017 under section 89C of the Communications Act 2003 (the Act), the Openreach business will be operated by Openreach Limited, which was incorporated as a separate legal entity on 24 March 2017.

# 1 Executive Summary

## Key Points/Headlines

Openreach fully supports Ofcom's objectives to promote investment in ultrafast networks, including more 'full fibre'. We ourselves intend to play a major part to enable the UK to continue to be a world leader in the availability and capability of digital and ultrafast broadband networks. We are also committed to providing access to our existing physical infrastructure on fair terms to facilitate investment by third parties. In this respect, we have already made major progress on improving duct and pole access (DPA) over the past year, and are already engaged in further product and systems developments for the future which will benefit both communications providers (CPs) and Openreach. Our views on the key points of Ofcom's consultation are summarised below:

- **Passive verses Active Regulation** - We note Ofcom's intention to shift its strategic focus from active to passive remedies in order to encourage ultrafast infrastructure investment. We view Ofcom's pricing proposals in respect of the GEA 40/10 product in the Wholesale Local Access Market Review (WLA MR) as being in direct conflict with this strategy and undermining new investment rather than supporting it.
- **Product Scope** - We strongly support Ofcom's decision not to impose an 'any usage' rule for Physical Infrastructure Access (PIA). However we still have significant concerns with a 'mixed usage' rule. Our view remains that the regulatory framework relating to leased lines has been addressed by the recent Business Connectivity Market Review (BCMR), and further remedies should not be introduced through the back door of the WLA MR.
- **Equivalence** - We welcome Ofcom's recognition of the potential negative effects of imposing equivalence of inputs (EOI) consumption of PIA within Openreach, and hence its view that EOI is not required overall or for specific activities such as ultrafast network build. In this light we support the introduction of a pragmatic 'non-discrimination' rule.
- **Digital Maps** - We are pleased to see that Ofcom has acknowledged the significant progress we have already made in this area. We already have further work in progress and agree with Ofcom that the industry working group is best placed to pursue and prioritise any further developments in line with future demand.
- **Network Adjustments** - We support Ofcom's clarifications of its earlier proposals. The expectation that such network adjustments should primarily be to 'free up' existing capacity rather than create new infrastructure is helpful. As are the proposals for financial limits. However, this remains the area where we have most concerns. We think further clarification of the proposals is required to ensure that Openreach's regulatory obligations to carry out civil engineering works only relate to adjustments where there are clear benefits to the Openreach infrastructure and its customers. In this respect Openreach has set out a positive proposal in this document where we can support a more refined version of Ofcom's approach<sup>2</sup>. Openreach will also need the ability to exert strong financial and contractual controls, overall and on an individual order basis. We are looking for Ofcom to support us in implementing these.

Ofcom's proposals, particularly in relation to network adjustments, will rely heavily on further details being resolved with industry as part of the new reference offer process. We support that approach; but given the complexity, expect those discussions to be extensive and time consuming. We would recommend that Ofcom considers extending the timescales for publication of the new offer to 18 months rather than the 12 months currently proposed in the consultation.

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<sup>2</sup> See Section 2, Question 4.1 and Question 7.2 for further information.

## Introduction

1. Ofcom's WLA and DPA consultations are critical to setting the direction of the UK telecoms market for the next decade: the UK needs a regulatory framework that continues to support the dynamic retail competition that has emerged over the last 10 years and provides the right incentives for investment to meet consumers' and businesses' rising needs and expectations for higher broadband speeds and improved geographic coverage.
2. Openreach fully supports, and indeed shares Ofcom's objectives to promote investment in ultrafast networks, including more 'full fibre'. We ourselves intend to play a major part and invest in the UK to enable it to continue to be a world leader in the availability and capability of digital networks, and new large scale deployment of ultrafast broadband networks. We are also committed to providing access to our existing physical infrastructure on fair terms, allowing Openreach to recover its efficiently incurred costs to facilitate economically efficient deployment of alternative access networks by third parties.
3. We welcome Ofcom's further recognition of the positive steps that Openreach has taken to enhance the PIA product by simplifying engineering processes and delivery of an on-line digital maps system in January 2017. Those steps have enabled CPs to access Openreach's network records electronically to gain the relevant network information they need to plan and build their ultrafast broadband networks in the way they choose and with the same flexibility that Openreach does.
4. Whilst we support Ofcom's clarifications and movement from its initial proposals in the first PIA consultation published in December 2016<sup>3</sup>, we remain seriously concerned that, despite positive changes and clarifications from the previous consultation, there are still proposals which we do not support if imposed in their current form. If these are not revised following further careful analysis and discussion with relevant stakeholders, the proposals pose a high risk of distorting investment decisions and competition in downstream and related markets, and could undermine opportunities for large scale deployment and efficient investment in ultrafast networks. In particular when considered in conjunction with Ofcom's pricing proposals in respect of Openreach's GEA 40/10Mbps product.
5. Ofcom has set out that it intends to shift its strategic focus from active to passive remedies in order to encourage infrastructure investment by other operators, particularly in ultrafast/Fibre to the Premises (FTTP) networks. However we see this as conflicting with its proposals in the WLA MR in respect of Openreach's GEA product pricing. Ultrafast/FTTP networks remain a risky business case with long payback periods both for Openreach and alternative investors. Regulating down the access prices for active GEA products to the extent currently proposed creates a major obstacle to further investment, particularly for FTTP services, and for all parties including Openreach.
6. In this consultation, Ofcom summarises its proposals under the following six major themes:
  - Access to BT's ducts and poles;
  - Enabling greater flexibility in the use of ducts and poles;
  - Access on equivalent terms to ensure a level playing field;

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<sup>3</sup> For example clarifying obligations are within the Openreach footprint, ruling out large scale enhancements, proposing financial limits, removal of hybrid drop wire proposals etc.

- Access to digital maps to support large-scale network planning;
  - Processes to ensure efficient network deployment; and
  - Pricing to support competitive investment.
7. We have made major progress on many of these aspects, and are already engaged in further product and systems developments for the future, which will benefit both PIA CPs and Openreach. However, some significant challenges with Ofcom's proposals remain. We have summarised our views by reference to Ofcom's six major themes below before addressing the Reference Offer process and summarising our conclusions as to the impact of Ofcom's proposed fibre pricing and PIA proposals:

#### **Access to BT's ducts and poles.**

8. We support fair access to our existing passive infrastructure. However such regulation should not result in artificial, inefficient market entry assistance for purchasers of PIA, for example by effectively requiring Openreach and its customers to underpin PIA business cases<sup>4</sup>, particularly given the already extensive investments and further plans by Openreach, Virgin Media and other operators in ultrafast broadband networks. We also note Ofcom's statement that it intends to shift its strategic focus from active to passive remedies<sup>5</sup> in order to encourage alternative infrastructure investment. However, we see this as conflicting with Ofcom's pricing proposals for fibre in the WLA MR.
9. Openreach's PIA pricing should allow full recovery of efficiently-incurred costs, and should fully incorporate the costs incurred in providing specific services (e.g. network adjustment costs). The principle of cost causality must be given full and proper consideration to ensure appropriate pricing signals for new entrants and investors. Investment risks and the potential benefits need to be faced by investors to ensure efficient and sustainable competition, and not transferred to Openreach and its customers.

#### **Enabling greater flexibility in the use of ducts and poles.**

10. We strongly support Ofcom's decision not to impose an 'any usage' rule for PIA. As Ofcom notes, this could have significantly undermined the purpose of the PIA remedy and led to CPs solely targeting the business connectivity market. However we still see significant practical and economic issues with the latest proposal for a 'mixed usage' rule. In particular, if imposed, the challenge will be for Ofcom and Openreach to ensure PIA is used to support Ofcom's policy objective of large scale fibre broadband deployment rather than selective CP targeting of leased lines. We consider that Ofcom does not give this risk sufficient weight in the DPA Consultation.
11. There is a need to ensure the correct behaviours and compliance with any mixed usage rule but this cannot and should not be, as Ofcom proposes in its DPA Consultation, primarily an Openreach responsibility. In any case we would not have sufficient resource or capability to do so. We have lesser concerns with the extension of PIA use to a CP local area rather an Openreach local area, but again Ofcom support (and firm regulatory guidance) will be required to ensure that PIA is only used for local access services.
12. Our view remains that the regulation relating to leased lines is covered by Ofcom's BCMR regulation and that 'mixed usage' cannot be supported by WLA regulation. If imposed, the remedy

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<sup>4</sup> For example, by paying for a CP's fibre installation costs and network adjustments which do not provide clear and demonstrable material benefit to the Openreach network and its customers.

<sup>5</sup> In the light of this, we are surprised at the minimal attention Ofcom paid to implementing the Access to Infrastructure (ATI) Regulations and ensuring that any issues preventing it from being used at scale were resolved.

will in future be able to be used extensively to target services in other regulated markets with no benefits to competition or customers in the WLA market. It would therefore (i) be a disproportionate and unjustified intervention which would not promote efficient investment; (ii) be damaging to both Openreach and potentially other investors who have already invested in infrastructure used for business connectivity; and (iii) conflict with the findings of the recent BCMR and the justification for a dark fibre remedy.

#### **Access on equivalent terms to ensure a level playing field.**

13. We support Ofcom's position that EOI consumption by Openreach of the PIA product is not required overall or for specific activities such as ultrafast network build. We believe we have already moved a long way towards an equivalent NGA process with our digital map system and new product processes. We have already demonstrated the major similarities in process and digital data for a CP or Openreach based fibre deployment to Ofcom.
14. We welcome that Ofcom has discussed and recognised the risks of imposing EOI in the consultation and that Openreach is not in a similar position to other CPs. Therefore we look to Ofcom to interpret the new 'non-discrimination' rule in an appropriate and proportionate way. Openreach itself intends to be a major investor in ultrafast broadband networks through technologies such as G.fast and FTTP. Therefore it is important that Ofcom's proposals for PIA: (i) continue to support Openreach investment in new technologies; (ii) do not impede our ability to work efficiently; or (iii) increase costs for what are already very challenging investments..
15. We remain concerned with Ofcom's proposals on the 'equivalence' of cost recovery and charges, resulting in the transfer of significant risk to Openreach and its customers, and the potential distortion of investment incentives and competition this is likely to create. Without further refinement we see this as a highly intrusive and disproportionate regulatory position.

#### **Access to digital maps to support large-scale network planning.**

16. We are pleased to see that Ofcom has acknowledged the significant progress we have already made in this area. We are addressing this requirement directly with our PIA digital map development launched in January 2017 and which was upgraded with duct occupancy data in March 2017. We understand that Ofcom also wants to consider a longer term view, and we do not disagree that further systems enhancements may be required. However, we would want to see evidence of use at scale of our new systems and processes before investing in further systems developments.
17. We are continuing to review the recently issued Mott MacDonald report<sup>6</sup>, and agree with Ofcom that the best way to pursue and prioritise any future developments is via the OTA chaired Passives Industry Working Group. We already have significant work in progress and are hopeful this will meet many CP requirements for the foreseeable future. Systems developments will naturally mirror product developments and the industry group is best placed to help inform these practical decisions.

#### **Processes to ensure efficient network deployment.**

18. This remains the area where we still have most concerns. We support Ofcom's clarifications of its proposed network adjustment obligations which seek to mitigate some of the larger risks of the initial proposals. The restriction of the remedy to within the Openreach infrastructure footprint and the expectation that such adjustments should primarily be to 'free up' existing capacity rather than

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<sup>6</sup> Initial comments are attached at Annex B.

create new infrastructure is helpful<sup>7</sup>. The proposed consideration of financial limits and the removal of the ‘hybrid drop wire’ proposal are also helpful.

19. Nonetheless, the Ofcom proposals still present significant operational challenges and financial risks for Openreach and its customers. In some circumstances Openreach may be prepared to fund and enhance infrastructure identified by purchasers of PIA for adjustment provided works are cost justified and there is a clear and demonstrable material benefit to the Openreach network and its customers. However, Ofcom’s proposals as currently framed, also appear to capture activities where the only beneficiary is the PIA purchaser, for example by effectively including CP fibre build/cable installation activities<sup>8</sup>. In these cases there is no improved Openreach asset and Openreach will become a quasi-civils company where PIA CPs obtain free fibre build at the expense of Openreach and its customers.
20. Ofcom’s proposals separate the prospective revenues earned by a PIA purchaser in its business case from the costs it generates for Openreach and its customers, and this creates major problems with incentives. A tranche of costs driven by the CP is being removed from its business case and transferred to, and paid for by, Openreach and its customers when no countervailing benefit has been demonstrated by Ofcom.
21. In any event and despite this distortionary approach, Openreach would still require the ability to exert strong financial and contractual controls, overall and on an individual job basis, to ensure the remedy is not misapplied; that network adjustments are actually required; and that such infrastructure is occupied and paid for on a long term basis. We would look to Ofcom to support such controls to protect Openreach and its customers.
22. We proactively addressed the area of network adjustments as part of our new PIA product from January 2017; and enabled CPs to bring more planning, surveying and simple works tasks under their control to give greater flexibility and speed of deployment. We consider that Ofcom’s proposals will now add further complexity and delay to the process.

#### **Pricing to support competitive investment.**

23. We await Ofcom’s proposed pricing consultation later in 2017, and welcome Ofcom’s acknowledgement that it will use the current pricing methodology as a starting point for its calculations. It is important that the PIA rental price recovers an appropriate allocation of existing asset costs; this is key to a sustainable PIA pricing framework. We also agree broadly with Ofcom’s proposed cost orientation approach for ancillary charges.
24. However, we do not agree with Ofcom’s approach to network adjustment ancillaries or productisation costs. Openreach should retain the ability to recover its efficiently incurred costs from the CPs who are the beneficiaries. Purchasers of PIA should be making forward-looking judgements on the merits of differing technological options, on customer willingness to pay, and on how they will face and finance the construction costs in their business case. Fair access to

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<sup>7</sup> Ofcom paragraph 1.13 ‘... For example, where there are congested sections of BT’s duct network, it may be necessary to repair or enhance the infrastructure to realise the benefits of sharing BT’s infrastructure over a much wider area. However, this requirement should be limited to situations where the adjustment is necessary to facilitate access to BT’s existing physical infrastructure network’

<sup>8</sup> For example, Ofcom’s current proposals seem to suggest that Openreach and its non-PIA CP customers could be required to fund the costs of removing silt from an Openreach duct so that a CP can install a fibre cable, but if the CP directly buried the cable then the CP itself would face those installation costs. Both tasks represent fibre build/cable installation activities and contribute to the construction of the CPs fibre asset. They are not Openreach infrastructure asset enhancements. We consider that there is an important step required to properly define which tasks result in a clear and demonstrable material benefit to the Openreach network, before Ofcom’s financial limits proposals can be worked through (in paragraphs 7.52 to 7.59). We think the proposed calculations may currently include fibre build cross-subsidies. We also think that an Openreach funded model for these types of cable installation activities may not be operationally effective (see Annex D).

Openreach's existing assets can positively benefit these investments but Openreach and its customers should not be paying for a PIA CP's network build.

25. Ofcom set out in the Digital Communications Review (DCR) that the existing pricing of PIA was in line with international comparisons and this was supported by stakeholder submissions. Our international benchmarking also supports this view. We worked extensively and openly with Ofcom in the lead up to this consultation regarding the PIA pricing model and no major errors in approach were identified. We believe our pricing is fully compliant with cost orientation obligations and is a fair representation of the costs of providing the service. Any 'goal-seeking' of lower prices without full consideration of Openreach's ability to recover its costs cannot be supported.

## **The Reference Offer Process**

26. Ofcom's proposals in this consultation rely heavily on further details being resolved with industry as part of a draft and final reference offer process. We support that approach. Given the complexity of the proposals in respect of network adjustments, product scope, systems and non-discrimination, we expect those discussions to be extensive and time consuming. In particular, discussions relating to networks adjustments will require consideration of total Openreach resources required as well as a very specific review of individual engineering scenarios, approval/rejection processes, self-provision quality standards, detailed contractual provisions, and financial/budgetary controls. Therefore, we cannot possibly cover all the detail of the reference offer discussions in this response; nor can we fully assess the implications and impacts of Ofcom's proposals without those further discussions. In this response, we aim to focus on points of principle and structure in the responses to Ofcom's questions, but will add detail where available.
27. For example, the reference offer discussions will have to reflect the operational and financial controls required by Openreach to run its business. In any situation where an external financial liability is placed on Openreach, it is necessary to ensure strict budgetary, financial and contractual controls are in place. We see these controls as operating at a total Openreach level, as well as on individual works orders. Openreach requires a mechanism to plan for and control its overall exposure to CP generated requests; as well as assessing whether any individual works order is invalid, or properly falls within the obligation and can be defined as clear and demonstrable material benefit to the Openreach network. We would expect further detailed assessment of the required controls to take place as part of the reference offer process, and for Ofcom to support us in their development.
28. Ofcom's proposals as they stand take no account of the potential scale of the requirements and the significant impact on Openreach and our external suppliers. Whilst the context for the proposals in this consultation are set with reference to lower anticipated coverage of the UK<sup>9</sup> compared to the previous PIA consultation<sup>10</sup>, the impact on Openreach finances, resources and external contractors is still likely to be highly significant.
29. For example, Ofcom's suggested demand profile for PIA for the next review period (i.e. a maximum of 1 million homes passed) is comparable in size to a single large scale publically

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<sup>9</sup> Ofcom footnote 112 *'Information from stakeholders on the speed at which a new access network can be deployed in the first years of deployment suggests that up to 1 million homes could be passed by the end of this review period. The impact on Openreach's volumes will then depend on the possible penetration rates that can be achieved by a new access network. Assuming a maximum penetration rate of 40% points to 0.4 million households taking services provided over a new access network'*

Ofcom footnote 293 *'In addition, we would expect most of the growth in coverage to take place towards the end of the review period. We assume that 50,000 homes could be passed by the end of the first year, and 200,000 homes could be passed by the end of the second year'*

<sup>10</sup> Potentially 40% FTTP coverage of the UK.

funded project<sup>11</sup> with the challenge exacerbated by varying demand coming from a number of PIA CPs operating in various geographic locations. For Openreach to resource and manage a single project of this magnitude, it has to plan extensively in advance to enable relevant internal and external resources (e.g. planning, engineers, finance etc) to be available in the designated areas. Coverage locations and targets have to be clearly identified and planned ahead of time and backed by financial commitments made by the relevant funding body. It is not possible to tackle a project of such a scale on an order by order basis - internal and external resources and finances would simply not be available. We also need to consider the impact on other products and programmes. However, for PIA demand of this level, the situation could be even more challenging, as it would not necessarily be capable of being managed as a single project, but could be involve multiple programmes with all the problems of coordination that would entail. Looking forward, Ofcom would potentially need to consider the relaxation of other regulatory constraints (e.g. MSLs) in order to resource and finance such PIA related activities depending on their scale and complexity.

30. Clearly, any project expected to cover very large areas of the UK (e.g. 40%) would be a massively larger task. In our response to Ofcom's initial December consultation, we carried out some preliminary financial analysis and found the potential impacts to be significant. However, even Ofcom's latest proposed limitations on Openreach's obligations would do nothing in practice to enable such a scale investment to be made unless the responsibility for carrying out and funding such works largely lay with the individual PIA CP, or were agreed, prioritised and planned jointly in advance with Openreach. An order by order approach would be infeasible. Planning windows, resource recruitment (internal and external), resource allocation and funding would all need to be agreed and planned over a designated deployment period, including long term financial/contractual commitments by PIA CPs to occupy the infrastructure. It should also be noted that Ofcom's proposals, as they stand, do not provide any limitation on the numbers of CPs which might request such services concurrently from Openreach. This is set against a backdrop where there are and remain serious skills shortages in this particular area.
31. These issues are of such a fundamental nature and also of such significance to Openreach, yet Ofcom's consultation makes only a passing reference to them<sup>12</sup>. Questions of how the required numbers of civil infrastructure contractors would be trained and recruited in the UK, and how large scale projects would be backed off against contractor/supplier's financial commitments are not considered in any detail, and are unfairly passed over as problems for Openreach to solve in relation to its PIA service. Ofcom's failure to fully analyse the possible large scale and damaging impacts on Openreach mean that, in the absence of significant amendments, this cannot be considered a proportionate remedy.
32. The possible variations in scale and scope of prospective PIA projects means a very different scale of financial and operational planning and commitment by all parties in the value chain, not just Openreach. Such factors would be a key influence in how a reference offer would be designed and implemented and the extent to which Openreach could genuinely stand behind it. A dedicated and committed large scale roll-out plan agreed between parties with appropriate contractual and financial backing would be very different in substance to an offer designed to meet a smaller scale

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<sup>11</sup> 1 million homes passed would be larger than most BDUK projects.

<sup>12</sup> In Ofcom's very brief discussion of potential impacts on Openreach in paragraphs 4.106 to 4.110 there appears to be no recognition of the reality of the operational, commercial and fiduciary responsibilities of running and controlling a business and/or the impact on its supply chain. Paragraph 4.110 in particular glosses over the reality, to paraphrase, it doesn't matter how large the impact on Openreach resources, it can only be of benefit to consumers.

operation, which could potentially be absorbed into existing Openreach processes on an ‘order by order’ basis<sup>13</sup>.

33. Finally, and given the significant complexity and possible variety of the new arrangements, it is important that Ofcom provides a mechanism in the legal instrument being drawn up for PIA that enables Ofcom to extend the timetable for the reference offer to be published and implemented should it be required and agreed by Ofcom with the relevant stakeholders. There is a significant chance that such a reference offer will be far more complex to finalise and implement than the recent Dark Fibre offer, which, although based on an existing Ethernet service, took 18 months to launch from the final BCMR statement. On this basis we would recommend a more realistic timetable for a final reference offer for PIA would be a minimum of 18 months.

### **Conclusion: Ofcom’s fibre pricing and PIA proposals risk undermining Openreach ultrafast investment**

34. It is clear from Ofcom’s own assessments that future network investment will be based on a mix of technologies<sup>14</sup> reflecting judgements on the underlying economics and performance. Our concerns with Ofcom’s PIA proposals remain because they still go beyond providing access to Openreach’s existing physical infrastructure on fair, proportionate and economic terms. Even in the more limited form in this consultation, the proposals provide prospective artificial market entry assistance with Openreach and its customers paying and assuming the risks, at least in part, for the fibre network build of a third party who may not even have a wholesale access obligation placed on them.
35. Whilst we acknowledge that Ofcom has, in this consultation, set out further limits for the proposed obligations, and we welcome these, the proposals are still too broad as they stand and are likely to require significant definition and refinement as part of the reference offer process to ensure that any remedy is properly justified and proportionate.
36. Openreach should not be required to finance open-ended CP civil engineering and network build. Ofcom’s proposed limits are helpful but still leave Openreach with an unspecified and potentially uncontrollable liability, and no limit on the numbers of CPs who might request such services concurrently from Openreach. This is not an objectively justified or proportionate regulatory position. Openreach would in any case require the ability to operate strict operational and financial controls just as it does for its own operations. We would look to Ofcom to support such controls to protect Openreach and its customers.
37. Ofcom needs to help us set these expectations for industry. We are already aware of CPs assigning the most complex, expensive and time consuming tasks to Openreach for completion. Added to this, some of Ofcom’s proposals set up further incentives for CPs to misuse the remedy, for example through the proposal to defer billing until all network adjustments are completed by Openreach. We note that Ofcom acknowledges this risk of moral hazard but offers no clear analysis of how it will help to overcome it. Rather the responsibility for resolving such problems is placed entirely on Openreach.
38. In this respect, all responsibilities for ‘policing’ the remedy are, unfairly, placed on Openreach (i.e. in terms of product scope, unnecessary network adjustments, controlling systems development costs etc.). This is not an objectively justified or proportionate position. We will need Ofcom to

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<sup>13</sup> Although even relatively small scale deployments might require significant notice for resources to be reassigned to a specific geography for a defined period for example.

<sup>14</sup> Openreach’s plans are based on deployment of G.fast and FTTP, and Ofcom notes that a number of other providers have existing plans to provide ultrafast services – i.e. Virgin Media via extension of its current network footprint utilising DOCSIS 3.1 capabilities; and TalkTalk/CityFibre and KCOM with plans to deploy FTTP in targeted geographic areas.

support strong disincentives to prevent misapplication of the remedy, and to set out clear guidance on the scope and purpose of the remedy (in line with its policy objectives) so that we are able to protect Openreach and its customers operationally and financially.

39. These issues are disappointing given the extent to which Openreach is already leaning in and actively investing in its PIA service and systems. CPs now have all the relevant on-line information they need to plan and build their ultrafast broadband networks, in the way they choose, and with the same flexibility that Openreach does. Openreach has also provided access to much of its proprietary 'know how' to date, including engineering principles, to help and enable CPs to build their networks, and with reasonable proposals in the future we can continue to do so.
40. Looking forward, Openreach will face multiple level interventions in the value chain and potentially be caught between two conflicting regulatory strategies; the existing focus on the Openreach active product set (which has deepened with the pricing proposals for GEA in the WLA MR) as the basis for a competitive retail NGA market; and a new emphasis on driving full infrastructure-based competition. This will serve to further distort investment decisions and undermine the ability of all market players to make informed judgements that capture the underlying economics. Efficient investment requires proportionate, predictable and targeted regulation, not a proliferation of unclear, complex and potentially contradictory regulation.
41. Ofcom should also give due weight to competing networks and technologies. Rolling out ultrafast fibre networks is extremely challenging and expensive with long payback periods. End-user demand, willingness to pay, the complexity and cost of building ultrafast/FTTP networks are all very significant risk factors. The ability to gain incremental revenue from faster broadband is challenging given the major presence of UK-wide copper, fibre, cable and mobile broadband alternatives and the market power of Pay TV companies such as Sky. Ofcom's sole focus on BT's physical infrastructure where Virgin is the market leader in ultrafast networks, in addition to Ofcom's complete dismissal of the ATI Regulations are other key omissions in Ofcom's analysis underpinning its proposed expansion of the PIA remedy. These factors have a very significant impact on prospective CP business cases for ultrafast networks, and Ofcom repeatedly fails to acknowledge these key points. This adds to our concern that Ofcom is in effect continuing to 'goal seek' an outcome focussed on Openreach's PIA portfolio rather than fully analysing the real situation. We build on this in Section 2 below.
42. Openreach therefore strongly urges Ofcom to consider how to further limit the obligations placed on Openreach, to ensure that any resulting remedy is proportionate and specifically to recognise the core principle of cost recovery that costs are attributed to the activity (and party) which causes them to be incurred and which directly benefits from them. This will ensure that investment proceeds when the forward looking long-run costs are exceeded by projected revenues – an economic axiom for efficient investment.
43. Notwithstanding the fact that we do not consider Ofcom's proposed intervention to be objectively justified or proportionate, in order to assist Ofcom and address some of our key concerns around cost recovery, in our submission we have put forward our proposals<sup>15</sup> whereby Openreach would fund works where there is a clear and demonstrable material benefit to the Openreach network and its customers. We consider this to be consistent with Ofcom's rationale for imposing an obligation on Openreach to fund works, namely that PIA CPs currently have to pay to improve the Openreach network and then have to '*gift these improved assets to Openreach*'<sup>16</sup>.

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<sup>15</sup> See responses to Questions 4.1 and 7.2 below.

<sup>16</sup> Paragraph 5.17.4

## Summary

44. Overall, Ofcom's PIA proposals still raise a number of fundamental concerns and require further consideration of their potential impacts:

- **Inefficient investment decisions will be made** - as potential network investors ignore the extent of costs they cause Openreach and its customers to incur: Even within the limits proposed by Ofcom, PIA CPs could request expensive works be carried out to serve just a few customers, and Openreach would have little chance of accurately assessing the validity of the request and/or whether it is an inefficient use of our (or our contractors) scarce resources. Ofcom's limits, as they stand, offer no indication of how Openreach could control the scale of requests from multiple CPs, and hence the total costs imposed on us and our customers.
- **Costs will be recovered from consumers who are not benefiting from the investments being made** - for example, it cannot be right that regulation is imposed which requires rural customers using copper access lines to effectively pay a levy for the network build/construction costs incurred by a new entrant to provide a third (or fourth etc) additional ultrafast network in a targeted urban area.
- **Pricing of alternative competing access services will be distorted** - and result in inefficient levels of consumption by customers, and investment by providers. Prices for copper services may be increased, and Openreach's ability (and that of its downstream retail CP customers) to compete with Virgin will be diminished at a critical time of technological development. There are also significant implications for the BDUK process, with Openreach potentially facing a significant competitive disadvantage.

## 2 Relevant Legal Obligations & Key Concerns

### Statutory duties and requirements

45. In this section we set out our view of Ofcom’s statutory duties and requirements to provide a framework for evaluating Ofcom’s PIA proposals.
46. Ofcom has the power to set SMP conditions under section 45(2) (iv) of the Communications Act (the “Act”) which implements the Common Regulatory Framework (CRF). The Framework Directive and Access Directive from the CRF are the most pertinent in terms of Ofcom’s regulatory duties and objectives, which are implemented by sections 3 and 4 of the Act. These regulatory duties and objectives require Ofcom to have regard to a range of factors, including promoting competition, encouraging investment and innovation, best regulatory practice, being technology neutral, and ensuring regulatory activities are transparent, accountable, non-discriminatory, proportionate and targeted only at cases in which action is needed.
47. In this regard, Openreach specifically draws Ofcom’s attention to:
- Ofcom’s duties to promote efficient investment and innovation,<sup>17</sup> including, as required by the Framework Directive “*by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertaking*”<sup>18</sup> and, as required by the Access Directive, by ensuring “*that any cost recovery mechanism or pricing methodology that is mandated served to promote efficiency and sustainable competition and maximise consumer benefits*”.<sup>19</sup>
  - Ofcom’s requirement to ensure that it does not impose burdens which are unnecessary or maintain burdens which have become unnecessary.<sup>20</sup> This requires a careful consideration on an ongoing basis, and in particular when SMP conditions are being re-imposed or introduced, of the necessity of each particular condition.
  - Ofcom’s requirement to ensure it promotes “*regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods*”.<sup>21</sup>
  - Ofcom’s requirement to carry out an impact assessment.<sup>22</sup>
  - Ofcom’s duty not to favour one form of network access over another.<sup>23</sup>
  - The specific obligations when imposing SMP conditions as per sections 47, 87 and 88 of the Act.
48. In relation to the specific categories of SMP conditions which Ofcom is entitled to make, insofar as is relevant, section 87 of the Act provides that:
- under section 87(3), Ofcom may impose conditions requiring the dominant provider to give such entitlements as Ofcom may direct in relation to the provision of network access;

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<sup>17</sup> See, the Act, sections 3(4)(d) and 4(8)(aa).

<sup>18</sup> Framework directive, Article 8(4)(d).

<sup>19</sup> Access directive, Article 13(2)

<sup>20</sup> The Act, section 6(1).

<sup>21</sup> Framework directive, Article 8(5)(a)

<sup>22</sup> Act, section 7

<sup>23</sup> Act, section 4(6)

- under section 87(4), Ofcom must take into account, *inter alia*, the feasibility of the provision of the proposed network access (in relation to the capacity available)<sup>24</sup>; the investment made by the person initially providing or making available the network access; and the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure based competition;
  - under section 87(9) of the Act, the SMP conditions authorised by section 87 “*also include (subject to section 88) conditions imposing on the dominant provider – (a) such price controls as OFCOM may direct ... and (d) obligations to adjust prices in accordance with such directions given by OFCOM as they may consider appropriate*”.
49. Section 47(2) of the Act provides that Ofcom may only set or modify an SMP condition if it is objectively justifiable, not unduly discriminatory and proportionate to what the condition or modification is intended to achieve and, in relation to what it is intended to achieve, transparent.<sup>25</sup> Further, according to section 88, if the SMP condition involves imposing a price control or an obligation to adjust prices, Ofcom may only make this condition if:
- It appears to Ofcom from the market analysis carried out for the purpose of setting that condition that “*there is a relevant risk of adverse effects arising from price distortion*”.<sup>26</sup> There will be a relevant risk of adverse effects if the provider with SMP might fix and maintain prices at an excessively high level, or impose a price squeeze so as to have adverse consequences on end users.
  - It also appears to Ofcom that the setting of the condition is appropriate for the purposes of efficiency, promoting sustainable competition, and conferring the greatest possible benefits on the end-users of public electronic communication services.<sup>27</sup>
50. Section 88 also requires Ofcom to take into account the extent of the investment in the subject matter of the condition.<sup>28</sup>
51. Openreach is concerned that aspects of Ofcom’s proposals are inconsistent with or do not sufficiently take account of the above statutory duties and requirements. Our key concerns relate to:
- Ofcom’s proposal to require Openreach to fund the upfront costs of additional capacity build/enabling works; and
  - Ofcom’s proposal to extend the scope of PIA to mixed usage.

### **Ofcom’s proposal to require Openreach to fund the upfront costs of additional capacity build/enabling works**

52. Currently, CPs pay the upfront cost for additional capacity build/enabling works. Ofcom’s proposal requiring Openreach to fund the upfront costs is a highly intrusive remedy. We have set out below considerations we consider important to ensuring that:
- Ofcom’s proposals are, as far as possible, compatible with the Access Directive;

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<sup>24</sup> Access directive, Article 12(2)

<sup>25</sup> Act, section 47(2).

<sup>26</sup> Act, section 88(1).

<sup>27</sup> Act, section 88.

<sup>28</sup> Act, section 88(2).

- Ofcom’s proposals are objectively justified and proportionate, in particular in light of:
  - improvements made to the existing PIA product and the impact of the ATI Regulations;
  - the limited benefits that Ofcom itself relies upon and the fact Ofcom’s anticipated limited demand for scale PIA use will only be dampened by Ofcom’s parallel regulation in respect of Openreach’s 40/10 Mbps product;
  - a detailed analysis and thorough consideration of potential risks of adverse effects and unintended negative consequences of its proposed regulation and the significant impact of its proposals on all relevant stakeholders in the value chain<sup>29</sup>, including in relation to:
    - the following stakeholders:
      - Openreach and its downstream customers;
      - suppliers of civil engineering and construction services;
      - owners of physical infrastructure; and
      - local authorities; and
    - incentives to invest and innovate<sup>30</sup> and the promotion of efficient, sustainable competition<sup>31</sup>:
      - between network providers;
      - in downstream markets; and
      - in adjacent markets, including:
        - any market for the supply of civil engineering and construction services; and
        - any BDUK/public funded bidding markets; and
    - the impact on competition as a result of information sharing.
- There is an appropriate balance of cost causality with Ofcom’s regulatory accounting and cost recovery principles and its obligation to ensure regulatory certainty and predictability.
- Ofcom’s proposals do not conflict with and/or undermine the ATI Regulations and reflect the safeguards enshrined in those Regulations.

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<sup>29</sup> As a public authority intervening in a market, Ofcom is obliged to carry out a qualitative and quantitative assessment of the unintended impacts of its proposals and to identify possible mitigations that will remove or limit any harmful effects: see CMA 50 Guidelines on Competition Impact Assessment and Better Policy Making: Ofcom’s approach to Impact Assessment.

<sup>30</sup> Act, section 3(4)(d)

<sup>31</sup> Act, section 3(4)(b)

## **The Access Directive**

53. We consider Ofcom's power to impose a remedy requiring Openreach to carry out additional capacity build/enabling works at its own expense must be considered in the context of and applied consistently with Article 12 of the Access Directive. We make the following comments in this context:

- Whilst we accept that BT has an existing SMP obligation to relieve congested infrastructure and construct new infrastructure, we note that it is far from clear whether the Access Directive gives Ofcom the power to impose an access obligation that extends beyond simply sharing existing facilities and capacity. Openreach notes that the obligations set out in Articles 9 to 13a of the Access Directive represent intrusive remedies against a regulatory framework that is generally permissive and, as such, those obligations fall to be construed strictly.
- Although Ofcom explains that the PIA access remedy should include a requirement to construct new physical infrastructure "where there is insufficient capacity", Article 12(2) of the Access Directive explicitly provides that Ofcom must consider the feasibility of the SMP operator providing the access proposed, in relation to the capacity available. The NGA Recommendation<sup>32</sup> also refers to NRAs mandating access to civil engineering where duct capacity is available<sup>33</sup>. This strongly suggests that where there is no capacity available, it is not feasible for an operator to provide network access or at least any access obligation should be necessarily limited in order to ensure proportionality.
- Any access obligation that requires Openreach to relieve congested infrastructure and construct new physical infrastructure at its own expense, must properly take into account the fact that Openreach may not be able to recover all of its costs and the fact that Openreach is effectively taking on major elements of risk and inefficiency of a third party competitor.
- Ofcom must ensure that efficient competition would be safeguarded in the long term. However, its proposal would effectively increase prices for all users of Openreach infrastructure, whether PIA users or not, making Openreach products less competitive when compared to those offered by alternative infrastructure providers and therefore distorting competition. Further, third parties will have no incentive to make efficient and sound investments when significant up-front build costs have been removed from their business case. We are concerned that Ofcom's proposals do not properly promote fair and long term competition.

54. It is not clear from the consultation how Ofcom considers its proposal to require Openreach to relieve congested infrastructure and construct new physical infrastructure at its own expense is compatible with the Access Directive. With this in mind, it is important that Ofcom properly considers and analyses the impact of Openreach taking on major elements of risk, and assesses whether efficient competition will be safeguarded in the long term and whether the proposals are strictly limited to what is considered objectively justified and proportionate.

## **The potential costs, benefits and risks of intervention are not appropriately balanced**

55. We consider Ofcom has placed disproportionate weight on the benefits of promoting infrastructure competition and overstated the harm that would occur in the absence of intervention for the reasons set out below:

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<sup>32</sup> EC, 20 September 2010. Commission recommendation on regulated access to Next Generation Access Networks (NGA), Recital 13

<sup>33</sup> This is recognised by Ofcom at paragraph 4.138

56. First, the evidence does not suggest any significant and concrete demand for scale PIA use (as Ofcom itself acknowledges)<sup>34</sup>. Ofcom is, in parallel, pursuing paradoxical pricing proposals for Openreach's 40/10 Mbps product and Ofcom's objective of encouraging scale FTTP entry from other providers using DPA will be materially compromised if their already marginal business cases are further weakened by Ofcom's 40/10Mbps pricing proposals. This raises significant uncertainty about the impact of Ofcom's proposals. Ofcom's approach to impact assessments indicates that *"it is good practice to present an analysis of the sensitivity of the results to changes in some of the most important variables"*<sup>35</sup> (including demand), and such an analysis is essential to ensuring an objectively justified and proportionate remedy in these circumstances.
57. Second, Openreach has already implemented new and significantly improved product processes and systems since January 2017 based on extensive trials with our CP customers which have already resulted in the largest use of PIA/DPA to date with greater than 400km of duct reserved for build. We now enable CPs to have all the relevant on-line information they need to plan and build their ultrafast broadband networks in the way they choose and with the same flexibility that Openreach does. This should significantly negate the need for further intervention.
58. Third, Ofcom has given insufficient weight to the relevance of the ATI Regulations. Ofcom's consultation effectively confines the ATI Regulations to the statute books, simply saying they will not address Ofcom's competition concerns, rather than trying to address and resolve any usability issues. Ofcom's offers no strong evidence or market analysis to support its conclusions. It does not explain how these competition concerns, if any, could or could not be resolved through the dispute resolution process that is enshrined in the ATI Regulations. We cover this point further below and consider Ofcom's proposals should not conflict with and/or undermine the ATI Regulations and should, at a minimum, reflect the safeguards enshrined in those Regulations.
59. Even if Ofcom's proposals were to offer sizeable benefits (which we do not consider to be the case for the reasons set out above), we strongly believe the current proposals present significant risks (as set out below) which outweigh any such benefits. Openreach therefore does not consider that an intrusive obligation requiring Openreach to part fund competing network build in the manner inferred in the existing consultation is proportionate. We have set out below some of the key risks we see with Ofcom's highly intrusive proposals and consider our proposal (also set out below) to be of lower risk whilst maintaining the benefits Ofcom seeks to achieve, thereby amounting to a proportionate remedy.
60. Prior to setting out those key risks however, it is important to note that Openreach remain seriously concerned that Ofcom has failed to fully and properly analyse any of those risks. Ofcom is required to carry out a qualitative and quantitative assessment of the unintended impacts of its proposals and to identify possible mitigations that will remove or limit any harmful effects<sup>36</sup>. Ofcom's proposals create a material risk of artificial and unsustainable network competition which are likely to create many and significant inefficiencies and other unintended consequences. These risks create significant uncertainty about the impact of Ofcom's proposals. In circumstances where Ofcom's decision "is likely to have a wide-ranging impact and/or impose substantial costs on stakeholders",<sup>37</sup> we would expect Ofcom to have provided a comprehensive Impact Assessment including a much deeper level of analysis which clearly identifies the separate stages in its Impact Assessment and the risks of highly intrusive intervention, rather than a general comment that its

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<sup>34</sup> Ofcom paragraph 4.96 and 7.80

<sup>35</sup> Better Policy making; Ofcom's approach to Impact Assessment, paragraph 5.30

<sup>36</sup> Better Policy making; Ofcom's approach to Impact Assessment, paragraph 5.30

<sup>37</sup> Better Policy making; Ofcom's approach to Impact Assessment, paragraph 1.7

whole consultation represents its impact assessment.<sup>38</sup> In our view, such analysis is essential to ensuring an objectively justified and proportionate remedy. Without such an analysis, we consider Ofcom's regulatory duties, in particular, to ensure the promotion of competition, investment and innovation, will be compromised.

#### Openreach and its downstream customers

61. Ofcom's consultation does not analyse in any detail whether its proposals are likely to secure efficient and sustainable competition in the long term.<sup>39</sup> In our view, Ofcom's proposal for Openreach to carry out works on behalf of a CP at Openreach's cost will significantly undermine the incentive for an alternative network provider to be efficient and effectively require those CPs not purchasing PIA to cross-subsidise the network build of providers which offer competing downstream products. As a result, Ofcom's proposals create a significant risk of distorting competition in the upstream and downstream markets.
62. With regard to efficiency incentives, Ofcom's proposals remove costs from the business cases of CPs purchasing PIA. With this in mind, even if it may be more efficient for a CP to carry out enabling works (for example) itself, it is unlikely to do so when it can get Openreach to carry out the works at no cost. Clearly, this undermines a CP's incentive to be efficient and it is difficult to see how Ofcom's proposal will promote efficiency and promote sustainable competition in the long-term in line with its statutory duties and obligations set out above. Access to Openreach's physical infrastructure should reflect the economic costs of providing such access, such that CPs can make rational 'build/buy' decisions.
63. The cost implications for Openreach could be significant with Openreach exposed to an unspecified and largely uncontrollable liability unless rigorous financial controls, budgets, and approval processes can be set and imposed by Openreach, just as it does for its own operations. Ofcom proposes that these costs will be recovered through the pricing of all MPF/WLR products, meaning Openreach's CP customers will be required to cross-subsidise alternative network build, even where they derive no benefit from certain works and PIA CPs are not subject to any wholesale access obligation. Every user of the copper products would effectively contribute to the PIA CP's costs – and taken to its logical conclusion would ultimately mean that, for example, a rural customer would end up contributing to potential significant PIA costs for a third (or fourth etc.) ultrafast network in a densely populated area. Moreover, Ofcom should take a technology-neutral approach to the supply of PIA that does not artificially support FTTP networks but allows the market to decide on efficient investment decisions in terms of where to invest, when to invest, how much to invest and what technology to deploy.
64. The products of Openreach's downstream customers will also become less competitive vis-a-vis the downstream products offered by alternative network providers because the price of the products sold by Openreach CPs, using inputs such as MPF, WLR and GEA, will include the costs of PIA whereas the products sold by network providers that have purchased PIA from Openreach will not. Given Ofcom's proposal for Openreach to cover not only its own cash flow and build costs when it is competing within the Virgin footprint, but also an obligation to fund PIA network adjustments for Virgin<sup>40</sup> with no reciprocal regulated access obligation [§<]. Compared to the status quo, Openreach's downstream customer's products will also become less competitive

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<sup>38</sup> Ofcom's document on its approach to Impact Assessments explains the different stages that are involved in an impact assessment and the key principles Ofcom should follow although section 2.34 of the consultation simply states that the whole analysis presented in the consultation represents Ofcom's Impact Assessment.

<sup>39</sup> Act, Sections 87(4) and 88(1) and Access Directive, Article 13(2)

<sup>40</sup> Or any number of alternative PIA CPs.

compared to downstream products offered by network providers that do not purchase PIA from Openreach.

65. Moreover, Ofcom's proposals effectively result in Openreach becoming a consultant, builder and financier of third party networks, requiring Openreach to change its business model and become a form of quasi-civil engineering intermediary.
66. In the absence of a detailed impact assessment taking account of the points in our response to this consultation and identifying possible mitigations to remove or limit these harmful effects, it is difficult to see how Ofcom's proposals do not pose a material risk of distorting competition between network providers and in downstream markets.

#### Suppliers of civil engineering and construction services

67. A proper assessment of the impact on any market for the supply of civil engineering and construction services including the impact on providers of such services is particularly important given Ofcom's objective of encouraging scale FTTP entry and its proposal to impose SLAs and SLGs on Openreach (including where network build is not entirely within Openreach's control).
68. Ofcom acknowledges the importance of stimulating network innovation yet its proposals may actually restrict competition in any market for the supply of civil engineering and construction services, removing the incentive for network competitors to explore new and innovative ways of working with contractors and deployment techniques, paradoxically resulting in a dampening of innovation. Where Openreach is required to carry out the work on behalf of a competitor, the competitor will be able to access/benefit from the rates and arrangements Openreach has negotiated with its contractors, which is again likely to dampen competition in any relevant market. Healthy market dynamics would dictate that each network provider should negotiate rates and terms with contractors. Allowing competitors to use Openreach's rates and processes will deprive contractors of the ability to differentiate between network providers, depriving them of the incentive and ability to agree innovative pricing models, deployment techniques and ways of working with other network providers. For this reason, we consider any model whereby Openreach is required to carry out works on behalf of another network provider should be strictly limited.

#### BDUK/public funding bidding

69. Depending on how a competing bidder decides to structure its bid, Ofcom's proposals could put Openreach at a significant competitive disadvantage vis-à-vis other bidders for BDUK/public funding, including the £400m announced as part of the 2016 Autumn Statement<sup>41</sup>.
70. For example, should a competing bidder decide to include PIA in its bid, those PIA related costs which, under Ofcom's proposed remedies would be paid for by Openreach, would be removed from a competing bidder's business case rather than be recovered from the prices it charges for its services (which is the position today for both Openreach and a competing bidder and reflects normal market practice). Under Ofcom's proposal, a competitor's bid would effectively be subsidised/funded by Openreach (and its copper product customers through higher MPF/WLR rental charges), rather than through the revenue a competitor could obtain, or from public funding, placing Openreach at a significant disadvantage to the competitor consuming PIA, in any BDUK bidding process. Clearly, this could have an impact on local authority bidding processes and could significantly distort competition in any BDUK/public funding bidding market. This is of particular concern given that a key control in the BDUK scheme - to ensure that levels of subsidy

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<sup>41</sup> Under these schemes, the initial capital expenditure is partly publically funded to make the business case viable.

go no further than necessary and which was relied upon by the Commission in approving the scheme - is that the award of contracts by local authorities should be subject to an effective competitive tendering process. In the circumstances, we believe the Ofcom proposals relating to cost recovery are disproportionate and fail to take into account the serious impact they may have on the competitive process in BDUK areas.

### Owners of physical infrastructure

71. The PIA consultation concerns itself with access to ducts and poles (and other relevant infrastructure) which could be used to deploy telecommunications network equipment, and many other companies (including other network providers) and utilities have substantial civil engineering infrastructures including suitable ducts and poles.
72. Ofcom fails to consider the risk that its proposals may distort the competitive dynamics in relation to the provision of access to physical infrastructure, in particular as a result of the ATI Regulations. In this respect, Ofcom's proposals and favourable rules on cost recovery for access seekers are likely to mean BT is always chosen as the preferred access provider and other owners of ducts and poles may be foreclosed from the provision of access to physical infrastructure. This may also result in an unnecessary duplication of assets as PIA CPs are, for example, most likely to require Openreach to provide duct capacity relief or augment its existing infrastructure knowing that Openreach will fund the cost rather than use any spare capacity there may be in the ducts of another utility provider. In summary, Ofcom's proposal is likely to deprive the ATI Regulations of any concrete application.

### Information Sharing

73. We are concerned about the effects Ofcom's proposals may have on information sharing in the context of competition law, in particular as a result of Ofcom's proposals to facilitate PIA take-up at the same time as imposing an obligation on Openreach to announce its infrastructure build plans to CPs a reasonable time in advance and "coordinate the completion of all build works on its infrastructure which has potential efficiency benefits"<sup>42</sup>. In our view, Ofcom's proposals create a material competition law risk and we would welcome the opportunity to discuss these concerns with Ofcom in more detail.

### **Principles of Cost Recovery**

74. Ofcom's proposal for Openreach to fund the upfront costs for a PIA CP is incompatible with the principle of cost causality. As a result, we are concerned that:
  - BT would not be able to comply with Ofcom's Regulatory Accounting Principles with respect to PIA; and
  - Ofcom's proposals are incompatible with its own cost recovery principles and appear to be inconsistent with its requirement to ensure it promotes "*regulatory predictability by ensuring a consistent regulatory approach*", as required by Article 8(5)(a) of the Framework Directive.
75. Ofcom's Final Statement on Regulatory Financial Reporting dated 20 May 2014 identifies the regulatory accounting principles that BT is required to apply to, inter alia, material costs in its Regulatory Financial Statements. Principle 5 is causality which requires that Regulatory Financial Reporting ensures that, inter alia, costs are attributed in accordance with the activities which cause those costs to be incurred. BT is currently required to comply with the Regulatory

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<sup>42</sup> Consultation, paragraph 6.95

Accounting Principles although Ofcom's proposals would mean BT could not comply with this principle of cost causality with respect to PIA products.

76. Further, Ofcom's proposals do not appear to be compatible with its principles of cost recovery, namely:<sup>43</sup> (1) cost causation: costs should be recovered from those whose actions cause the costs to be incurred; (2) cost minimisation: the mechanism for cost recovery should ensure that there are strong incentives to minimise costs; (3) effective competition: the mechanism for cost recovery should not undermine or weaken the pressures for effective competition; (4) reciprocity: where services are provided reciprocally, charges should also be reciprocal; (5) distribution of benefits: costs should be recovered from the beneficiaries especially where there are externalities; and (6) practicability: the mechanism for cost recovery needs to be practicable and relatively easy to implement.
77. On cost causation, the costs would be caused by a PIA CP that would be the direct beneficiary although the costs would not be recovered directly from that CP. On cost minimisation, there would be no incentive for the CP to minimise expenditure if it does not experience the cost (within the proposed Ofcom limits). On effective competition, we have set out above various arguments as to how Ofcom's proposals are likely to materially distort competition in various markets. On distribution of benefits, Ofcom's proposal does not require there to be any clear and demonstrable evidence or even likelihood that there will be a wider distribution of benefits. In this respect, the PIA CP has no obligation to offer wholesale access, and is therefore rewarded with the end-to-end commercial benefits with potentially little or no retail competition on the new network. Second, there is no link between the CPs/end-users who may be required to fund such activities and the types of PIA requests received and likely areas where such networks might be deployed. We are also concerned about the implementation of Ofcom's proposed remedy in the absence of a proper cost benefit analysis, strict financial controls and forecasting obligations.
78. Moreover, whilst we accept that Ofcom's requirement to promote "*regulatory predictability by ensuring a consistent regulatory approach*" should not preclude Ofcom from making policy changes, we do consider it to limit Ofcom's ability to set-aside its regulatory accounting principles in the absence of any robust evidence justifying its approach.

## **The ATI Regulations**

79. The ATI Regulations came into force in July 2016 and provide rules to facilitate the roll-out of superfast broadband including a legal mechanism for CPs to access physical infrastructure across all utilities in the UK, including Openreach's and Virgin Media's. In short, Openreach's infrastructure is not the only option for CPs.
80. We are concerned that Ofcom's proposed remedies conflict with and/or undermine certain provisions of the ATI Regulations, do not reflect the safeguards enshrined in those Regulations and risk materially distorting competition between network providers. We are further concerned that Ofcom has failed to carry out a proper analysis of the potential benefits of the ATI Regulations<sup>44</sup> and has not justified why it considers the ATI Regulations to be deficient in all respects, thus justifying parallel and more intrusive regulation on Openreach. We do not believe that it is good regulatory practice to add an additional layer of regulation to existing regulation if there is no evidence that the existing regulation is not effective. At a minimum, we propose that

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<sup>43</sup> Ofcom Statement and Determination dated 21 August 2014 in the dispute between BT and each of Telefonica and Three relating to forward looking call origination charges for 080 numbers, footnote 31.

<sup>44</sup> We also raise this concern in our response to Question 4.2 below relating to Ofcom's proposals for a mixed use rule.

Ofcom aligns its proposals to the ATI Regulations or removes regulation where the ATI Regulations appear to achieve Ofcom's objective. We refer to two particular issues below:

#### Announcing plans in advance

81. Ofcom proposes to re-impose an obligation on BT to "*announce plans reasonably in advance for new construction of Physical Infrastructure*". Although this provision of the reference offer does not depart from the current obligation in Ofcom's 2014 FAMR Statement, the ATI Regulations are now in force and Section 8 provides a right for access seekers to request "*information concerning civil works relating to the operator's physical infrastructure (including where the works have already commenced)*". Where legislation already provides for access to civils information, our view is that Ofcom's proposal to re-impose an obligation on BT to "*announce plans reasonably in advance for new construction of Physical Infrastructure*" is not objectively justified or proportionate.
82. Further, we are concerned that Ofcom's proposal for a broad obligation on BT to proactively announce its plans for the construction of new Physical Infrastructure reasonably in advance creates a material risk of distorting competition between network providers. This is because Section 8(6) of the ATI Regulations only requires access providers to provide information "on request" and allows a request to be refused on the basis of one of various safeguards enshrined in the Regulations, namely "*(a) the security or integrity of any network; (b) a duty of confidentiality owed by the infrastructure operator to another person; (c) operating or business secrets of any person; or (d) safety or public health.*" Ofcom's proposal is likely to result in a situation whereby other network providers will know about all of Openreach's plans, regardless of their competitive sensitivity, whereas BT is likely to face significant difficulty in obtaining information about other network provider's civil works because (i) Openreach has to actually request the information in relation to a specified geographic area and may not know all areas which could be subject to a request and (ii) other network providers are likely to reject requests in accordance with Section 8(6) of the ATI Regulations. This means Openreach's CPs may not have the opportunity to provide an alternative source of supply to consumers, restricting competition and reducing consumer choice.
83. Ofcom's proposal also fails to take into account the difference between providing information relating to new sites and information relating to civil works on highways. The ATI Regulations explicitly refer to civil works although Ofcom's proposal appears much broader despite the fact that the provision of information on plans relating to new sites presents a very different set of challenges. As explained in more detail in our response to Question 6.2 below, any obligation which covers new sites interferes with a developer's right to choose which network provider it may wish to deal with following commercial negotiations and is unworkable in practice because there would be insufficient time and capability for Openreach to consult with PIA CP on whether they want Openreach to build additional duct. In any event, other remedies requiring Openreach to construct new duct where insufficient capacity is available should constitute a sufficient remedy.

#### Safeguards enshrined in the ATI Regulations

84. With respect to accepting or rejecting a request for access to information and a request for network access, it is unclear why Ofcom's proposals do not include the safeguards enshrined in the Regulation 4(5) and 6(3) of the ATI Regulations respectively. With respect to Section 6(3) of the ATI Regulations, an access provider can refuse access where inter alia, the provision of access raises safety or public health concerns; could compromise the security or integrity of the network; may cause technical difficulties because the proposed access does not comply with recognised standards; or may interfere with existing technologies. Ofcom's proposals provide for no explicit safeguards. This is particularly concerning given Ofcom's proposal to introduce SLAs/SLGs

relating to requests for access. Moreover, because other network providers will be able to refuse access to Openreach by relying on the safeguards enshrined in the ATI Regulations, Ofcom's proposals create a material risk of distorting competition. We propose that Ofcom ensures its proposals reflect the safeguards enshrined in the ATI Regulations.

### **Our proposal**

85. We urge Ofcom to carry out a much fuller analysis into the effects on all relevant stakeholders in the value chain and all potential distortive effects on competition.
86. In our view, and as demonstrated in this document, such an assessment would highlight the need for adjustments to Ofcom's proposals in order to ensure they are objectively justifiable and proportionate and do not inadvertently distort the competitive dynamics at play in a number of markets. As set out in more detail in Section 4 below, we propose that Openreach should only be required to fund upfront costs where:
  - The works relate to Openreach's current network footprint;
  - There is a clear and demonstrable material benefit to the Openreach network and its customers;
  - The works are directly linked to accurate forecasting required a minimum of 12 months in advance;
  - The works pass a financial assessment of the cost/benefit analysis; and
  - The works do not involve providing large amounts of new capacity or long lengths of new duct.
87. Further any works should be subject to a per order cap and an annual industry wide cap based on CP forecasts. The scenarios in which works provide a clear and demonstrable material benefit to the Openreach network and its customers will need to be precisely defined and we would work with industry and the OTA to agree acceptable parameters to the obligation.
88. We consider our proposal mitigates the risks of distortions of competition set out above, in particular by preventing CPs which do not purchase PIA from being required to cross-subsidise works from which they will derive no benefit and should promote efficient and sustainable long-term investment. In particular because CPs will be required to carry out non-complex enabling works themselves at their own cost and will not be incentivised to ask Openreach to carry out the work simply because there is no up-front cost.
89. To the extent Ofcom agrees that its proposals may have a distortive effect on competition in markets that fall outside of Ofcom's expertise, and to the extent Ofcom has not already done so, Ofcom may wish to consult with the Competition & Markets Authority.

### **Ofcom's proposal to extend the scope of PIA to mixed usage**

90. We recognise and support Ofcom's movement away from an 'any usage rule'. However, as previously indicated, Openreach is concerned that aspects of Ofcom's proposals are inconsistent with or do not sufficiently take account of its statutory duties and requirements and we are concerned that Ofcom's proposals to extend the PIA remedy to mixed use conflicts with its findings of the recent Business Connectivity Market Review (BCMR) and the justification for a dark fibre remedy. In particular, we are concerned that, prior to proposing to extend the scope of PIA to allow mixed usage, Ofcom does not appear to have conducted a thorough assessment of

the interplay between PIA (mixed use) and the existing remedies in the business connectivity markets (including dark fibre access) in order to determine whether the existing dark fibre remedy in the BCMR market is sufficient and whether extending the scope of the PIA remedy is justified and proportionate to achieve its objective.

91. We would have also expected Ofcom to provide a detailed assessment of the application of the two remedies to ensure that scope for arbitrage is limited and that remedies are mutually consistent and that their joint impact is understood. At the very least, we would expect to see an analysis of the incremental benefit Ofcom consider duct access provides over and above the existing remedies in the business connectivity markets (including dark fibre access), and how Ofcom considers its proposals promote efficiency in business connectivity markets in terms of the interplay between the BCMR and PIA markets. To this end, we make the following observations:

- Business connectivity products are already regulated in their own right in a separate market review;
- Before imposing a remedy (the DPA remedy) which impacts business connectivity products, we consider Ofcom should have identified a competition problem in the business connectivity market, in particular given the requirement in Art. 8(4) of the Access Directive for remedies to be “based on the nature of the problem identified”.
- We consider Ofcom should have explained why the competition problem in the business connectivity market could not be resolved by the remedies it has imposed in its latest BCMR (we note though that it is not appropriate for Ofcom to impose in a market review for product X a remedy that is designed to remedy an alleged issue in relation to product Y, this remedy can only be imposed in the context of a market review of product Y).
- We consider Ofcom should have explained why in the present consultation it takes a view that is radically different from the view it took in its BCMR Final Statement. In its BCMR Final Statement, Ofcom explicitly rejected a duct access remedy, stating that: *“we consider that including duct access in the remedies package at this stage would make it more difficult to manage implementation risk, particularly in managing prices at different levels in the value chain to avoid creating incentives for inefficient entry while active remedies are an important part of the remedy package”*.<sup>45</sup>
- Business connectivity services are actually deregulated in the Central London Area (CLA); whereas Ofcom’s proposed remedy (the DPA remedy) makes no such geographical distinction and will apply to the CLA and therefore undermine the BCMR.
- The Civil Infrastructure Directive and the ATI Regulations already impose an obligation on CPs and other infrastructure providers to give access to their ducts and poles subject to the payments of a fair remuneration. Ofcom have failed to explain why an additional remedy imposed on BT (as a result of the extension of PIA to the BCMR markets) is justified and why Ofcom’s objectives could not be achieved by the ATI Regulations. We have explained our concerns in paragraphs 79 and 80 of this submission. Finally, we take the view that Ofcom’s proposed extension of PIA to the BCMR markets will deprive the CID and the ATI Regulations of any use. We have explained our concerns in paragraph 72 of this submission.

92. As indicated above, Ofcom’s proposals, including the imposition of a PIA obligation, would appear to apply indiscriminately to unregulated services and areas, including deregulated business

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<sup>45</sup> BCMR Final Statement, 28 April 2016, paragraph 7.59

connectivity products provided within the CLA and other services such as CCTV, broadcast and Street Access specifically excluded by Ofcom from BCMR regulation. In terms of Ethernet services, in its BCMR Final Statement, Ofcom decided not to regulate BT in the CLA because the provision of Ethernet in the CLA is competitive. If Ofcom were to adopt a mixed use rule for the purpose of PIA, this rule will necessarily extend to the provision of leased lines in the CLA, requiring BT to provide access to ducts and poles in the CLA for business use (despite this activity having been found competitive). This is because PIA is a remedy that applies across the whole UK and does not distinguish between areas in the UK that are competitive/not competitive. We consider that this outcome would be perverse and contrary to the EU Framework and Access Directives. It would be perverse because it would reintroduce regulation through the back door in relation to an activity that has been recognised to be competitive by Ofcom. This outcome would also be contrary to the EU Framework and Access Directives because Ofcom has a legal obligation to ensure that any remedy it imposes is necessary and proportionate to the competitive issues it (Ofcom) has identified. This cannot be the case in relation to business connectivity in the CLA because this activity is competitive.

93. We also note that Ofcom does not consider the range of unregulated/non-SMP services through which Openreach recovers a share of its common costs and there is also a specific issue that relates to the impact of the mixed use rule on our ability to recover our costs in BCMR. If CPs make extensive use of PIA in a mixed use scenario, the direct result is that we will sell less Ethernet products and potentially less Dark Fibre than Ofcom envisaged in its BCMR Final Statement. This would have an impact on the LLCC (if we sell less Ethernet services) but also on the feasible pattern of cost recovery. Ofcom has not specifically looked at how changes to common costs recovery and relative prices between the different products will impact on Openreach, its customers and infrastructure providers which appears inconsistent with its approach to impact assessments. The ability of BT to recover its common costs is a central issue in BCMR and that is subject to an appeal before the Competition Appeal Tribunal.
94. As explained in more detail in our response to Section 4.2 below, we are also concerned that Ofcom does not appear to have provided any robust evidence that PIA would be more effective if usage is extended to permit its use for leased lines. In the circumstances, we consider that at present such an extension cannot be shown to be objectively justified and/or to bring any sufficiently strong benefit to outweigh the negative impact of the potential distortions set out above. Moreover, we have significant concerns about the feasibility and proportionality of placing the responsibility for monitoring compliance with a mixed usage rule solely with Openreach.
95. In summary, and in particular the absence of a proper assessment of the impact of Ofcom's proposals on BCMR markets, we consider Ofcom's proposal for a mixed use rule to be a disproportionate and unjustified intervention which is inconsistent with Ofcom's statutory duties and requirements.

## **Responses to Ofcom's Questions**

96. We set out our detailed responses to each of Ofcom's nine questions below in Section 3.

### 3 Responses to questions in Ofcom's consultation document: "Wholesale Local Access Market Review – Consultation on Duct and Pole access remedies"

#### PIA Remedy

Question 4.1: Do you agree with our proposals for a specific access obligation, which includes an obligation on BT to make adjustments to its physical infrastructure when its network is congested? Please provide reasons and evidence in support of your views.

#### Introduction

97. We agree with Ofcom's proposal for a specific PIA/DPA access obligation. We have actively supported the PIA/DPA remedy since its inception in 2010 and have also implemented significantly new and improved product processes and systems since January 2017 based on extensive trials with our CP customers<sup>46</sup>.
98. We also support Ofcom's high-level objectives set out in the PIA consultation, and are committed to providing access to our existing physical infrastructure on fair terms to facilitate economically efficient deployment of alternative access networks by third parties where they have identified opportunities.
99. However, where Ofcom's proposals depart from the principle of fair access to Openreach's existing assets, we have serious concerns and consider Ofcom's highly intrusive proposals do not meet its statutory duties and are not objectively justified or proportionate.
100. If imposed, without further detailed analysis and careful consideration of the facts, we are concerned that proposals which require Openreach to bear responsibility for PIA CPs costs and activities will serve to seriously distort investment decisions and undermine, rather than promote, efficient large scale super/ultrafast deployments, particularly in relation to Openreach's own investment plans. Openreach should only be required to bear costs of adjustments where there are and remain clear and demonstrable material benefits to the Openreach infrastructure and its customers and where there are proper financial controls.
101. As Ofcom sets out in the consultation a significant part of its logic supporting the Openreach obligation to fund network adjustments is that CPs would be paying to improve the Openreach network and then have to '*gift these improved assets to Openreach*'<sup>47</sup>. In reality only some works orders could actually be described as realistically improving Openreach assets, and which therefore might provide some benefit to Openreach and its CPs.
102. As part of its analysis, Ofcom inappropriately conflates what should be a CPs own fibre build/installation costs, with 'adjustments' to Openreach's physical infrastructure. For example, a CP which installs its own fibre cable by means of direct in ground (DIG) burial has undertaken a cable installation activity and created a fibre network asset. This is exactly analogous to a CP which installs a cable into an existing Openreach duct space, or a CP that clears a blockage

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<sup>46</sup> We now enable CPs to have all the relevant on-line information they need to plan and build their ultrafast broadband networks in the way they choose and with the same flexibility that Openreach does. Our new product processes and digital map system has resulted in the largest use of PIA/DPA to date with greater than 400km of duct reserved for build. These systems and processes have been specifically designed to enable CPs to access the same detailed network information available to Openreach planners and for CPs to be able to survey, plan and build their networks with the same degree of flexibility as Openreach. They enable CPs to self-serve our network records to identify suitable ducts, poles and cable chambers for fibre deployment.

<sup>47</sup> Paragraph 5.17.4

sufficient to install its own cable into the Openreach duct. The asset created by the activity is part of a fibre network owned by the CP and is not an improved Openreach duct asset in any of these scenarios<sup>48</sup>. The activities and costs are fibre installation/cabling costs just as a direct in ground installation would be. In terms of any commonly accepted approach to cost recovery there is no case to be made in these circumstances that Openreach and its CPs' customers should pay the installation costs of such a fibre asset; especially when such a CP may not even offer wholesale access to its network and the works may only benefit that single CP.

103. In contrast, there will be instances where a CP request for a network adjustment and for Openreach to fund such a request could be considered a potentially useful asset improvement. In this case, Openreach would be prepared to conduct and fund the works where after a thorough review it is clear the work is necessary and will provide a clear and demonstrable material benefit to the Openreach network and its customers. It is, however, important that any such work is directly linked to accurate forecasting provided a minimum of 12 months in advance to allow Openreach to properly manage and resource. By way of example, this category could include network build works we propose to carry out or new duct, pole or joint/footway box capacity relief. In addition to being of clear and demonstrable material benefit each request would need to be assessed against an agreed financial framework before funding was approved.
104. Openreach also accepts that an effective PIA remedy may need some adjustments to Openreach's duct and pole network which only Openreach can carry out and we currently offer services to allow this type of adjustment to be undertaken. In this case Openreach would be prepared to do the work provided the CP pays as there is no clear and demonstrable material benefit to the Openreach network. The work should also be directly linked to accurate forecasting required a minimum of 12 months in advance to allow Openreach to properly manage and resource. By way of example, this category could include works in a sensitive/secure area and augmentation works that only Openreach can carry out such as erecting new ducts, poles and joint/footway boxes.
105. Our proposed approach maintains the linkage between business case costs, risks and prospective revenues. However, Ofcom's policy on network adjustments proposes that the costs would not be charged to the CP which requests that the work be carried out, but spread over the customers of WLR and MPF lines, so in effect the PIA CP may make little (or no) contribution to the incremental cost it imposes on Openreach and its customers.
106. Every user of the copper products would contribute to the CP's costs - and this would ultimately mean that, for example, a rural customer would end up contributing to the still potentially unlimited network adjustment costs for a third (or fourth etc.) ultrafast network in a densely populated area. This cannot be right, and the consequences (unintended or otherwise) could include the misallocation of Openreach and its suppliers resources, distortion of competition between technologies, impaired ability for Openreach to control its costs, and exposure of Openreach and its customers to extra investment risk.
107. Ofcom's approach in setting the requirements to supply PIA should be focussed on ensuring that potential investors in alternative ultrafast broadband access networks can access Openreach's existing physical infrastructure on fair and reasonable terms that reflect the economic costs of providing such access, such that they can make rational 'build/buy' decisions. A PIA CP can already benefit significantly from regulated cost based access to Openreach's shared infrastructure, which can generate significant cost savings for their deployment plans. However, Ofcom disregard this fundamental benefit throughout the consultation and are instead unduly focussed on Openreach part funding and de-risking the PIA CPs network build of its own fibre

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<sup>48</sup> See Annex D for further example scenarios.

asset. If Ofcom is set on imposing its network adjustment proposals, our view is that the obligations need to be refined further. Any obligation to fund an adjustment would need to be based on an assessment of a clear and demonstrable material benefit to Openreach infrastructure and its customers and subject to a reasonable cost benefit criteria and other financial controls.

108. Ofcom has also not fully considered the impact of its network adjustment proposals on Openreach’s competitive position. Such proposals put it at a commercial disadvantage when it comes to assessing investment cases and competing for new publically funded contracts. For example, and as set out in more detail in Section 2 above:

- Ofcom’s proposals require Openreach to fund not only its own build, but to the extent Virgin and other network providers purchase PIA from Openreach, also require Openreach to fund the network build of its competitors. [3<].
- Depending on how a competing bidder decides to structure its bid, Ofcom’s proposal is likely to put Openreach at a competitive disadvantage and materially affect Openreach’s ability to competitively bid for BDUK and other sources of infrastructure development funding.

### **Our proposal**

109. In light of our concerns, and notwithstanding the fact that we do not consider Ofcom’s proposed intervention to be justified or proportionate, we have summarised our proposal below which we consider to be consistent with Ofcom’s rationale for imposing an obligation on Openreach to fund capacity build/enabling works, namely that PIA CPs currently have to pay to improve the Openreach network and then have to ‘*gift these improved assets to Openreach*’<sup>49</sup>.

110. In summary, our proposal is as follows:

| <b>Provision/Funding Mechanism</b>   | <b>Type of work</b><br><i>[to be to be more precisely defined, working closely with industry and the OTA]</i>  |
|--|--|
| Openreach provides/Openreach funds up to per order cap and CP pays above cap (subject to annual industry wide cap based on CP forecasts) | Openreach funds (subject to caps) provided: <ul style="list-style-type: none"> <li>• The works relate to Openreach’s current network footprint;</li> <li>• There is a clear and demonstrable material benefit to the Openreach network and its customers;</li> <li>• The works are directly linked to accurate forecasting required a minimum of 12 months in advance;</li> <li>• The works pass a financial assessment of the cost/benefit analysis; and</li> <li>• The works do not involve providing large amounts of new capacity or long lengths of new duct.</li> </ul> By way of example, this category could include network build works we propose to carry out or new duct, pole or joint/footway box capacity relief. |

<sup>49</sup> Paragraph 5.17.4

|                                   |  |
|-----------------------------------|--|
| <p>Openreach provides/CP pays</p> | <p>Where there is no clear and demonstrable material benefit to the Openreach network and its customers but the CP cannot carry out the work itself, Openreach provides and the CP pays up-front, provided:</p> <ul style="list-style-type: none"> <li>• The works relate to Openreach’s current network footprint;</li> <li>• The works are directly linked to accurate forecasting required a minimum of 12 months in advance; and</li> <li>• The works do not involve providing large amounts of new capacity or long lengths of new duct.</li> </ul> <p>By way of example, this category could include works in a sensitive/secure area and augmentation works that only Openreach can carry out such as constructing new ducts and joint/footway boxes, and erecting new poles.</p> |
| <p>CP provides/CP funds</p>       | <p>This category could include:</p> <ul style="list-style-type: none"> <li>• Works outside of the current Openreach network footprint;</li> <li>• Works that involve providing large amounts of new capacity or long lengths of new duct;</li> <li>• Works which will only benefit a single CP because, for example, we have no demand from any other CP;</li> <li>• Works which only provide a temporary solution without improving the Openreach network; and</li> <li>• Enabling works including but not limited to duct blockage clearance, desilting, cable installation, drop wire swap out and removal of obstructive trees, branches, roots.</li> </ul>  |

111. The following paragraphs expand on concerns with Ofcom’s proposal and justify the approach we have put forward and which is summarised above.

**Ofcom’s network adjustment proposals - overview**

112. We acknowledge and welcome Ofcom’s intention to try and place limits on its proposed remedy relating to network adjustments to (broadly speaking) ensure CPs should experience network adjustment costs and cost recovery in a similar way to Openreach<sup>50</sup>. However, we consider that Ofcom does not fully work through the logic and implications of its proposal and accordingly, does not properly balance the benefits of its proposals against all risks and unintended consequences of its proposed intervention.

113. Ofcom sets out a view that Openreach accounts for such adjustment costs in a way which enables cost recovery from other users of the physical infrastructure over time and through other regulated charges, and therefore, that PIA CPs should have the same opportunity to do this. However, in the Openreach scenario, it is Openreach that funds the required upfront cash flows to support its investment. Therefore the equivalent scenario for a PIA CP would be for it to fund its own upfront costs. The cost recovery should then take place with the PIA CP recovering such costs from its customers over time in the way Ofcom suggests that Openreach should.

114. Another, fundamental difference arises in the normal commercial judgment of whether any incremental network adjustment activity is cost justified. In Openreach’s case, any additional network expenditure would be assessed on the basis of prospective revenues earned compared to the additional costs/cash flow incurred in enabling the network. There is also an implicit guarantee of future occupancy as Openreach is building and dimensioning a network which it plans to use. The network would be enhanced based on predicted future capacity needs for that particular location.

<sup>50</sup> Section 5 WLAMR DPA consultation 20 April 2017.

115. It is not clear how such an assessment of commercial viability and correct alignment of incentives would take place with the network adjustment proposals set out by Ofcom. Such an assessment would require information on the CP business case for that location,<sup>51</sup> coincident knowledge of future Openreach requirements, and a guarantee of network occupancy by the CP and perhaps by other CPs. This would require a cost benefit process and financial controls to be put in place<sup>52</sup>. Openreach would require sufficient time to carry out a full assessment of each case, and for CPs to commit to the occupancy of the built infrastructure for the long term, potentially with held-to-term or early termination charges for early exit. Such charges would be needed to cover the exposure of Openreach and its non-PIA CPs who are paying for such adjustments and would need to be supported by some form of bond or guarantee.
116. In Openreach's case we would have an incentive to minimise costs by either choosing an alternative deployment method, or to enhance the network for predicted growth. If Openreach makes an incorrect long term assessment, it has to face the consequences of its decision in terms of insufficient capacity, which may result in loss of business, missed MSL targets and/or extra SLG costs etc.
117. In comparison, Ofcom's proposals, as framed, still leave Openreach with funding a potentially opened ended "CP civils infrastructure building resource". Ofcom's guidance that it acknowledges that limits need to be placed on the obligations, and its references to moral hazard (in paragraph 6.139) are helpful but they still leave Openreach with an unspecified and largely uncontrollable liability unless rigorous financial controls, budgets, and approval processes can be set and imposed by Openreach, just as it does for its own operations. This places unreasonable and disproportionate burdens on Openreach. Ofcom sets out its revised expectation that PIA volumes will be relatively small scale over the next control period (paragraph 7.80), which is helpful context but does nothing to alleviate concerns over the longer term. And it is the longer term which is the relevant period for Openreach to consider its exposure, the impact on its ability to invest, and the financial viability of Openreach and its customers. The obligation, as it stands, is still unlimited with no ultimate funding figure capable of calculation.
118. If Ofcom's proposals do progress, we would look to Ofcom to support the need for financial and materiality controls to be imposed on industry. We are already aware of CPs passing complex, expensive and time consuming tasks to Openreach for completion even when they have the ability to do the work themselves, and we would expect this trend to increase rather than diminish given that Ofcom's proposals incentivise this type of behaviour (e.g. deferral of PIA rental charging in paragraphs 6.98 to 6.103 and the possible introduction of SLAs/SLGs). Ofcom acknowledge the risk of moral hazard in paragraph 6.138 but the counter argument is hypothetical, rather than based on our experience, and Ofcom offer no strong evidence to the contrary. Ofcom places all responsibility for the policing of misuse, product scope and moral hazard on Openreach without objective justification.
119. Openreach needs at a minimum to have strong controls and authority over any costs incurred (per job and in total). It should be expected that we will not accept inappropriate requests for network amendments and that Ofcom will support us in imposing disincentives to prevent abuse of the remedy. We look to Ofcom to set out clear guidance on the purposes on the remedy, so that we are able to protect Openreach operationally and financially (and the interests of its customers and end-users). The complexity, time and costs associated with these checks and

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<sup>51</sup> This would raise competition law issues and we would welcome the opportunity to discuss this further with Ofcom.

<sup>52</sup> Note: on EAD Openreach will have a business case to test economic viability of a build decision (i.e. £x income and £y outgoings). For a CP generated network adjustment Openreach does not have the information to assess validity. For the CP the case is straightforward £x income and zero expenses for network adjustment as Openreach's CP customers will pay.

balances cannot be under estimated at a time when significant amounts of resource are already being focused on trying to improve and extend our own fibre networks.

120. We cover some of these points in more detail below and in Annex D, and examine some example scenarios to illustrate our concerns. We consider that the more network adjustments that CPs are able to carry out and fund for themselves, the better the outcome for both Openreach and CPs, and we note that Ofcom also considers this as potentially the most effective means of deployment (paragraph 6.138).

### **Ofcom's network adjustment proposals – further discussion**

121. We welcome Ofcom's proposal to limit the proposed remedy requiring Openreach to fund upfront PIA costs and clarifying that Openreach should not be subject to an obligation to fund works outside its network footprint. However, if BT is to be subject to an obligation to fund upfront costs in addition to SLAs and SLGs, the PIA remedy should be limited to situations in which there is a clear and demonstrable material benefit to the Openreach network and its customers, as indicated in more detail above.
122. We set out further detailed comments on Question 4.1 below which follow the headings in Ofcom's consultation. We also discuss the various types of request we receive and the importance of agreeing with industry, the types of circumstances in which we consider an obligation on Openreach to fund upfront PIA costs could be a proportionate remedy.

### Openreach should be required to relieve congested sections of physical infrastructure

123. With regard to Ofcom's proposals in paragraphs 4.22 to 4.44 for an Openreach requirement to relieve congested infrastructure, we note that we already provide this today under the existing PIA product. However, we do not fund these adjustments at this time, and our preference would be for this more proportionate arrangement to continue. However, if Ofcom progresses its proposals significant further refinement will be required. In many cases the requested adjustment could simply be a fibre installation/cabling job which does not benefit anyone other than the fibre asset owner, and hence cannot in any meaningful sense be described as an Openreach network adjustment or asset improvement. Please see Annex D for further comments.
124. Ofcom is not clear on the definitions of what constitutes the relief of physical infrastructure e.g. the difference between 'relieving' existing infrastructure (blocked or full ducts or poles at capacity) and the requirement to 'augment' infrastructure to make capacity available by installing new infrastructure. This difference between relief and augmentation is key. As Ofcom suggest Openreach may be more efficient in 'relieving' congested infrastructure in certain scenarios (e.g. by removing a redundant cable); but it is not obvious that clearing a blockage (e.g. silt, tree root, collapsed/damaged duct etc) is anything more than a cabling installation cost which can be more efficiently carried out and paid for by the CP itself when installing its network. The only beneficiary in the second case is the CP, as the CP installs its cable, no permanent further capacity is made available for Openreach and its customers, and potentially the duct may refill with silt, water or debris within hours of the installation. It will also be quicker, more efficient and less costly with the CP's cable gang already on site, which Ofcom itself recognises at para. 6.85. By way of example, Ofcom states in paragraph 4.25.1 that when it commissioned sample surveys of the Openreach network in 2008/9 the surveyors noted that *'there are trees obstructing poles affecting overhead deployment'*. This is a highly pertinent example. Trimming a tree when hanging a cable is hardly an Openreach responsibility. It is a cable installation activity, just as digging a trench and burying an armoured cable in a duct, or clearing silt to install a cable would be.

125. In reality there are a wide range of different scenarios which CPs and Openreach might encounter and a hierarchy of methods by which such problems might be resolved. These could include:

- blocked ducts (with short term or long term solutions)
- broken or collapsed duct replacement or repair
- removal of redundant cables
- desilting
- new duct construction
- rearrangement of pole top equipment
- removal of pole steps
- addition of pole stays
- replacement poles
- hybrid cable use
- removing obstructive trees, branches, roots etc

126. In order to reach a workable agreement with CPs as part of the new PIA reference offer discussions, each scenario (including but not limited to those set out above) will need to be analysed in detail to understand the benefits, workflows and the responsibilities of each party for funding and carrying out the work. It will also be important to assess whether the tasks represent cable installation or are genuine network adjustments which have a clear and demonstrable material benefit to the Openreach network and its customers. PIA CPs will also need to have incentives to cause them to seek efficient means of deployment (e.g. burying cable, seeking alternative routings, clearing blockages as part of the cable installation task, using smaller size or high tech cable to route through blockage etc). All these scenarios could justifiably require very different treatment to a genuine network capacity constraint which is identified by a PIA CP<sup>53</sup>. Whilst carrying out this type of scenario analysis will potentially be difficult and time consuming at the outset, it will be of significant benefit in the longer term in assigning costs and benefits correctly and incentivising efficient network deployments. Ofcom needs to ensure that the timetable for the implementation of the reference offer is and remains sufficiently flexible to allow this fundamental and necessary analysis to be carried out.

127. Ofcom's statement in paragraph 4.16 is particularly pertinent. Ofcom expresses the view that a PIA CP may experience a cost in overcoming congestion in the Openreach network, which '*may render the deployment unviable*' (i.e. an uneconomic investment). The question therefore arises as to why passing a potentially high unviable cost to Openreach would automatically make the investment economically viable. Such an investment could still be non-viable if properly assessed, and would only seem viable in a very narrow sense for the PIA CP because of a mandated subsidy from Openreach and its customers.

128. Ofcom states in 4.28 that Openreach is more likely to be able to install new infrastructure at lower cost than PIA CPs as best practice requires installation of chambers at either end of duct runs. We do not agree with this view and Ofcom should provide further evidence of this assertion. It is not correct that chambers are required in the scenario described by Ofcom as a PIA CP could just as easily build a parallel duct run and then break directly into existing Openreach chambers as part of the existing PIA product.

129. Ofcom also makes reference to the use of duct repair kits in paragraph 4.28. This is another example of the type of scenario which needs to be examined in detail with industry as part of the reference offer discussions. For example, if the CP's contractor is on site it may be much faster and cheaper for them to use a repair kit at that point than stop work and raise a works order with Openreach. Typically, associated activities around the job such as digging, signing and guarding

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<sup>53</sup> We note that Ofcom's recently introduced dark fibre product may also contribute to congestion in areas of the network with high demand.

can have significant costs and resource implications and it would not be efficient for Openreach to duplicate them. This type of detailed scenario analysis will need to be discussed and agreed between the parties as part of the reference offer development; otherwise it would be more than reasonable for Openreach to question why it should shoulder any further costs when a CP did not take a low cost and simple action at the time of deployment.

130. Also in paragraph 4.28 Ofcom suggests that removing a cable may be cheaper than building a new duct. Such a calculation would be unique to each scenario i.e. it would depend how long the cable is, its diameter, and what the comparative costs of duct construction/network adjustment/direct burial/overhead deployment would be as an alternative. We would also note that Ofcom's use of the phrase 'provide additional capacity' may be better expressed as 'release existing capacity'.

131. We also note that in paragraph 4.28:

- The vast majority of Openreach's network is located in the public highway and hence wayleaves are not a significant limiting factor in most circumstances.
- We note that Openreach would not have an advantage in adding new duct alongside an existing route. We would face the same issues as any other operator.
- The majority of issues are to do with congestion and not blockages.
- 'Staying' a pole does not necessarily add capacity.

132. With regard to paragraphs 4.29 to 4.36, Openreach has never required CPs to provide their own network to overcome congestion. We have always offered options in our own network, but it is correct to say we have not offered to fund such requirements. We do not drive the costs to be incurred and are not necessarily beneficiaries of the works. We note that Ofcom recognises the high cost of civils activities for third parties, but do not fully acknowledge that these are also major costs to and complexities for Openreach. We do not recognise the source of the competitive advantage noted by Ofcom in paragraph 4.29 nor do we accept that funding of this work is either proportionate or objectively justifiable.

133. Ofcom needs to carefully consider how an effective set of financial rules are applied to what is a reasonable request for capacity relief and how these can be applied across a wide range of different scenarios to provide quick and effective decision making and authorisation. Where Openreach faces the prospect of any significant expenditure on its infrastructure, it will need full and accurate information and sufficient time to assess and authorise such cases appropriately. There also has to be an agreed cap on spend otherwise there is no incentive for a PIA CP to request efficient solutions that take into account network coverage and business case viability for a particular geographic deployment area. For its own network build, Openreach makes assessments of whether providing additional capacity is viable given the market opportunity that that network deployment would provide Openreach. Hence any PIA obligation to adjust the network would need a guarantee of future revenues for Openreach, and a linkage between the amount spent and the expected revenue.

134. We note Ofcom's reference to various surveys which have been conducted in the past and observe that these are not a statistically representative sample of the network and in a number of cases are very old. Additionally, these surveys were carried out prior to the large scale roll-out of Openreach's NGA programme and prior to explosive growth in the Ethernet market. Openreach also notes that the duct capacity status/estimates provided in the PIA digital mapping system should not be taken as an accurate representation of available capacity. They represent an

indicative initial estimate of availability. We do not make any representation of the accuracy of the estimates, only that they represent the current information available in our network inventory systems. A CP would be advised to carry out site surveys, as we do, before assuming availability of any infrastructure.

The requirement to relieve congested infrastructure is limited

135. In summary, we agree with Ofcom's position that any requirements should be limited, and welcome Ofcom's initial proposals. In particular, we agree that such obligations should only apply to Openreach's existing physical infrastructure. However, we do think that additional analysis does need to be carried out both prior to and as part of the reference offer process to refine them further. We also support Ofcom's proposal that Openreach is not required to provide new underground lead-ins.
136. Ofcom's discussion in paragraph 4.36 – 4.37 is informative, and highlights some of the difficulties with Ofcom adopting a default approach. In circumstances where a duct is repairable as Ofcom indicate in paragraph 4.36 then there is no need to add additional capacity, and the repair may just as easily be carried out and funded by the CP. There is unlikely to be any speed or cost advantage to Openreach carrying out the work if the CP is on site. Also as Ofcom note in paragraph 4.37, there may be many alternatives to using the Openreach network and there should not be a default presumption that of an Openreach responsibility to provide new network unless it is proven to be necessary.
137. We do not support the proposal that Openreach fund and install new footway boxes outside premises. This could be extremely costly if required in large volumes. This would be new infrastructure build driven by a CP choice in which premises to serve and how to serve them. Such a chamber would not be required if the CP chose an efficient alternative technology, such as G.fast, which would not require additional infrastructure to be constructed. CPs would also have options for other design decisions which did not require new boxes. In effect Openreach's network footprint and design capacity has been fully utilised and the CP is requesting Openreach to build it a new infrastructure component. The disparity in terms of costs and benefits could not be larger and more disproportionate. A new directly buried cable for a premise might be measured in pounds whereas a joint box by comparison could be hundreds/thousands of pounds.
138. We agree in broad terms with Ofcom's discussion in paragraph 4.38 (insufficient capacity up to the final DP), that Openreach should not be required to provide either large amounts of new capacity or long lengths of new duct as this could equally be self-provided and paid for by a CP itself. Clearly this is another item where the devil is in the detail and Openreach and industry will need to reach sensible agreements on how such limitations will be imposed. As we have previously noted we consider that both an overall industry budget will need to be agreed and individual financial controls and authorisations on a job by job basis. However Ofcom's guidance is useful in that it again highlights that such network adjustments should be small scale 'pinch point' type augmentations and not large scale new capacity requirements.
139. We support Ofcom's view that it is not necessary for Openreach to provide additional capacity where there is insufficient capacity in underground lead in ducts. This should be the responsibility of the CP who will necessarily need to deal with any other permissions/wayleaves required for their network build.
140. With regard to the situation where there is insufficient space or dropwire capacity on DP poles, we support Ofcom's proposals to a point. Effectively there is a hierarchy of actions which Openreach could reasonably carry out at a reasonable cost (e.g. rearrangement of pole top equipment, removing pole steps etc) if the work was necessary. However in some cases tasks

may be more efficiently carried out and paid for by CPs as part of their installation (e.g. swapping out an existing drop wire). Hence it is important that such scenarios are analysed in detail prior to and as part of the reference offer development process. However where the only option for capacity relief is the building of new infrastructure (e.g. additional poles and DPs) this seems an unreasonable ask as it strays beyond facilitating the use of Openreach existing physical infrastructure into the construction of new physical infrastructure capacity.

141. For example, a pole may be at capacity due to mechanical loading, which might be resolvable by removing a drop wire. However, if a pole was full because of space utilisation on the pole top, there may be no way to 'free up' existing capacity. This would be an example of where a CP would need to build and fund the new infrastructure it requires. Ofcom appears to mistakenly assume that pole 'stays' are a significant solution for adding additional capacity. This is not the case. They may strengthen or balance strain on poles but typically do not add significant capacity in terms of drop wires or equipment space. Hence, in these circumstances there may be little advantage in Openreach carrying out the adjustment. A PIA CP could just as easily add and fund its own parallel pole infrastructure in line with its own business case and forecast demand in that location.
142. Where Openreach is required to augment existing network, for example to tidy up a pole top and dropwires there may at least in principle be some benefits to Openreach. However, it would still be necessary to have an assessment process (i.e. does the job payback in a reasonable period through the product charges, additional cost recovery mechanisms or any other reasonably certain benefits which can be identified). With reference to paragraph 4.38 (first bullet), in a situation where a pole is fully loaded and would require a new pole/duct and DP (additional capacity), we view this as falling into the 'new parallel physical network' category and the CP should provide and fund the parallel network. In paragraph 4.41 we would also note that the term 'relieving congestion' might be better described as 'releasing existing capacity' to fit within Ofcom's proposed limitations.
143. In situations where a pole can be uplifted to provide space for a CP's block (e.g. by using a new block and tail to rationalise the number of blocks at the pole top) and without having to stand up another pole, then subject to the controls we refer to above, this may seem a reasonable remedy. However, if space was available on the pole for a CP's block terminal then it would seem reasonable that dropwires be replaced on a one for one basis by the CP (at the CP's cost) as customers move from one provider to another.
144. With reference to paragraph 4.38 (second bullet), we broadly agree with Ofcom's intentions, but there is still much left to be defined. For example, it is unclear how a 'short section' should be defined and whether it would relate to what can be laid under minor works for example (i.e. 3 days' notice or standard works with 10 days' notice). In these situations, Openreach may want to augment the network by more than one duct or want to incorporate the works with other schemes and requirements in the location. In principle this is part of Ofcom's argument regarding Openreach efficiency. If Openreach is to carry out and pay for work it will need to be able to take sufficient time and care to assess whether such work is of clear and demonstrable material benefit to the Openreach network and its CPs and whether it can be combined with other works. The statement that Openreach would be bound to provide additional duct capacity at 'pinch points' seems to indicate that the obligation would apply to no more than one or two consecutive duct sections on any route.
145. We support Ofcom's view that Openreach should not be required to deploy new infrastructure to extend Openreach's existing network footprint at a PIA CP request. The PIA obligation should only apply within Openreach's existing physical infrastructure footprint.

Openreach should choose how to relieve congested infrastructure

146. We support Ofcom's proposal that Openreach should have the flexibility to decide on the most efficient solution. However there are a number of considerations that must be understood for this to operate effectively and provide each party (Openreach and PIA CPs) with the right incentives:

- There is an agreed hierarchy of solutions that Openreach will assess in each scenario that mirrors the same options Openreach would consider in its own network build.
- There is an agreed financial assessment methodology in place that provides reasonable bounds on what is acceptable for a given scenario, as Openreach may do in its own network deployment.
- Timescales for making decisions on which solution is most effective and assessing the cost is reasonable and this will need to allow sufficient time for analysis of all relevant information and implementation for a range of scenarios that could become quite complex and involve third parties e.g. street works and civils contractors.
- There is an agreed framework in which Openreach can reject requests that are not reasonable given the factors outlined above.

147. In summary, the ability of Openreach to ensure normal commercial practices, fiduciary duty over assets and financial controls need to be uppermost in Ofcom's approach. Setting out a theoretical approach without due regard for Openreach's ability to control its own costs and expenditure decisions is not acceptable. At a minimum Ofcom needs to accept that Openreach needs to have strong financial and operational controls and authority over any costs (per job and in total) which are driven by CPs. We should not be expected to accept inappropriate requests for network adjustments, that CPs will need to offer full, accurate and strong evidence that such adjustments are necessary, there is a clear material benefit to the Openreach network and its customers (the burden of proof should be with them) and that Ofcom will support us in imposing financial and other controls, and commitments that CPs will occupy the new additional capacity ordered for a time appropriate to the lifetime of the asset.

#### Additional cost and resource requirements on Openreach

148. We disagree strongly with Ofcom analysis in paragraphs 4.106 to 4.110. Ofcom casually dismisses possible impacts on Openreach without any detailed analysis of the issues. As we set out in detail in Section 1, for any large scale project envisaged by CP (and even with Ofcom's latest proposed limitations on PIA obligations), a simple forecast obligation would do nothing in practice to enable such a scale investment to be made; unless the majority of the responsibility for carrying out and funding such works lay with the individual CP, or were agreed, prioritised and planned jointly sufficiently in advance with Openreach. Planning windows, resource recruitment (internal and external), resource allocation and funding would all need to be agreed and planned over a designated deployment period; including long term financial/contractual commitments by CPs to occupy the infrastructure. Even relatively small projects may have specific and unique requirements for a geographic area and resources may need to be obtained and/or reassigned depending on the nature of the project.

149. In this respect, we note Ofcom's comments in paragraph 4.109 i.e. that key elements of Openreach's ability to control the impacts on its business will be that it can expect to resource up gradually over time<sup>54</sup>, for predictable increases in PIA activity, along with CPs supplying sufficiently detailed forecasts to enable such resourcing within Openreach (and its supply chain) to take place. Resource increases would need to be sufficiently forward planned and commercially viable for Openreach to undertake, and civil infrastructure suppliers would also need to carry out similar analysis and planning exercises. Such arrangements would also necessarily need long term firm financial commitments of duct occupancy otherwise there would be considerable waste

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<sup>54</sup> Our suppliers would also need sufficient time and incentive to do this.

and inefficiency. Without prejudging the details of the new reference offer, these aspects would seem to be key elements to include in the control process.

150. In paragraph 4.110, Ofcom suggests that ‘any impact on Openreach is justified by significant benefits to consumers in the longer run from greater network competition’. We question whether Ofcom really means that ‘any’ financial or resource impact on Openreach can only result in good outcomes for consumers. This cannot be the case, and is particularly insensitive to the commercial and operational reality, ignoring the potential negative impacts on other Openreach services, the operational constraints of its supply chain and on Openreach’s own personnel. The PIA obligations cannot be unconstrained and have to be agreed in the context of Openreach’s resource capabilities and its other obligations and responsibilities.
151. We see some of Ofcom’s proposals as simply seeking to transfer risk and cost to Openreach because they are challenging for CPs to deal with, and not because it is necessary. We would encourage more CPs to do their own civils work rather than seeking this as an input from Openreach. Openreach faces its own challenges with network deployments requiring civils, as there are so many local factors that are not under Openreach control or under the direct control of our contractors. These include such aspects as natural geography, obtaining wayleaves, street works regulations, adverse weather etc. Ofcom’s default approach is to attribute these complexities to failings of Openreach and that is not the reality. If there are elements of our processes which could be improved and over which Openreach has control we would be more than happy to work with CPs and Ofcom to improve performance on these aspects. It should also be noted that any SLAs/SLGs on build completion would need to be properly backed off with our contractors and one of the inevitable consequences of this would be significantly higher prices.
152. All of this has also to be seen in the light of the new PIA processes launched in January 2017. Under the new processes Openreach has enhanced the product process to allow PIA CPs to conduct their own enabling works<sup>55</sup>. CPs can now dictate their own timescales and control of jobs at whatever stage they are at in their build and this helps promote innovation and proper and effective long term competition. We are also willing to consider allowing CPs to carry out more work themselves at their own cost subject to appropriate checks, therefore helping to remove or reduce their apparent reliance on Openreach.
153. Civils work is normally undertaken by external contractors and the capacity of these is already a serious issue. Clear priorities will need to be established on which work streams to concentrate on. As noted previously CP forecasts will have to be sufficiently forward looking and accurate to enable external bodies to commit and plan/deploy resources.

#### **PIA definition**

154. We welcome Ofcom’s clarification of the definitions of ‘Physical Infrastructure’ and ‘Physical Infrastructure Access’ which are included below for ease of reference:

*“Physical Infrastructure” includes any conduit, tunnel, subway, pipe, structure, pole or other thing in, on, by or from which an electronic communications network is or may be installed, supported, carried or suspended over Physical Infrastructure Access;*

*“Physical Infrastructure Access” means network access comprising predominantly of the provision of space, anchorage, attachment facilities and/or such other facilities as may be reasonably necessary to permit a Third Party to occupy parts of the Dominant Provider’s Physical Infrastructure located between Network Termination Points and Local Access Nodes serving those Network Termination Points, sufficient to facilitate*

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<sup>55</sup> PIA CPs have always been able to construct their own assets and link into the Openreach infrastructure network where required.

*the establishment, installation, operation and maintenance of the electronic communications network of a Third Party at that location;*

155. We recognise that Ofcom’s proposed definition replicates the current definition of Physical Infrastructure in Ofcom’s 2014 FAMR Statement. However, it was initially defined at a time when projected PIA volumes were much lower and the PIA remedy was far less intrusive. Ofcom’s proposed remedy is based on much higher PIA volumes, a fundamentally different cost model and also includes a PIA Database Right which includes an obligation on BT to provide access to information relating to its Physical Infrastructure.
156. As Ofcom is aware, Openreach currently provides information relating to ducts, poles, man holes and joint boxes on the PIA Digital Map Tool and over time, it has become clear that these are the key physical infrastructure which are and should be subject to any PIA remedy. Further, there is some physical infrastructure included in the definition of Physical Infrastructure (e.g. tunnels) that Openreach cannot provide information on or access to due to security concerns, which we understand Ofcom accepts, and it is impossible for Openreach to properly assess the cost of providing access to an open-ended amount of information relating to physical infrastructure.
157. Where Ofcom is proposing such intrusive regulation relating to cost recovery and proposes to impose a PIA Database right, it is imperative that the definition of Physical Infrastructure which is subject to the PIA remedy, is transparent, certain and exhaustive. With reference to “*or other thing*”, the current definition is far too vague and does not reflect Ofcom’s intention. Further, the current definition would include dark fibre which is explicitly excluded under the ATI Regulations and we consider should be excluded from any PIA remedy.
158. It is also important that the definition is restricted such that the remedy only relates to Physical Infrastructure that Openreach owns and controls. Clearly Openreach cannot provide information on or access to physical infrastructure which it does not own and control, for example, joint user poles and infrastructure on private land although a CP may be able to resolve the latter with a wayleave from the land owner.
159. In light of the above, we propose a revised definition for Physical Infrastructure in Section 4 below.
160. Further, we read the above definitions, in the light of Ofcom’s guidance under paragraph 4.30 and 4.42 and understand the proposed obligations apply to existing Openreach physical infrastructure (for example ducts, poles and chambers etc). This clarifies that where Openreach does not have a relevant infrastructure footprint there is no obligation to supply PIA. We understand this to mean, for example, that where we have directly buried cables or Openreach network is routed via pole infrastructure, there would be no obligation for Openreach to build new duct on behalf of a PIA CP. We see this as more aligned to our understanding of the legal position, that such an obligation should be focussed on using or enabling existing capacity than constructing new capacity on demand. Ofcom’s clarification is helpful and alleviates some of our concerns with the way in which the adjustment proposals were first set out in Ofcom’s initial PIA consultation in December 2016. However, we are still of the view that Ofcom has not gone far enough in assessing the detail and narrowing the scope of its proposals.
161. For the avoidance of doubt we also note that the existing PIA service permits a CP to install a sub-duct (up to 25mm) as part of its network deployment within Openreach’s Physical Infrastructure. The current product then defines this sub-duct space as occupied by the owning CP<sup>56</sup> and we would not permit a subsequent CP to occupy that space as part of the PIA rental product. This has been agreed with the industry group and has formed the basis of the product since its introduction. Such a defined space enables CPs to properly separate their assets within

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<sup>56</sup> This would also include a sub-duct owned by Openreach.

the Openreach network and to grow or maintain their network without any further involvement of Openreach or other CPs.

### **Access to Infrastructure (ATI) Regulations**

162. As we set out in Section 2 above, we note that Ofcom has not carried out a proper analysis of the potential benefits of the ATI Regulations. Given Ofcom's stated ambition to move towards passive remedies, Ofcom's complete dismissal of the ATI Regulations is somewhat surprising and we are concerned that Ofcom's proposed remedies conflict and/or undermine with certain provisions of the ATI Regulations and risk materially distorting competition between network providers. Openreach's infrastructure is not the only option for CPs wanting to build fibre networks and neither is it the major factor preventing CP investment in ultrafast networks.

### **PIA Scope**

Question 4.2: Do you agree with our proposals on the scope of PIA: (1) To broaden usage through a mixed usage generic rule; (2) To modify the PIA condition to define geographic scope by reference to telecoms providers' local access networks. Please provide reasons and evidence in support of your views.

### **Mixed Usage Rule**

163. We recognise and support Ofcom's movement away from an 'any usage rule'. However, we do not believe extending the scope of the PIA remedy to allow mixed use is required to make PIA effective and support super/ultrafast fibre broadband investment. Ofcom has not provided any robust evidence that PIA would be more effective if usage is extended beyond NGA. The only evidence that Ofcom offers is its analysis in Annex 5 of the consultation which plays down the benefits to CPs of extending the remedy, and suggests it would be marginal for the next review period at best.

164. We consider Ofcom's proposed mixed use remedy to be fraught with significant regulatory and commercial risks for Ofcom, Openreach and its customers. In particular, we consider the proposal to extend the PIA remedy into the BCMR markets to be disproportionate and are concerned about the practicality and reasonableness of Ofcom's proposal to place the responsibility for monitoring compliance with a mixed usage rule solely with Openreach.

165. These risks are increased by Ofcom's proposed package of other measures such as linking PIA use to a CP's local access area (rather than Openreach's) and proposing that Openreach fund a proportion of network adjustments.

166. Without a proper analysis as to the likely effects and risks of a mixed use rule, we consider Ofcom's proposed approach would (i) be a disproportionate and unjustified intervention which would not promote efficient investment; (ii) be damaging to both Openreach and potentially other investors who have already invested in infrastructure used for business connectivity and (iii) conflict with the findings of the recent Business Connectivity Market Review (BCMR) and the justification for a dark fibre remedy. Accordingly, we urge Ofcom to reconsider its position and leave the PIA usage rules as they are currently specified. The existing remedy already allows great flexibility in the types of ultrafast/FTTP broadband networks which can be deployed using PIA as Ofcom reference in paragraph A5.10.

### **Lack of evidence that PIA would be more effective if usage is extended beyond NGA**

167. As we set out in our previous response and as Ofcom acknowledges in paragraph A5.10, PIA already fully enables the deployment of NGA FTTP networks, typically utilising passive optical

network (PON) architectures. This is exactly the type of innovation that PIA is intended to support i.e. new super/ultrafast broadband NGA networks serving residential and smaller business premises at scale in the UK. The sale of individual high value and specialised leased lines cannot reasonably be said to have been held back by the lack of a PIA remedy or that BCMR services are a necessary adjunct to the provision of such wide ranging NGA service capabilities.

168. Ofcom has itself recognised the logical flaw in the argument that leased lines would support NGA provision. It cannot be assumed that a CP which can profit from using PIA to provide leased lines would necessarily be incentivised to serve a supposedly 'less profitable' super/ultrafast market<sup>57</sup> unless there are material legal or regulatory consequences which act as a disincentive to misusing the remedy. Ofcom's guidance in paragraphs 4.88 to 4.96 is useful, but not strong enough. Ofcom needs to consider further how it can prevent the misuse of the regulation imposed through the WLA MR process being primarily used to address non-WLA markets; rather than absolving itself from the potential effects of regulatory failure as it does in paragraph 4.96. Regulation which is not clearly defined and which might be used to undermine rather than support Ofcom's regulatory policy, is not an Openreach created problem and should not be our responsibility to resolve. We would nonetheless endeavour to protect ourselves contractually to the greatest extent possible.
169. We consider Ofcom's proposals with respect to a vague and unenforceable mixed use rule to constitute a form of regulatory creep<sup>58</sup>. Innovative technologies such as GPON, if deployed to serve customers at scale with broadband services, will already enable CPs to provide a wide range of business focussed services to end-customers such as standard residential broadband services, access tails to corporate communication systems etc. The key is that these services are being provided from an ultrafast/FTTP access network deployment, not a network engineered and built to support leased lines. It is not necessary to extend the scope of the PIA remedy for CPs and end-customers to benefit from such innovation.
170. Additionally, Ofcom itself concluded in the December PIA consultation (paragraph 4.22) that the impact of using PIA to provide leased line services on the business case to deploy ultrafast/FTTP networks might in fact be very marginal because *"the relatively low number of potential leased line customers, in comparison to potential broadband customers, limits the extent of the economies of scope in the overall costs of an access deployment"* which strongly suggests its proposed intervention is disproportionate and unjustified. Ofcom has since further reduced the assessment of the potential impact in Annex 5 of the latest PIA consultation.
171. We view Ofcom's 'mixed use' proposals as offering very little (if any) material support to Ofcom's stated policy aim of supporting FTTP broadband investment. Such FTTP deployments actually need to stand largely on their own merits to support investment. Otherwise, and as Ofcom acknowledges, the risk remains that extending the scope of the PIA remedy will simply incentivise CPs to provide leased line services and not FTTP broadband networks. As we have noted, Ofcom's guidance in paragraphs 4.88 to 4.96 largely appears to be focussed on absolving Ofcom of any responsibility for misuse of the remedy. As it stands the wording seems focused on allowing significant leeway for misapplication of the remedy, for extended periods of time, without specifying any hard threshold that a CP has to comply with, or any potential penalty. It is important that Ofcom is much clearer in how they intend to prevent this misuse.

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<sup>57</sup> We would refer Ofcom to [X]. See <http://www.catribunal.org.uk/237/Cases.html>. Case references are 1261/3/3/16 and 1260/3/3/16 dated 29/6/2016

<sup>58</sup> *"Regulatory creep is the 'hidden menace' of the red tape burden. Regulatory creep arises when the rules are unclear - when there is confusion about the standards, guidance and regulation. People are left not knowing what is expected of them, what constitutes compliance with the law. But what is very clear is that the penalty will be high if they fail to do the right thing. It is also clear that though hidden, the 'menace' is real - uncertainty creates additional burden and cost."*

(Cabinet Office Report - Better Regulation Task Force and Regulatory Creep Sub-Group - 2004: 'Avoiding Regulatory Creep')

172. Further, as Ofcom notes there is a significant risk that an extension of the usage rule completely undermines the objective of the regulation<sup>59</sup>. This could occur if CPs use a WLA market review remedy to focus on business connectivity services in the short to medium term (or even the long term), driving additional costs into the WLA market and utilising scarce resources intended to support mass ultrafast network deployment. Clearly this would not promote efficient investment or support Ofcom’s policy objective. Moreover, the legitimacy of regulation set out in the BCMR would also be undermined. This is doubly troubling, given Openreach is currently spending extensive time and resources preparing to launch a dark fibre product, on the basis of Ofcom’s finding that PIA was not an effective remedy in the business connectivity market<sup>60</sup>. In short, a mixed usage rule should not be supported by WLA regulation as it is a remedy which could be used to target services in other regulated markets with no demonstrated benefits to competition or customers in the WLA market.

173. In summary, our view is that Ofcom has offered no meaningful analysis or any material evidence that would support the extension of the PIA remedy’s scope to include ‘mixed usage’. Ofcom has not provided evidence that suggests that such benefits would not be marginal; this undermines its conclusions to extend the scope of the remedy.

### **Extending the PIA remedy into the BCMR markets**

174. As set out in more detail in Section 2 above, we consider Ofcom’s proposals to extend the PIA remedy to mixed use and therefore into the BCMR markets to be a disproportionate and unjustified intervention which conflicts with the findings of the recent Business Connectivity Market Review (BCMR) and the justification for a dark fibre remedy. A specific issue we highlighted in Section 2 is that Ofcom: (i) has failed to identify any competition concerns in the BCMR markets that warranted an extension of PIA to BCMR and (ii) even if those competition concerns were identified, has failed to explain why those concerns could not be addressed by the existing Dark Fibre remedy.

### **Further controls are required for the mixed usage rule**

175. Ofcom’s proposal for a mixed usage rule is that it is used “primarily for the provision of broadband access services to end users, provided that the provision of non-broadband access services on any such broadband access network facilitates the overall broadband access network deployment.” The use of broad language such as “primarily” and “facilitate” lacks transparency and certainty and means it is practically impossible for network providers to self-assess whether their proposed use of PIA would comply with Ofcom’s proposed mixed use rule and more importantly, for Openreach, Ofcom or an independent third party to monitor and audit network build to ensure it is compliant. If Ofcom decides to impose a mixed usage rule, we would expect strong and clear guidance and rules from Ofcom, aimed at PIA CPs, to ensure they utilise the remedy appropriately and PIA is used to support Ofcom’s policy objective of large scale fibre broadband deployment rather than selective CP targeting of leased lines. There is a clear need to ensure the correct behaviours but this cannot and should not be primarily an Openreach responsibility as Ofcom proposes in its consultation.

176. In the property sector, it is, and remains extremely common to have mixed-use planning rules designed to blend, amongst others, residential, commercial and cultural purposes. If Ofcom decides to implement a mixed usage rule, a similar model might be suitable as a planning rule for PIA use and help ensure its use is primarily aimed at super/ultra-fast broadband services. The rules could, for example, require a proportion of enabled/passed and importantly connected NGA

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<sup>59</sup> Paragraph 4.57

<sup>60</sup> Plus the extensive resource being expended by CPs, Ofcom and BT on a legal challenge to the dark fibre remedy.

premises to each leased line. Terms such as ‘connected’, ‘premise passed’, ‘NGA’ and ‘leased lines’ could then be defined to ensure clarity and certainty in a similar way to existing contracts. Potentially over time, the mix and metrics might change but the rules should require that the proportion is and remains within certain prescribed regulatory parameters. The criteria would need to be clear, transparent and objective and develop over time to reflect both changes in technology and the market.

177. Ofcom raises a concern that a specific mixed usage rule may have unintended consequences, as it may not fit well with specific business plans of CPs. However this ignores the much larger risk that without significant controls and enforcement the regulatory remedy may not contribute to Ofcom’s policy objectives at all; or even directly undermine them by diverting scarce Openreach resource into BCMR related activities. The fact that compliance and enforcement of a rule may be difficult should not detract from the fact that it is necessary to ensure the remedy supports the regulatory policy, that is, the reason the regulation was introduced in the first place.
178. One suggestion would be to adopt a specific rule but with the possibility for a CP to apply to Ofcom for a derogation from the rule in pre-defined “exceptional circumstances”. The rules could be monitored and enforced through a combination of regulation and contract with an ability to audit. We do not believe that such rules would materially constrain telecoms providers’ network designs and business plans, but rather would provide a way to make efficient use of limited capacity while ensuring a better balance in favour of provision of ultrafast/FTTP networks to residential customers that live in the local area as well business users. In any case it would seem counterintuitive that any such rule or guidance should significantly impact an investment case if it was primarily aimed at deploying a large scale broadband network.
179. We would also encourage Ofcom to consider rules which include the number of residential premises *connected* or the proportion of revenues earned in the business case and not solely focus on the number of residential premises enabled/passed. This would help address any concern that CPs would invest in networks for business use and then not extend those networks to residential customers. Further, we believe any mixed usage rule should require the majority of use to be for residential broadband rather than requiring use to be “primarily” for residential broadband which suggests over 50% may suffice.
180. In summary, if Ofcom choose to impose such a rule we would expect strong and clear guidance from Ofcom, aimed at CPs, to ensure they utilise the remedy appropriately. We would also expect Ofcom to support strong controls imposed by Openreach to protect itself financially and operationally from misuse of the remedy. Ofcom’s current proposals for only Openreach to police the rule by reviewing marketing materials of PIA CPs that are in the public domain is simply unworkable in practice and in any event, Openreach does not have sufficient resource or capability to do so.

### **Geographic reach**

181. We do not think that Ofcom’s proposal to extend the geographic reach of PIA is proportionate or objectively justified, and Ofcom has not offered strong supporting evidence to support its proposed extension. However, we do not fundamentally object to enabling greater flexibility on behalf of CPs in using PIA to service their local access network needs. The key will be for Ofcom to specify such regulation in a way that it only enables and incentivises CPs to use the remedy in line with its policy intention.
182. There is strong risk of regulatory failure if CPs consider that they are entitled to use PIA for building backhaul and core networks. This risk is compounded by Ofcom’s decision to extend the scope of the remedy to include business connectivity services. Therefore there will be a need to apply

geographic reach restrictions to the product to ensure that PIA is used for local access deployments and not for core network build. Ofcom will need to consider how to define such a restriction to remove any ambiguity and uncertainty in the product's legitimate use.

183. As stated above, it is not considered proportionate for Ofcom to pass all responsibility for the management of the regulation to Openreach. The rules and penalties must be made clear to CPs as responsibility for failure of the regulation and consequential damage to other infrastructure or business connectivity providers would rightfully lie with Ofcom. We look forward to working with the OTA and CPs as part of the new reference offer process to develop a more flexible product to meet their needs, but we are looking to Ofcom to set the correct boundaries for its legitimate use in strong guidance and in its regulation.
184. We note for the record that as Ofcom set out in paragraph 4.82, that where CPs deploy networks which are not bound by the Openreach network topology, then such CP extensions and linkages (for example between Openreach exchange areas) are by definition 'outside' the Openreach footprint and are not covered by the PIA remedy or any obligation for Openreach to construct new infrastructure.
185. Ofcom's proposed changes to geographic scope do need to be considered in the light of Ofcom's proposals to defer rental charges in an area until completion of all Openreach network adjustments. As we have set out previously, reasonable provisions need to be made to ensure that as soon as a suitable element of the network is 'ready for use' by the CP (for example an area or route close to the CPs local access node) then rental charges for that element should commence. Given CPs will be able to deploy to extended local areas charging for the whole PIA deployment should not be deferred because of one, perhaps remotely located, works order in delay. Anything else would be unjustified and disproportionate.

#### **How proposals on extending the scope of PIA would work in practice**

186. The challenge will be how this is policed and the assessment of usage rules applied to scale PIA deployments. The practicalities for Openreach of assessing multiple PIA CP build demands and use cases in a timely fashion should not be underestimated. Openreach would be particularly concerned by a CP using PIA to deploy a leased line only network under the guise of the mixed usage rule based on a promise to deploy a majority residential broadband network later. Such a CP could lead their build with a leased line deployment and never actually proceed with broadband build at any scale. Given Ofcom is proposing that CPs would not be required to share deployment plans and use cases with Openreach, which indeed may result in competition law issues, (4.95) this suggests that Openreach has very little control and ability to assess how CPs are using PIA and when it would be reasonable to refuse or accept such orders.
187. Ofcom suggests a number of usage scenarios that they would use as reference to assess any possible disputes. Whilst these seem sensible, we must consider the practicalities of these in a live environment. Openreach does not support Ofcom's assertion in 4.86 that Openreach could use public sources of information and that therefore usage would be clear. Openreach would need to commit significant resources to monitoring and assessing CP deployments and use cases and it is not clear how this could be carried out using only public information, without requiring CPs to provide a level of information about their deployment plans and business cases. Therefore Ofcom should expect to play a significant role in managing disputes/checking deployment use cases. Should Openreach need to deploy resources to check on CP deployment use cases we would expect to fully recover these costs via the PIA product.
188. Given the opportunity for PIA CPs to game the mixed usage rule, Openreach would propose that disincentives are required to prevent this behaviour. This should be in the form of

financial/contractual penalties applied by Openreach, should misuse of the mixed usage rule be determined by Ofcom and/or Openreach. A framework would need to be agreed on how these are calculated and applied. We view this as an essential requirement given the extent of relaxation of the PIA usage rules, the practical complexity of policing such rules and the opportunity and incentives for CPs to misuse the remedy.

189. We also note that Ofcom refers to an expectation that the number of scale users of PIA is anticipated to be limited (paragraph 4.96). The question of proportionality and potential effectiveness of the remedy is therefore called into question and Ofcom does not appear to offer any assessment as to why it considers it proportionate to impose a remedy which comes with such significant risks, complexity and onerous obligations in circumstances where Ofcom does not anticipate any scale use of the product.

## **Non-discrimination requirements**

Question 5.1: Do you agree with our proposed imposition of a no undue discrimination SMP condition on BT? Please provide reasons and evidence in support of your views.

190. We agree with Ofcom's conclusion and reasoning that Openreach should not be required to consume PIA on an equivalence of input (EOI) basis. To go beyond this pragmatic approach, as Ofcom note in paragraphs 5.4 and 5.35.1, would increase costs and generate operational inefficiencies through additional internal hand-offs within Openreach and would likely require costly new systems and processes to be developed. As Ofcom explains, such impacts could adversely affect both existing services (e.g. LLU, WLR, Ethernet etc) as well as future super/ultrafast investment. Diverting Openreach resources in this way would directly impede our ability to deliver the benefits of ultrafast technology and innovation to the UK; and have potentially catastrophic impacts on service quality across the board.
191. As Ofcom discuss in paragraph 5.41, Openreach is not in the same position as an infrastructure investor making a discretionary investment in a new Fibre to the Premise (FTTP) network. Openreach needs to rely on its physical infrastructure to meet all its existing obligations as well as being able to compete commercially with operators that have their own networks and delivery platforms (e.g. TV, cable and wireless).
192. We do not object to the no undue discrimination SMP condition in principle, but the devil will be in the detail. As Ofcom notes, Openreach's requirements of its own physical infrastructure are necessarily very different and more demanding than those of a typical PIA CP<sup>61</sup>. Therefore Ofcom's suggestion that the interpretation of the condition should be based on 'material disadvantage' and that use of similar processes and systems should be assumed 'as far as is practicable' seems to point to a pragmatic way forward. It is of utmost importance that Ofcom consider the multiple commercial, regulatory and legal pressures including price controls, quality of service and USO regulation already imposed on Openreach across copper, fibre and business services to reach a reasonable basis on which to assess the obligation. It is also important to consider the incentive to innovate and differentiate in the plan and build of networks. If not, there is a real and tangible risk that the proposal will distort true and effective competition and fail to deliver long term and sustainable competition. Openreach must be able to develop new and efficient plan and build techniques without being held back by the need to make these available to CPs otherwise Openreach will be put at a competitive disadvantage and to this end, Ofcom's proposals should be considered disproportionate and not objectively justified.

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<sup>61</sup> See Ofcom's explanation in paragraphs 5.28-5.29.

193. We believe we have already taken significant and proactive steps to enhance the PIA product and enable CPs to undertake much more efficient consumption of the PIA product via the launch of its new PIA product processes and Digital Maps releases in January, March and May 2017. This means CPs will be able to plan access network deployments in a comparable manner to Openreach. In particular, and importantly as Ofcom note in paragraph 5.17.2, CPs now have access to the same network record information as Openreach planners do via the Digital Maps tool and a web services interface. In summary the system:

- enables CPs to download and import network data into their own GIS network planning tools;
- provides estimated capacity information calculated from Openreach's inventory systems and presented in a suitable format to enable CPs to estimate duct availability;
- includes all relevant duct, pole, joint box and manhole information at a sufficient level of granularity for planning, ordering and billing, and with the required attribute information.

In addition, there are already significant other developments in progress which are being progressed with CPs and the OTA through the Passives Industry Working Group.

194. These systems developments are an excellent example, as Ofcom notes in paragraphs 5.41 & 5.42, of the flexibility of the no undue discrimination approach compared to an inflexible EOI obligation. Openreach has been able to work with its CP customers, plus openly share its progress with Ofcom, to develop a system for PIA CPs tailored to access the key network data they require for plan and build.

195. The PIA digital maps system has been designed to use the same source data as Openreach's inventory system PIPeR, but CPs do not require full access to all network data records outside of the PIA product domain (e.g. Ethernet nodes, copper cables, NGA cabinets etc). Such data is not required by PIA CPs but is essential to the planning and engineering community in Openreach to deliver the numerous other products and services, both regulated and commercial, underpinned by the Openreach network<sup>62</sup>. There are also material competition law and security concerns which justify limiting the access to information to that which is strictly necessary and proportionate to allow the CPs to deploy their network and to use it for that sole purpose.

196. We fully support Ofcom's view and analysis of the issues associated with setting a specific EOI obligation on a sub-set of Openreach activities (namely ultrafast networks). The risks of increased costs, increased complexity, and loss of efficiency in delivering new investment to the UK are multifarious, and would not support Ofcom's strategic focus. We also recognise and support Ofcom's comment on the difficulties of introducing a second form of 'functional separation' within Openreach<sup>63</sup>. This would be a highly unnecessary and disproportionate action and introduce an extremely challenging layer of additional regulation given the already significant changes taking place with regard to Openreach legal separation from BT Group.

197. Given the time permitted for this consultation it is not possible for us to resolve and set out all potential areas of Openreach's processes which may be covered by the no undue discrimination obligation, but such analysis will need to be carried out in due course and in the light of any significant developments to the new PIA reference offer. However for the record we note some initial (but not exhaustive) areas where differences would be expected:

- Use of the PIA digital maps system.

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<sup>62</sup> For the avoidance of doubt, it is not the case as Ofcom state in paragraph 7.73, that Openreach network planners use the PIA Digital Maps tool.

<sup>63</sup> Ref 5.35.1

- Openreach’s autonomy and capability to plan infrastructure for all its products.
  - Openreach’s internal processes for planning new products/services, deployment of new technologies etc, and for managing in-life products.
  - Use of Openreach infrastructure for regulated service provision and maintenance (e.g. telephony USO, LLU, GEA, Ethernet etc). These services have specific regulatory obligations which need to be managed.
  - Use of Openreach infrastructure for publically funded service provision and maintenance (e.g. BDUK projects, broadband USO etc). These will have specific legal and/or government targets to be managed.
  - We must be able to maintain privacy of contract with external suppliers.
  - Cash, financial, budgetary and contractual processes associated with dealing with external third parties will not be required for internal Openreach transactions (e.g. CPs likely to have to enter into occupancy agreements before Openreach will fund network adjustments, CP forecasts sufficiently detailed and binding to be able to plan resource needs).
  - Openreach do not use the infrastructure reservation processes currently used by PIA CPs.
198. With regard to future processes and platforms, it is unclear at this time which, if any, could reasonably be designed and implemented from the outset in a fully equivalent way, without introducing additional costs and complexities that Ofcom notes in paragraph 5.35. Further, and as we set out above, even for a new system such as the PIA digital maps development the requirements for a PIA CP are fundamentally different compared to Openreach’s requirements. Openreach as an SMP provider of a full range of telecoms services throughout the UK requires significantly more detailed and national scale inventory information. However, regardless of these justifiable differences we would aim to review such future requirements in the light of the no undue discrimination obligation and in-line and with any significant developments to the new reference offer over time.
199. It is important to note however, that regulation should not restrict or reduce the incentive for Openreach to innovate in its network build and development of products. Openreach faces significant commercial and technological pressures at this time from competing networks and platforms (namely cable, mobile and satellite) and we must be able to respond quickly and effectively to such changes in technology and the market. Openreach’s ability to do this may be seriously impacted if any change in network build policy or process is dependent on a change to the existing PIA product and associated terms and prices.
200. For the record we acknowledge Ofcom’s explanation of its approach with regard to downstream BT and Openreach in paragraph 5.28. Any direct consumption of the PIA product by downstream BT would be on the same terms and conditions as any other CP. All regulated services supplied by Openreach (including PIA) are supplied on an equivalence of input (Eoi) basis unless otherwise agreed with Ofcom<sup>64</sup>.
201. We also note that Ofcom has been more explicit in this consultation in recognising the significance of the separation between Openreach and BT, and the complexity of overlaying another virtual boundary within Openreach (a virtual ‘upstream’ and ‘downstream’ Openreach). Ofcom acknowledges that such additional layers of regulation could potentially undermine Ofcom’s major policy objective (i.e. large scale ultrafast/FTTP coverage of the UK).

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<sup>64</sup>For example, via an agreed exemption to the Undertakings.

202. We still believe Ofcom may have a fundamental misunderstanding at the core of some of its charging/cost recovery proposals. Our views on this issue are covered in more detail under the responses to questions in section 4, 6 and 7. We consider that some of Ofcom's proposals do not properly assess the commercial and competitive impacts on Openreach and are likely to put us at a material disadvantage when it comes to new investment and competing for new business. It is standard commercial practice that the key test for any potential investor is a detailed consideration of discounted cash flows; and Ofcom's logic continues to conflate cost accounting practice with DCF analysis. Openreach cannot just "account away" its up-front cash costs. Businesses make investment decisions based on cash flows, and this would be the same for any prospective investor in new ultra-fast networks. Ofcom proposals repeatedly ignore this fundamental principle.

## **PIA Process and Systems**

Question 6.1: Do you agree with our proposed approach to the processes and systems relating to planning and surveying? Please provide reasons and evidence in support of your views.

### **Service establishment and accreditation**

203. We support Ofcom's proposals on service establishment and accreditation and welcome Ofcom's acknowledgment that we have made progress in simplifying this area. PIA CPs now have a significant degree of flexibility in the 'train the trainer' approach that enables them to be in full control of their own accreditation of operatives and the timescales in which they can achieve this. For Openreach a key priority is maintaining safe working and appropriate quality standards across the network and we would not want to relax any accreditation requirements which could put this at risk. Our processes and accreditation requirements mirror those we require of our own contractors. However as with all processes, Openreach is more than willing to continue to work with CPs on potential improvements where they could provide benefits to both Openreach and PIA CPs. However, any such changes must not underestimate the importance of protecting the Openreach network to ensure that it remains safe and secure.

### **Forecasting**

204. As we discussed in Section 1 of this response, Ofcom's proposals in this consultation, rely heavily on the further details of its proposals being discussed and resolved with industry as part of a draft and final reference offer process. In any situation where an external financial liability is placed on Openreach, it will be necessary to ensure strict budgetary, financial and contractual controls are in place. We see these controls as operating at a total product level, as well as on individual works orders. Openreach requires a mechanism to plan for and control its overall exposure to CP generated requests, as well as assessing whether any individual works order properly falls within the PIA obligations.

205. In this light, we fully support Ofcom's proposal that CPs should be required to provide full and proper forecasts to Openreach and the acknowledgement that this is important for Openreach (and external parties) to plan resources. These forecasts need to be full and accurate and provided sufficiently in advance to allow the proper and efficient planning of the right resource in the right area and with the right skills. This will become increasingly important given Ofcom's parallel proposals on network adjustments and SLA/SLG arrangements. We also note that the primary purpose of a forecast, especially related to PIA network adjustments, is not to administer SLG payments or to ensure equivalence, but to enable the CP, Openreach and the external third parties involved in the value chain to plan their resource and financial commitments in this respect

there needs to be an acceptance that if the forecasts are not accurate there will be financial consequences for the relevant CP.

206. For any large scale project envisaged by a CP (even after taking account of Ofcom's proposed limitations on PIA obligations), a simple forecast obligation would do nothing in practice to enable such a scale investment to be made unless the majority of the responsibility for carrying out and funding such works lay with the individual CP, or were agreed, prioritised and planned jointly in advance with Openreach. Planning windows, resource recruitment (internal and external), resource allocation and funding would all need to be agreed and planned over a designated deployment period; including long term financial/contractual commitments by CPs to occupy the infrastructure. This is a fundamental difference between an internally generated and managed Openreach project compared to a project driven by an external party.
207. Openreach already has a PIA forecasting requirement and process in place today and it is likely that this will need to be revised substantially in any new reference offer. Experience to date is that CPs are very poor at forecasting PIA demand. This could be a result of being new to the product and use of the Openreach network, and/or it may also result from there being little incentive to forecast accurately. We suspect there is an element of both.
208. In any case, accurate forecasting and proper financial commitments will be required to enable Openreach to agree suitable SLAs and SLGs with its own suppliers and should forecasts be inaccurate (either over or under) this can significantly impact Openreach's costs and service levels. Given the importance of accurate forecasting to enable Openreach to meet Ofcom proposals for the PIA service in this consultation, Openreach proposes that incentives need to be put in place for CPs to provide accurate forecasts. These should be aligned to any Openreach obligations to deliver SLA/SLGs in any new reference offer.
209. It is important that if CPs forecast inaccurately they do not still expect Openreach to deliver on SLAs and pay SLGs. Additionally the consequential overuse/underuse of resources and increased supplier costs presents a significant risk to Openreach. Openreach would propose that should CP forecasts be more inaccurate than an agreed percentage of volume in either direction (above or below), by location, and product mix, then Openreach would not have an obligation to meet SLAs and pay SLGs on the relevant CP orders. This would provide an incentive on CPs to accurately forecast and ensure that Openreach is correctly resourced to meet its obligations. We also need to consider the impact and cost of standing up resource in response to a forecast which proves to be inaccurate, and which could lead to significant inefficiencies in resources, time and cost. In these cases, it is appropriate for CPs to pay SLGs for underutilised time, resource and additional expense in the supply chain.

## **Planning and Surveying**

### Network records database

210. We support Ofcom's proposal that access to network records is maintained in any new reference offer. We have made significant progress with our digital maps system. PIA CPs now have access to the same source infrastructure information as Openreach planners use to plan new fibre networks. Taking each of Ofcom's point in turn:
- Network records – we consider we have met this through our digital maps tool. CPs can use Openreach web services to import data into their own GIS systems. This was made available in March 2017.

- Granularity of information – we consider we have met this as the digital map tool provides detail on ducts, poles, joint boxes, manholes and associated attribute information such as duct bores and sizes to enable CPs to plan, survey and order the PIA product. CPs have access to the same source information on Openreach passive infrastructure that Openreach planners would use for planning fibre networks<sup>65</sup>.
- Capacity information – we consider we have met this with our digital map tool published in March 2017. The new system gives an automated capacity estimation with a ‘RAG’ status, and also shows capacity that is reserved and built by CPs or is reserved and awaiting build.
- Element attribute information for billing – we consider we have met this through our digital map tool. CPs have all duct and joint box information required to determine what charges would be for their order.

211. We note Ofcom’s proposal in paragraph 6.39 that Openreach should proactively “announce plans reasonably in advance for the construction of new Physical Infrastructure” i.e. in advance in the PIA Digital Maps system and we are continuing to assess the implications. Releasing planning information related to either Openreach or a third-party CP’s fibre deployments would in our opinion present a material competition law risk and we would welcome the opportunity to discuss this with Ofcom in more detail. There are also issues of confidentiality relating to developers and CPs and we have multiple concerns in relation to Ofcom’s suggestions regarding new sites (e.g. new housing estates) which we cover in more detail later in this response. As discussed in Section 2 above, we consider Ofcom’s proposal to be disproportionate and unjustified, in particular in light of the fact that Section 8 of the ATI Regulations provide a right for access seekers to request “information concerning civil works relating to the operator’s physical infrastructure (including where the works have already commenced)”.

212. Currently, any advance plans only relate to Openreach network build. Therefore anonymisation is not possible and raises concerns about publication of Openreach network build plans. However we note that there may be other ways to achieve various objectives. In particular if Ofcom is seeking to allow joint planning and working on new infrastructure construction then where viable this is already managed by relevant industry bodies which enable multiple utilities and CPs to work together to minimise road closures/costs and plan efficient infrastructure deployment. If Ofcom is concerned about such planning activities impacting on available duct capacity then we would be willing to consider how such estimates may be included into the duct occupancy calculations. Further, our PIA Digital Maps system already allows PIA CPs to see if there is any existing reservation by another CP to use a section of duct. We would be happy to discuss this point in more detail with CPs and Ofcom as part of our ongoing systems development plans for PIA.

213. We note Ofcom’s comments in paragraph 6.42 regarding the potential requirement to enable greater data download capability for CPs when using the PIA Digital Map system. These initial limitations were set for several reasons including the protection of system performance and security of Openreach network data. Whilst we recognise limits may need to be reviewed in the longer term, these would need to be subject to feasibility and worked through with the industry group as Ofcom propose, and prioritised with other developments we have for the PIA tool. We would also need to consider any such expansion of the data download capabilities in parallel to user access controls and system monitoring to prevent illegal use of the data and activities such as data mining outside the scope of the PIA product<sup>66</sup>. It is also important for Ofcom to understand

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<sup>65</sup> Not all of Openreach’s assets are included in the PIA digital maps system as they do not fall within the remit of the PIA remedy (e.g. LLU, WLR, GEA circuits etc),

<sup>66</sup> We make further comments on these points in Annex B.

that our network inventory tool uses third party sources and as such is limited by the terms of any licence they provide both now and in the future. Whilst Openreach may own information relating to its duct and poles, the location of that infrastructure relies on other third party data and any regulatory proposals needs to take account of such limitations.

214. Ofcom will appreciate that if the tool does not have any restrictions on use then this would pose a serious security concern and could also result in the misuse of commercially sensitive information. Certain restrictions are therefore necessary, but will go no further than Openreach considers appropriate to address such concerns and will be kept under ongoing review with CPs and Ofcom. In this respect, we believe any regulatory proposals need to recognise the potentially different risks, and therefore controls, which may be required for user access to Openreach information from outside the Openreach firewall compared to internal use.

### Survey requirements

215. We acknowledge Ofcom's recognition of the improvements we have implemented in the survey process for our PIA product. We note that PIA CPs should be prepared to undertake their own field surveys prior to build to ensure they have a true representation of the state of the network. As we have made clear to Ofcom and CPs we make no representation that the data in the PIA Digital Map system is physically correct only that it is 'as is' and represents the same data as recorded in our network inventory system PIPeR.
216. We agree with Ofcom that the assessment of available capacity on a pole can be a much more complex task than for a duct, due to, amongst others, the requirement to assess both space utilisation and radial distribution of loadings. There are also significant health and safety issues associated with overhead plant, both working on it and from in-life ownership. We note Ofcom's proposal that pole surveys could be carried out by a PIA CP. However this is another area where the devil is in the detail. For example a CP providing its own accredited surveyors for a dropwire of up to 1.8kN breaking load may be a reasonable ask, but if deploying cables greater than >1.8kN breaking load then more specialist training and knowledge may be required. Therefore we propose that these issues are taken forward into the industry group as part of the reference offer development, where a full analysis of potential risks and responsibilities and health and safety implications can be examined in detail. This may result in a new process or continuation of the existing joint survey process in situations where a CPs deployment might impact pole stability. Ofcom should also recognise that there may be an impact on the pole survey process given Ofcom's proposal that Openreach is required where viable to enable pole capacity. In these cases, Openreach may need to survey the pole to understand any reasonable options which may be available to provide capacity relief.
217. As with Ofcom's proposals concerning adjustments to duct infrastructure, we consider all processes and responsibilities related to pole capacity surveying and relief will have to be worked through in detail as part of the reference offer, to ensure (i) Openreach resources are not used inefficiently, that (ii) works orders can be verified as necessary and (iii) are beneficial cost justified adjustments to Openreach assets. As things stand, Ofcom's proposals for poles, like duct, still remain largely open ended and unlimited, in particular it is unclear how many CPs Openreach may be required to release capacity for and how can we ensure full and timely cost recovery.
218. Ofcom's comments in paragraph 6.52, regarding the collection of network information by CPs, are noted, but we see them as conflicting with a previous Ofcom and CP position. We had understood that Ofcom agreed with Openreach's changes that removed the need for CPs to provide Openreach survey returns so that network records could be updated. This data collection was part of the original PIA process and was removed after CP and Ofcom feedback that this was not an equivalent process (although we still do receive some network data returns). However,

paragraph 6.52 suggests that Ofcom now supports CPs collecting and sharing their survey findings with Openreach to update network records. We are concerned that Ofcom's approach appears somewhat inconsistent and would welcome clarification of Ofcom's position and why it may have changed.

219. If formalised, an additional difficulty with the various proposals for Openreach to update its records on the basis of information provided by CPs, is whether and to what extent Openreach may be able to rely on that data and include it in its records without some form of warranty from the CP. This is something Openreach requires today from its contractors to help ensure and protect the integrity of its records. We note for the record that our initial view, is that capturing radial distribution information for poles is likely to be a very difficult proposition.

#### Ordering PIA - Operational processes

220. Openreach has made significant progress in developing a more efficient ordering process for PIA. We believe Openreach has addressed all major concerns identified to date through the launch of its new PIA Digital Maps releases in January, March and May 2017. This means CPs will be able to plan network deployments in a comparable manner to Openreach.

221. In particular, and importantly as Ofcom note in paragraph 5.15, CPs will have access to the same network record information as Openreach planners do via the Digital Maps tool and a web services interface. The system will:

- enable CPs to download and import network data into their own GIS network planning tools;
- include capacity information calculated from Openreach's inventory systems and presented in a suitable format to enable CPs to estimate duct availability;
- include all relevant duct, pole, joint box and manhole information at a sufficient level of granularity for planning, ordering and billing, and with the required attribute information.

222. Openreach's new PIA product processes and systems enable CPs to have the flexibility to choose to conduct their own desk top surveys using the Digital Maps tool, or to conduct stand-alone field surveys or combine the survey stages with network build activity. For clarification, the new process changes launched in January 2017 do not require PIA CPs to complete survey returns to Openreach. We believe these changes now provide CPs with the same opportunities and flexibility that Openreach planners and surveyors have.

223. We support the need to make PIA ordering efficient and we are currently developing functionality to do this. The release of the web services functionality in March 2017 as part of our digital maps development enabled PIA CPs to import data into their planning tools. PIA CPs are then enabled to be able to make their own systems developments to export this data in a digital format to automatically populate Openreach PIA order forms. This is not wholly an Openreach responsibility as CPs will also need to invest in their systems to interact with the Openreach system to gain the benefits and ensure our data and records are and remain properly protected.

224. In addition to this, Openreach released functionality in May 2017 that enabled PIA CPs using the digital maps portal (not web services) to click and select infrastructure to automatically download to an Openreach order form. It will make the process significantly less labour intensive in future. We have added more detail on these developments at Annex A.

225. There may be opportunities in future to further enhance the order process beyond the systems investment already made and committed by Openreach as described above, but this would need to be reviewed to understand the actual and real demand, scope and cost. Openreach is keen to see scale use through the changes described above to further determine the necessity and

additional benefits from further investment. Openreach would also need to be confident that such development costs can be fully recovered.

226. These are changes we have carried out absent explicit regulation by Ofcom, therefore we do not believe it is objectively justifiable and proportionate for Ofcom to introduce further regulation in this area. In this regard, we welcome Ofcom's overall approach on future systems developments, namely that they should be taken forward by industry and Openreach through the Passive Industry Working Group. Systems developments can then be aligned with CPs priorities and in parallel with the development of the reference offer. Investments in systems will need to be proportionate to the scale of actual demand and the efficiencies achieved. Therefore, any proposals made by CPs and/or contained in the Mott MacDonald report will need to be carefully considered and prioritised with CPs and in-line with known/committed demand. We have included some initial comments on the recent Mott MacDonald report at Annex B.

Question 6.2: Do you agree with our proposed approach to the processes for build works and enabling works? Please provide reasons and evidence in support of your views.

227. As we set out in response to Question 4.1, it is where Ofcom's proposals depart from the principle of cost causality and fair access to Openreach's existing assets, that we have very strong objections, and where we see significant problems with the supporting economic and legal logic.
228. Consequently, this remains the area where we still have most concerns, although we acknowledge Ofcom's clarifications of its initial proposals which seek to mitigate some of the larger risks of the proposed network adjustment obligations. The restriction of the remedy to within the Openreach infrastructure footprint; guidance that the remedy is not intended to support requests for extensive new infrastructure (in terms of distance or capacity); and that such adjustments should primarily be to 'free up' existing capacity rather than create new infrastructure are all helpful<sup>67</sup> but in our view, do not go far enough.
229. Even with these clarifications, there is still significant detail to resolve and Ofcom's proposals are still open to wide interpretation by CPs. We think the risks of moral hazard (or even fraud) are high unless Ofcom is prepared to be very supportive of Openreach's attempts to limit and control such requests. If the proposals are imposed without further detailed analysis and careful consideration of the engineering facts, they will serve to distort investment decisions and undermine, rather than promote, efficient large scale super/ultrafast deployments, particularly in relation to Openreach's own investment plans. Obligations which require Openreach to bear responsibility for PIA CPs network build costs without any clear and demonstrable material benefit to Openreach's infrastructure (or its wider CPs interests) and which are not subject to proper cost benefit analysis and financial controls are considered unjustified and disproportionate. In order to mitigate the risk of these concerns, we set out our proposals in our response to Question 4.1 above.
230. Ofcom's proposals separate the prospective revenues earned by the CP in its business case from the costs it generates for Openreach and its customers, and this potentially creates major problems with CP incentives. It is the proverbial 'accident waiting to happen'. Openreach needs the ability to exert strong financial and contractual controls, overall and on an individual job basis, to ensure the remedy is not misapplied; that only necessary and materially beneficial works orders are raised; and that such infrastructure is occupied and paid for on a long-term basis via long term contracts and including mechanisms such as early termination charges to enforce such

<sup>67</sup> Ofcom paragraph 1.13 '... For example, where there are congested sections of BT's duct network, it may be necessary to repair or enhance the infrastructure to realise the benefits of sharing BT's infrastructure over a much wider area. However, this requirement should be limited to situations where the adjustment is necessary to facilitate access to BT's existing physical infrastructure network'

arrangements. We would look to Ofcom to support such controls to protect Openreach and its customers and we consider that much stronger and more detailed guidance from Ofcom will be necessary to prevent misuse.

231. We accept that there will be circumstances where Openreach would be prepared to fund and repair/enhance infrastructure identified by PIA CPs for adjustment. But alternatively there may also be requests for jobs which are essentially fibre build/cabling tasks where the only beneficiary is the requesting CP and it is the CP's cable installation cost that Openreach and its CPs are being required to fund. There will also be many complex and ambiguous cases in between. The detailed definition of these cases is essential to understand the nature of the engineering tasks, the potential beneficiaries and where the prime responsibility for funding and carrying out the work should lie. Please see our further comments and examples in Annex D.
232. We proactively addressed the area of network adjustments as part of our new PIA product from January 2017; and enabled CPs to bring more planning, surveying and simple works tasks under their control to give greater flexibility and speed of deployment. We consider that Ofcom's proposals may now add further complexity and delays into the process.

#### Requests for additional infrastructure capacity

233. Openreach already provides arrangements for CPs to request additional capacity and CPs can request this at any point during their network build. These arrangements cover all scenarios including duct clearance, repair, new duct or cable removal. We therefore consider that these arrangements are already in place and sufficient should a CP request additional capacity. As things stand today it is the CP that pays for the work and hence makes the choice of how the work is carried out. This would change under Ofcom's new proposals, where Openreach would choose if and how capacity should be provided. The product and its associated processes will need to be amended significantly to reflect this change in responsibilities.
234. The need for wide ranging SLA/SLG<sup>68</sup> arrangements are not supported by Openreach. Depending on the type of work undertaken a generic SLA would not be possible to apply end-to-end. Any SLA provision will need to be carefully considered to take account of:
- Type of request e.g. simple, complex, requirement for civils.
  - Requirement for a survey.
  - Requirement for street works and notifications.
  - Arrangement with 3<sup>rd</sup> party suppliers.
  - Requirement to assess survey output and apply any financial authorisation/validation.
235. There may be an opportunity to apply SLAs on parts of the process that are in Openreach's control. These would be limited but could potentially include; acknowledgement of a CP request, time to survey requests etc. and we believe SLAs/SLGs for build completion are very different in this context than on other Openreach products where revenues and margins differ significantly and where the primary purpose of the product is not infrastructure build.

#### Arrangements to provide information to support PIA orders where these include requests for additional capacity

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<sup>68</sup> We note that if progressed any SLG arrangement would be linked to PIA tariffs.

236. We support the need for CPs to provide additional information if records indicate that capacity is available. However, Ofcom is not correct to state in paragraph 6.69 that any duct section marked red in the PIA digital map system would not have capacity for a CP sub-duct. The occupancy status is, as we've always said, an indicative estimate that the duct section may be 70% or more occupied, not that there is no space available. Any CP genuinely planning a network deployment is likely to carry out a survey based on its initial draft plans and if so it would be reasonable that such information is provided to Openreach in support of any works order. Ofcom's suggestion that a CP does not need to provide any information to Openreach if a duct section is tagged as red could easily generate unnecessary surveys and additional costs for Openreach and its customers without any disincentive for the requesting CP. This could be particularly costly where PIA CP deployments are targeted for densely populated areas. We would agree that Openreach will be likely to need a survey to determine the best method for network adjustment but that scarce resource should not be diverted into carrying out a CPs initial surveying and planning activities. A CP could easily have an alternative option in the area (e.g. rerouting, overhead, directly buried cable) and due to its lack of due diligence in assessing the location would have generated an unnecessary and costly Openreach activity without any justification. This is inefficient and is not considered proportionate and objectively justifiable.
237. We support the proposal that a PIA CP must notify a request for capacity relief upfront before build commences and not part way through a build. Openreach supports the suggestion that if a CP identifies the need for capacity relief part way through build they either do the work themselves and fund it or start the order process with Openreach again. This is important to incentivise CPs to carefully consider their network build options and the resource implications for Openreach before they start to build.

#### SLAs and SLGs

238. We support SLAs on order receipt confirmation, but do not support SLAs on Openreach's response time for an order. Openreach will need to consider a range of details that would dictate the timescales in which it could respond, for example:
- Has the CP met the mixed use case requirement?
  - Is the works order for capacity relief actually required and necessary?
  - Depending on the complexity of the order there will be a varying need to arrange and conduct a survey (or surveys).
  - Time will be required to assess the survey (or surveys) findings.
  - Openreach will need to consider options and decide on the appropriate method of capacity relief.
  - Financial assessment and authorisation will be required if the capacity relief is to be funded by Openreach.
239. The size and complexity of each request (e.g. single route or large area) will also dictate the timescales. We do not support that 5 working days for a route and 20 working days for an area is reasonable given the elements required to validate an order as detailed above. Each order will be unique and materially influenced by the specific local conditions. Any suggestion that a single SLA definition is appropriate to cover a number of different scenarios would require detailed analysis to allow a reasonable timescale sufficient for Openreach to address the various steps and dependencies outlined above. In addition SLAs would only be applied where CPs have accurately

forecasted their volumes a minimum of 12 months in advance. Dependent on the agreed thresholds, if CPs were over or under the agreed % then SLAs should not apply and as noted above there should be financial consequences for the CP.

240. As part of the reference offer development we will need to assess realistic timescales for these types of tasks. Our initial view is that there will be a large range due to the unique nature of each job. We would strongly object to any regime which does not allow sufficient time for Openreach to carry out a full assessment commensurate with the complexity of the individual request. Such a process would be bound to fail and generate additional costs and wasted resource. It would be of no benefit to Openreach, its CPs or indeed end-customers.

## **Network Deployment**

### **Build works**

241. Ofcom mistakenly proposes that all poles should be made climbable in paragraph 6.93, whereas a more appropriate description might be that a pole is 'usable'. In reality, Openreach has many poles which are not climbable but are safe to use (e.g. when accessed by a platform or cherry picker). As Ofcom notes, some poles cannot be climbed because there are adjacent hazards which prevent safe access (e.g. iron railings). Again this should not be an Openreach responsibility to resolve. Both Openreach and PIA CPs may need to access such poles using specialist equipment (e.g. platforms/cherry pickers) but such poles may have the required capacity and be 'usable' with the correct equipment. Therefore there should be no requirement to make a pole climbable.
242. We support Ofcom's view that some build works should be carried out by Openreach and not CPs and should be requested in advance of CPs starting their network build. Openreach will need to define the best solution and plan accordingly. This can only be effectively carried out by Openreach in line with an agreed financial control and effective authorisation process to determine in the first case whether in fact the build works will properly deliver a wider material benefit to the Openreach network and its customers.

### **Commencement of rental charges for PIA**

243. In broad terms we agree with Ofcom's view in paragraph 6.93 regarding deferral of charges when Openreach is carrying out build work, but we think Ofcom's proposal is too broad and open to abuse. Ofcom should reconsider its proposal that charging for rental should not commence until all build works are completed. The reality is that there will be varying complexity and scale of build orders and in some cases these could take considerable time to complete with timescales entirely out of Openreach's control (e.g. street works permissions). We set out some further thoughts below but consider it would be unreasonable to penalise Openreach with the current proposals. We note that when a CP is self-providing build work, and as Ofcom set out in the first PIA consultation, then it is not appropriate to defer rental charges.
244. Openreach has already introduced a deferral process as part of its new PIA product process in January 2017. PIA rental charges do not apply until Openreach's infrastructure build has taken place. However, we think that Ofcom's suggestion that the rental deferral could apply to an "optical local exchange" area is too large without any further means of limiting the exposure. An Openreach Point of Handover (PoH) for Openreach's GEA services could at the extreme cover up to 180,000 premises, and given Ofcom's proposed change to the geographic scope of the local area to that of the PIA CPs local access node could now be much higher<sup>69</sup>. It would be highly disproportionate for multiple individual orders (within an exchange area) to be deferred because

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<sup>69</sup> Such an area could be the equivalent of a small UK city or large town.

of a single outstanding job on an individual order. As we have noted previously, many build issues are out of Openreach (and even our contractor's) control; and we also have the risk of moral hazard as Ofcom note in paragraph 6.139.

245. There is an even greater need for the deferral processes to be reasonable given the changes to the geographic scope of the product. As soon as a suitable element of the network is ready for use, for example for a network site closest to the CP's node, then the charges for that area could commence, and should not be dependent on the completion of a distant job in the extended local area network. We consider anything else to be unjustified and disproportionate.
246. For any large scale project envisaged by a CP (and even after Ofcom's proposed limits on PIA obligations are applied), a single PIA order for the whole of a large scale optical area would not enable Openreach to deliver and co-ordinate all relevant works orders unless it was agreed, prioritised and planned in advance with Openreach. Depending on the scale of the project there may also be a need to back off plans with Openreach's suppliers and/or even for a coordinated plan to be agreed with local planning/traffic management authorities. Attempting to focus all the risk on Openreach is not a reasonable way to approach these real world issues.
247. When Openreach deploys its own NGA networks they typically take place (i) on a cabinet area basis for FTTC and (ii) are related to the roll-out of key components such the fibre spine and splitters for FTTP. These are smaller structures but do represent a working network i.e. live customers can be served without any delays caused by enabling works elsewhere in the infrastructure. We can foresee a CP including multiple structures within a single order but the idea that deferral of charges should operate on the scale of a large town/city is unreasonable and disproportionate even if we recognise that the underpinning logic is intended to be incentives based (paragraph 6.100). A better approach would be to allow charging to commence once routes of a certain length (or a defined area) are completed and are usable by the PIA CP. A notification process would need to be agreed as part of the reference offer but would provide both PIA CPs and Openreach the opportunity to start network build and recover charges when useful sections of infrastructure become ready for use and progress is not delayed by having to wait for large and unrelated/non-impacting jobs to complete.
248. Therefore for the reasons set out above we would recommend that Ofcom clarifies that its proposals relate to a maximum unit of deferral being an individual order within an optical exchange area<sup>70</sup>. Without a reasonable and proportionate limit Openreach would be further financing the network build of PIA CPs, whilst incurring costs and being restricted from legitimately charging for the occupation and use of its infrastructure.

#### SLAs and SLGs for build works

249. As stated previously, we have very strong reservations related to any SLA/SLG regime related to the completion of build works for PIA, and could not support it without very detailed consideration of what is reasonably within Openreach's control. In this respect, we support Ofcom's view that it should not set out the details of such a framework. We also welcome that Ofcom has noted the challenges in setting SLAs in paragraph 6.106. As Ofcom states, a single build job is likely to be unique and depend on local characteristics, and hence have an individual time frame associated with it. Openreach will not have full control of all factors affecting the job, and in particular those that may cause significant complexity and delay (e.g. individual contractor resource issues, traffic management, coordination of works with other bodies etc).

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<sup>70</sup> Which we think is Ofcom's intention in paragraph 6.99.

250. However, after acknowledging these real issues in the consultation, Ofcom largely dismisses them as not being that significant for Openreach. We note that this will be a complex area of discussion for the development of the new PIA reference offer. If the proposals are progressed there will need to be significant recognition of the challenges of setting up such a regime for passive products with our suppliers, plus mechanisms to capture relevant exceptions, complexities/categorisations of jobs and associated SLAs, 'clock stopping' events etc. Any SLA/SLG arrangements will also need to take into account noticing periods, section 58 restrictions, force majeure scenarios and potentially implement an MBORC type arrangement where appropriate, plus the required governance procedures to authorise and validate its use.
251. We note that if SLGs are added to PIA then this is highly likely to need to be negotiated into contracts Openreach has with its civil engineering contractors who deliver network adjustments. This can only be carried out and agreed once the terms of the legal instrument and reference offer are clear and will increase the costs charged to Openreach and passed on to customers (either directly to PIA CPs or indirectly in the prices of SMP products). We maintain that SLA/SLGs in this area for the PIA product are neither objectively justifiable nor proportionate. If such engineering certainties are of critical importance to CPs then it would be reasonable to expect that they should try to seek their own agreements, in the spirit of true and effective competition, from their own negotiations and contractual arrangements.

#### Self-provision relating to build works

252. We agree with Ofcom that there are practical issues to overcome in order to make any CP self-build model work including control of design, quality and cost validation and control - particularly if Openreach is responsible for funding. We believe that these are too complex to overcome efficiently and do not therefore support a CP self-provide model for build works. Irrespective of who funds the network adjustment Openreach would provide such works and they would be required to be directly linked to accurate forecasting obligations to allow Openreach to properly manage and resource. By way of example, this category could include works such as new duct, pole or joint/footway box capacity relief.

#### Enabling works

253. Ofcom sets out three options for consideration. Our views are summarised below. By way of example of enabling works, this category could include duct blockage clearance, desilting, cable installation, drop wire swap out and removal of obstructive trees, branches, roots. Openreach proposes that CPs would self-provide this work and pay for it.

#### Requirement to publish engineering rules

254. We support this approach and we already publish such rules as part of the existing PIA product offering. This needs to be balanced with the need to differentiate build and compete effectively without constant recourse to Openreach's knowledge, expertise and IPR.

#### Process for Openreach to assess and authorise requests for enabling works

255. This is the most significant part of the reference offer that will need to be developed with industry, and remains the area where we still have most concerns with the proposed obligations<sup>71</sup>. We recognise Ofcom's clarification of its proposed network adjustment obligations which seek to mitigate some of the larger risks of its initial proposals in the December consultation. The restriction of the remedy to within the Openreach infrastructure footprint; guidance that the remedy is not intended to support requests for extensive new infrastructure (in terms of distance or

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<sup>71</sup> And have set these out earlier in Section 1, Question 4.2 and 6.2.

capacity); and that such adjustments should primarily be to ‘free up’ existing capacity rather than create new infrastructure are all helpful<sup>72</sup>.

256. However, the devil is in the detail and in reality only very few works orders would potentially improve Openreach assets, and/or potentially be of benefit to Openreach and its CPs. As we have set out in our response to Question 4.1 above, where a works order relates to the creation of a fibre asset owned by a third party CP and there is no clear and demonstrable material benefit to the Openreach network and its customers and it is possible for the CP to carry out the work there is no rational case to be made that Openreach and its CP customers should contribute anything towards the construction of the asset; especially when the CP may not even offer wholesale access to its network. This category would need to be more precisely defined working closely with industry and the OTA although could include works outside of the current Openreach network footprint; works which will only benefit a single CP because we have no demand from any other CP; and works which only provide a temporary solution without improving the Openreach network. By way of example, this category could include enabling works including but not limited to duct blockage clearance, desilting, cable installation, drop wire swap out and removal of obstructive trees, branches, roots.
257. In contrast, we accept that there may be some circumstances where Openreach would be prepared to fund and repair/enhance infrastructure identified by PIA CPs for adjustment, and which could be considered a potentially useful asset improvement. This is where the CP request provides a clear and demonstrable material benefit to the Openreach network and its customer, for example, because it coincides with either a known adjustment that Openreach plans to make, or following an assessment by Openreach, it is supported by an associated investment/commercial case to enhance the network. This will, however, take time to do properly and should not be bound by SLAs/SLGs which fail to take into account the true complexity of any such assessment.
258. Openreach needs the ability to exert strong financial and contractual controls, overall and on an individual job basis, to ensure the remedy is not misapplied; that only necessary and beneficial works orders are raised; and that such infrastructure is occupied and paid for on a long term basis via long term contracts and including mechanisms such as early termination charges to enforce such arrangements. We would look to Ofcom to support such controls to protect Openreach and its customers and we consider that stronger more detailed guidance from Ofcom will be necessary to prevent misuse. All these issues and the details relating to these processes will need to be resolved properly and clearly in the legal instrument and as part of the new PIA reference offer development.

#### Certainty around timescales to complete works

259. We broadly agree with the view expressed by Ofcom that a telecoms provider intending to use PIA on a large scale will have an incentive to undertake and fund their own enabling works, but whether it is ‘likely’ to do this remains to be seen. As we have set out previously, proposals which enable CPs to cherry pick which jobs to self-provide and which jobs to outsource to Openreach is problematic, as are potential misuses of the remedy, deferral of charging on too large a scale etc. These could all provide incentives to game the regulation. We would favour an approach where CPs self-provide and self-fund enabling works.

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<sup>72</sup> Ofcom paragraph 1.13 ‘... For example, where there are congested sections of BT’s duct network, it may be necessary to repair or enhance the infrastructure to realise the benefits of sharing BT’s infrastructure over a much wider area. However, this requirement should be limited to situations where the adjustment is necessary to facilitate access to BT’s existing physical infrastructure network’

260. In contrast to this, we have very strong reservations related to any SLA/SLG regime related to the completion of enabling works for PIA by Openreach, and could not support it without detailed consideration of what is reasonably necessary and in the control of Openreach and what is backed off by the CPs forecast and committed demand. In this respect we support Ofcom's view that it should not set out the details of such a framework, but that it should form part of future industry discussions. We note that this is likely to be a complex area of discussion for the development of the new PIA reference offer. There will need to be significant recognition of the challenges of setting up such a regime on passive products with our suppliers, plus mechanisms to capture relevant exceptions, complexities/categorisations of jobs and associated SLAs, 'clock stopping' events etc. Any SLA/SLG arrangements will also need to take into account noticing periods, section 58 restrictions, force majeure scenarios and potentially implement an MBORC type arrangement where appropriate and the required governance procedures to authorise and validate its use. As we have set out previously, any single job will be unique and depend on local characteristics, and hence have an individual time frame associated with it. Openreach will not have full control of all factors affecting the job, and in particular those that may cause significant complexity and delay (e.g. individual contractor resource issues, traffic management, coordination of works with other bodies etc).

#### Risks of a self-provision and Openreach provisioned approach to enabling works.

261. To date our experience suggests that the risk of moral hazard is real. We welcome Ofcom's suggestion that Openreach might mitigate against moral hazard through flexibility in its pricing, but we do not recognise how the logic of the argument set out in paragraph 6.139, would act to protect Openreach against such risk if CPs are not responsible for the costs.

262. If a PIA CP requires a range of enabling works tasks to be carried out, then there will be a series of incentives in play, given the multi-option approach Ofcom has proposed. A CP may choose:

- to carry out any simple/low cost tasks itself and not charge Openreach;
- to seek Openreach approval and recharge Openreach for jobs which are more costly and time consuming; and
- to place high cost/high complexity jobs with Openreach, at Openreach's cost and which may then also trigger a significant deferral of rental charging according to Ofcom's proposals.

263. We agree that if the CP generating the works orders were paying for them, then pricing could be a useful mechanism to help mitigate against such cherry picking behaviour. Although other impacts such as the deferral of charging proposals might still be difficult to compensate for in an ancillary price. However this is where our fundamental concerns lie with Ofcom's proposals for Openreach funded network adjustments. The commercial beneficiary, the CP driving the costs, does not pay for them, Openreach and its CPs do; and there are no significant disincentives for poor behaviour/misuse as Ofcom's proposals are currently framed.

264. The detachment of a significant proportion of the costs driven by the CP from its business case is fundamentally flawed. If a subsidy is required for the case to be positive, and revenues will not otherwise cover the incurred costs, then the proposal is not efficient investment and resources should be used elsewhere. Investors need to face the right economic signals, and central to this is that the costs they cause to be incurred are part of their investment evaluation.

#### Plans for new physical infrastructure capacity

265. We note Ofcom's proposal in paragraph 6.39 that Openreach should include new planned infrastructure in advance in the network records system and are continuing to assess the implications. We have a number of concerns with this request, in particular in relation to new sites (e.g. new housing estates).
266. Publication of planned data raises issues of confidentiality relating to developers and CPs. More broadly there is significant complexity in dealing with site developers who may require confidentiality or exclusivity agreements. These issues are properly taken into account in the context of the ATI Regulations and should not be disregarded by Ofcom. Timescales are also critical to the developer, and given the scale of new site registrations such impacts cannot be underestimated. Registrations typically run to hundreds of sites per week (being thousands of individual plots) and the imposition of any delays in a developer's ability to deploy infrastructure and Openreach to construct network may result in customers moving into the site without service. The potential to deliver a poor customer experience speaks for itself. Also developers may not permit site access to non-Openreach personnel (e.g. for installation) and may also wish to control the degree of additional infrastructure installed on their site.
267. The question also arises as to which party would pay for any additional capacity installed, given a CP is free to negotiate directly with the developer prior to any infrastructure being installed. We do not consider it proportionate or justified to require Openreach to act as the intermediary and carry the cost of building new infrastructure which on a new site a CP can do itself.
268. As Ofcom notes, the existing requirements to announce new infrastructure plans ahead of build were put in place to mitigate the need for Openreach to provide additional capacity for the future capacity needs of CPs. Given the potential new requirement for Openreach to make network adjustments at points of congestion on request (subject to limits), then we would argue this requirement is no longer valid. In effect we already have an obligation to supply.
269. As set out in more detail in Section 2 above, we are also concerned that Ofcom's proposal for a broad obligation on BT to proactively announce its plans for the construction of new Physical Infrastructure reasonably in advance creates a material risk of distorting competition between network providers that, pursuant to the ATI Regulations, only have to provide information relating to civil works on request and can avail of the various safeguards enshrined in Section 8(6) of the ATI Regulations. Moreover, Ofcom has not explained why it considers regulation is required when Section 8 of the ATI Regulations already allows access seekers to obtain relevant information. For all the reasons set out above, we consider Ofcom's current proposals to be disproportionate and unjustified.

Question 6.3: Do you agree with our proposed approach to processes relating to the connecting the customer stage? Please provide reasons and evidence in support of your views.

## **Overview**

270. We agree in broad terms with Ofcom's analysis of the challenges and difficulties associated with the 'connecting the customer' stage of network deployment - particularly in relation to the installation of new technologies and/or the replacement of existing technology.
271. Openreach has already considered many of these challenges as part of its future network plans, and has a large scale ultrafast deployment programme (G.fast and FTTP) in place which is based on optimising coverage, cost and performance in an efficient way building on significant innovation in the standards and equipment being used. The mix of technology is being selected on the basis of efficiency, cost, available resource and cash flow. It is also clear from Ofcom's own assessment that future network investment will be based on a mix of technologies.

272. Such decisions will have to be based on forward-looking judgements by potential investors on, amongst other things, the relative merits of different technological options, on customer willingness to pay for higher bandwidth access services and on the future competitive environment; all areas of significant uncertainty. Would-be investors will have to sink costs in assets on the basis of risky projections of future revenues with long payback periods.
273. In this context, we remain concerned that some of Ofcom's proposals still fail to recognise the core supply and demand-side challenges in achieving greater ultrafast coverage and, instead, establishes the deployment of FTTP networks as the key policy objective in designing future PIA remedies. This is not the right basis on which to frame PIA requirements; Ofcom should take a technology-neutral approach to the supply of PIA that does not artificially support FTTP networks but allows the market to decide on efficient investment decisions in terms of where to invest, when to invest, how much to invest and what technology to deploy. It is therefore very important that Ofcom do not tilt the playing field to such an extent that Openreach's ultrafast deployments become non-viable. As they stand they already represent a highly challenging business case.
274. The activities and costs associated with 'connecting the customer' are particularly sensitive to technology assumptions. This additional cost and risk associated with the final fibre drop is part of the logic supporting Openreach's current plans for a mixed ultrafast deployment of G.fast and FTTP. In this respect, we consider it would be disproportionate and unjustified for a remedy to expose Openreach to substantial cash costs and resource impacts because of the plans of an external CP focussed on FTTP and generating large scale requirements for new/enhanced Openreach overhead infrastructure. Our concerns are exacerbated when considered in light of the fact that Openreach's own challenging ultra-fast business case has been optimised to reduce levels of new infrastructure build in order to gain greater ultra-fast coverage and competitive pricing.

#### **Overhead lead-ins**

275. We recognise Ofcom's arguments for moving away from the prescription of a hybrid drop wire remedy. There was no industry consensus that an Openreach provided hybrid dropwire was the optimal technical solution to resolve a capacity constraint and/or whether it was the most efficient or commercially viable solution for CPs and Openreach. Also there has been no scale use of PIA pole infrastructure to date and therefore experience of how CPs might use this infrastructure is in its infancy.
276. The whole area of pole usage and network adjustment will require significant industry debate before detailed proposals can be agreed between Openreach and industry. Due regard will also have to be paid to Health and Safety issues which can be very significant with overhead plant. However, given Ofcom's overall guidance that the primary purpose of the PIA remedy is to 'free up' existing capacity rather than construct new infrastructure, we are willing to work with the Passives Industry Group, to consider pragmatic and efficient options. But such options should not expose Openreach and its CPs customers to unreasonable and uncontrollable costs and/or unrealistic and disproportionate SLA/SLG arrangements.
277. We supports the idea that we should have the flexibility to decide on the best way to provide overhead lead in capacity if viable (subject to relevant financial controls and cost benefit analysis). However, Ofcom needs to consider the practicality of applying this in a lead-to-cash (L2C) customer order driven environment. A CP will deploy its network as close to a customer premise as possible and wait for an order before they provision the 'final drop'. These orders could take a number of months/years to materialise and there will also be customer churn between CPs during this time. Given end customer expectations of lead times to provide a new broadband connection are measured in days, a process where a CP comes across a congested pole and then requires

Openreach to provide relief is in direct conflict to meeting a suitable end customer experience. This is further exacerbated if the only possible solution requires significant build work e.g. new pole. If Openreach is required to survey each request this could also impact lead times significantly.

278. Industry discussions should also consider whether there may be better options by which additional capacity could be made available and controlled by the CP (e.g. by the CP removing the copper dropwire and installing a fibre, hybrid cable or tube in its place). There is no strong argument to support the view that Openreach would be best placed to carry out this work, as it would depend on the specific circumstances. Again, we would argue that this activity could be considered a fibre installation cost rather than an upgrade of Openreach infrastructure (e.g. a fully loaded pole is likely to remain fully loaded after an existing copper drop wire is removed and replaced by a new drop wire).
279. Openreach does not support the creation of a database to collect capacity information on poles. This would be an extensive and time consuming exercise and we would question its value for future capacity relief requests as the likely occurrence is low once pole capacity has been uplifted. We also see Ofcom comments in paragraph 6.52, as conflicting with a previous Ofcom and CP position. We understood that Ofcom agreed with Openreach's changes that removed the need for CPs to provide Openreach survey returns so that network records could be updated. This data collection was part of the original PIA process and was removed after CP and Ofcom feedback that this was not an equivalent process. Ofcom's proposals appear somewhat consistent with its previous position and we would welcome clarification of Ofcom's position and why it may have changed. Our initial view, in any case, is that capturing radial distribution information on poles is likely to be a difficult proposition to implement.

### **Underground lead-ins**

280. We agree with the approach proposed by Ofcom that duct lead-ins should be constructed and funded by the PIA CP. This would enable CPs to control both the timing and workflow at a suitable point in the connection process. As noted above this approach may also be a useful analogy for resolving issues with congested poles.
281. We do not support the proposal that Openreach fund and install new footway boxes outside premises. This could be extremely costly if required at scale and is driven by an individual CPs decision to serve the premises in a particular way. This would be new infrastructure driven by a CP choice in which premises to serve and how to serve them. Such a chamber would not be required if the CP chose an efficient alternative technology, such as G.fast, which would not require any additional infrastructure to be constructed. In these circumstances Openreach's network footprint and design capacity is fully utilised and the CP is requesting Openreach to build it a new infrastructure component which is not required by Openreach. Plus the disparity in terms of costs and benefits could not be larger. A new directly buried cable for a premise might be measured in pounds whereas a joint box could be hundreds/thousands of pounds. Additionally CPs can choose different network design options which do not require this type of construction, and can already break in and out of existing joint boxes with their own duct, and could therefore connect their new lead-ins to the nearest Openreach joint box. We would also note that the cost and time to deploy new joint boxes seems unreasonable and could be vastly disproportionate compared to the number of customers served by the CP.

### **Maintenance**

282. We support the requirement for this to continue in any new reference offer (paragraph 6.186 – 6.190).

283. In instances of Repayment Works, we expect PIA CPs will be responsible for moving their own cables and equipment in response to external client requests and resolving any settlement arrangements.

## **Price regulation of PIA**

Question 7.1: Do you agree with our proposed form of price regulation for PIA rental and ancillary charges? Please provide reasons and evidence in support of your views.

284. Ofcom will consult on its proposal for PIA charge controls in summer 2017 and we will respond to that consultation in due course. Therefore the response here focusses on the concept of a charge control and the higher level proposals Ofcom has set out in Section 7 of the consultation.

### *The case for more complex regulation*

285. Openreach maintains its view that the current pricing methodology and cost orientation obligation is fit for purpose. Ofcom's view is that a price control is required to address the following risks:

- **Excessive Pricing:** Our view is that the cost orientation regulatory obligation already prevents excessive pricing over and above the tests set out under competition law.
- **Price Certainty:** Our view is that the current pricing has been stable since launch, and Ofcom has not demonstrated why this would not continue to be the case going forward. Ofcom notes a concern in paragraph 7.19 that the methodology for allocation of duct costs could be changed in the future. However, this could be addressed by a condition in the legal instrument that any change in pricing methodology needs to be agreed with Ofcom prior to implementation. Additionally, we note that all methodology changes in Openreach's regulated accounts are already change controlled by Ofcom, and that additionally Ofcom has set out its intentions to revise the regulatory financial statements (RFS) to show greater transparency of duct and pole costs. Therefore, in the medium to long run there would be little incentive or opportunity to game such a situation. Ofcom has the ability and legal powers to intervene at any point should it be required; either via an own initiative compliance investigation or arising from a CP complaint or dispute.

286. Therefore, we do not believe that Ofcom has evidenced the case for additional price regulation on PIA. We maintain that the current cost orientation obligation, with further guidance on how costs should be treated remains a suitable approach.

287. We welcome Ofcom's support of the existing pricing methodology. The methodology is grounded in key Openreach financial and engineering data, plus has been shared in detail with Ofcom<sup>73</sup> - Ofcom has not raised any material objections with Openreach on the data or the approach currently in use.

### *Issues with a price cap*

288. Ofcom proposes that rental charges are capped at their current level, and primarily based on the asset cost element. However, a change to the rental price may be expected at the start point given Ofcom's proposed alternative methodology for the recovery of network adjustment and productisation costs (i.e. systems development, per order processing and SG&A costs).

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<sup>73</sup> Also with CPs at the time of PIA launch in 2011 and at two recent industry meetings on 24 October 2016 and 25 January 2017.

289. While there are arguments to favour the simplification of the pricing regulation, we remain concerned that the following factors need to be taken into account. We look to Ofcom to consider and address these concerns in more detail in the upcoming pricing consultation:

- A price cap reduces uncertainty by removing the risk for CPs of a price increase. However by its nature it is an asymmetric treatment of risk. If the price cap is too tight and underlying costs increase then Openreach faces a risk of under-recovery of its legitimate and efficiently incurred costs.
- We note Ofcom's statement in paragraph 7.73 that PIA users will contribute to the costs of past systems developments. It is possible, at least in principle that when full account is taken of the relevant costs, that the productisation element of the PIA rental price may need to be increased, as PIA takes an appropriate share of underlying development costs of systems required to support PIA and its specific systems and processes.
- Similarly, current prices are based on an asset cost that does not currently reflect the possible impacts of the latest proposals from Ofcom. If these are to be fully implemented then all duct costs should be recovered across all SMP products, and the planned adjustment spend on PIA would also need to be recovered. Asset costs for PIA could increase as a result of the increased demand for PIA driving more network spend and therefore any cap should be set so that it does not prevent such costs being recovered through PIA charges.
- The current PIA rental prices are based on a forecast demand scenario which estimates PIA volumes over which PIA costs are expected to be recovered. This exceeds Ofcom's base currently used in the WLA MR consultation. If the lower level of demand was assumed, and all other aspects of the methodology unchanged, it could increase the asset cost element of the PIA price and an inappropriately set price cap could prevent full cost recovery.

290. We will be able to comment on issues related to the price cap more fully when Ofcom consult in the summer and the price points and methodology are clarified. We note that while a cost orientation obligation would always allow Openreach the opportunity to set its prices such that its costs can be recovered, an alternative option which could offer a balance of certainty for CPs and flexibility for Openreach would be a price cap set with a price ceiling at current price plus X% sufficient to cover potential cost increases.

291. We agree with Ofcom that a CPI-X charge control would not be appropriate due to the uncertainty on future volumes and costs.

292. We agree that the ancillary charges should remain under a basis of charges obligation. The key items, related to duct build and clearance, are driven by Openreach's contracts with civil contractors, and we therefore already have an incentive to keep these as low as possible as they underpin our general network build and maintenance cost base. Ofcom's proposals on network adjustment costs (addressed in our response to 7.2 below) do not change the appropriate pricing approach to ancillary items; as updated cost based prices for network build would still be required in order to underpin the calculation of excess charges to be raised for costs above any proposed Ofcom limits that it sets out in paragraph 7.55.

293. We note that if SLGs are added to PIA then this is highly likely to need to be negotiated into contracts Openreach has with contractors who deliver network adjustments. This will increase the costs charged to Openreach and passed on either directly to PIA CPs, or indirectly in the prices of SMP products.

### **Ofcom's proposed pricing consultation**

294. In general, our position is that any pricing approach adopted should allow Openreach to recover efficiently incurred costs, including upfront costs, and should recognise that many of the activities underpinning PIA prices are based on costs that do increase each year such as labour rates, whether for direct labour or work undertaken using our civils contractors.
295. In our view, if Ofcom were to significantly alter key input assumptions or the overall level of PIA output prices, it would be necessary to carry out a full assessment of the risks and benefits of the new proposal to ensure that there are no unintended consequences or long term impacts for investors and Openreach. In these circumstances, the correct approach would be for Ofcom to carry out a full analysis of pricing methodologies, cost recovery and market impact assessments from starting principles rather adjust single variables in the existing pricing model. The strength of the existing basis of charges obligation and the methodology used was that it was intended to set a broadly fair and stable allocation of costs to users of PIA given the uncertainties associated with future take-up. This is not dissimilar to today's situation.
296. The greatest risks from PIA pricing to the long term viability of CPs business cases comes from setting too low a start price that encourages investment, but which is unsustainable in the medium to long term. An inappropriate start price could eventually lead to price rises which would undermine the success of the PIA CP's initial investment case and also damage Openreach.
297. The risk is particularly relevant at this time with a transition to new local access network technologies taking place which have vastly different technical capabilities and hence different abilities to generate value in the market. Further, such new technologies/smaller cables etc. could provide sufficient fibre network capacity to disincentivise any other fibre provider (including Openreach) from having a business case to utilise the infrastructure further and invest in parallel network in the area. This would destroy the value of the remaining duct, which in the current pricing approach contributes to Openreach's cost recovery.
298. For the record, please note that regular price reviews are carried out (approximately yearly) for PIA. Due to changes to the PIA product in January 2017, a pricing review has now been completed for 2017/18. A number of ancillary prices now need to be updated to reflect the changes to direct labour and contractor costs. [§<].
299. We do not agree with Ofcom's proposed treatment of upfront costs and set-up costs already incurred by Openreach. We address these points more fully in our response to Question 7.3 below. We also explain in Section 2 above that Openreach is concerned that aspects of Ofcom's proposals are inconsistent with or do not sufficiently take account of its statutory duties and requirements and set out our proposals to mitigate the key risks we have identified in Section 2.

### **Inconsistency with NGA price regulation, BCMR regulation and risks of pricing arbitrage**

300. We see a significant contradiction in policy between the tight regulation of the FTTC/FTTP 40/10Mbps product price and Ofcom's stated ambition to move to passive regulation and away from active regulation<sup>74</sup>. Openreach will face multiple level interventions in the value chain and potentially be caught between two conflicting regulatory strategies which undermine FTTP investment.
301. Significant price reductions could also create a substantial risk of price arbitrage between PIA and active products. Therefore Ofcom should consider such risks as part of its review and conduct a

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<sup>74</sup> Please also see our comments in Section 1 of this document.

full quantitative assessment, making sure they consider all their proposals cumulatively and not in isolation to assess the full impact. There is a clear risk that these proposals could distort the market to a significant degree and send the wrong signals for investment.

302. We also note that if the PIA usage restriction is lifted this will raise a significant issue with regard to PIA pricing. Ofcom identified the issue as part of its BCMR analysis and in the ongoing appeal, but it is not referenced or discussed in any detail in the PIA consultation. If the usage of PIA is to be relaxed, even with a mixed usage rule, it will lead to PIA being used to build leased lines. This will have an impact on the volume but also the price of leased lines and Dark Fibre Access sold by Openreach. Leased lines are also subject to a passive remedy (Dark Fibre Access) which is priced in reference to the active Ethernet product (“EAD 1Gb minus”) in order, inter alia, to limit the scope for arbitrage. What Ofcom has failed to assess is whether under a mixed usage rule, the PIA pricing could negatively impact the regulated price of BT’s Ethernet services and Dark Fibre Access. Further to this, the active leased lines products are also price controlled, notably a charge control on Ethernet Services up to an including 1Gb for the UK excluding the Central London Area and Hull.

- In Ofcom’s defence to the ongoing appeals on the Business Connectivity Market Review (BCMR)<sup>75</sup>, [redacted].
- [redacted].
- [redacted].

303. Any price setting exercise for a PIA remedy which allows leased lines use must also assess the full impact and all opportunities for potential price arbitrage in the leased lines market (potentially via a formal consultation). Furthermore, and importantly, if the PIA remedy extended to leased lines as a result of the mixed usage rule, then it is important that Ofcom in setting a pricing mechanism for PIA allows BT to recover the costs that this remedy will have on its business plans including any investments made by BT in relation to leased lines<sup>76</sup>. The significant concerns raised by Ofcom in the BCMR [redacted] should be addressed in order to show why Ofcom could change their view on duct and pole access (PIA) for leased lines, effectivity dismissing their stance in the BCMR and appeals process.

304. There is also a need to consider the impact of the new PIA proposals on adjacent markets and services if there is any change to rules on use and recovery of costs particularly in the context of ECCs and Openreach’s new Network in Advance product, where CPs pay for some network build work when that work is to extend the Openreach network ‘on demand’.

305. In summary, these are just some of the wider impacts that Ofcom need to consider as part of the PIA review. It is very important that Ofcom carries out a full assessment of all those issues in its consultation on the PIA pricing. Yet the focus appears to be to reduce the costs of potential FTTP investors regardless of risks to Openreach and/or any of its other customer groups. The clear risk

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<sup>75</sup> See <http://www.catribunal.org.uk/237/Cases.html>. Case references are 1261/3/3/16 and 1260/3/3/16 dated 29/6/2016

<sup>76</sup> An access provider that has an obligation to provide access to its ducts and poles must have the opportunity to recover the costs that such an access has on its business plans. This has been specifically set out in the Civil Infrastructure Directive (recital 19 of directive 2014/61) but also in the UK Communications (Access to Infrastructure) Regulations 2016 at regulations 16.

is that these proposals will distort the market to a significant degree and send the wrong signals for investment.

**Ancillaries**

306. Where items are reasonably required for the provision of PIA, we agree that a basis of charges obligation is suitable for the ancillary items. Where items are optional and not reasonably required, we believe that price regulation should not be applied. Maintaining the linkage of PIA ancillary prices to costs will ensure the right economic signals are given to the market.

Question 7.2: Do you agree with our proposed approach to the recovery of network adjustment costs? Please provide reasons and evidence in support of your views.

307. We disagree with Ofcom’s approach. Ofcom’s analysis has not been carried out at a sufficiently granular level and therefore we consider that Ofcom has not taken account of all relevant economic and operational factors in reaching their decision on network adjustments. As we have set out in earlier sections of this response<sup>77</sup>, the subject of network adjustments is complex and warrants further detailed analysis before a reasonable approach to the responsibilities, funding, and any prospective service level agreements/guarantees (SLA/SLG) can be resolved. In particular, we have set out a view that should Ofcom continue with its network adjustment proposals, it will be necessary to frame Openreach’s obligations for funding such work with reference to whether there is any clear and demonstrable material benefit to the Openreach network and its customers. For ease of reference, a summary of our proposal is reproduced below:

| <b>Provision/Funding Mechanism</b>   | <b>Type of work</b><br><i>[to be to be more precisely defined, working closely with industry and the OTA]</i>  |
|--|--|
| Openreach provides/Openreach funds up to per order cap and CP pays above cap (subject to annual industry wide cap based on CP forecasts) | <p>Openreach funds (subject to caps) provided:</p> <ul style="list-style-type: none"> <li>• The works relate to Openreach’s current network footprint;</li> <li>• There is a clear and demonstrable material benefit to the Openreach network and its customers;</li> <li>• The works are directly linked to accurate forecasting required a minimum of 12 months in advance;</li> <li>• The works pass a financial assessment of the cost/benefit analysis; and</li> <li>• The works do not involve providing large amounts of new capacity or long lengths of new duct.</li> </ul> <p>By way of example, this category could include network build works we propose to carry out or new duct, pole or joint/footway box capacity relief.</p>   |
| Openreach provides/CP pays   | <p>Where there is no clear and demonstrable material benefit to the Openreach network and its customers but the CP cannot carry out the work itself, Openreach provides and the CP pays up-front, provided:</p> <ul style="list-style-type: none"> <li>• The works relate to Openreach’s current network footprint;</li> <li>• The works are directly linked to accurate forecasting required a minimum of 12 months in advance; and</li> <li>• The works do not involve providing large amounts of new capacity or long lengths of new duct.</li> </ul> <p>By way of example, this category could include works in a sensitive/secure area and augmentation works that only Openreach can carry out such as constructing new ducts and joint/footway boxes, and erecting new poles.</p> |

<sup>77</sup> For example in the responses to Questions 4.1 and 6.2.

|                      |   |
|----------------------|---|
| CP provides/CP funds | <p>This category could include:</p> <ul style="list-style-type: none"> <li>• Works outside of the current Openreach network footprint;</li> <li>• Works that involve providing large amounts of new capacity or long lengths of new duct;</li> <li>• Works which will only benefit a single CP because, for example, we have no demand from any other CP;</li> <li>• Works which only provide a temporary solution without improving the Openreach network; and</li> <li>• Enabling works including but not limited to duct blockage clearance, desilting, cable installation, drop wire swap out and removal of obstructive trees, branches, roots.</li> </ul> |
|----------------------|---|

308. We have broken this question into two parts: (A) The validity of Ofcom’s approach, and (B) The mechanics of Ofcom’s proposal.

**A. The validity of Ofcom’s approach on the recovery of network adjustment costs**

309. As we set out in the response to the December consultation, we are strongly against a blanket proposal for Openreach to bear the costs of network adjustments, to be recovered over the 40 year asset life for duct in the rental charges of SMP products.

310. The reasons for this are set out below, and effectively comment on the items set out in Section 7 of Ofcom’s consultation under the heading of “Adverse Effects”.

i) Ultrafast business cases are challenging - mandating Openreach to act as a financing house for PIA CPs is not appropriate and will not address the core problem.

311. The reality is that network infrastructure investment is a risky business with significant upfront costs and complex business cases. The solution is not for Openreach and its end customers to fund deployments to artificially create incentives to invest. The business case for investment is influenced by the prospect of generating future incremental revenues; which in turn is influenced by the prevailing level of competition, and will be strongly influenced by the price control that Ofcom sets for 40 Mbps FTTC/FTTP services in the WLA MR. Ofcom is attempting to improve the effectiveness of the PIA remedy in this consultation, yet undermining CP business cases to invest in FTTP with their current WLA charge control proposals. We would also question the level of analysis that Ofcom has carried out on the viability of the business case to invest in full fibre networks. The DCR set out an ambition to have three competing networks for c40% of the UK. We question the commercial viability of such an assumption, as the incremental revenues available when broadband market share and demand is split three ways would not in our view support the case to invest. Ofcom’s modest volume assumptions for PIA build in the WLA charge control modelling suggest that Ofcom may share this view and that PIA based build could be expected to be limited for some time. In this respect, the current PIA proposals do not appear to support Ofcom’s strategic objective.

ii) Ofcom has not demonstrated that the productive efficiency costs are outweighed by the uncertain dynamic efficiency benefits from competition.

312. Implementing these proposals could create significant levels of productive inefficiency due to the generation of incremental network build in areas where the underlying costs would typically be prohibitive. Ofcom say this is balanced by the future dynamic efficiency benefits from increased competition. However, beyond making such a statement, Ofcom has not demonstrated its case nor has it fully reflected the risks of distorting investment and competition in the current market review period, for the potential of uncertain benefits in future periods.

313. Additionally, Ofcom do not fully acknowledge that potential benefits may be experienced in very limited geographies where competition is focussed, while the costs of potentially inefficient network build will be borne nationally by customers, many of whom may not benefit directly from the networks they have funded.
314. These changes are intended to create a significant increase in the use of the PIA product, and are positioned by Ofcom as the first step towards moving to regulation on infrastructure rather than active products. In 7.80 Ofcom comment that “... *the scale of any impacts are contingent on the scale of network deployment, and so [the cost] is directly linked to the scale of the benefits that result from imposing the PIA remedy. As a result, we consider that any adverse impacts are more likely to be justified by significant benefits to consumers in the longer term from greater network competition. In any event, we also have the flexibility to modify aspects of the PIA remedy in future, in light of evidence and experience*”. Before such a strategic shift is made, Ofcom should do a full and proper assessment of the risks and benefits. An assumption that adverse impacts are “likely” to be justified by benefits does not represent a sufficient level of analysis. In circumstances where Ofcom’s decision “is likely to have a wide-ranging impact and/or impose substantial costs on stakeholders”,<sup>78</sup> we would expect Ofcom to have provided a comprehensive Impact Assessment including a much deeper level of analysis.
- iii) Ofcom’s approach is not equivalent with regards to investment case cash flows or the decision making process.
315. When Openreach assesses network build, it does so on the same basis as all companies, by looking at net cash flows discounted to present value (known as net present value or NPV). When Openreach makes a decision to invest in FTTP it will do so considering the full cash outflows required for the required network adjustments.
316. While Ofcom might view Openreach as having a lower risk than a CP (if network build costs can be assured of recovery over a 40 year time horizon through SMP prices, as set out in 7.44), the correct commercial assessment would still be reflected by the construction of a business case with the appropriate cost of capital used as a discount rate and not by ignoring the significant upfront cash outflows. Under Ofcom’s proposals however, a network investment by a third party CP will not need to consider all cash outflows at the start of the project for network adjustments. The cash outflows will be more modest, and experienced in a similar time period to the cash inflows from the sale of services underpinned by the use of PIA. Relatively speaking this anomalous treatment could act to disincentivise Openreach from full fibre network build, while incentivising third party network build that could be productively inefficient if Openreach is also faced with covering elements of its costs.
317. Ofcom set out in paragraph 3.11 the companies that have indicated network investment plans in ultra-fast networks. The 2 million FTTP homes passed by 2020 proposed by Openreach significantly exceed the plans of any other company, even large scale CPs such as TalkTalk who are looking at expanding their trial with CityFibre by 40,000 premises. It is very important that Openreach’s planned investments for 2 million FTTP premises passed are not jeopardised by disproportionate PIA obligations to fund and incentivise investment for a high-end PIA based scenario of 1 million homes passed by 2021.
318. We appreciate Ofcom’s objectives can sometimes conflict, but it is important to be wary of promoting uncertain future benefits from alternative investment ahead of the known benefits to consumers and the UK economy of large scale FTTP deployment by Openreach. Furthermore,

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<sup>78</sup> Better Policy making; Ofcom’s approach to Impact Assessment, paragraph 1.7

any Openreach deployment would be available on an equivalent basis to all CPs, further benefitting a range of CPs and end consumers through choice and competition at the retail level.

319. In footnote 266, Ofcom notes that as BT Group had free cash flow of £2bn in 2016/17 then the additional cash requirements of funding PIA network adjustments should not be an issue. However, given the separation between Openreach and BT Group, the cashflow of BT Group is now not as relevant, and impact analysis should be more Openreach focussed. Again we emphasise that Ofcom need to consider all their proposals across the WLA market in totality. Given the material pricing proposals in the WLA charge control, Openreach free cash flow is likely to be significantly reduced from current forecasts. Therefore question marks need to be raised over Ofcom's default assumption that Openreach's ability to fund large scale PIA network adjustments for CPs is not materially impacted by such proposals, especially as the cash returns would be spread over a 40 year asset life with no guarantee of full recovery.

320. To reflect that Openreach faces a constraint on available cashflow (as well as contractor resources), we would suggest an agreed budget/cap for the level of PIA activity in any one year is set (as part of the financial controls outlined in Section 1 of this response). In paragraph 7.80, Ofcom suggests there is a natural constraint on build rates, and if Ofcom is confident of such a natural limit, then formalising it with a budgetary control mechanism is only a small additional control measure but would offer some level of protection to Openreach and its customers.

iv) Ofcom is changing multiple elements of the product simultaneously without taking an overall view of the potential impact.

321. Ofcom is aiming to improve the effectiveness of the PIA remedy by shifting all elements of the product simultaneously and increasing the obligations on Openreach across the board (i.e. increased financial commitments, resource impacts, expansion of use cases, non-discrimination requirements, new systems etc). We consider that Ofcom should fully assess the interplay between its different proposals. For example, if Openreach is mandated to recover costs of network adjustments across all SMP products then CPs will effectively already be benefitting from Openreach's economies of scale and scope. It therefore seems inconsistent to argue that the usage requirement also needs to be relaxed to provide CPs with these same economies of scope. Ofcom could have chosen to implement the changes in the usage restriction or the changes in recovery of network adjustment costs, and have not considered whether this would have been sufficient, or fully assessed the impact of changing both simultaneously.

v) Ofcom's proposals should be strictly limited in the context of the Access Directive.

322. In 7.42 Ofcom state "The network access obligation includes a requirement for Openreach to make adjustments to the existing infrastructure so that it is 'ready for use' – for example, repairing faulty infrastructure and relieving congested sections where necessary." Whilst we accept that BT has an existing SMP obligation to relieve congested infrastructure and construct new infrastructure, we note that it is far from clear whether the Access Directive gives Ofcom the power to impose an access obligation that extends beyond simply sharing existing facilities and capacity. BT notes that the obligations set out in Articles 9 to 13a of the Access Directive represent intrusive remedies against a regulatory framework that is generally permissive and, as such, those obligations fall to be construed strictly. Although Ofcom explains that the PIA access remedy should include a requirement to construct new physical infrastructure "where there is insufficient capacity", Article 12(2) of the Access Directive explicitly provides that Ofcom must consider the feasibility of the SMP operator providing the access proposed, in relation to the capacity available. The NGA Recommendation<sup>79</sup> also refers to NRAs mandating access to civil engineering where

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<sup>79</sup> EC, 20 September 2010. Commission recommendation on regulated access to Next Generation Access Networks (NGA), Recital 13

duct capacity is available<sup>80</sup>. This strongly suggests that where there is no capacity available, it is not feasible for an operator to provide network access or at least any access obligation should be necessarily limited in order to ensure proportionality.

vi) Openreach already has incentives to minimise costs

323. In paragraph 7.45, it is suggested that Openreach has no incentive to select the lower cost network adjustment. We strongly disagree with this, given that contractor resources are constrained we have an incentive to follow the simplest and most cost effective solution. However if this is a genuine concern, it could be resolved by the introduction of process whereby the CP agrees to the proposed solution in advance of the work progressing. This would be analogous to the way that CPs review, query and agree Excess Construction Charges (ECCs) on Ethernet orders before they proceed. We would argue that if this concern is considered to be material, then there is a simpler approach to its resolution. As a result, we consider Ofcom's proposed remedy to be unjustified and disproportionate.

vii) CPs have a symmetric benefit from network adjustments

324. We disagree with Ofcom's assertion in paragraph 7.45 where Ofcom states that: "The fact that Openreach recovers the costs of network adjustments to support BT's network deployment across all users of its physical infrastructure means that PIA rental charges will contribute to the costs of network adjustments required to support BT's G.fast or FTTP deployments. In contrast, PIA users receive no contribution from other users of the physical infrastructure toward the costs of network adjustments required to support their own network deployment".

325. We find this to be without basis. On the contrary, Openreach makes large scale ongoing investments in the network on a daily basis. It also made significant investments in the past as part of its wide scale FTTC deployment to circa 90% of the UK and continues to do so in support of its ongoing superfast/ultrafast programmes. Any CP deploying their own network now using PIA is likely to benefit from the past investments that Openreach has made in additional network capacity.

viii) Ofcom's aim to make the PIA product more effective is undermined by its proposed charge control in the WLA MR.

326. While Ofcom claims to be offering pricing flexibility for services above 40Mbps (download speed) to support investment in ultrafast networks in the proposed WLA MR charge controls, this does not fully reflect the real impacts. The significant reductions proposed in the price for a 40Mbps GEA service as part of the WLA consultation will have a dramatic impact on the revenues that could be expected to be generated from an ultrafast network deployment. We note that Ofcom assumes in its modelling that all GEA prices will fall in line with the charge control on the 40Mbps product, hence this seems an implicit acknowledgment of this point.

327. New ultrafast investment is therefore undermined, and if Ofcom truly aim to incentivise infrastructure competition in full fibre networks, we believe Ofcom should be considering its proposals overall across the whole WLA MR. We see such conflicts as likely to undermine the effectiveness of the new PIA remedy and Ofcom's policy aims for greater FTTP/ultrafast coverage.

ix) We maintain that the current proposals do not provide sufficient pricing certainty for long term investment decisions

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<sup>80</sup> This is recognised by Ofcom at paragraph 4.138

328. A key rationale for implementing a charge control and changing the charging structure is to give greater certainty on costs to support what is a long term investment decision. Yet in paragraph 7.80 Ofcom state that they will be able to adjust prices in the future if there are adverse effects from the proposed remedies.
329. One area where the pricing approach is likely to need to change in the future relates to geography. In 4.102 Ofcom rightly recognise that this remedy is likely to lead to geographic differences in the level of competition and associated expected benefits. This consultation signals that a more geographic approach to remedies may be needed in the future; *“As a result, a greater degree of differentiation in our regulatory approach across the UK may emerge in time, with different remedies needed in different geographic areas”*
330. We strongly believe that Ofcom needs to do more now to signal what the future changes could be given the long term nature of investment decisions using PIA. For example, what might be the factors Ofcom would consider when assessing geographic markets in the future, and are these likely to be met in the next market review period. We are concerned that the current PIA proposals, as they stand, could distort investment and competition by encouraging inefficient new investment that would not otherwise take place; because the revenues earned by a PIA CP are detached from major elements of cost funded by Openreach and its CPs. The question arises as to what stage and over what timescale, would Ofcom remove this distortion. Looking back at the development of the LLU market, it took a number of years to unwind the costing and pricing mechanisms put in place to underpin that specific competition model, and the investment in fibre networks via PIA potentially has a longer payback horizon than exchange unbundling. Hence such investment decisions will need greater clarity and certainty looking forward.

## **B. The mechanics of Ofcom’s proposal on the recovery of network adjustment costs**

331. Ofcom proposes that the network adjustments required for PIA should be recovered across all products with an SMP obligation including PIA in paragraph 7.47. This would mean that PIA duct and pole rental prices would increase to reflect the additional asset costs driven by the increased demand for PIA. This should be considered when setting the price of PIA and any price cap.
332. Ofcom should also consider whether all products with SMP can actually be increased to reflect the additional costs that they would need to recover. For example, in footnote 252 Ofcom note that WLR is not part of a charge control, but that the price should still be able to reflect the higher cost of provision. We would challenge whether this really will be the case, and request Ofcom to consider the consistency of the proposals they are making across the WLA in total. For WLR, the Narrowband Market Review (NBMR) sets out that it will be covered by a fair and reasonable pricing obligation. While this in theory could allow extra costs to be recovered by a higher price, Ofcom has signalled in the NBMR that a test of fair and reasonable for WLR would be a margin squeeze test. The Review of the Market for Standalone Landline Telephone Services consultation proposes to reduce the price that can be charged at a retail level for WLR based services, and then cap it with real price increases. This could impact or prevent additional network adjustment costs from being recovered via the WLR price. We would expect Ofcom to check consistency across all different consultations and address this so that Openreach is able to recover its costs. We have a strong concern that Openreach will not be able to recover these costs through WLR prices, and have also referenced this material point within the WLA consultation response.
333. An alternative proposal could be to operate in the same way as we do for Excess Construction Charges (ECCs) for Ethernet Services. If the adjustment is a beneficial enhancement of Openreach infrastructure, likely to be used by other serviced and cost justified, the cost could be borne by Openreach. If likely to be only beneficial for the specific order then the cost would be borne by the PIA CP. Ofcom state in paragraph 7.50 that an approach along these lines was

considered but discounted as “we do not consider that it would be appropriate to leave Openreach to decide this, as it could have the incentive and ability to identify costs in a way that puts competing telecoms providers at a disadvantage”. However no evidence was presented and no systemic issues have been raised in adopting this policy for Ethernet circuits.

334. We welcome Ofcom’s proposals that there should be a limit to Openreach’s costs for network adjustments (e.g. a limit per kilometre of route or per premise for lead-ins). We would need to see further details of these proposals and the level of the cap to be able to comment further. From a theoretical perspective, this could help prevent the worst cases of productive inefficiency, but will need to be set at an appropriate level. However we remain concerned that Ofcom’s analysis has still not gone far enough in this area. Without further detailed assessment of which tasks are actually Openreach network improvements as opposed to PIA CPs cable installation or fibre build costs we cannot support a broad brush approach to Openreach funding such activities.
335. Also while we would support a simple rule set that would be easier to operate, we acknowledge that this may not drive the result Ofcom is seeking. For example, a national cap per kilometre could result in more routes being rejected in some regions where the contractor costs are higher. Also, a significant driver of duct cost is the surface type being excavated (soft, footway or carriageway). The proportion of surface types varies across different areas (i.e. urban, suburban and rural) and between the E-side (exchange to primary connection point cabinet) and the D-side (primary connection point cabinet to the home). This could mean a national cap might be reached sooner in the E-side and/or in rural areas. So while Openreach is fully supportive of a cap on maximum spend, should Ofcom implement its proposals, careful consideration will be required by Ofcom, Openreach and CPs in introducing and managing such controls to prevent distortion of the market and investment incentives.
336. We note that Ofcom should consider whether the cap on lead-ins should only apply to a residential premises. Otherwise this will create a price arbitrage between the policy for ECCs on Ethernet and Dark Fibre Access services compared to leased lines provided using PIA. The PIA proposals could conflict with existing regulation and further distort the related markets. We believe it could be possible to identify a business premise based using available data such as retail CP name, or address details etc.
337. Ofcom considers that once installed, it is unlikely that PIA assets will not continue to be utilised and generate rental income (footnote 265). We would question this, as once installed, a CP may not achieve the expected utilisation of their network to cover costs and hence could cease trading or stop offering services in a specific area<sup>81</sup>. This could be because of lower initial take up or higher cease rate (due to competition or service issues) than they had anticipated in their business cases.

Question 7.3: Do you agree with our proposed approach to the recovery of productisation costs? Please provide reasons and evidence in support of your views.

338. As with our response to Question 7.2 above, we have broken this question into two parts: (A) The validity of this approach and (B) The mechanics of Ofcom’s proposal.

**A. The validity of the proposed approach to the recovery of productisation costs**

339. The points made on the validity of the proposed approach to the recovery of network adjustment costs also apply here.

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<sup>81</sup> [3<].

340. We appreciate that as PIA becomes a more established product it could be treated as with any other SMP product in terms of picking up allocations of system development spend and SG&A costs as other products do. However Ofcom should note:

- This may not lead to a reduction in SG&A costs for PIA given that the current staffing assumed is modest, particularly in relation to the expanded product line activity required to execute the proposals in this consultation.
- This principle should work symmetrically. Therefore PIA should pick up an allocation of all system development costs that are allocated to SMP products.
- Where a development cost is specific only to PIA we believe it should only be recovered against PIA. For example, the spend of circa £[redacted] on digital maps is specific to PIA. Planners do not access the system for Openreach product planning, and it is not reasonable for this spend to be spread across other products.

### **B. The mechanics of Ofcom’s proposal on the recovery of productisation costs**

341. We will be able to comment further when the specific proposals are consulted on. However, we would refer back to our response to Question 7.1 on the “*issues of a price cap*” and how it should be set to reflect the appropriate level of asset and productisation costs. Taking the current price and removing some productisation costs as suggested in paragraph 7.74 would not correctly reflect the cost of the PIA product.

342. As with Ofcom’s network adjustment cost recovery proposal, we are keen to ensure that Ofcom and CPs take into consideration all impacts of whichever cost recovery model is applied for PIA systems development costs. We consider the extent to which other products and non-PIA CPs will benefit from development of the system/planning tools for PIA to be highly debateable. In our view, the reverse is true and as Ofcom acknowledges, PIA is benefitting from investments already made in our mapping tools and systems that underpin the launch of our new PIA digital maps system. An example in point would be the investment in the underlying platforms such as GeoHub. Without this existing functionality the costs of developing the digital maps solution for PIA would have been significantly greater. Openreach has already invested heavily in the underlying inventory systems which support the PIA product and therefore an appropriate share of these costs should also be allocated to PIA. There is a strong case in support of other relevant product and systems costs being reflected in the PIA cost base, and we would like to see this given due consideration in the forthcoming pricing consultation.

343. We note Ofcom’s acknowledgement of the costs we have already incurred to date to set up the PIA service and to operate it for the past five years. An objectively justified and proportionate remedy should ensure that such costs incurred by Openreach can be fully recovered through its charges.

344. Given the small scale of the existing PIA product, we are already incentivised to deliver efficient systems developments (e.g. the new systems have been built on the back of the existing ID system minimising development costs). An alternative approach of cost recovery across a wider set of products would result in non PIA CPs funding the use of Openreach systems for PIA CPs. Whilst this could give Openreach certainty of cost recovery it will raise the risk of objection from non PIA CPs, and risk incentivising PIA CPs to request greater levels of system development than may be necessary without any cost impact on their product pricing and business case.

345. In this light of this, we reserve the right to comment further on Mott MacDonald’s recent report, but have made some initial comments at Annex B. As noted previously, we have no objection to considering further developments as long as they are justified and proportionate and that CPs

have shown evidence of using the new enhanced systems and processes at scale. We agree with Ofcom's proposal that PIA digital map developments are already in progress and should be managed through the Passives Infrastructure Working Group.

346. We also note that in the previous consultation Ofcom acknowledge that stakeholders agreed that current PIA pricing (i.e. the aggregate price including both asset costs and systems development costs etc.) was in line with international comparisons and this was also supported by our own external benchmarking. Additionally, the aggregate level of PIA rental pricing has not been cited as a significant factor limiting CPs ability to invest in ultrafast networks. We therefore find Ofcom's actions in striking out a series of legitimate cost categories from future PIA charges as unwarranted. The PIA basis of charges obligation and the pricing methodology used to support it to date is more than able to encompass the uncertainties associated with PIA take-up – including both physical asset costs and a 'per unit' recovery mechanism for upfront/systems set up costs in the rental charges.
347. We also strongly disagree with Ofcom's position on the treatment of PIA SG&A costs. We agree that it would be timely to review these costs now that we have significantly more experience and knowledge of the resource required to support the PIA product, but that does not logically lead to excluding them from the rental pricing. As discussed above, it would be a straightforward task to incorporate in a rental pricing model. [§<]. We propose that PIA is included in the standard methodology as one of the product areas, and the PIA cost stack would then pick up the appropriate level of costs. This would be a consistent approach which would mean costs are allocated across all products on a reasonable basis with no potential risk of double recovery.
348. When making systems development decisions for its own operational purposes Openreach has to assess the full costs, benefits, resource implications and priority of any investment decision and face the full up-front costs of the investment. Ofcom's proposal for PIA systems developments is very different. In Ofcom's proposal, CPs have no incentive to be efficient or reasonable in their requirements, as the full cash costs and resource implications will remain with Openreach whatever the scale or reasonableness of the request.
349. Openreach does not believe the costs of processing a PIA order should be recovered across all orders for all products and do not consider Ofcom's proposal to be objectively justified and proportionate. We also note that Article 13(2) of the Access Directive requires that any cost recovery mechanism must serve to promote efficiency and competition and maximise consumer benefits. As set out in Section 2 above, we have serious concerns about Ofcom's proposals to prevent Openreach charging in line with cost causation principles and the incentives this creates to promote inefficient and unsustainable market entry with no widespread customer benefits.
350. In the light of Ofcom's proposals and to the extent that costs are currently being recovered in charges, and Ofcom removes those elements, we would expect to be able to fully recover the costs elsewhere and for such mechanisms to be given due consideration in the forthcoming pricing consultation.

## 4 Comments on the Legal Instrument

351. Where we have proposed amendments to the legal instrument, our proposals should not be interpreted as an acceptance by BT that it agrees with the particular PIA remedy proposed by Ofcom. We reserve our right to make further comments on the legal instrument following Ofcom’s consultation later in 2017 on PIA pricing.
352. As explained in Section 2 above, we are concerned that Ofcom’s proposed remedies conflict with and/or undermine certain provisions of the ATI Regulations, do not reflect the safeguards enshrined in those Regulations and risk materially distorting competition between network providers. At a minimum, we propose that Ofcom aligns its proposals to the ATI Regulations or removes regulation where the ATI Regulations appear to achieve Ofcom’s objective. We refer to two Regulations 4, 6 and 8 of the ATI Regulations in particular.

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| <p>1(aa) (Physical Infrastructure)</p> | <ul style="list-style-type: none"> <li>• “Physical Infrastructure” is defined in the consultation as including “any conduit, tunnel, subway, pipe, structure, pole, or other thing in, on, by or from which an electronic communications network is or may be installed, supported, carried or suspended over Physical Infrastructure access.”</li> <li>• This definition replicates the current definition of Physical Infrastructure in Ofcom’s 2014 FAMR Statement. However, it was initially defined at a time when projected PIA volumes were much lower and the PIA remedy was far less intrusive. Ofcom’s proposed remedy is based on much higher PIA volumes, a fundamentally different cost model and also includes a PIA Database Right which includes an obligation on BT to provide access to information relating to its Physical Infrastructure.</li> <li>• As Ofcom will be aware, Openreach currently provides information relating to ducts, poles, man holes and joint boxes on the PIA Digital Map Tool and over time, it has become clear that these are the key physical infrastructure which are and should be subject to any PIA remedy. Further, there is some physical infrastructure included in the definition of Physical Infrastructure (e.g. tunnels) that BT cannot provide information on or access to due to security concerns, which we understand Ofcom accepts, and it is impossible for Openreach to properly assess the cost of providing access to an open-ended amount of information relating to physical infrastructure.</li> <li>• Where Ofcom is proposing such intrusive regulation relating to cost recovery and proposes to impose a PIA Database right, it is imperative that the definition of Physical Infrastructure which is subject to the PIA remedy, is transparent, certain and exhaustive. With reference to “<i>or other thing</i>”, the current definition is far too vague and does not reflect Ofcom’s intention. Further, the current definition would include dark fibre which is explicitly excluded under the ATI Regulations and we consider should be excluded from any PIA remedy.</li> <li>• It is also important that the definition is restricted such that the remedy only relates to Physical Infrastructure that BT owns and controls. Clearly BT cannot provide information on or access to physical infrastructure which it does not own and control, for example, joint user poles and infrastructure on private land.</li> <li>• Accordingly, we would suggest a new definition of “Physical Infrastructure” as including “<del>any conduit, tunnel, subway, pipe, structure, pole, or other thing</del> [duct, pole, manhole or joint box,] in, on, by or from which an electronic communications network is or may be installed, supported, carried or suspended over Physical Infrastructure access[, which is owned and controlled by the Dominant Provider].”</li> </ul> |
| <p>1(ii) (Third Party)</p>             | <ul style="list-style-type: none"> <li>• The definition of Third Party (which is referred to throughout the PIA related SMP Conditions) refers to a person providing a public electronic communications service or network. As a result of the intrusive remedies now being proposed as well as the competition law risks of competitors (and potential competitors) wishing to access confidential infrastructure information to help make strategic network build decisions,</li> </ul>   |

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|                              | <p>the definition of Third Party is no longer considered fit for purpose for PIA going forward.</p> <ul style="list-style-type: none"> <li>Accordingly, we would suggest a new definition of “PIA Purchaser” (or “PIA Third Party” or “Established PIA Purchaser”) as follows:<br/> “<b>A person providing a public electronic communications service or a person providing a public electronic communications network [that is properly established with the Dominant Provider as a customer for Physical Infrastructure Access products and is acting for the sole purpose of purchasing Physical Infrastructure Access from the Dominant Provider].</b>”</li> </ul>   |
| 2.1(d)                       | <ul style="list-style-type: none"> <li>This provision appears to provide the legal basis for the so-called ‘Mixed Usage Rule’ stating that PIA must be used “<i>primarily for the provision of broadband access services to end users, provided that the provision of non-broadband access services on any such broadband access network facilitates the overall broadband access network deployment.</i>”</li> <li>However, the reference to “end users” does not appear to achieve Ofcom’s intention. “End user” is defined in Section 151(1) Communications Act 2003 and includes any individual or business that uses a public electronic communications services that is not a communications provider. Ofcom’s proposed definition therefore means that PIA must be used primarily for retail use and could be used primarily for the provision of leased lines to businesses. In the circumstances, we believe the reference to “end users” should be amended to “<b>[residential]</b> end users”.</li> <li>In any event, the use of broad language such as “facilitate” lacks transparency and certainty and means it is practically impossible for network providers to self-assess whether their proposed use of PIA would comply with Ofcom’s proposed mixed use rule and more importantly, for Openreach, Ofcom or an independent third party to monitor and audit network build to ensure it is compliant. We believe the reference to “facilitate that overall broadband access network deployment” should be replaced with “<b>[is and remains necessary for]</b> that overall broadband access network deployment”.</li> <li>As discussed above, if Ofcom decides to impose a mixed usage rule, we would expect strong and clear guidance and rules from Ofcom, aimed at CPs, to ensure they utilise the remedy appropriately and PIA is used to support Ofcom’s policy objective of large scale fibre broadband deployment rather than selective CP targeting of leased lines. There is a clear need to ensure the correct behaviours but this cannot and should not be primarily an Openreach responsibility as Ofcom proposes in its consultation.</li> </ul> |
| 2.2(i) (PIA Database Access) | <ul style="list-style-type: none"> <li>We suggest amending the definition of PIA Database Access to reflect our proposed definition of PIA Purchaser.</li> <li>We also suggest removing the reference to “the most up to date information”. We will of course always provide the most up to date information available on the PIA Digital Map Tool. However, this may not necessarily be the most up to date information held by BT because there will always be a time lag between when BT is informed of updated information and when that information is updated on the Tool, for example, where we have very recently been informed of updated information and this information is currently only in an email and has not been uploaded to the Tool. In our view, the key point is that we will have access to the same information as PIA CPs on the Tool – this just may not always be the most up to date information held by BT.</li> <li>Accordingly, we believe the definition should be amended to read “Access to an electronic database of the <del>most up to date</del> information held by the Dominant Provider in relation to the Dominant Provider’s Physical Infrastructure, including location and capacity, for the purpose of a <b>[PIA Purchaser]</b> Third Party planning the deployment of an electronic communications network to provide electronic communications services <del>over Physical Infrastructure Access</del>. This database shall include any technical specifications or information related to the Dominant Provider’s Physical Infrastructure as OFCOM may from time to time <b>[reasonably]</b> direct.”</li> </ul>  |
| 4.1                          | <ul style="list-style-type: none"> <li>Openreach may not be able to identify every specific process step or sub-product where equivalence would result in a disproportionate level of costs being incurred up-front.</li> </ul>  |

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|         | <ul style="list-style-type: none"> <li>As a result, we do not consider this provision to require BT to seek prior approval from Ofcom every time it considers that compliance would result in a disproportionate level of costs being incurred. It would be helpful for Ofcom to confirm our understanding is correct.</li> </ul>   |
| 4.3     | <ul style="list-style-type: none"> <li>Ofcom should not have the ability to direct Openreach to provide an unlimited amount of information due to commercial confidentiality and competition law concerns – Ofcom should only exercise its discretion reasonably.</li> <li>We would suggest revised wording as follows “... as OFCOM may from time to time [reasonably] direct ...”</li> </ul>  |
| 8.3B    | <ul style="list-style-type: none"> <li>Our ability to meet this particular timeframe (whereby the new reference offer clauses must be effective one year from the date of Ofcom’s notification) depends on a number of issues being more certain including the definition of ‘Physical Infrastructure’, the operation of ‘Mixed Usage Rule’, Ofcom’s proposed cost recovery mechanism for network adjustments and pricing rules. We would also need a period of time once the obligations have been set to place the appropriate contracts with third parties.</li> <li>Given the significant complexity and possible variety of the new arrangements, it is also important that Ofcom provides a mechanism in the legal instrument being drawn up for PIA that enables Ofcom to extend the timetable for the reference offer to be published and implemented should it be required and agreed by Ofcom with the relevant stakeholders.</li> </ul>  |
| 8.3B(a) | <ul style="list-style-type: none"> <li>The information we provide is not and cannot be 100% accurate so must simply be ‘as is’ and what we use for our own purposes which seems to be acknowledged by Ofcom in the definition of “PIA Database Access” at 2.2(i).</li> <li>Please see further comments on the definition of “PIA Database Access” above.</li> <li>We would suggest revised wording as follows: <ul style="list-style-type: none"> <li>“the location of Physical Infrastructure [corresponding to the current/known information held by the Dominant Provider] or the method by which Third Parties [PIA Purchasers] may obtain information about the location of Physical Infrastructure.</li> </ul> </li> </ul>  |
| 8.3B(h) | <ul style="list-style-type: none"> <li>Ofcom proposes to re-impose an obligation on BT to “<i>announce plans reasonably in advance for new construction of Physical Infrastructure</i>”. Although this provision of the reference offer does not depart from the current obligation in Ofcom’s 2014 FAMR Statement, the ATI Regulations are now in force and Section 8 provides a right for access seekers to request “<i>information concerning civil works relating to the operator’s physical infrastructure (including where the works have already commenced)</i>”. Where legislation already provides for access to civils information, our view is that Ofcom’s proposal to re-impose an obligation on BT to “<i>announce plans reasonably in advance for new construction of Physical Infrastructure</i>” is not objectively justified or proportionate.</li> <li>Further, we are concerned that Ofcom’s proposal for a broad obligation on BT to proactively announce its plans for the construction of new Physical Infrastructure reasonably in advance creates a material risk of distorting competition between network providers. This is because Section 8(6) of the ATI Regulations only requires access providers to provide information “on request” and allows a request to be refused on the basis of one of various safeguards enshrined in the Regulations, namely “(a) the security or integrity of any network; (b) a duty of confidentiality owed by the infrastructure operator to another person; (c) operating or business secrets of any person; or (d) safety or public health.” Ofcom’s proposal is likely to result in a situation whereby other network providers will know about all of Openreach’s plans, regardless of their competitive sensitivity, whereas Openreach is likely to face significant difficulty in obtaining information about other network provider’s civil works because (i) BT has to actually request the information in relation to a specified geographic area and may not know all areas which could be subject to a request and (ii) other network providers are likely to reject requests in accordance with Section 8(6) of the ATI Regulations. This means Openreach’s CPs may not have the opportunity</li> </ul> |

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|                         | <p>to provide an alternative source of supply to consumers, restricting competition and reducing consumer choice.</p> <ul style="list-style-type: none"> <li>• Ofcom’s proposal also fails to take into account the difference between providing information relating to new sites and information relating to civil works on highways. The ATI Regulations explicitly refer to civil works although Ofcom’s proposal appears much broader despite the fact that the provision of information on plans relating to new sites presents a very different set of challenges. Any obligation which covers new sites interferes with a developer’s right to choose which network provider it may wish to deal with following commercial negotiations and is unworkable in practice because there would be insufficient time and capability for Openreach to consult with PIA CP on whether they want Openreach to build additional duct. In any event, other remedies requiring Openreach to construct new duct where insufficient capacity is available should constitute a sufficient remedy.</li> <li>• In the circumstances, we believe this provision of the reference offer should be amended to reflect Section 8 of the ATI Regulations (in particular, to include the circumstances in which a request for information can be refused and to exclude its applicability to new sites) or deleted.</li> <li>• Should Ofcom decide to impose this provision of the reference offer, it would be helpful for Ofcom to confirm that it would entertain a dispute under the ATI Regulations if alternative network providers refuse to inform us of civil works pursuant to a request under Section 8 of the ATI Regulations.</li> </ul>  |
| <p>8.3B(m) and 8.15</p> | <ul style="list-style-type: none"> <li>• Please see more detailed comments in our response to Question 6.2 above, in particular that we should not be required to provide SLGs on “completion” of works due to level of complexity and cost in obtaining same from our contractors. If CPs want SLA/SLG they can get their own contractors to do the work. We should only be required to accept SLA/SLGs on response times. SLAs/SLGs are also unnecessary on build works when CPs can do the work themselves and if they want to use us we will provide the services without undue discrimination.</li> <li>• Openreach should not be required to accept any request by a Third Party to relieve congested Physical Infrastructure.             <ul style="list-style-type: none"> <li>○ First, the third party must be a PIA Purchaser, as defined above.</li> <li>○ Second, the request must be reasonable and necessary, i.e. there must be genuine congestion which is linked to a PIA order and the request must contain such information as we may reasonably require to make a full review and determination. For example, we should not be expected to accept a request where we are being asked to extend our existing network footprint.</li> <li>○ Third, we need to prevent CP gaming whereby CPs may well have reasonable requests but they save them all up and submit them all in one go knowing we will be unable to meet the SLAs and they will get SLGs.</li> <li>○ Fourth, we should not be expected to accept a request in full where the request includes a request to relieve congestion as well as other requests.</li> </ul> </li> <li>• On 8.15, we are unhappy that Ofcom appears to be linking regulation to what appears to be some form of contractual acceptance relating to congestion. Openreach should be able to determine when to contractually “accept” based on its reasonable contract terms and subject to the prompt receipt of full and accurate information from the CP and linked to forecasts.</li> <li>• We would suggest revised wording for 8.5B(m) as follows:<br/>             “Service Level Commitments in respect of at least the following:             <ul style="list-style-type: none"> <li>(i) the provision by the Dominant Provider to a [PIA Purchaser] Third Party of [a Response Notice] an Acceptance Notice;</li> <li>(ii) the completion by the Dominant Provider of any works [reasonably] necessary to relieve congested Physical Infrastructure other than a congested Pole;</li> <li>(iii) the provision by the Dominant Provider of a response to a [reasonable] request by a [PIA Purchaser] Third Party to undertake works itself to relieve congested Physical Infrastructure;</li> <li>(iv) the provision by the Dominant Provider to a [PIA Purchaser] Third Party of a Pole [Response] Acceptance Notice;</li> </ul> </li> </ul> |

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|  | <ul style="list-style-type: none"><li>(v) the completion by the Dominant Provider of any works [reasonably] necessary to relieve a congested Pole; and</li><li>(vi) the completion by the Dominant p[P]rovider of any works [reasonably] necessary to relieve congested Physical Infrastructure where this comprises the installation of a Footway Box;</li></ul> <ul style="list-style-type: none"><li>• We would also suggest redefining “Acceptance Notice” and “Pole Acceptance Notice” as “Response Notice” and “Pole Response Notice”. “Response Notice” should be defined as follows (and “Pole Response Notice” similarly):<br/>“A notice responding to a [reasonable] request by a [PIA Purchaser] <del>Third Party</del> to relieve congested Physical Infrastructure other than a congested Pole which confirms (i) [whether] <del>That</del> the request has been accepted [in full or in part] by the Dominant Provider[.]; and (ii) [If the request has been accepted in full, the Dominant Provider should explain h]ow [it] <del>the Dominant Provider</del> proposes to relieve that congestion. [If the request has been rejected or accepted in part, the Dominant Provider should explain that the request has not been accepted in full and provide reasons]”</li><li>• The definition of Pole needs to ensure it excludes poles that are not owned and controlled by Openreach. Our suggested amendment to the definition of Physical Infrastructure should address this.</li><li>• Finally, we note that Condition 8.2 also appears to apply to PIA and 8.2(i) includes provisions relating to SLAs/SLGs. It would be helpful if Ofcom could explicitly exclude those provisions, should it decide to impose provisions relating to SLAs/SLGs in Condition 8.3B.</li></ul> |
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### **Annex A – Details of new PIA Digital Maps and Product Process developments in progress**

353. In January 2017 Openreach launched the digital map tool (Duct and Pole Access Maps) on the Openreach portal, providing CPs with information on our ducts, poles and structures (e.g. joint chambers) to enable them to undertake their own planning, without a dependency on Openreach to supply this information. The tool has gone through a number of enhancements since, providing additional functionality and improving the user experience. The summary below sets out the timeline and functionality provided:

- Jan 2017 – Duct, pole and joint chamber information made available via the Openreach portal. At this point CPs were able to produce their own plans and submit these as part of their reservation orders.
- Mar 2017 – Introduction of Web Services, to allow CPs to overlay Openreach duct, pole and joint chamber data onto their own GIS mapping tools. Additionally the introduction of indicative duct Red, Amber, Green (RAG) capacity status and reservation status was included.
- May 2017 – Introduction of Area Search to enable CPs to ‘zoom in’ on a location within the UK. Additionally the introduction of ‘Click & Select’. This functionality enables CPs to select multiple duct sections or poles and joint chambers and download these into a table for inclusion in their order form.

354. Openreach also has developments in progress to provide automation of the existing order journey through our NGWFMT (next generation workflow management tool). This will not only provide improved quality of information at the order generation stage and improved information in the form of automated KCIs back to CPs but also enable Openreach to manage increased consumption of the product. The summary below provides a timeline and the proposed functionality that is currently in scope, albeit this is still in the design phase and therefore may be subject to change:

- Sep 2017 – CPs will receive automated system generated KCI’s/acknowledgments giving them an update on their order progression. Additionally the system will provide an automated order reference that can be tracked from reservation through to build completion. CPs will also be notified through system generated prompts when their reservation is due to expire, and have the opportunity to extend it. Validation of orders will also be introduced to ensure order quality. A dashboard will be provided to Openreach to enable us to measure performance at various stages of order progression. The initial development will only support the reservation and build complete order journey.
- Nov 2017 – The development will be extended to cover the other order journeys, including in-flight changes, in-life changes, cancellation and ceases. Additionally the system will also provide improved automated interaction with back-end systems where requesting civils and enablement work. Billing will be driven from system generated output from both NGWFMT and PIPeR.

## **Annex B – Initial Comments on Mott MacDonald Report**

355. We are pleased to see that Ofcom has acknowledged the significant progress we have already made in the systems area. We are addressing the requirements head-on with our PIA digital map development launched in January 2017; upgraded with duct occupancy and reservation data in March 2017; and order automation in May 2017.
356. We already have significant further work in progress and are hopeful this will meet many CP requirements for the foreseeable future. We agree with Ofcom's view that the best way to pursue and prioritise any future developments is via the OTA chaired Passives Industry Working Group (PIWG). Developments can then be aligned with CPs priorities and in parallel with the development of the new PIA reference offer. Systems developments will naturally mirror product developments and the industry group is best placed to help inform these practical decisions.
357. Investments in systems will need to be proportionate to the scale of actual demand and the efficiencies achieved. We understand that Ofcom do want to consider a longer term view, and we do not disagree that further systems enhancements may be required but we would want to see evidence of use at scale of our new systems and processes before significant new investments in further systems developments.
358. Therefore, any proposals made by CPs and/or contained in the Mott MacDonald report will need to be carefully considered and prioritised with CPs and in-line with known/committed demand.
359. We reserve the right to comment more fully on Mott MacDonald's findings in the future, but some brief initial comments are set out below:

### **Comments on Feasibility**

360. At a high level, the approach outlined in the report appears in line with our current architecture. Much is already covered in the existing PIA solution we are developing, particularly the ability to access online maps and have the provisioning process managed by a workflow solution.
361. We have had insufficient time<sup>82</sup> to analyse all elements of the report (e.g. detailed technical aspects, estimated resource requirements, costings and timescales). However in the time allotted for this consultation we have compiled some initial comments. We also note that any future systems requirements will be heavily linked to the detailed contractual provisions of the new PIA reference offer, which we anticipate will be very complex given Ofcom's current proposals.
362. We consider that the Mott MacDonald report reflects little if any of the complexity of the dependencies of the core system and potential supplier management impacts, approval processes, forecasting, SLA/SLG management, billing and costing impacts that might result from Ofcom's proposals. Mott MacDonald acknowledge this point in the scope of their report (i.e. that it is concerned with 'access' and 'exchange' of data). Therefore such costings and timings as set out in the report will only represent one element of a much wider systems/process solution that would be required by Openreach to support Ofcom's proposals.
363. With regard to the details of the report however, and for the avoidance of doubt, we have identified two broad areas which are not currently part of our immediate plans/roadmap. These are explained further below:

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<sup>82</sup> The Mott MacDonald report was published after the initial April PIA consultation in what was already a tight consultation window.

- **Functional** – the main issue we have identified is with the mobility proposal and return/update of records. [X].
- **Non-Functional** – Our initial view is that the requirement to expand the record ‘tile’ which can be downloaded to 10 sq km would not be feasible for both technical and security reasons. Technically, because the file size would be far too large to transfer in a reasonable time, and multiple concurrent requests could jeopardise the performance of our gateways which also host regulated dialogue services. With regard to security considerations we view 10 sq km as too large an element allowing users to quickly build a complete view of our network assets across large proportions of the country, which in the view of our security teams, represents an unacceptable risk. Therefore we currently aim to work within the data limitations and fair usage policy in place today. On the broader non-functional point, particularly where the operation involves requesting considerable amounts of network layer data, we note that we would need to carry out a detailed study based on assumptions of numbers of concurrent users before we could commit to approximately 5 second response times. If implemented we would expect these to be best efforts, rather than carry an associated SLA. We would also expect availability to follow the same arrangements as non-regulated dialogue services during scheduled EMP release windows (i.e. we would not commit to an ‘always-on’ solution).

364. Additional observations we make at this time, and without prejudice to our further review of the report, PIWG discussions and our own internal review of systems developments includes:

- PIA system to allow access to CP 3<sup>rd</sup> Parties contractors – such access would necessarily need to comply with our security policies, contractor vetting processes etc.
- The current PIA system synchronises with PIPeR every 48 hours, not 24 hours as suggested in the report. Hence any future change would need to be subject to feasibility and cost benefit analysis and prioritised in line with the development work stack.
- CPs and their contractors recording of ‘Whereabouts’ is part of the proposed solution. This was de-scoped as part of our L2C order journey, albeit CPs can currently record this data on our portal.
- We do not provide 10 sq km square cells, or file sizes up to 15Mb (for the reasons discussed above). To note, the existing limited file sizes have already posed technical problems with the proposed L2C order journey. Hence our initial view that increasing file size is likely to compound the problem.
- The report discusses providing aerial sections and pole capacity RAG status and mentions potential further information requirements regarding bores within ducts. We do not provide this, albeit for poles we are looking at the feasibility of introducing reservation status later in the year.
- Various proposals for additional functionality (e.g. hyperlinks to photos, planned works information, selection/deselection of assets) would all need to be assessed as part of future feasibility studies.
- We also note for the record that discussion of systems functionality which enables access to various data sets/attributes without recognising the scale and challenges associated with maintaining the underlying data will be of limited benefit by itself. Any decision to progress

such developments will also require an assessment of underlying data quality and the feasibility of collection and validation processes.

- In terms of the exchange of data, we note that additional functionality suggested to be built into the Openreach system (e.g. Functionality to save searches on the Openreach map tool, and retrieve these) may be better developed within CPs own systems.

365. We also note some initial legal/regulatory observations:

- Scope - the PIA system specification is limited to duct, poles and boxes, whereas the proposed definition of 'Physical Infrastructure' in Ofcom's consultation is wider than this.
- Data Protection Act – any system will need to take into account the requirements under data protection when processing personal data, e.g. engineer whereabouts.
- Accuracy – any data feeds from CPs into the system (e.g. surveys) will need to have defined quality standards, agreed responsibilities and liabilities etc. Such feeds would need to be approved and validated.
- SLAs/SLGs – there are potentially significant system and process implications with any new SLA/SLG regime. Systems will need to be robust and limit risk of abuse.
- Competition Law/Information Sharing - we need to make sure there are and remain good and robust measures to limit access to information which is not necessary to consume PIA and which may give rise to an issue under either regulation or competition law.

366. As noted above this annex does not represent an exhaustive view of the Mott MacDonald report. We have further technical points and questions which are not covered here due to time limitations.

### **Annex C – Comments on Ofcom’s Annex 5 on Cost Recovery Risks**

367. In Annex 5 of the consultation, Ofcom outline their approach in estimating the risk to Openreach’s cost recovery from relaxing usage restrictions. By way of an illustration, Ofcom has sought to identify the regulated services which come under greater competitive pressure, and the cost recovery associated with these services that might theoretically be at risk in what Ofcom describe as an ‘extreme’ scenario. In our previous analysis submitted in response to December 2016 consultation, we presented a view that suggests Ofcom has not fully assessed that risk and certainly not estimated an extreme case.

368. Ofcom has again made a number of assumptions which we do not believe truly reflect the risks to Openreach’s cost recovery. In our view the conclusion Ofcom draws from this analysis still very significantly under-estimates the potential risks and the consequential adverse impacts for other customers of Openreach services. We acknowledge that Ofcom recognise they have not produced precise estimates and that there is uncertainty around the impact on use of PIA to replace leased lines; however, we are concerned that the Ofcom figures published do not provide a true high level indication of costs at risk of non-recovery in a plausible commercial case, let alone an ‘extreme’ case.

369. Taking each step in the Ofcom analysis in turn:

- We do not agree with Ofcom’s assumption that 100% of Traditional Interface (TI) services will not be subject to greater competitive pressure as a result of relaxing usage restrictions. Our view is that the risk of additional substitution must be greater than zero.
- We also do not agree with Ofcom’s assumption that it is appropriate to deduct all of ‘active equipment costs’, at least without making other assumptions on additional rules to limit cessation of existing circuits being replaced by PIA-based services. We note Ofcom do not propose any such restrictions in the consultation.
- We do not agree with Ofcom’s assumption that ‘Main Links’ services would not be used in the wholesale local access area. A large portion of today’s “main link” functionality relates to the transmission between the “copper serving exchange” serving the customer site at one end of the active circuit, to a neighbouring exchange. Therefore, under the proposals in Ofcom’s consultation document, a significant and quantifiable portion of today’s business connectivity main link rentals would be subject to direct substitution by PIA.

370. There are further assumptions which we think must also be reviewed to provide a more representative picture of risk. In our previous response, we argued strongly that other telecoms providers could substitute a disproportionately large number of leased lines by targeting a limited number of high density areas. Ofcom has sought to reflect this possibility by illustrating the % of non-residential premises passed over the next 3 years and in both the medium and long term<sup>83</sup>

371. For the purposes of Ofcom’s illustration, the assumption is that another telecoms provider will build to cover a complete BT exchange area, and cover all domestic and non-domestic premises within the area. In reality, a CP will target the “best” streets to deploy within an exchange area. To illustrate this, Figure AC.1 shows the Bayswater Exchange area. The black dots are premises and the red dots are the non-domestic deliver points (i.e. businesses):

#### **Figure AC.1 – Bayswater Exchange Area – premises and non-domestic delivery points**

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<sup>83</sup> See Figure A5.2 within Ofcom’s ‘Consultation on Duct and Pole Access remedies’.

[&times; Figure AC.1 redacted]

It is clear from this, CP's could well target the mixed streets and avoid the residential areas and as a result pass a higher number of businesses for a given number of premises.

372. The second assumption flaw in Ofcom's illustration is that non-domestic delivery points are a good proxy for leased line demand. Figure AC.2 looks at the same area, and maps Openreach circuit ends.

Figure AC.2 – Bayswater Exchange Area – Openreach Circuit Ends

[&times; Figure AC.2 redacted]

These are clearly a lot less distributed, and much easier for other telecoms providers to target.

373. By repeating Ofcom’s analysis at the exchange-level [redacted]<sup>84</sup>, we arrive at a much more concentrated distribution, and therefore much higher numbers:

Figure AC.3 – Percentage of non-residential premises covered

|             | % of residential premises passed | % of non-residential premises passed (Ofcom illustration) | % of non-residential premises passed (Openreach illustration) |
|-------------|----------------------------------|---|---|
| Year 1      | 0.2%                             | 2.4%  | [redacted]%   |
| Year 2      | 0.7%                             | 4.7%  | [redacted]%   |
| Year 3      | 3.7%                             | 11.5%   | [redacted]%   |
| Medium Term | 10%                              | 22.0%   | [redacted]%   |
| Long Term   | 40%                              | 57.4%   | [redacted]%   |

374. Figure AC.4 provides an alternative high level illustration of costs at risk of non-recovery. We have applied our own percentages of non-residential premises covered (as highlighted in Figure AC.3 above) and Openreach’s upper bound of the total pool of costs at risk. For the purpose of the illustrative analysis, we have used Ofcom’s assumption that BT would lose a third of lines within the PIA-based competitor’s footprint, though no evidence has been provided as to why this is an appropriate figure<sup>85</sup>.

Figure AC.4 – Illustrative cost at risk

|             | % of Business Passed (Ofcom Illustration) | Based on Ofcom pool of cost at risk | % of Business Passed (Ofcom Illustration) | Based on Openreach pool of cost at risk |
|-------------|---|-------------------------------------|---|---|
| Year 1      | 2.4%                                      | £2m                                 | 6.7%                                      | £[redacted]m                            |
| Year 2      | 4.7%                                      | £4m                                 | 11.5%                                     | £[redacted]m                            |
| Year 3      | 11.5%                                     | £9m                                 | 23.0%                                     | £[redacted]m                            |
| Medium Term | 22.0%                                     | £13m                                | 36.2%                                     | £[redacted]m                            |
| Long Term   | 57.4%                                     | £33m                                | 72.6%                                     | £[redacted]m                            |

In summary, we re-iterate our view that the cost recovery risks associated with changing the scope of the PIA remedy are highly uncertain but could realistically be expected to be higher (and potentially significantly so) than Ofcom suggest in their analysis. In the illustrative analysis we

<sup>84</sup> [redacted].

<sup>85</sup> [redacted].

have carried out we have also identified a number of variables and CP strategies which could further increase the cost recovery risks above the levels that Ofcom has considered. In our view Ofcom's case does not represent an 'extreme' case.

## **Annex D – Example Engineering Scenarios**

This annex is intended to be illustrative of the detailed process that would need to be implemented should Ofcom proceed with its PIA proposals. It does not imply agreement to them.

The generic hierarchy shown in Table A below would be required to assess any PIA CP request for a network adjustment funded by Openreach. A further three example scenarios are then set out below in Scenarios 1, 2 and 3.

At a high level there will be three key stages to the authorisation process:

- Is the order a valid PIA order e.g. is it within our existing network.
- Is the order one which Openreach would in principle fund e.g. an order with an identifiable benefit to Openreach and its CPs.
- Does the order meet the agreed financial authorisation/cost benefit criteria – e.g. is the cost of the required works excessive.

As we set out in the following tables each of these points requires a further layer of detail to assess the validity of the order. The three illustrative examples could be summarised as follows:

### **1. Enhance Openreach capacity**

- Within the Openreach footprint, where there is clear and demonstrable material benefit to Openreach and its CPs and where the cost benefit case is commercially viable – a viable solution may be for Openreach to both carry out and fund the required network adjustment.

### **2. Duct Blockage**

- Where the blockage relates to tasks which can be carried out by the CP as part of its fibre cabling installation and the works are only likely to benefit that single CP – a viable solution would be for the CP to both carry out and fund the required adjustment.

### **3. Pole space requirement**

- Pole infrastructure adjustments require more detailed analysis involving both an assessment of drop wire capacity/balancing and equipment space. However in principle it can be separated into (i) fibre cable installation activities, the most viable solution being CP funded and CP managed and (ii) enabling Openreach infrastructure capacity, the most viable solution being Openreach funded and managed.

**Table A – Outline Approach**

| <b>Assessment Criteria</b>    | <b>Evaluation</b>   | <b>Points to consider</b>  |
|-------------------------------|---|--|
| <b>Requirement for relief</b> | <ul style="list-style-type: none"> <li>• Is request within scope of PIA remedy – ie network footprint, small scale etc.</li> <li>• What is the use case? Does it meet mixed usage rule?</li> <li>• What alternatives has CP tested e.g. route deviation, different technology, other infrastructure. CP required to provide evidence.</li> <li>• Is it within forecasted volumes provided sufficiently in advance.</li> </ul> | <ul style="list-style-type: none"> <li>• CP needs to demonstrate and evidence why alternative options won't work, or have been exhausted and provide evidence to Openreach.</li> </ul> |

|                                       |   |  |
|---------------------------------------|---|--|
| <p><b>Benefits assessment</b></p>     | <ul style="list-style-type: none"> <li>• Is there a benefit to more than just the PIA CP requesting the relief? Do we have another CP order for the same area?</li> <li>• Is the asset in a 'common' part of the network that could benefit multiple customers?</li> <li>• Does Openreach already have any plans to build future network in the same location?</li> <li>• Is it a 'CP cable installation task' for a fibre network build, or an Openreach 'asset adjustment/uplift'.</li> </ul> | <ul style="list-style-type: none"> <li>• Different relief scenarios may only benefit the PIA CP installing the cable.</li> <li>• If relief in a part of network where future demand is expected this may determine potential benefit for other users.</li> <li>• Time and resource required to assess Openreach plans in the area.</li> <li>• Ability to cross-reference with other orders/reservations in the system.</li> </ul>  |
| <p><b>Asset value</b></p>             | <ul style="list-style-type: none"> <li>• Does the relief materially improve the long term asset value to Openreach?</li> </ul>  | <ul style="list-style-type: none"> <li>• Job may only provide temporary access sufficient to install cable (e.g. de-silt, removal of tree branch etc) or only negligible benefit and therefore not add real value/capacity to Openreach asset.</li> </ul>  |
| <p><b>Financial authorisation</b></p> | <ul style="list-style-type: none"> <li>• Requirement for Openreach to survey to identify best relief solution and cost up.</li> <li>• Is the CP provided information accurate on requirement and proof of alternative route testing?</li> <li>• Does any relief solution cost in against an agreed financial framework (to be agreed)?</li> <li>• Appropriate controls against fraud, incorrectly passing on charges to end-users etc need to be put in place.</li> </ul>                       | <ul style="list-style-type: none"> <li>• If CP provided information on requirement for relief is incorrect Openreach would need to recover survey and any administration costs from the CP.</li> <li>• Need to use existing Openreach basis for assessing business case to fund relief in lieu of knowing the CPs business case.</li> <li>• Assessment could result in exhaustion of all options on <u>existing</u> infrastructure and therefore only option being <u>new</u> infrastructure, which CP should fund.</li> </ul> |
| <p><b>Agreement to proceed</b></p>    | <ul style="list-style-type: none"> <li>• Openreach timescales agreed based on local circumstances e.g. highways, wayleaves etc. Each job likely to have own local complexities.</li> </ul>  | <ul style="list-style-type: none"> <li>• Factors out of Openreach control and the bespoke nature of each job will dictate end to end delivery timescales. SLAs on the steps to validate and approve may be possible but not end to end SLAs on build completion.</li> </ul>  |

## Example Scenarios

We have used the above framework in Table A to set out three example scenarios which explain the outline Openreach evaluation process, evidence required and authorisation requirements.

### Scenario 1: Duct full - no capacity

| Assessment Criteria            | Evaluation  | Points to consider   |
|--------------------------------|---|--|
| <b>Requirement for relief</b>  | <ul style="list-style-type: none"> <li>• What is the use case? Does it meet mixed usage rule?</li> <li>• What alternatives has CP tested e.g. route deviation, different technology, other infrastructure. CP required to provide evidence</li> </ul>   | <ul style="list-style-type: none"> <li>• Requirement could be for cable recovery or new duct section.</li> <li>• CP need to provide evidence that route and all bores are congested, i.e. photographs of duct bores. Is it viable to use different cable types.</li> <li>• Has CP looked for alternative routes, or could CP lay direct buried cable?</li> <li>• Can CP build overhead route?</li> <li>• What are limits? How much 'relief capacity' by distance/size is the limit before it becomes 'new capacity/infrastructure' build to be provided by CP?</li> <li>• Cable recovery and cable consolidation both complex and costly tasks and would need to be assessed against cost of new duct build/overhead/directly buried options etc.</li> </ul> |
| <b>Benefits assessment</b>     | <ul style="list-style-type: none"> <li>• Is there a benefit to more than just the PIA CP requesting the relief?</li> <li>• Is the asset in a 'common' part of the network that could benefit multiple customers</li> <li>• Does Openreach already have any plans to build future network in the same location?</li> </ul> | <ul style="list-style-type: none"> <li>• Removing cable could provide enough capacity for only the PIA CPs cable installation and the duct then becomes full.</li> <li>• Reservations in area for other CPs could benefit – however this could result in need for new infrastructure rather than congestion relief.</li> <li>• Only a benefit if demand for capacity materialises.</li> <li>• Benefit is more likely in certain parts of network.</li> </ul> <p>Various different outcomes are possible:</p> <ul style="list-style-type: none"> <li>• <b><i>New capacity requirement (and/or relief) could be approved in outline if wider benefits identified &amp; subject to financial evaluation below.</i></b></li> </ul>                               |
| <b>Asset value</b>             | <ul style="list-style-type: none"> <li>• Does the relief improve to a material extent the long term asset value to Openreach?</li> </ul>  | <ul style="list-style-type: none"> <li>• Depends on specific of tasks carried out e.g. cable recovery may only provide short-term fix and no material value add, or may provide new useful capacity.</li> </ul>  |
| <b>Financial authorisation</b> | <ul style="list-style-type: none"> <li>• Requirement for Openreach to survey to identify best relief solution and cost up</li> <li>• Is the CP provided information accurate on</li> </ul>  | <ul style="list-style-type: none"> <li>• Openreach survey to confirm there are cables that can be recovered to provide relief alternatives. Other options may need to be considered e.g. CP directly buried – only option may be new duct or direct buried cable</li> </ul>  |

|                             |   |  |
|-----------------------------|---|--|
|                             | <p>requirement and proof of alternative route testing?</p> <ul style="list-style-type: none"> <li>Does any relief solution cost in against an agreed financial framework</li> </ul> | <ul style="list-style-type: none"> <li>Openreach planner to assess best option and cost up</li> <li>If CP provided information inaccurate and alternative route identified then CP pays for survey and planner costs</li> <li>If cables cannot be recovered then Openreach would then have exhausted options in <u>existing</u> infrastructure and should not be required to fund <u>new</u> infrastructure build.</li> </ul> <p><b><i>New capacity requirement (and/or relief) could be approved in if wider benefits identified &amp; passes financial evaluation.</i></b></p> |
| <b>Agreement to proceed</b> | <ul style="list-style-type: none"> <li>Openreach timescales agreed based on local circumstances e.g. highways, wayleaves etc.</li> </ul>  | <ul style="list-style-type: none"> <li>Factors out of Openreach control and the bespoke nature of each job will dictate end to end delivery timescales. SLAs on the steps to validate and approve may be possible but not end to end SLAs on build completion.</li> </ul>  |

**Scenario 2: Duct blockage clearance**

| <b>Assessment Criteria</b>    | <b>Evaluation</b>  | <b>Points to consider</b>  |
|-------------------------------|--|--|
| <b>Requirement for relief</b> | <ul style="list-style-type: none"> <li>What is the use case? Does it meet mixed usage rule?</li> <li>What alternatives has CP tested e.g. route deviation, different technology, other infrastructure. CP required to provide evidence.</li> </ul> | <ul style="list-style-type: none"> <li>Requirement could include de-silt, duct repair, tree root damage, twisted cables.</li> <li>CP needs to provide full and contemporaneous evidence that whole route and each section from both ends has been properly rodded to assess likely number of blockages per duct section and distance. Is alternative cable technology viable?</li> <li>CP already has gangs on site with street works notice in place so would be best placed to carry out work themselves.</li> </ul> <p><b><i>CP may be best placed to clear duct blockage in real time as delay introduced by submitting request for authorisation to Openreach. No more efficient for Openreach to carry out task.</i></b></p> |
| <b>Benefits assessment</b>    | <ul style="list-style-type: none"> <li>Is there a benefit to more than just the PIA CP requesting the relief?</li> <li>Is the asset in a 'common' part of the</li> </ul>   | <ul style="list-style-type: none"> <li>Removing a blockage could provide enough capacity for only the single PIA CPs cable installation and the duct would then be full.</li> <li>Blockage may recur in short time frame e.g. silting, water or CP installation of cable may fill the duct.</li> </ul>   |

|                                |   |  |
|--------------------------------|---|--|
|                                | <p>network that could benefit multiple customers?</p> <ul style="list-style-type: none"> <li>Does Openreach already have any plans to build future network in the same location?</li> </ul>   | <ul style="list-style-type: none"> <li>Unlikely to be further benefit to Openreach or other CPs.</li> <li>Potential for a reservations in the area by other CPs to benefit. However this could result in need for new infrastructure rather than be enabled by the blockage clearance.</li> <li>Cabling space can actually be reduced by the duct repair process i.e. no duct enhancement has taken place. CP may have carried out their cable installation but no additional space has been made available.</li> </ul> <p><b><i>Duct blockage clearance could fail at this stage of approval on the basis of no definable benefit to Openreach or CP customers.</i></b></p>   |
| <b>Asset value</b>             | <ul style="list-style-type: none"> <li>Does the relief improve the long term asset value to Openreach?</li> </ul>   | <ul style="list-style-type: none"> <li>Asset has not been uplifted given recurring nature of blockages, and temporary nature of the access for the cable installation activity.</li> </ul>   |
| <b>Financial authorisation</b> | <ul style="list-style-type: none"> <li>Requirement for Openreach to survey to identify best relief solution and cost up</li> <li>Is the CP provided information complete and accurate on requirement and proof of alternative route testing?</li> <li>Does any relief solution cost in against an agreed financial framework</li> </ul> | <ul style="list-style-type: none"> <li>Openreach survey likely to be required (in CP information insufficient) to cost up number and type of blockages in duct to be cleared.</li> <li>Openreach planner to assess best option and cost up.</li> <li>If CP provided information inaccurate and alternative route identified then CP pays for survey and planner costs.</li> <li>Openreach apply financial approval framework e.g. more than x blockages per xm section then reject as new infrastructure required.</li> <li>Openreach would then have exhausted options in <u>existing</u> infrastructure and should not be required to fund <u>new</u> infrastructure build unless it meets wider new asset requirement by Openreach (see Scenario 2).</li> </ul> |
| <b>Agreement to proceed</b>    | <ul style="list-style-type: none"> <li>Openreach timescales agreed based on local circumstances e.g. highways, wayleaves etc.</li> </ul>  | <ul style="list-style-type: none"> <li>Factors out of Openreach control and the bespoke nature of each job will dictate end to end delivery timescales. SLAs on the steps to validate and approve may be possible but not end to end SLAs on build completion.</li> </ul>  |

**Scenario 3: Pole top space capacity full**

| Assessment Criteria            | Evaluation   | Points to consider   |
|--------------------------------|--|--|
| <b>Requirement for relief</b>  | <ul style="list-style-type: none"> <li>• What is the use case? Does it meet mixed usage rule?</li> <li>• What alternatives has CP tested e.g. route deviation, different technology, other infrastructure. CP required to provide evidence</li> </ul>  | <ul style="list-style-type: none"> <li>• Requirement could include moving steps to make space or moving/adding/changing brackets or recovery or redundant equipment/drop wires</li> <li>• CP need to provide evidence that the pole is congested, i.e. photographs. Has CP tried alternative brackets?</li> <li>• Has CP tried to find alternative routes</li> </ul>   |
| <b>Benefits assessment</b>     | <ul style="list-style-type: none"> <li>• Is there a benefit to more than just the PIA CP requesting the relief?</li> <li>• Is the asset in a 'common' part of the network that could benefit multiple customers</li> <li>• Does Openreach already have any plans to build future network in the same location?</li> </ul>        | <ul style="list-style-type: none"> <li>• Moving/changing drop wires/ cable or brackets could impact existing service</li> <li>• Removal of pole step could result in future work requiring a 'cherry picker'</li> <li>• Does the relief provide enough capacity for only the PIA CPs installation and then a new pole would be required</li> <li>• Reservations in area for other CPs will benefit – however this could result in need for new infrastructure rather than relief</li> <li>• Unlikely to be further benefit to Openreach or other CPs</li> </ul> <p>• <b><i>Suggests that pole top space relief would fail at this stage on the basis of no benefit to multiple customers</i></b></p>   |
| <b>Asset value</b>             | <ul style="list-style-type: none"> <li>• Does the relief improve the long term asset value to Openreach?</li> </ul>  | <ul style="list-style-type: none"> <li>• Depends on action taken.</li> </ul>   |
| <b>Financial authorisation</b> | <ul style="list-style-type: none"> <li>• Requirement for Openreach to survey to identify best relief solution and cost up</li> <li>• Is the CP provided information accurate on requirement and proof of alternative route testing?</li> <li>• Does any relief solution cost in against an agreed financial framework</li> </ul> | <ul style="list-style-type: none"> <li>• Openreach survey likely to confirm there are drop wires/ cables or equipment that can be recovered or that brackets can be changes/added. Impact or removing steps and whether this would provide relief – only option may be new pole</li> <li>• Openreach planner to assess best option and cost up</li> <li>• If CP provided information inaccurate and alternative route identified then CP pays for survey and planner costs</li> <li>• If equipment or drop wires/ cables cannot be recovered or space made for additional brackets then Openreach would then have exhausted options in <u>existing</u> infrastructure and should not be required to fund <u>new</u> infrastructure build.</li> </ul> |
| <b>Agreement to proceed</b>    | <ul style="list-style-type: none"> <li>• Openreach timescales agreed based on local circumstances e.g.</li> </ul>  | <ul style="list-style-type: none"> <li>• Factors out of Openreach control and the bespoke nature of each job will dictate end to end delivery timescales. SLAs on the</li> </ul>   |

|  |                             |  |
|--|-----------------------------|--|
|  | highways, wayleaves<br>etc. | steps to validate and approve may be possible but not end to end SLAs on build completion. |
|--|-----------------------------|--|