

**Openreach's response to
Ofcom's Consultation:
"Promoting competition and
investment in fibre networks:
Telecoms Access Review"
Document 4**

12 June 2025

Table of Contents

Introduction.....3

1. Summary4

2. Responses to Questions.....6

WLA.....6

LLA.....13

IEC.....31

PIA.....35

Ancillaries51

Charge Control design and Legal Instruments.....67

Legal Instruments.....73

Introduction

This document forms part of Openreach's response to the TAR Consultation, and covers responses to TAR Volume 4.

The full structure of the Openreach response is:

Openreach TAR Response Document 1	Executive Summary and Overall view on Market Analysis and Remedies
Openreach TAR Response Document 2	Responses to questions in TAR Consultation Volume 2
Openreach TAR Response Document 3	Responses to questions in TAR Consultation Volume 3
Openreach TAR Response Document 4	Responses to questions in TAR Consultation Volume 4
Openreach TAR Response Document 5	Responses to questions in TAR Consultation Volume 5
Openreach TAR Response Document 6	Responses to questions in TAR Consultation Volume 6 and Annexes
Annex 1: NERA Report: Response to Ofcom's TAR	Supports points on Market Analysis and Remedies in documents 1 to 4
Annex 2: Network Technology Report	Supports points on Market Analysis in documents 1 and 2
Annex 3: Criteria for Geographic Deregulation in Wholesale Broadband (Assembly Research report)	Supports points on Market Analysis in documents 1 and 2

Openreach's response to Ofcom's Consultation: Promoting competition and investment in fibre networks: Telecoms Access Review": Document 4 – Pricing Remedies

1. Summary

Volume 4 of the TAR sets out Ofcom's proposals to regulate Openreach price levels in markets where it finds Significant Market Power (SMP).

For Wholesale Local Access (WLA) Area 1, WLA Area 2, Leased Lines Access (LLA) High Network Reach (HNR) and LLA Area 2, Ofcom proposes to apply CPI-0% controls for a defined set of rental and ancillary charges. Ofcom's aim is to broadly continue its policy approach in the 2021 Wholesale Fixed Telecoms Market Review (WFTMR) of "pricing continuity": i.e. ensuring key wholesale prices do not rise in real terms during a period of transition to a competitive full-fibre future.

Openreach strongly supports the policy approach of pricing continuity in SMP markets in principle: ending CPI-X cost-based controls has been a central part of Ofcom's successful policy of promoting investment by Openreach and others in full-fibre networks.

[X]

We fundamentally disagree with Ofcom's proposal to impose a cost-based charge control in LLA Area 3 for low-bandwidth services. This follows from our view, set out in response to question 2.10, that Ofcom has erred in its proposal to extend the size of LLA Area 3: there is significant potential for competition to develop in postcode sectors provisionally defined as falling in Area 3. A cost-based control is a material and unexpected change from the current pricing continuity approach and would make the emergence of competition in LLA Area 3 less likely and therefore Ofcom's assessment of low prospects for competition in LLA Area 3 self-fulfilling.

It is also unnecessary and disproportionate to add an additional layer of cost-based price regulation on top of PIA and dark fibre.

Notwithstanding our in principle challenge to Ofcom's proposal to reintroduce a cost-based control, we also have more detailed concerns on the calculation of the cost-

based charge controls set by Ofcom which overstate the value of X on Ofcom's own terms.

Ofcom's approach to PIA pricing remedies is generally appropriate, however Ofcom should maintain the same physical sharing factors used in WFTMR during the TAR period because its proposed changes are selective and it has not considered all long run factors required to consider fair sharing in the longer term. **Ofcom's proposal for Simplified Lead-in Link is not appropriate as Ofcom** has erred in applying the churn discount twice to Simplified Lead-in network components where the costs are already shared. Ofcom should not depart from its WFTMR approach of applying the 'churn discount' only to the dedicated part of our Simplified Lead-in product and has fundamentally departed from its WFTMR pricing approach of applying the 'churn discount' to reflect expected medium term churn instead proposing to base the discount on its view of long-term usage.

We also believe that removing some pole charges will lead to inefficient use of assets and is the wrong approach.

A number of corrections are needed to the legal instrument and directions to resolve drafting errors or inconsistencies. We welcome the changes made to standardise the proposed SMP Condition 12, and have some suggestions for further simplification.

2. Responses to Questions

WLA

Question 4.1: Do you agree with our proposed approach in WLA Area 2? Please set out your reasons and supporting evidence for your response.

Question 4.2: Do you agree with our proposed approach in WLA Area 3? Please set out your reasons and supporting evidence for your response.

1. We are responding to questions 4.1 and 4.2 together, as while they cover different geographic markets, the proposed pricing remedies are the same.
2. Ofcom defines the competition problem in WLA Area 2 and WLA Area 3 as a risk that, absent regulation, Openreach would have the ability and incentive to fix and maintain wholesale prices at an excessively high level and/or impose a price squeeze that could lead to weaker retail market competition.
3. In both geographic markets, Ofcom is proposing a "pricing continuity" approach implemented by setting a CPI-0% price cap on MPF and FTTC 80Mb rental prices (or 80Mb FTTP rental prices where copper-based service is not available). Ofcom concludes that this, combined with obligations to supply other FTTC and FTTP bandwidths on fair and reasonable pricing terms, is sufficient to address concerns about excessively high pricing and potential price squeeze.

Ofcom's proposals for pricing continuity

4. We believe that continuity in the regulatory framework established in the WFTMR is critical in driving investment in additional full-fibre build and supporting increased connections. As and where competition emerges, regulation should be rolled back. But in markets where SMP is found, Ofcom should continue its policy of "pricing continuity" to ensure, as necessary, key wholesale prices do not rise in real terms and allay concerns that Openreach could set excessively high prices during a period of transition to a competitive, full-fibre future.
5. During the WFTMR period, this policy has been highly effective, encouraging a level of competition and network investment beyond that which Ofcom had anticipated. There is further investment still to come, not just from Openreach (with an ambition to increase FTTP coverage from 18m premises to up to 30m if

Issued by: Openreach

Issue: 1

Date: 12/06/2025

conditions are supportive), but also from other network providers such as CityFibre (ambition to build to 8m premises from 4.1m premises in December 2024)¹, VMO2 (ambition to upgrade their legacy network to FTTP by 2028),² and Netomnia (fully funded to build to 5m premises by the end of 2027, up from 2.4m in May 2025).³

6. Investment decisions to date will have been made assuming no changes in baseline anchor broadband prices will be required by regulation for at least a decade and that market conditions, not regulatory requirements, would shape price levels and trends. To maintain investment conditions that support investment and growth in line with the Government's strategic priorities, Ofcom should maintain a stable and consistent regulatory environment and retain pricing continuity.
7. Ofcom had previously considered the alternative option of "*bringing prices closer to cost*" for copper-based WLA rental charges at a time when the extent of full-fibre availability and the rate of decline in copper volumes was uncertain. We agree with Ofcom's view in the TAR that with falling copper volumes, Openreach's costs would be broadly comparable to those set under a pricing continuity approach by the end of this review period. Furthermore, the pace of migration of lines away from the Openreach copper network and the expected retirement of copper assets in the 2030s will mean Openreach likely facing unrecovered asset costs over the lifetime of the copper network. This further supports the approach of pricing continuity rather than any attempt to align pricing with longer term unit costs.

Ofcom's proposal to increase the anchor bandwidth and set price caps on 80Mb services

8. As noted, we support the principle of pricing continuity in the TAR. We agree that, where SMP is appropriately found, MPF rental prices should be capped at CPI-0% ensuring current MPF list prices remain flat in real terms out to March 2031. However, we have significant concerns with Ofcom's proposals to implement pricing continuity by requiring significant reductions in the list price for 80Mb FTTC rental services (and, where copper-based services are not available, for FTTP rental services).

¹ [CityFibre delivers first full year of profitability, with... | CityFibre](#)

² [Bringing our gigabit services to more areas with new fibre technology switch on - Virgin Media O2](#)

³ [Netomnia](#)

9. In the WFTMR, Ofcom set an anchor charge control on the 40Mb FTTC product. This effectively set a cap on the list price that applied in the year from April 2020 which increased by CPI each April. The aim was to set an effective anchor, while maximising commercial flexibility on higher bandwidths on both FTTC and FTTP services to support investment cases in FTTP. Part of Ofcom's rationale for setting the anchor on the 40Mb service was that end customers already had protection at higher bandwidths from commercially agreed offers such as the GEA Volume Offer (also known as the 112 Offer) on FTTC and SOGEA.⁴
10. Under the terms of the 112 Offer – first introduced and signed up to by ISPs in 2018 – ISPs received rebates on FTTC list prices that were linked to the pace at which they purchased FTTC or SOGEA services and the pace at which they purchased higher bandwidth FTTC services. Measures were in place to ensure that any lines moved to Altnets were removed from targets. The effect of this offer was to accelerate the pace at which ISPs sold broadband services over FTTC and to shift the mix of FTTC services away from 40Mb bandwidths to higher bandwidths, particularly 80Mb.
11. The 112 Offer expired after five years in 2023. Ahead of reaching this date, ISPs wanted ongoing assurance on the level of rebates they would receive. Openreach provided this by means of a series of extension offers that maintained the level of rebates in real terms. The last of these offers runs through to the end of FY26.
12. In the TAR, Ofcom is proposing to move the anchor service to the FTTC 80Mb service to reflect this being the bandwidth that end customer volumes are predominantly on. Ofcom is then proposing that this price is capped at the "prevailing price" of FTTC 80Mb rentals in March 2026 which is calculated as the FTTC 80Mb list price (currently £255.36 including MPF) less the rebate paid under the latest 112 extension offer (currently £64.25). The effect of the proposed condition is therefore to require a significant reduction to the FTTC 80Mb list price in April 2026. [X].
13. [X].⁵
14. [X].
15. [X].

⁴ WFTMR Vol 4 paras 1.55 to 1.59

⁵ TAR Vol 4 footnote 9

16. [REDACTED]:
- i. [REDACTED].
 - ii. [REDACTED].
 - iii. [REDACTED].
 - iv. [REDACTED].
 - v. [REDACTED].
17. Indeed, Ofcom may only set a price control where there is a relevant risk of adverse effects arising from price distortion and it is appropriate for the purposes of, for example, promoting efficiency, promoting sustainable competition, and conferring the greatest possible benefits on end customers.⁶ A "price distortion" for these purposes is defined clearly as either an excessive pricing or price squeeze concern, having adverse consequences for end customers.⁷ There is clearly no such risk in this case, where Openreach itself chooses commercially to decrease prices and its competitors are typically concerned with the putative risk of prices being set too low. It is also not clear how such a price control would promote efficiency or sustainable competition. In this context, the legal tests required to impose a pricing remedy have not been met, if a commercial agreement is in place.
18. [REDACTED].
19. The Equinox offer has been highly effective at encouraging ISP adoption of FTTP. Moving the 80Mb product out of the offer construct to a charge controlled standard price could weaken this incentive, as an ISP could choose to offer an increased mix of copper and 80Mb FTTP.
20. In addition, we note that in relation to SOGEA 80Mb, Ofcom proposes a first year price of £199.76 (SMP Condition 12C.2(l)). This is a 2.13% increase on the SOGEA 80/20Mb discounted rental charge of £195.59 for FY24/25. It is not clear why this proposed increased charge is not a CPI increase, in line with proposed changes to other VULA products. In the absence of transparent reasoning for the increase, Openreach is not in a position to make detailed submissions on this point, although it is plainly inconsistent with Ofcom's approach elsewhere. We request a further opportunity to comment if Ofcom intends to continue with this approach given the current uncertainty.

⁶ Communications Act 2003, s. 88(1).

⁷ Communications Act 2003, s. 88(3).

Ofcom's proposals to use fair and reasonable pricing to address price squeeze concerns

21. With respect to Ofcom's proposal for network access charges to be fair and reasonable and its interpretation of this to mean Openreach should not set prices that would equate to a price squeeze, we have the following comments.⁸
22. Just as with other regulatory obligations, as upstream competition grows and BT's downstream competitors have an increasing choice of upstream provider, the necessity of downstream regulatory protections through price squeeze rules will diminish, and competition law will address adequately any residual concerns. Meanwhile, as set out in the BT Group submission, competition is already fierce at many different levels.
23. In light of this strengthening competition, it is vital that Openreach, BT and others should have more clarity over (i) Ofcom's price squeeze methodology and (ii) as with all regulatory constraints, the point at which such rules will become unnecessary as competition further embeds. Further submissions on this point are made in the BT Group submission.

Ofcom's position on "lower FTTP prices"

24. Ofcom states that *"several stakeholders have raised concerns about Openreach setting FTTP prices that are too low... and have called for a price floor to be imposed"*⁹. Ofcom also notes that stakeholders are concerned about *"across the board"* price cuts in addition to geographically targeted reductions (which are considered in Volume 3). We agree with Ofcom that a price floor is unnecessary to protect against the risk of low prices, particularly because there is no risk of adverse effects arising from price distortion in the current context and given other remedies already proposed.
25. While we have significant concerns with Ofcom's proposals to apply geographic pricing restrictions across the widely defined Area 2, we welcome Ofcom's statement that while lower FTTP prices may place commercial pressure on Altnets,

⁸ These comments are made in respect of WLA, but they apply equally to other products markets where fair and reasonable pricing obligations are proposed.

⁹ TAR Vol 4 paras 1.87 to 1.91

they do not necessarily raise competition concerns and that Openreach is allowed to compete with Altnets and to make pricing offers.¹⁰

26. Ofcom notes it would be concerned if Openreach set FTTP prices at a level that undermines the opportunity for a Reasonably Efficient Operator (REO) to recover its costs and states that one of the factors it would consider is how our average FTTP price compared to the outputs of Ofcom's REO costs in its 2026 Fibre Cost Model. Ofcom states this would not be a "*bright line test*" and that it would look at where Openreach's prices sat within the modelled ranges. These statements reflect the position Ofcom set out in addressing Altnet concerns raised with Equinix 2 price levels where Ofcom said that no prima facie concerns arose as Openreach's average FTTP price was above the top of Ofcom's 2021 REO cost range.
27. We also note that Ofcom states that it would assess FTTP price levels by reference to the margin between PIA prices and FTTP wholesale prices and that its start point would be based on REO costs.¹¹ We understand that this is again a reference to the Fibre Cost Model which uses PIA prices as an input but we would welcome clarity on this point in the final statement.
28. Ofcom's Fibre Cost Model estimates what fixed average price a hypothetical REO would require to earn its cost of capital over a 40-year period at modelled levels of take-up. The model estimates a high, base and low-cost scenario, varying costs and take-up, to produce a range of average prices that would support cost recovery.
29. The updated model produces a similar average price range (£11.22 to £17.03 in 2024/25 prices) to the 2021 version of the model (£11.40 to £16.95 in 2024/25 prices).
30. This model was developed in 2021 to provide Ofcom with a forward-looking view – ahead of scale investment decisions being made and deployment rolled out – of the price levels an Altnet would likely need to earn a fair return. It was primarily used as a cross-check on the price controls Ofcom set on Openreach to ensure these were consistent with Ofcom's objective of promoting investment and competition. We note Ofcom uses the model as a cross-check of the proposed 80Mb FTTC controls in the TAR. Ofcom also notes that, as the range is similar to that modelled

¹⁰ TAR Vol 4 para 1.90

¹¹ TAR Vol 3 para 4.28

in 2021, its approach is broadly consistent with investment signals given in the WFTMR.

31. Ofcom notes that several stakeholders have argued that it should update the 2021 model to better reflect their actual build and costs – i.e. that Ofcom should have increased REO costs in its model and identified a higher level of average prices needed to earn a fair return. Taken together with calls for a bright line price floor, some Altnets were clearly calling for significant price increases in the market to support their investment case. We therefore welcome Ofcom's rejection of these calls and we welcome Ofcom's statements that *"Ofcom's goal is not to ensure that individual stakeholders achieve their business targets... [nor] to shield stakeholders from the wider economic environment – that is a risk for them and their investors to bear."*¹²
32. In this context, however, we are concerned that Ofcom's statements on the weight it may attach to its REO cost modelling when assessing Openreach pricing would restrict our ability to compete fairly in the market. The REO cost range includes full cost recovery of ongoing costs of supply and sunk costs of investment. Efficient Altnets will be sustainable competitors where they can recover their forward-looking costs (see NERA report, Section 4.4). It is possible that over the course of the TAR some Altnets may move closer to marginal cost pricing at the wholesale or retail level to drive volume and/or write off upfront investment costs through restructuring or consolidation. Furthermore, VMO2 is an established player with a very different cost base looking to move into wholesaling and with a range of options about how to generate incremental value. Ofcom's approach to assessing Openreach's prices should take full account of these developments.
33. FTTP pricing reductions are possible over the TAR period and would be to the benefit of ISPs and end customers. In a highly competitive market, Openreach will continue to review prices regularly, and will continue to have dialogue with ISPs on their demands. Countervailing buying power is a considerable constraint on Openreach and remains a key focus when commercial decisions are taken. As long as prices are set at a level that would allow an REO to compete, then they will not impact competition and will lead to end customer benefit in the long term.

¹² TAR Vol 4 para 1.49

LLA

Question 4.3: Do you agree with our proposals for charge controlling LLA services in LLA Area 2 and LLA Area 3 and not introducing a charge control on LLA services in the HNR Area? Please set out your reasons and supporting evidence for your response.

34. We agree with the proposals to continue CPI-0% charge control in LLA Area 2, and with the fair and reasonable charges obligation on services in HNR. However, we fundamentally disagree with the re-introduction of a cost-based charge control for services at 1Gb and below in LLA Area 3.
35. Ofcom proposes to move away from indexation in LLA Area 3 and return to a cost-based control for services at 1Gb and below. This is an inappropriate policy position and inconsistent with the evidence and long-term view that Ofcom sets out in its market analysis. It is an inappropriate approach for the following reasons:
36. A cost-based control is a material and unexpected change from the current charge control:
 - i. It is insufficiently forward-looking as it does not give competition a chance to play out. Indeed, by imposing a cost-based control it makes the emergence of competition in LLA Area 3 less likely and therefore Ofcom's assessment of low prospects for competition in LLA Area 3 self-fulfilling. In this regard, Ofcom is required to take into account, when setting such a charge control, the benefits of predictable wholesale prices in ensuring efficient market entry and sufficient incentive to bring into operation new and enhanced networks.¹³ We fail to see how Ofcom can reconcile this charge control with this legal obligation.
 - ii. The contrast between LLA Area 2 and LLA Area 3 proposed remedies is stark, thus making the impact of the geographic market definition very binary and inconsistent.
 - iii. It is unnecessary and disproportionate to impose cost-based controls at three levels of the value chain (PIA, Dark Fibre and actives).

¹³ Communications Act 2003, section 88(2).

- iv. Given the number of levels in the value chain, and fewer ISPs active in Area 3, it is unlikely that the impact of price reductions will flow through to end customers rather than to ISPs.
 - v. The stark differentiation of remedies between geographic areas effectively requires geographic pricing between areas, something we have not done to date, since we treat EAD as a single product.
37. We now explore these points in more detail.

A cost-based control is a material and unexpected change

38. In the WFTMR, Ofcom set out a framework for ten years in order to encourage investment and roll-out of new fibre networks. During that review, and in Ofcom's messaging since, Ofcom has been indicating that the framework appears to be working and that regulatory stability is key. It is therefore a material and unexpected change for Ofcom to propose reintroducing a cost-based charge control in a significant telecoms market only five years into that ten-year framework.
39. Such a change is not a consistent approach to regulation. The nature of the change undermines confidence both within the LLA market and more generally for all investments including WLA investments made by Openreach and Altnets under the expectation of a stable regulatory framework for a ten-year period. This lack of stability adversely affects our innovation and investment plans, and we will need to review the business case for these with updated assumptions based on Ofcom's proposals.
40. We expect the change will significantly affect Altnets' investment plans, and the business cases of existing build in the WLA Area 2/LLA Area 3 overlap (see Document 2, para 83). This risks undermining investor confidence, with a potential reduction in investment, to the detriment of end customers and contrary to the Government's growth agenda.

A cost-based control does not give competition a chance to play out

41. A cost-based control does not give competition a chance to play out. Indeed, imposing a cost-based control makes the emergence of competition in LLA Area 3 unlikely and therefore Ofcom's assessment of low prospects for competition in LLA Area 3 self-fulfilling.

42. There is a disconnect between Ofcom's market analysis and its proposed remedies. Ofcom's own market analysis points to a range of factors that suggest that competition in LLA – including in LLA Area 3 – will continue to grow. It highlights the ability of new PON technologies to provide leased line equivalent services and the entry of some WLA providers into LLA. Indeed, Ofcom explicitly recognises that in time there will be more providers providing LLA services.¹⁴ In fact Ofcom's basis for defining Area 3 is based upon whether the area is likely to see competition emerge that will act as a constraint to Openreach within the market review period. This is the narrow application of the market review framework, but Ofcom's broader analysis implies that competition may well emerge in Area 3 beyond the market review period. This longer-term view is seemingly ignored when Ofcom determines its proposed remedies. It is surprising that Ofcom proposes a remedy that will disincentivise the emergence of that longer-term competition and inconsistent with its regulatory duty to promote competition.
43. Further, the risk of regulatory failure is asymmetrical. That is, the nature of the proposed remedy is irreversible, as disincentivising entry now, during an industry-wide cycle of investment, means that it is extremely unlikely to be incentivised later. Conversely, it would be easier for Ofcom to cost-regulate in 2031 should anticipated competition not ultimately emerge.

There is a binary approach to remedies between LLA Area 2 and LLA Area 3

44. The contrast between LLA Area 2 and LLA Area 3 proposed remedies is stark – in one market Ofcom proposes continued CPI indexation of prices, while in the other it proposes to reduce prices below CPI down to cost. This contrast places a higher degree of importance on the geographic market definition than is justified by the evidence, with the respective remedies then applying in a binary and inconsistent way depending on a location's classification.
45. We consider that this presents substantial risk of regulatory error. Ofcom itself acknowledges that its geographic market approach is an approximation.¹⁵ Such an approximation is more tolerable if subsequent remedies are the same (as they were in the WFTMR, with the exception of the Dark Fibre Access (DFA) obligation). However, under the proposed remedies, if Ofcom has inadvertently classified

¹⁴ TAR Vol 2 para 5.37

¹⁵ TAR Vol 2 para 5.113

some areas that may have been prospectively competitive as Area 3, those areas will not now see that prospective competition emerge.

Three cost-based remedies are disproportionate

46. It is inappropriate to impose cost-based controls at three levels of the value chain (PIA, dark fibre and actives). In fact, the primary policy objectives of remedies at these different layers are fundamentally in conflict with each other. The purpose of the PIA and dark fibre remedies is to promote network investment and network-based competition, whereas the purpose of the price control on active assets is to give primacy to end customer protection, given an assumption of no prospect of network competition emerging.
47. We are unclear what Ofcom's policy expectation is regarding the imposition of cost-based remedies at three levels of the value chain. This lack of clarity does not provide certainty to the market and will adversely affect network providers ability to make business decisions. It also introduces the risk of cherry-picking, undermining Openreach's ability to make an appropriate return within Area 3. Such cherry picking can occur where Altnets select which regulated product to use based on the costs of serving an end customer e.g. they may take an active product from Openreach for costly to serve end customers, benefiting from the Area-wide averaged charge control, but use PIA to serve less costly end customers.
48. Ofcom has proposed cost-based remedies due to concerns that pricing continuity would insufficiently protect consumers from 'high prices'. We question why Ofcom would consider there to be high prices in Area 3 when the same prices apply in Area 2, despite the cost of service provision being higher in Area 3. However, even if Ofcom judge there to be 'high prices' in Area 3 then this is exactly the kind of signal that Ofcom expected would encourage new entry into the market, which has begun to emerge.¹⁶ When combined with the upstream remedies, for dark fibre and PIA, then we cannot understand why Ofcom would require cost-based remedies at the active level to lower prices in Area 3.
49. Ofcom's broad justification for the active cost-based control on low bandwidth services seems to be that dark fibre hasn't worked as intended. Despite this, Ofcom seems to expect that DFA will improve in attractiveness.¹⁷ This seems inconsistent with Ofcom's view that there will be an *"absence of an increasing constraint from*

¹⁶ See TAR Vol2 para 5.61 and 5.65

¹⁷ TAR Vol 4 para 2.83

cost-based DFA".¹⁸ This is inconsistent since on the one hand it considers that expanding Area 3 will help DFA take-up and then on the other hand that its constraint on actives will remain weak such that it must also impose a new cost-based control on low-bandwidth active services.

50. Further, Ofcom will face challenges in accurately forecasting volumes for each product due to increased uncertainty over the combination of remedies used by each ISP (i.e. they may choose to use actives to connect a single end customer, use DFA to connect a group of end customers, and potentially use PIA for a longer-term business case). Difficulty in forecasting these volumes will cause issues with price setting and appropriate cost recovery for both Openreach and Ofcom's charge control modelling.

Given the number of levels in the value chain, and fewer ISPs active in Area 3, it is unclear whether the impact of price reductions will flow through to end customers rather than to ISPs

51. Ofcom's imposition of cost-based controls is conducted with a view to its obligations regarding consumer protection. However, we consider that Ofcom has not appropriately considered the nature of LLA markets and the complicated value chains that they are part of. The presence of ISPs, resellers and aggregators and contracts at different levels of the value chain, mean that changes in wholesale terms do not necessarily immediately get passed on to end customers. Accordingly, there is a risk that wholesale price reductions in Area 3 may not be passed on to end customers.
52. This risk is consistent with Ofcom's view as to why the DFA remedy in Area 3 has not been effective for low-bandwidth services i.e. that weaker retail level competition in Area 3 may hinder the effectiveness of the remedy.

¹⁸ TAR Vol 4 para 2.96

The stark differentiation of remedies between geographic areas effectively requires geographic pricing between areas, something we have not done to date, since we treat EAD as a single product

53. The imposition of different pricing remedies in different geographic areas would require us to amend our systems to process multiple sets of pricing. A single product variant could require four or five different price points across different markets. This will affect order journeys, order classifications, communications with ISP customers, and billing and reclassification of existing circuits.
54. The cross-boundary circuits issue raised in Document 2, response to Question 2.10, is exacerbated here because ISPs and end customers may be unable to determine the price of a circuit until we have planned the circuit and the 'A-end' is known. It may create perverse incentives such as picking an exchange that resides in Area 3 as a termination location to achieve lower pricing for an end customer site that resides in a competitive market – an incentive which does not exist with a single price point, or where the lower price is in a more competitive market.
55. In order for us to implement differentiated geographic pricing as a standard set of prices, we will need to amend our systems. These system changes will impose substantial systems costs on us. We estimate that the cost of these systems changes is at least [X], and the timescales to implement due to the scale of development required mean we will require a transition period.
56. We expect that ISPs will also have to make systems changes to consume these different prices, with associated costs for them. Ofcom should ask ISPs what costs would be involved in them consuming and passing on differentiated geographic pricing. These costs should include both systems costs as well as opportunity costs if ISPs must deprioritise scarce capex budgets.
57. Our expectation is that ISPs will not welcome a move to geographic pricing which will make selling, communicating and engaging with end customers more challenging. This increases the risk that the reduced pricing may not be passed on to end customers as ISPs may choose to simply avoid incurring the likely material cost of system changes and simply price with one Area 2 price, allowing themselves to not only avoid cost but also benefit from absorb the pricing differential between Area 2 and Area 3.
58. Finally, we note that should Ofcom revise its proposals and reduce the size of Area 3 – in line with our response to Question 2.10, the smaller Area 3 would make it

even less likely that ISPs would choose to incur the same fixed systems costs to pass on lower Area 3 pricing.

Detailed comments on the ethernet charge controls

59. This section of our response is split as follows:

- i. LLA
 - o Area 2 – CPI-0% charge control
 - o Area 3 - Active services charge control (EAD charge control)
 - o Area 3 – Dark Fibre Access charge control (DFA charge control)
- ii. Inter-Exchange Connectivity (IEC)
 - o BT only and BT +1 Interexchange Dark Fibre (DFX charge control)

LLA Area 2

60. Ofcom's key objectives are to promote network competition and investment in networks that offer LLA services and protecting consumers in the shorter term whilst competition emerges.¹⁹ In 2021, Ofcom signalled a framework that would be maintained until at least 2031 delivering the continuity and certainty that network investors value. In 2021, the WLA and BCMR Area 3 footprints were identical.
61. In this context, Ofcom's proposals for LLA Area 2, to maintain a CPI-0% charge control for all active LLA services, is proportionate to support these objectives and we support this proposal. Likewise, its proposal in HNR, to not introduce a charge control, reflects the success of network competition and for this reason we also support this proposal.

LLA Area 3

62. Ofcom proposes to define a much-expanded Area 3 footprint and remedies at each point in the value chain, cost-based PIA and DFA services, and a cost-based charge control for leased lines services at bandwidths up to and including 1Gb (the vast majority of services supplied by Openreach in this market). This is despite massive

¹⁹ TAR Vol 4 para 2.5

investment in multi-service networks capable of supplying leased lines services since 2021 in most of this footprint.

63. Our objection to Ofcom's expanded Area 3 footprint is set out in response to our response to Question 2.10. Should Ofcom reassess its market boundary definition and make Area 3 smaller, a number of the concerns below, e.g. the need to disaggregate cost of supply, will be even more critical to get right.
64. Further, as outlined in detail above, Ofcom's proposal to reintroduce disproportionate cost-based controls in Area 3 on active services (EAD charge control) is an irreversible retrograde step. It risks fatally inhibiting the emergence of network-based competition at a critical juncture and just as network builders switch their focus from building networks to gaining end customers in residential and business markets. The long-term trends in this market under the current regulatory framework are towards competition emerging (see also our comments in Openreach TAR response document 2 paras 69-71). A more proportionate approach, which protects end customers whilst encouraging network investment and competition would be preferable and more aligned with Ofcom's primary objectives e.g. a CPI-0% charge control.
65. Ofcom's modelling of EAD unit costs has a direct read across on its proposals for the LLA Area 3 DFA charge control. The passive costs output from Ofcom's actives cost models is the basis for building the DFA charge control. The concerns we raise with regard to the actives charge control modelling therefore have a direct read across to the DFA cost model.

LLA Area 3 EAD charge control

66. Our key concerns regarding Ofcom's detailed modelling and forecast approach can be summarised as follows:
 - i. Openreach is not obliged to provide EAD circuits used for FTTP aggregation – these are supplied on a commercial basis. There is a significant volume of these circuits ([3<]) which are included in Ofcom's service volumes at regulated prices. Whilst it is correct to count these volumes for costing purposes, it is not appropriate to do so to forecast revenues. Any margin made on these services should be discounted for the purpose of estimated future regulated revenues.

- ii. Ofcom adjusts Openreach's service volume forecasts upwards, switching significant volumes of forecasted DFA demand to active services, thereby overstating active revenues and reducing the active unit costs of supply.
- iii. Ofcom uses national average costs of supply in its model. Elsewhere in its Consultation Ofcom considers that variations in geographic cost of supply is determinative of the level of expected network-based competition. It is of paramount importance that Ofcom take account of this to truly reflect the higher economic costs of supply in Area 3. This has a major impact on the modelled X.
- iv. Efficiency targets used by Ofcom are high in the context of a declining line base as certain costs tend to be more 'sticky' as volumes decline e.g. Openreach will not make volume driven disposals for transmission and accommodation assets.

67. We now outline these concerns in more detail.

EAD circuits used for aggregation

68. In its Consultation, Ofcom confirms, as in the WFTMR, that Openreach is not required to provide active leased line circuits where they would be used to aggregate FTTP to multiple premises for the purposes of deploying a fibre access network.²⁰
69. Following a meeting with Ofcom on 22 May 2025, our understanding is that Ofcom includes EAD circuits used for FTTP aggregation in its costs and revenue modelling. Prices in the model are set at the standard EAD price (the premium for FTTP aggregation is not included).
70. The majority of the circuits used for the purpose of FTTP aggregation are 1Gb circuits (we estimate about [X] circuits). The impact of including the revenue for these circuits in Ofcom's forecast is to inappropriately inflate the revenue forecast for regulated LLA services. The resulting X is thereby inflated.
71. It is appropriate to include these circuit volumes to estimate the fibre costs, they should take a share of the costs like any other LLA service. To remove the impact of these circuits from Ofcom's modelling we propose that the price for these

²⁰TAR Vol 3, para 7.126

services is set at cost i.e. remove any impact of the margin contribution these services have on the X.

Ofcom adjusted Openreach service volumes

72. The key volume that drives forecast costs and revenues is the forecast of the volumes for each service variant. Ofcom start with the Openreach forecast based on the Medium-Term Plan (MTP) which runs to 2028/29. That forecast was based on Ofcom's WFTMR definitions of Area 2, Area 3, HNR, Central London Area (CLA) and IEC.
73. For the purpose of its cost modelling (which is undertaken on a national basis) the national volume forecast was adjusted by Ofcom to take account of changes in market boundaries (expanded HNR, CLA and Area 3, and reduced Area 2), and assumptions about DFA take up. The method for adjusting the Openreach forecast is outlined at TAR Annex 14, paragraphs A14.56 to A14.86.
74. Ofcom explains three key adjustments:
 - i. Generate a new geographic forecast based on its new geographic boundaries. Ofcom say that "*our approach ensures that the national 2023/24 volumes for a given service remain consistent with the 2023/24 RFS following our adjustment*"²¹ i.e. the total market volumes, which it uses for revenue and cost modelling purposes, is unaffected. We have confirmed this is the case with reference to EAD LLA active Rental volumes:

Table 4.1: Adjusted base year volumes²²

[X]

- ii. Ofcom then replaced the Openreach forecast for DFA with its own.²³ The effect is to increase the forecast for active lines and reduce the DFA forecast. Our best estimate is that this increases the active lines forecast in 2028/29 by [X] circuits on a base of [X] circuits.

²¹ TAR Annex 14 A14.81

²² Source: [X]

²³ TAR Annex 14 A14.66 to A14.69

- iii. Ofcom then extrapolated that adjusted forecast to 2030/31 by applying linear trend extrapolation to generate forecast volumes for 2029/30 and 2030/31.²⁴

DFA volumes – take-up assumptions

75. DFA volume forecasts are not disclosed in Ofcom's confidential cost model. Based on Ofcom's Consultation description,²⁵ we have attempted to mirror Ofcom's forecast as outlined in Table 4.2.
- i. We remove all forecast growth in internal and external DFA rentals, which implies that DFA rentals remain constant at their 2023/24 level through to 2028/29.
 - ii. We assume that DFA rentals reach around 32% of combined external DFA rentals and external >1Gb actives rentals in Area 3 by 2028/29. We assume that 50% of Very High Bandwidth (VHB) demand forecast by Openreach as Area 2 is now part of Ofcom's expanded Area 3 and that VHB includes optical and EAD >1Gb demand.

Table 4.2: DFA volume forecast; additional active volumes 2023/31

[X]

76. On that basis [X] active circuits are added to the forecast base in 2030/31. This increases the X, all other things equal. Over the TAR period, this would equate to less than 4% of connection demand being for DFA despite its much expanded availability and significant lower cost of ownership over the TAR period.
- i. Ofcom argues that there are barriers to take up of DFA services but that their proposals here will mitigate those. In particular, Ofcom say the greatly expanded proposed LLA Area 3 geographic market definition will "*improve the economics of productising DFA*".²⁶

²⁴ TAR Annex 14 A14.62 to A14.63

²⁵ TAR Annex 14 A14.69

²⁶ TAR Vol4 paras 2.83 to 2.87

- ii. Taking Ofcom's charge control (SCAs and CPI-X glidepaths together) means the total cost of DFA circuit ownership for DFA customers will be lower in real terms at the end of the market review period than it is currently and with immediate effect.
77. We agree that a greatly expanded Area 3 and immediately available price reductions for DFA will stimulate demand for the service. Further we note that Ofcom has not restricted supply of DFA in Area 3 to just VHB services. It therefore makes no sense for Ofcom to assume in its charge control volume forecast that DFA will only address a very small proportion of the market (VHB demand only). Further, once an ISP productises Dark Fibre for VHB it will be in a position to expand its use to 1Gb services.
78. As a result, we disagree with the basis of Ofcom's forecast as it doesn't take account of the role that expanded availability of DFA or the application of large start charge adjustments will make to the wider adoption of DFA for services other than VHB.
79. Further, once one CP adopts dark fibre, the resulting competitive advantage will generate a competitive dynamic for others to follow. As downstream BT consume these services in Area 3 on an Equivalence of Inputs basis, adoption of DFA for internal demand would be the only response available to BT's downstream businesses to compete with lower cost competitors using DFA.
80. In summary, Ofcom's forecast assumption that DFA will be adopted only for external supply and, even then, only for VHB services is not proportionate or appropriate; nor does it fit in with its market assessment in Volume 4 of the Consultation. Ofcom should adjust its forecast upwards on the basis its TAR decisions in relation to Area 3 will stimulate DFA demand at other than at VHB and for internal supply

Disaggregated costs of supply

81. It is understood that costs of supply in less dense areas are higher than those in dense areas. Ofcom recognised this in relation to BCMR services in 2016:

"BT has an obligation to provide services on a national basis. This includes a mixture of geographic areas, some of which will have significant economies of

*scope and density, but also others where such economies are lower and so the cost of supply is much higher."*²⁷

82. In 2016, Ofcom was setting charges on a national basis and as a result this was a moot point in terms of the costs it should use for charge control purposes.
83. In the Consultation, Ofcom proposes an active charge control in Area 3 only. It also obligates Openreach to supply PIA and DFA, the purpose of which is to promote network investment and network competition. In setting the Area 3 active charge control Ofcom uses national costs and national volumes. This is despite significant cost of supply variation between CLA, HNR, Area 2 and Area 3, with Area 3 being highest cost because it has the least economies of scope and density. In fact, Ofcom's BCMR market boundaries themselves are a reflection of relative economies of scope and density.
84. Prior to the WFTMR, costs for BCMR services were reported in the Regulatory Financial Statements (RFS) by market. In the WFTMR reporting direction, Ofcom directed BT to report costs in the RFS on a national basis.

*"We proposed to require BT to prepare costs in geographic markets on a national unit cost basis for consistency with our modelling. By national unit costs, we meant a unit cost per service that does not take account of any differences in circuit lengths – total costs in a geographic market would then be estimated by multiplying the national unit cost per service by the volume of services in the geographic market."*²⁸

85. That was not unreasonable given Ofcom's approach to controlling prices and recovering costs i.e. national pricing and a common CPI-0% charge control in each market.
86. Ofcom use the RFS costs in its modelling unadjusted for differences in geographic costs of supply.
87. BT hasn't published disaggregated costs for BCMR markets since the WFTMR reporting statement. However, pre-WFTMR reporting is illustrative of the problem that nationally averaged costs will systemically understate the costs of supply in Area 3.

²⁷ BCMR 2016 Vol 3 para 5.68

²⁸ WFTMR, Vol 6 para 4.119

Table 4.3: 2020 CISBO reported volumes and costs²⁹

Market	Disaggregated costs				National costs			
	Vol of rentals		FAC	Unit FAC	FAC	Unit FAC	Error	
	Ccts	%	£m	£	£m	£	£m	%
CI BT only	153,351	67%	318	2,072	294	1,919	-23	-8%
CI BT+1	65,909	29%	109	1,654	126	1,919		
HNR	9,557	4%	12	1,297	18	1,919		
	228,817		439	1,919	439	1,919		

88. As can be observed (left hand side of Table 4.3), the Contemporary Interface (CI) BT Only market had the highest unit cost of supply in 2020. As outlined above, Area 3 has the highest costs of supply now and is analogous to the CI BT Only market in principle. For illustration, Ofcom's TAR modelling approach would have resulted in the costs in CI BT Only being understated by 8%. A cost-based charge control set on that basis would obviously be disproportionate and unnecessary.
89. We are truly surprised that given Ofcom should be perfectly aware of geographic differences in costs of supply that it would nevertheless propose a charge control in Area 3, irrationally based on national average costing, without indicating in its Consultation that it would need to correct this in the Final Statement.
90. In order to respond to this Consultation we have estimated the cost of supply in Area 3 in 2023/24 compared to the national average. This is a rough estimate. Our rough estimate of the Fully Allocated Costs (FAC) differential per circuit, between Area 3 and the national average FAC is [X]. As a result, we would impress upon Ofcom the need to truly reflect the cost of supply in its charge control proposals and inflate the costs in its model by [X] to estimate true Area 3 costs of supply. To do otherwise would compromise its objectives:
- It will not reflect the principles of cost of causality and fully allocated costs, restricting Openreach from earning a fair rate of return in Area 3.
 - It will send false signals in terms of investment further undermine investment signals already affected by this policy.

²⁹ Source: 2020 Regulatory Financial Statements

- iii. It will exacerbate geographic distortions and create cross- subsidisation from other areas and ultimately disadvantaging Openreach in more competitive areas.
 - iv. It will further undermine downstream competition from PIA operators.
91. Our proposal is that we work with Ofcom following the Consultation on a fit for purpose method of generating disaggregated costs for cost modelling purposes. Our preferred approach would be to start with the same basis of allocation as we did in the past. This would have the benefit of being the same methodology as was used for some years prior to 2021 for historic RFS reporting purposes and further, was used by Ofcom in historic charge control decisions up to 2021.

Efficiency targets used by Ofcom are high in the context of a declining line base

92. For the purpose of the proposed leased line price control Ofcom have set central efficiency targets of 6% against operating costs and 4.5% against capital costs. Ofcom calculated these targets based on Openreach management information but they *"recognise that these efficiencies are levels achieved by Openreach as a whole and are not specific to our relevant services"*.³⁰ These targets compare to the WFTMR assumptions of 5% for operating costs and 4.5% for capital costs.
93. However, Ofcom's modelling for the TAR price control includes an additional challenge for Openreach in that they are forecasting active leased lines to decline by 8% during the period of the price control. Ofcom have used very similar Asset Volume Elasticities (AVEs) and Cost Volume Elasticities (CVEs) to those used in WFTMR when volumes were increasing. Costs tend to be stickier when volumes decline e.g. transmission equipment and accommodation costs are not disposed of and as Ofcom have not adjusted the AVEs and CVEs to recognise this problem then Openreach will need to make efficiencies just to reduce costs in line with Ofcom's CVEs.
94. Ofcom should recognise the environmental challenges of a declining line base for active leased lines and reduce the efficiency target and/or the CVEs accordingly.

Other comments

95. Ofcom should note that it seems to have transposed pay and non-pay inflation in their modelling i.e. used pay values when they intended to use non pay values and

³⁰ TAR Annex 14 para A14.97

vice versa. This has an immaterial impact on the proposed charge controls but should nonetheless be corrected in the final statement.

96. Ofcom should also note that a UK-wide business rates revaluation is currently in progress and the updated rateable values will be available when the compiled rating list is published in late autumn. Ofcom should commit to update their cost forecast prior to final statement to reflect the Valuation Office (VOA) proposals.

LLA Area 3 DFA charge control

97. The concerns outlined above regarding Ofcom's detailed modelling and forecast approach (overstated volumes, use of national instead of disaggregated costs and the impact of falling volumes on CVEs / efficiency) for the EAD charge control directly read across to the passive elements of Ofcom's modelling and forecast approach for the DFA charge control.
98. Openreach has no further comments on Ofcom's modelling approach to non-active costs elements of DFA.

Detailed comments on aspects of the charge controls

EAD Rugged

99. Ofcom has included EAD Rugged in the definition of the Ethernet (all bandwidths) Basket.³¹ This is inappropriate and inconsistent with the approach to predecessor service (Street Access). In previous reviews, Ofcom has not found Street Access to be an SMP service³² and accordingly it has not been included in the scope of the charge controls.
100. Openreach has launched EAD Rugged as a replacement for the end-of-life Street Access portfolio. Ofcom has confirmed the long-understood position that leased lines used for specialist applications such as Broadcast Access and Street Access are excluded from the SMP market.³³

³¹ TAR Annex to Condition 12E

³² WFTMR, Annex 5, A5.32 and BCOMR 2019, Footnote 129

³³ TAR Annex 9 A9.29

101. We believe that EAD Rugged should be excluded from the SMP market in the same way that Street Access was due to it being the replacement product. Both provide connectivity for outside locations where a ruggedised small form factor NTE is required, such as lamp posts and street furniture.

Balancing charge

102. The EAD £2,800 Excess Construction Charge (ECC) exemption and ECC balancing charge was introduced in 2014. This was introduced as a result of industry lobbying to improve certainty and avoid unnecessary delays in order provision waiting for every ECC to be authorised. At the time of introduction, the £2,800 exemption was found to result in 92% of orders having ECCs of £2,800 or less.
103. While ECC charges have increased in the interim years, Openreach's FTTP footprint has also expanded, meaning rising ECC prices have been largely offset by a lower incidence of ECCs.
104. The 2025/26 review of the balancing charge (based on 2024/25 orders) found that 90.8% of orders had ECCs of £2,800 or less, broadly consistent with the original intent.
105. An increase to the ECC exemption from £2,800 to the proposed £3,680 would increase the balancing charge from £708 (based on current data) to £775 and see 93.8% of orders covered by the ECC exemption. This would result in all EAD connection charges increasing by £67, to subsidise the extension of the offering to harder to reach sites, beyond the original intent of the offering, increasing the connection charge for all EAD customers.
106. For the intended 92% of orders to be covered by the ECC exemption, the ECC exemption would increase from £2,800 to £3,090. Correspondingly the balancing charge would increase from £708 to £733, a £25 increase.
107. The ECC exception was intended to provide ISPs certainty of pricing to avoid unnecessary rework, by creating a situation where the vast majority of orders do not need to authorise or pay ECCs. This is still very much the case, and we consider increasing from 90.8% to 93.8% would provide no material benefits in terms of this certainty whilst driving up costs for the majority (by £67) by in effect expecting them to subsidise the minority. We therefore call for Ofcom to retain the current exemption level of £2,800 for continuity, or at a maximum increase to £3,090 to maintain the original intent to cover 92% of orders.

IEC

Question 4.4: Do you agree with our proposals for charge controlling in the IEC markets? Please set out your reasons and supporting evidence for your response.

108. Ofcom propose a CPI-0% charge control on all active IEC services at BT Only and BT+1 exchanges. We agree that the evidence of take up suggests the availability of DFX at cost-based prices (and PIA at cost-based prices) reduces the risk associated with excessive prices for active IEC services. In this context, we agree that a charge control for active IEC services of CPI-0% provides a proportionate level of consumer protection without undermining incentives to migrate to DFX services and we are broadly supportive of Ofcom's proposal to retain a charge control with CPI indexation for active IEC services.
109. Ofcom proposes to expand the geographic footprint of the obligation to provide DFX and extend the charge in line with that expansion. As set out above, we do not agree with the expansion of the DFX remedy to cover all regulated exchanges. Ofcom finds *"the market for IEC has been broadly stable since WFTMR 21"*³⁴ yet plans to significantly increase the level of regulatory intervention by regulating 35% more exchanges.³⁵ This outcome is inconsistent with Ofcom's findings and is disproportionate to the potential competitive harm identified.
110. In common with its proposals for a larger LLA Area 3 geographic footprint, this is an unnecessary irreversible retrograde step and Openreach does not support it.

Detailed comments on the dark fibre interexchange charge controls

111. Ofcom also proposes to impose a cost-based charge control for DFX connections, circuit rentals and main link rentals at BT Only and BT+1 exchanges. We have concerns about the calculation of the charge control for these DFX services.
112. Ofcom follows a similar approach to forecasting DFX costs as it does with DFA. First it forecasts IEC costs to estimate the costs of the common DFX and IEC

³⁴ TAR Vol 2 para 6.8

³⁵ 4,947 in TAR compared to 3,652 in WFTMR

component costs. Then it adds the cost for passive elements that are not used for supply of active services.

113. Ofcom's approach to modelling and forecasting LLA and IEC costs uses similar principles. The points made above regarding the use of nationally averaged costs, the interplay between efficiency and the AVEs / CVEs apply also to IEC cost modelling and the resulting charge control.
114. Ofcom uses national average costs in its model. Our initial investigation into the costs and use of inter exchange fibre shows a [X] difference in the costs to supply for BT Only and BT+1 i.e. the unit FAC for these links are [X] greater than the national average. We consider it is imperative that Ofcom base its charge control decision on the costs of supply in the separate geographic markets to reflect the higher economic costs of supply in BT Only and BT+1.
115. The efficiency parameters estimated by Ofcom relate to the whole Ethernet portfolio and are not disaggregated between markets. In common with LLA A3 we consider Ofcom should recognise the environmental challenges of a declining line base for active leased lines and reduce the efficiency target and/or the CVEs accordingly.
116. We have no further comment to make about these factors here, please refer to the LLA section above for more detail.
117. In addition to the above we have not been able to fully replicate Ofcom's volumes forecast and would appreciate further clarity on its adjustment for internal supply. Further we have a concern regarding a backhaul cost allocation issues that leads to an understatement of costs for backhaul fibre allocated to the IEC services.

Volume Forecast

118. Ofcom adjusts the Openreach forecast for the purpose of its charge control modelling. In common with LLA volumes it starts with 2023/24 outturn values and then adjusts them using the Openreach forecast as a base.
119. For IEC services the key adjustments to the national volume forecast are:³⁶

³⁶ TAR Annex 14 A14.61

- i. A bespoke forecast of main links - main link volumes constitute the majority of Ofcom's forecast volumes for cost modelling purposes.
 - ii. An adjusted forecast for internal supply – this uses information supplied by downstream BT.
120. We can see from Ofcom's confidential cost model that the impact of these adjustments results in a moderate decrease in the total of main link plus IEC fibre kms from 2025/26 to 2030/31.
121. We agree that the expected demand for main links plus IEC will fall over the relevant period as there is expected to be a large reduction in EAD Standard volumes (Ofcom's own modelling suggests a [X] reduction) driven by exchange exit plans, a declining need for LLU backhaul aligned to All IP migrations and CP POP consolidation in fewer handover locations. In this context Openreach has also notified that it is retiring most of the EBD network due to its age and this backhaul will either be no longer needed, or CPs have in place plans to aggregate this backhaul over fewer modern higher capacity backhaul connections.
122. We haven't been able to replicate Ofcom's adjustment for internal supply but can see that it results in a small but significant increase in forecast volumes, all other things equal. The precise nature of the adjustments Ofcom make is not disclosed. We would welcome further clarity from Ofcom at the earliest opportunity in order to properly consider the assumptions they have made.

Backhaul fibre costs

123. As part of the normal course of business we regularly review the underpinning allocations of costs in the RFS to ensure the appropriate costs and returns are reported in the RFS. Such a review identified a potential issue with under allocation of backhaul costs to IEC services. We uncovered this issue too late to adjust RFS 2025 (due for publication in July 2025), which we understand Ofcom will use as the base year for its final statement and too late for Ofcom to include in its cost modelling for the TAR Consultation.
124. We first raised this issue with Ofcom during the biweekly meeting with BT on 11 December 2024. A detailed assessment of the proposed changes was subsequently provided by email on 21 February 2025, so that Ofcom could consider making adjustments to its TAR cost modelling. Ofcom informed us that it was unable to review this information prior to the publication of the consultation and preferred to discuss it afterwards. We met with Ofcom on 1 May 2025 to fully

Issued by: Openreach

Issue: 1

Date: 12/06/2025

explain the issue and to agree on the content and format of the information required for consideration in the TAR final statement. We intend to continue working with Ofcom to resolve this matter following this Consultation response.

PIA

Question 4.5: Do you agree with our proposals for charge controlling in the PIA market? Please set out your reasons and supporting evidence for your response.

125. Our main comments are as follows:

- i. Ofcom's overall objectives are sensible and we agree with them. Ofcom have identified and measured the correct costs for running our physical infrastructure network.
- ii. We agree that there should be a charge control in the PIA market. However, we disagree with Ofcom's proposals to make, what appear to be, highly selective adjustments to; single bore duct, single user pole attachments and Simplified Lead-in. We also disagree with the proposed removal of the charges for pole top equipment and cables that run up poles.
- iii. Our overarching position is that it is wrong for Ofcom to make changes to these prices in isolation. Rather, if Ofcom believes that there is an issue with the current PIA prices, it should conduct a full holistic review of PIA pricing and fair cost recovery.
- iv. Further, in the case of single bore duct and single user pole attachments Ofcom's proposed adjustments appear to suggest a level of precision that is at odds with the pragmatic (and arguably crude) approach taken to setting all the other prices. Whereas, in the case of Simplified Lead-in we believe that Ofcom has not taken proper account of the sharing factors that are already inherent in this product and has consequently compounded these sharing factors in error.
- v. We believe that the removal of the charges for pole top equipment and cables that run up poles will weaken the incentives for Altnets to use our network efficiently.
- vi. We also note that all of Ofcom's selective changes result in reducing the contribution made by Altnets and this is at odds with the high-level metrics that suggest that Altnets are not making a sufficient contribution, given their current coverage and usage.

126. In the WFTMR, Ofcom took a number of policy-based decisions to ensure that Altnets could have access to Openreach's passive network on favourable terms to reduce their build costs and ensure competitive entry. For our part, we leaned-in, developing the product in collaboration with Ofcom, the OTA and Altnets, to ensure

Issued by: Openreach

Issue: 1

Date: 12/06/2025

that it is fit for purpose and going beyond our strict regulatory obligations to develop and enhance the product in-life as our experience of using it collectively as an industry grows.

127. Our start point in this review is that PIA is a huge success; the investment since WFTMR in gigabit capable networks has been far in excess of expectations at the time and any significant changes to the framework should only be considered if there is compelling evidence of a need for change and it can be shown that the change will not undermine future investment.
128. Ofcom's pricing proposals are made against a backdrop of low Physical Infrastructure (PI) price levels, with Openreach's disproportionate contribution to PI costs significantly benefiting Altnets in the WFTMR period and beyond into the TAR period – but with the expectation that PIA prices will need to increase in the longer term to ensure fair cost recovery.
129. The long asset lives and the historical age of the infrastructure means that much of the build cost has already been recovered in previous periods, leading to a relatively low asset valuation, compared to the cost of building brand new infrastructure. As a result, we supply a very large and ubiquitous physical infrastructure network that is available for use by Openreach and Altnets at a very low-cost level.
130. Altnet actual use of PI assets far exceeds the proportionate contribution they make to these modest PI costs. In FY 2023 reported external revenues for PIA were £33m and CCA adjusted costs were £855m. In other words, Altnets in aggregate contributed 4% of costs and Openreach 96%. We regularly report Altnet PI usage to Ofcom. In June 24, we reported that Altnets' use of PI assets was extensive, about 17% of the network was unbundled; 88.5k km of duct had been unbundled (total network 481.5k km) and 663k poles (total network 4,143k) and that a similar proportion was in the pipeline.
131. Given this backdrop it is not clear why Ofcom feels the need to intervene at this time and it is a surprise that Ofcom proposes significant reductions to various PIA prices (e.g. c. 50% price reduction to Simplified Lead-in) to seek to avoid long term over-recovery of costs on those components on the basis of a partial review which does not take into account all factors that will have a bearing on longer run cost recovery and the likelihood that a more complete holistic review would determine the need for Altnets to increase their contribution to PI cost recovery in the longer term through higher prices.

132. We note that our provisional analysis of the average length of some key components in the Simplified Lead-in price point to a material increase in price.
133. We do not agree with Ofcom that removing the charge for pole top equipment and cables that run up poles is either appropriate or provides any meaningful additional simplicity.

Overall objectives for PIA pricing

134. Ofcom's overall objectives for PIA pricing are consistent with those in the WFTMR.
- i. Charges should be simple and easy to implement;
 - ii. Charges should provide good pricing signals for network investment;
 - iii. A level playing field should exist between telecoms providers that make use of PIA and Openreach's own fibre build programme; and
 - iv. Openreach should be able to recover its efficiently incurred costs as this provides the regulatory certainty that supports its incentives to invest in its physical infrastructure (i.e. maintain the assets that network providers are seeking access to).
135. In addition, providing Openreach the opportunity to recover its efficiently incurred costs via PIA charges also provides the appropriate regulatory signals to ensure the correct investment signals for Openreach in general.
136. We agreed with those objectives in the WFTMR and continue to do so because they support efficient investment in fibre networks.

Ofcom's overall approach to the calculating the PIA pricing control

137. We support maintaining a consistent approach to previous PIA charge controls as this should provide good long-term signals for network investment. Ofcom has articulated this approach as being in two steps:
- i. Which costs and how should they be measured?
 - ii. How should these costs be recovered?

Which costs and how should they be measured

138. It is self-evident that using RFS data as the start point is a good approach – stakeholders should have confidence that the audited RFS reports PIA costs at the granularity and in the manner directed by Ofcom so as to separately report PI costs

appropriately. Forecasting costs using Openreach forecasts for PIA investment and Ofcom's own evidence-based assumptions for inflation and cost volume elasticities is a well-tested approach and, properly executed, should result in a fair assessment of the level of costs to be recovered over the charge control period.

139. But Ofcom's approach is not without its problems.

- i. PIA contributes very little to non-PI fixed and common costs: [3<] % of the recoverable costs for PIA are investments that have been capitalised and set with very long asset lives of 40 years. Long asset lives like this inherently bring risks for cost recovery and because of the nature of PI products the cost base contributes very little to recovery of fixed and common costs of Openreach.
- ii. To date, Openreach has needed to invest an additional [3<] in specifically making our infrastructure easy to use for Altnets. Given PI long asset lives these costs will not be fully recovered for decades, and it will fall to Openreach itself to absorb a significant part of these costs.

140. These are issues that will need to be addressed in future charge controls.

Asset value

141. We agree with Ofcom that it is not appropriate to change its methodology for valuing our physical infrastructure assets and inappropriate to move to any kind of Modern Equivalent Asset (MEA) valuation. In order to be able to fairly recover our very long-term investments in the infrastructure, including work done on behalf of Altnets, it is essential that Ofcom maintain a long term and stable cost recovery mechanism in order to avoid under-recovery of efficiently incurred PI costs. In addition, fibre builders are able to make use of all and any of our huge network of PI that stretches right across the country in urban and rural areas. It is difficult to imagine why any of these assets might be considered redundant or without value.
142. Ofcom has proposed to assume duct and pole asset price inflation of 2% per annum for forecast years rather than linking to RPI. This encompasses two key changes:
 - i. Asset price inflation is now forecast to be significantly lower. The OBR views the current long-run value of RPI to be 2.9% and then 2.4% from 2030 onwards as RPI converges with CPIH.
 - ii. It breaks the principles of Current Cost Accounting (CCA) by using a fixed value rather than an indexed value.

Issued by: Openreach

Issue: 1

Date: 12/06/2025

143. Ofcom has not given any specific reason for this change, nor does it discuss the implications of it, but we believe that it is likely due to the recent volatility in inflation and the impact it had on reported returns. The resultant large holding gains made the RFS difficult for some users to interpret (for example, in 2023/24 the costs of using our PI were reported as negative costs). We can appreciate Ofcom's intentions and note that in theory, this change will have a negligible effect in practice on charge controls and cost recovery. However, there is a risk that this change may create a gradual misalignment between Ofcom's view and the true economic value of the asset over time.

Table 4.4: Average of different inflation indices over the last 15 years, 2010-2024³⁷

	CPI	CPIH	RPI
Past 15-year average	3.0%	2.8%	4.1%
OBR long-term assumption	2.0%	2.4%	2.9%

144. Table 4.4 above shows that different inflation indices have averaged between 2.8% - 4.1% over the last 15 years, well-above their long-run assumptions. Inflation tends to average above their long-term economic assumptions, with the risks predominantly on the upside. By opting for a value on the lower end of inflation indices, Ofcom risks creating a misalignment between the economic value of the asset and the price signals it is setting. This would be an inefficient outcome with the potential to decrease investment incentives.
145. Whilst we understand Ofcom's intentions, we think that ignoring inflation volatility is not a sufficient reason to break the long-standing regulatory precedent in CCA. Ofcom should maintain the RPI-index, which will converge with CPIH by the end of the TAR period. CPIH is less volatile than RPI and CPI, which mitigates some of the concerns around volatility. CPIH is also better aligned with other regulators.
146. If Ofcom is averse to maintaining indexation, we propose that the best approach is to use a higher index, for example 3.0%, which will better align Ofcom with the historical evidence on likely inflation outcomes.

³⁷ Source: ONS and OBR

How should these costs be recovered?

Single bore duct – 46%

147. In the WFTMR, Ofcom determined that where an Altnet placed fibre in our single bore duct then a fair share would be for the Altnet to contribute half of the costs with Openreach bearing the other half. Ofcom is now concerned that in the long run it will become increasingly likely that more than one Altnet will place its fibre in the same section of single bore duct. To mitigate this, Ofcom proposes to assume that in 20% of single bore duct sections there will be two Altnets, who should contribute a third each, leaving Openreach to bear a third. And in the other 80% of single bore duct sections there will be one Altnet, who should contribute half, leaving Openreach to bear the other half. Ofcom then calculates the weighted average contribution that an Altnet should make. This weighted average is 46%.
148. Ofcom then proposes to apply the same principle of multiple Altnets using the same infrastructure to reduce the sharing factor for multiple user pole attachments from 63% to 47.5%.
149. We do not agree that this adjustment to the WFTMR is necessary or justified for either single bore duct or multiple user pole attachments.
150. In setting PIA prices in the WFTMR, Ofcom took a simple and pragmatic approach that was intended to share the costs between Altnets and Openreach in a fair way, enabling Altnets to enter the market, encourage efficient use of the network and ensure cost recovery.
151. It is apparent that the approach taken in WFTMR has been successful. Many Altnets have entered the market using PIA and built extensive fibre networks. At the same time there is no obvious over cost recovery. We therefore seem to have a simple and pragmatic approach to PIA price setting that is working well. Given this backdrop it is not clear why Ofcom feels the need to intervene at this time.
152. Moreover, Ofcom is not exposing its approach to a full and detailed review nor conducting a detailed review taking into account all relevant long run factors. Rather, it appears to be proposing very selective adjustments to the existing approach, all of which result in reducing the Altnet contribution.
153. For illustrative purposes, we consider two factors (of many potential factors) that such a longer-term review might entail:

- i. As the copper network is replaced by full-fibre networks in the longer term, the attribution of PI costs to legacy Openreach services will fall away and more costs in total will need to be recovered from all network providers. This raises a real concern that Openreach and Altnets will have to make an increased contribution to make up the shortfall and ensure cost recovery whilst maintain a fair attribution of costs so that all operators can compete fairly. We would expect a review of fair sharing factors to consider this issue with an expectation that in the longer-term prices may have to increase to maintain a sustainable PIA price.
 - ii. Based on analysis performed to respond to this Consultation it is apparent that the assumed length factors used for cost recovery for the Simplified Lead-in is grossly understated.
154. It is difficult to reconcile the simple and pragmatic approach taken in the WFTMR, with Ofcom's TAR proposals where it proposes to change the single bore duct sharing factor from 50% to 46% based on the weighted average calculation described above. It appears that Ofcom is making very detailed selective adjustments to what is inherently a very pragmatic (and arguably crude) approach.
155. If Ofcom believes that a more detailed approach is now needed, then we believe that this more detailed approach should be applied across the entire PIA product set to ensure consistency.
156. We do not believe that current PIA prices result in Altnets paying more than a 'fair' share or that they are leading to over cost recovery. Therefore, if Ofcom feels that certain PIA products are currently priced too high it follows that other PIA products must currently be priced too low.
157. Openreach believes that consistency over the ten-year investment period, to 2031, is very important and as such would support the continuation of the WFTMR approach. We do however believe that the approach to PIA price setting does need to be fully reviewed to ensure that it is fit for purpose going forwards. We believe that such a review should be conducted in 2031 and we are advocating this. However, if Ofcom feels that such a review should be done in the TAR, we would of course be happy to engage in that process.

Simplified Lead-in and single user pole attachments - 46%

158. Ofcom approaches the sharing of Simplified Lead-in and single user pole attachments in a similar way. To avoid repeating the same points in relation to

single pole user attachments, the comments below regarding the Simplified Lead-in equally apply to single pole user attachments.

159. The Simplified Lead-in product contains three subcomponents; dedicated lead-in, single bore and junction box. When determining the original price for this product the average amount of network per end user for each subcomponent was calculated. An assumed sharing factor for each subcomponent was then applied. These sharing factors were: 100%, 50% and 15% for dedicated lead-in, single bore and junction box respectively.
160. In the WFTMR Ofcom expressed concerns that once an Altnet had installed a fibre cable to provide a service to the end user they would be unlikely to remove that fibre if the end user churned to another provider at a later date. To address this Ofcom determined that the sharing factor for the dedicated lead-in subcomponent should be reduced by 10%, to account for churn (their churn modelling indicated between 5% and 20% would be appropriate by the end of the WFTMR period). This resulted in Ofcom applying a 90% sharing factor to the dedicated lead-in subcomponent (instead of 100%).
161. In the Consultation Ofcom has assumed that in the long run churn is likely to have a much bigger impact and to account for this the sharing factor(s) should be reduced by 54% (instead of 10%). Ofcom changes the single bore subcomponent sharing factor from 50% to 46% and then applies a 46% sharing factor to the entire Simplified Lead-in product not just the dedicated lead-in.
162. It is wrong to apply the single bore duct sharing factor to lead-ins and single user pole attachments
163. Ofcom appears to have taken its calculated weighted average sharing factor from single bore ducts (46%) and applied this to lead-ins. We do not believe that this is right, as the dynamics of sharing in the single bore duct sections are different to the dynamics of sharing lead-ins.
164. Specifically, in single bore duct, sharing is determined by how many operators on average (including Openreach) will use the same section of single bore duct, in those sections where more than one operator is present.
165. Whereas, lead-in sharing will be determined by end user churn levels and what the operators do (in terms of maintaining lead-ins) when they lose an end customer. Making this forecast is not straight forward. For example, if an operator does maintain unused lead-ins after they have lost an end customer (which is Ofcom's

key underlying assumption) then Ofcom would need to decide the probability of the operator regaining that same end customer in the future i.e. when this happens the operator would no longer be paying Openreach for an unused lead-in anymore. In the TAR review period, the forecast would be further complicated by the fact that Altnets are expected to be growing their end customer bases. This means that much of their end customer base would be relatively new, and as such not expected to churn much in the near term.

166. For the purposes of the WFTMR, Ofcom did its own modelling to estimate the impact of churn over the five-year period of the market review. Its modelling indicated that a discount of between 5% and 20% would be appropriate by the end of the market review in order to account for churn. For the purpose of its price control modelling, it selected a central position of a 10% discount or put another way a sharing factor of 0.9.
167. Ofcom does not appear to have made any attempt to forecast churn, take-up and Altnet behaviour in relation to lead-ins. Rather, it seems to have simply assumed that the net result will be a sharing factor of 46%, i.e. the same as the weighted average sharing factor it has calculated for single bore duct without any evidence that this is correct.
168. However, it is clear that the sharing factor for lead-ins could lie anywhere in a very broad range, depending on the churn assumptions used. At the very least Ofcom should model Altnet churn and show that for a reasonable set of assumptions a lead-in sharing factor of 46% for the period 2026-31 is reasonable. Ofcom has simply not done this.
169. Ofcom's conclusions that the sharing factor could converge on 46% is not supported by the evidence we have gathered about the impact of churn. In Table 4.5 below we outline the state of play as of May 2025. Altnets used [X] ducted lead-ins. [X] of these lead-ins also have an additional Altnet present and [X] had an active FTTP connection present. This data suggests that Ofcom's WFTMR assessment, that about 10% of Altnet lead-ins would have a dual contribution from another operator, was about right.

Table 4.5: Impact of churn³⁸

[X]

³⁸ Source: Openreach data

Error in applying the lead-in sharing factor to all Simplified Lead-in components

170. Notwithstanding the above points, the current Simplified Lead-in product is already based on sharing factors built into the subcomponents. We believe that the net effect of these inherent sharing factors results in a fair and conservative price for Altnets.
171. The current price for the Simplified Lead-in product is already based on an average overall sharing factor of 53%. When calculating a fair contribution for the Simplified Lead-in product, the subcomponents within it are first averaged (to get the average component usage per end user) and then a sharing factor is applied to each component. The net effect of these sharing factors is 57%, at the product level. In the WFTMR, Ofcom then applied a (churn) sharing factor of 90% to the dedicated lead-in subcomponent. This resulted in a total sharing factor for the product of 53%. (see Table 4.6).
172. In the TAR Ofcom is proposing to change the single bore subcomponent sharing factor from 50% to 46% and then apply a 46% sharing factor to the entire Simplified Lead-in product.
173. Compared to the WFTMR the proposed TAR changes have the following impacts on the Simplified Lead-in subcomponents: reduce the dedicated lead-in sharing factor from 90% to 46%; reduce the single bore sharing factor from 50% to 21% and reduce the junction box sharing factor from 15% to 7%. The total impact at the product level is to reduce the (average) sharing factor from 52% to 25%.
174. The implication of having an average sharing factor of 25% for the Simplified Lead-in product is that on average four operators must be paying for the same lead-in in perpetuity. This is clearly implausible.
175. We believe that this must be an error, and that Ofcom has not taken into account the sharing factors that are already inherent in the Simplified Lead-in product.

Table 4.6: Lead-in component sharing factors

	1	2	3	4	5	6	7
Simplified lead-in components	Average Length	Average homes / segment	Average Unique Usage	Ofcom unit cost	Component sharing factor	Churn sharing factor	Simplified lead-in price
Dedicated Lead-in	10.5 m	1	10.5 m	£0.93	1.00	0.46	£4.44
Single Bore Duct	26.1 m	3	8.7 m	£0.95	0.46	0.46	£1.72
Joint Box	1.4 exits	3	0.45 exits	£20.38	0.15	0.46	£0.63
							£6.79
WFTMR assumptions shown are in red parentheses where different to TAR							
weighted sharing factors:							0.52 0.25

Issued by: Openreach

Issue: 1

Date: 12/06/2025

Key

1. The average distance of each home from the CBT. Derived from a sample.
2. Some of parts of these lead-ins are shared by more than one home.
3. The average amount of unique infrastructure used by each home
4. Approximate unit cost derived by Ofcom in their modelling.
5. The sharing factor that was built inherently into the Simplified Lead-in as a consequence of the sharing factors already used in the prices for the equivalent services.
6. An additional sharing factor introduced by Ofcom because of their concerns that more than one Altnet may find themselves paying for the same infrastructure.
7. Combined sharing factor calculated as step (5) x step (6). We have weighted the sharing factors by the Ofcom unit costs step (4) to calculate the weighted sharing factor for Simplified Lead-ins overall.

176. During the WFTMR, we spent many hours informally and formally explaining the methodology we had developed with industry for the Simplified Lead-ins. The issue of what components would be subject to the discount factor (as a result of churn) and which would not, was discussed at length and in detail with the Ofcom team. Following this engagement Ofcom specifically decided in the WFTMR to only apply the lead-in discount factor to dedicated lead-in component and not to the other elements. While Ofcom did not explain their reasoning for this decision in the WFTMR, based on the discussions we had at the time, we understand that Ofcom's reason for not applying the lead-in discount to the single bore duct and junction box elements of the Simplified Lead-in was because the costs for those elements were already discounted.
177. We consider Ofcom is wrong to change its conscious decision in the WFTMR to not apply the churn sharing factor to the shared components of the Simplified Lead-in product.

Simplified Lead-in length assumptions

178. We fully supported Ofcom's proposal to simplify the product and pricing in the WFTMR, as it aligned with our proposed product specification and with the detailed feedback we received from our PIA customers.

Issued by: Openreach

Issue: 1

Date: 12/06/2025

179. However, as noted above we do not agree with Ofcom's proposed reduction to the Simplified Lead-in charge in relation to:
- i. The value of the churn sharing factor (i.e. 0.46)
 - ii. Incorrect 'doubling up' of sharing factors.
180. We now turn to the average total Simplified Lead-in length assumptions used in the WFTMR (and TAR) calculation. Our latest assessment suggests that this parameter should be adjusted upwards (increasing the Simplified Lead-in price by [X], all other things equal). This is not an entire surprise to us as we raised concerns during the WFTMR with Ofcom that some PIA users might game the Simplified Lead-in product by designing their networks to use very long lead-ins (i.e. systematically using lead-ins longer than the average incorporated in the Simplified Lead-in product tariff). Ofcom dismissed our concerns at the time and did not set any length limit or restriction on the use of the Simplified Lead-in.³⁹
181. We are not advocating changes to the WFTMR sharing parameters and would prefer that Ofcom conduct a complete and holistic review of all relevant factors before proposing such changes. However, should Ofcom update the churn sharing factor for the Simplified Lead-in product it is incumbent on it to also consider this new information and update the Lead-in length assumptions at the same time.
182. We would be pleased to discuss this further with Ofcom prior to the TAR Final Statement and provide any further data Ofcom requires to incorporate the new data into their calculation.

'Free' PIA Products

183. Whilst we can broadly agree with Ofcom's overall charge control approach subject to our comments above, we do not agree with the framework allowing for free PIA occupancy.

Proposals to remove charges for 'cable top equipment' and 'cables up a pole'

184. We strongly disagree with Ofcom's proposals to remove our ability to charge for this type of usage. Charging PIA customers for their occupancy is almost certainly a better approach to incentivising reasonable use of scarce PI asset space than making it free. It is a universally accepted economic principle that providing free

³⁹ WFTMR Vol 4 para 4.148

access to any resource is likely to generate wasteful and inefficient consumption. Hence, this cannot be a reasonable or proportionate approach to adopt for PIA when the underpinning logic is that Openreach's PI network is viewed as an essential industry resource to support competition and rival network build.

185. The case put forward for removing the charges also seems to be based on a false premise that this will simplify PIA charges. We do not agree. PIA customers will need to fully record all inventories and locations of equipment in Openreach PI in any case for a variety of essential reasons (e.g. safety, security, audit, rearrangements etc). Hence maintaining the current granularity of charging does not make it more complex for PIA customers.
186. We understand that the overall financial impact is likely to be relatively low. However, we are concerned it could encourage Altnets to utilise our network in a suboptimal manner as issues already exist (see photos below).⁴⁰
187. We also disagree with the way that the reallocated costs will now become subject to the new sharing factors by default without proper consideration of whether those factors are appropriate or not, and the subsequent impact on our ability to recover asset costs.
188. [X] we will now have to consider much more rigorous contract and engineering rule restrictions to ensure that such free services are not misused. This may take the form of maximum equipment sizes, tighter windows for usage etc. We wish to avoid or mitigate congestion problems such as those illustrated in Figure 4.1. We look to Ofcom to support us in these actions if the pricing proposals are not reversed.

Figure 4.1: Congestion problems already exist on overhead infrastructure



⁴⁰ We covered subject to re

Issued by: O

the WFTMR. It is also

Date: 12/06/2025

Cables & Pole Top Equipment

Continuation of 'free' Cable Coil and In-line splice hosting product charges

189. In our response to the WFTMR, we disagreed with Ofcom's decision to remove certain PIA hosting charges. In our view directly charging PIA customers for chamber occupancy was the most appropriate cost recovery and charging mechanism and much more likely to incentivise better use of scarce asset space. Please see Figure 4.2 below which illustrates the emerging issue of chamber congestion and targeted 'box only' Notice of Intents (NOIs).

Figure 4.2: Emerging problems with chamber congestion.



Overview of the products

190. There were eight Openreach product variants affected by Ofcom's decision to remove charges:
- Customer Apparatus In-line Splice hosting and Distribution joints (two variants – per joint box or manhole hosting).
 - Customer Apparatus Cable Coil Hosting (six variants - small, medium and large - per joint box or manhole hosting).

Our concerns

191. At the time, Ofcom set out its assumptions and logic for removing the 'cable coil and in-line splice hosting' rental charges. However, we now have four years additional experience of PIA customers' use cases and our view remains that the policy is not the right approach from a cost recovery or engineering incentives perspective.
192. In particular, we are becoming aware of use cases where Altnets appear to be targeting the use of Openreach chambers (i.e. the non-chargeable PI elements) in a disproportionate way and even more so in some new build sites scenarios where specific commercial arrangements with developers make it even more commercially advantageous to bypass rental of other chargeable Openreach PI assets. We aim to compile further analysis of the data and when it becomes available, we would be pleased to share with Ofcom.

193. PIA customers are now consuming a far greater volume of these products (particularly 'Customer Apparatus In-line Splice hosting and Distribution joints') whilst also recording the volumes more comprehensively in our inventory systems. We are still assessing the potential cost of this 'occupancy' at the time of this submission but would expect to be able to supply Ofcom with volume and cost data well before its target date for Consultation. We expect demand for these products to continue to grow as Altnet network build increases. Therefore, it seems both a logical and reasonable basis for a direct cost recovery charge, especially as even with a zero charge, PIA users still need to record the location and type of equipment placed in our physical infrastructure for planning, security, and operational reasons. Hence there would be little or no operational overhead to the reintroduction of the charges.
194. All Altnet kit (coils, in-line splice and distribution joints) will vary in size or specification, but it is clear that certain items will have a much larger occupancy than others, and in some cases constitute the predominant or even entire usage of the physical asset. Figure 4.2 above shows examples of the types of congestion issues being experienced in the network – i.e. more distribution/in-line splice joints occupying large volumes of space for which no rental charges are paid. Therefore, it is essential that the PIA rental charging and cost recovery mechanism recognises this usage in a direct way to incentivise the efficient use of space and good engineering practice. We have no desire to unpick the PIA cost model in any complex way, but it is clear that action is required, and even a simplified or perhaps nominal set of charges would provide better incentives than no charges at all. However, the charges would need to reflect the volume of space occupied in some way (e.g. small, medium, large) to underpin the correct incentives.

Next Steps

195. At this point, our major concern is the inability to charge for Distribution Joints, and our priority is for that to be corrected. However, there may also be opportunities for reintroducing and simplifying other hosting charges even though Altnet demand may not be as high as for Distribution Joints. We also think there could be a need to consider specific chargeable variants for new build sites, where commercial arrangements with developers may currently be distorting Altnet incentives and use cases even further.
196. Therefore, we would like to discuss possible options with Ofcom prior to a final decision being made on the TAR PIA charge control both for underground (UG) and overhead (OH) free products.

Issued by: Openreach

Issue: 1

Date: 12/06/2025

Ancillaries

Question 4.6: Do you agree with our proposed approach for ancillaries? Please set out your reasons and supporting evidence for your response.

197. In section 5 of Volume 4 of the TAR, Ofcom sets out its pricing proposals in respect of ancillary products for all markets. We have structured our response by market area, considering PIA, WLA, LLA and IEC and then Shared Ancillaries.
198. Given the scope of this section, we have numerous points to raise. However, we want to particularly draw attention to concerns on the FTTP connections charge control basket design which we believe is unworkable and will not achieve Ofcom's policy objective and would like to discuss Ofcom's intent for the draft direction in Volume 7 part C on electricity charges to see if we can meet this requirement.

PIA Ancillaries

199. In general terms we agree with Ofcom's broad proposal for the pricing of PIA Ancillaries in that they should be regulated by Condition 6 'Basis of Charges'. This is subject to PIA Ancillaries being clearly defined by Ofcom. This is a reasonable approach in our view and we support it (leaving to one side the points we make later on the treatment of network adjustment and productisation costs). We also agree with adopting the same approach on 'new ancillaries' which we consider proportionate for operational and civils activities related to PIA.
200. We address each of the PIA related areas raised by Ofcom in the Consultation in the following sections:
- i. Ancillary activities relevant to network adjustments (including our views on the financial limit).
 - ii. Productisation Costs and Order Processing activities.
 - iii. Other Ancillary activities.

Ancillary activities relevant to network adjustments

201. We have set out our position on the recovery of Network Adjustments (NA) costs for the PIA product in response to Ofcom's previous market reviews. Broadly, we agree that Openreach should bear the upfront costs of NAs (up to an appropriately set financial limit) where they are permanent, necessary, feasible and efficient, and have clear and demonstrable benefits to the Openreach infrastructure and its PIA customers, and which are subject to appropriate approval processes and financial controls. Also, that NAs should only qualify for Openreach funding within the parameters and controls set out by Ofcom (see TAR Annex 11).
202. We also agree that it is reasonable to construct a cost recovery framework whereby qualifying NA costs (i.e. those that are potentially beneficial to the Openreach infrastructure and its PIA customers) are pooled and shared across all users of the infrastructure in an appropriate way.
203. However, it is important to note that Openreach is not guaranteed to recover such costs from SMP markets, even if Altnets' investments should fail. Physical infrastructure asset lives are typically of the order of 25 to 40 years and the nature of telecoms markets and technology is highly volatile. Hence the assumption that any business will have enduring market power over that period is highly questionable, and there is no certainty in any real sense that network adjustment cash costs will ever be recovered in the long term. Even if this was the case, failed businesses might use up scarce civil and skilled engineering resources and generate excess cash costs for Openreach and its PIA customers in the short and medium term, and these represent real opportunity costs from an Openreach and PIA customer perspective.
204. Linked to the above, we also note Ofcom's comments⁴¹ that its PIA pricing and network adjustment cost recovery proposals are intended to ensure *"A level playing field exists between Openreach and other telecoms providers that make use of PIA"*. As we have noted in previous consultations, we do not agree that the proposals achieve this. It is standard commercial practice that the key test for any potential investor is a detailed consideration of its discounted cash flows (DCF); and Ofcom's approach conflates 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 the network adjustment cost

⁴¹ For example TAR Vol 4 para 4.14

recovery proposals do not recognise this fundamental principle. Our views on this issue have been covered extensively in our previous WLAMR and PIMR submissions.⁴²

Setting the PIA Network Adjustment Financial Limit

205. We have set out our position on the level of the financial limit for NAs costs in our responses to Ofcom's previous market reviews⁴³. We strongly support Ofcom's proposal in the TAR to maintain a financial limit for certain Network Adjustments. However, we remain concerned that the existing financial limit of £4,750 per kilometre is set too high.
206. These concerns remain applicable for the TAR control period. We refer Ofcom to our previous analysis.⁴⁴ In summary the methodology by which Ofcom initially calculated the financial limit were incorrect for the following reasons:
- i. The baseline costs for the financial limit appeared to be built up from an inappropriate and excessive list of network adjustment activities.
 - ii. The estimated costs generated were then uplifted further by taking the baseline costs and adding a mark-up to cover cost variations, and then rounding up, which further exacerbated the overstatement.
207. This led us to have further concerns on how the limit was intended to achieve its objective and therefore how it should be applied:
- i. In our view, although we understand Ofcom's argument that the financial limit needs to include a mark-up to cover a reasonable range of costs above the average (e.g. to take account of regional cost variations) the logic is not fully followed through.
 - ii. This is because, if the financial limit represents the upper bound of reasonable NA expenditure per kilometre that Openreach is required to fund, then applying Ofcom's logic means that the 'average' NA expenditure per kilometre must be less than the financial limit. That is, there needs to be an incentive for Altnets to adopt the normal business practice of driving down

⁴² Ofcom WLA consultation published 6 December 2016:

https://www.ofcom.org.uk/_data/assets/pdf_file/0029/98246/Openreach.pdf

Ofcom WLA consultation published 20 April 2017:

https://www.ofcom.org.uk/_data/assets/pdf_file/0017/104714/Openreach.pdf

Ofcom WLA consultation published 1 August 2017:

https://www.ofcom.org.uk/_data/assets/pdf_file/0023/107195/Openreach.pdf

⁴³ See Ofcom's WLA and PI market reviews.

⁴⁴ See Openreach's previous responses.

costs to an efficient level, towards the typical or average level, and a disincentive to driving up average NA costs towards the financial limit.⁴⁵

- iii. Further, the financial limit in itself does nothing to prevent unnecessary NA requests. Even with the application of a financial limit, strong contractual and procedural controls need to be put in place as part of the PIA Reference Offer so that unnecessary and invalid network adjustments are not ordered or progressed in the first place.⁴⁶

208. We also note for the record that we strongly agreed with Ofcom's stated objectives when it set the financial limit in the August 2017 WLA Consultation, which were:

- i. to ensure greater certainty of upfront costs and possible negative impacts on Openreach and consumers; and
- ii. to expose access seekers to costs on more expensive routes so that they will have an incentive to look for alternative approaches to optimise their deployments.

209. We also note that at the time Ofcom itself stated the limitations of its original financial limit analysis in the August 2017 WLA Consultation on pricing proposals for Duct and Pole Access remedies (paragraph 4.15)⁴⁷ noting "*it is not possible to estimate the incidence of all network adjustments with any degree of precision*". This statement further supported our concerns.

210. Put simply, our concern is that by setting an artificially high limit, significantly above average costs, Ofcom is not setting the correct incentive for PIA customers to maintain their own cost controls on network adjustments and operate efficiently. Ofcom's second objective above is undermined as Altnets never have to face excess costs or take responsibility for the costs they generate. Ultimately, this means that Openreach's non-PIA customers may be required to cross-subsidise high-cost PIA users and a proportion of Openreach's cash flow comes under the control of external parties with no suitable incentives to drive down costs.

211. As we set out in our responses to earlier consultations, we consider that the current financial limit is not rigorous enough to incentivise the correct PIA customer

⁴⁵ For financial and cost control purposes, it would seem reasonable that the 'average' limit would need to be based on something less than the Ofcom 'financial limit' as Ofcom's stated intention is that the limit should allow for a typical or normal range of network activities.

⁴⁶ This is the major reason Openreach needs to validate Network Adjustment (NA) orders. For example, even if the financial limit includes an allowance for the cost of repairing a duct, that does not mean that any individual order is a valid NA as suitable alternative routings may be available or the PIA customer may be able to deploy by an alternative method.

⁴⁷ [Consultation on pricing proposals for Duct and Pole Access remedies](#)

behaviours, and as we have discussed earlier with regard to unauthorised use, there is clear evidence of a major lack of financial and operational control on the part of some PIA customers. Therefore, we request that Ofcom consider resetting what is an excessively high limit to one in line with operational data. It would be less risky and damaging to all involved to set a reasonable starting point, and if necessary, to correct upwards over time, than have to resource for excessive numbers of invalid NA orders,⁴⁸ and try to redress out of control costs and unnecessary civils works in retrospect.

212. We also note for the record that we have tested the overall reasonableness of the financial limit in three different ways as set out in our response to the WFTMR; all of which resulted in a much lower value than Ofcom's limit.
213. All of these tests indicated that a significantly lower financial limit could be set to meet Ofcom's objectives, and that there is little chance of regulatory failure through setting too low a limit in that a lower limit would achieve the same result (which infers the higher limit is disproportionate). A significantly lower limit than the current £4,750/km would not impact on Altnets' ability to have reasonable levels of NAs funded by Openreach but would help incentivise them to budget correctly and only request valid orders. It would also reduce Openreach's financial risk and exposure to be more in line with what Openreach itself and the majority of PIA customers' experience. The launch of Openreach's Notice of Intent (NOI) Nol 'Projects' functionality also further enhanced the Altnets ability to work within a more reasonable financial limit as they could link related individual orders (i.e. multiple Nols) to form a 'Project' and achieve greater averaging of costs across much larger deployments (similar to an Openreach exchange area).
214. We also note for completeness that if speed of delivery of any specific NA order is critical then a PIA customer is able to carry out and pay for its own adjustments (in line with the appropriate product and engineering standards).

PIA Pole Adjustments

215. We request that Ofcom gives further consideration to how best to place appropriate limits on Openreach's obligations related to pole adjustments. Our view is that the potential operational and financial impacts on Openreach of Ofcom's drop wire related proposals have yet to fully crystallise - therefore the setting of a reasonable upper financial limit to protect Openreach and its non-PIA

⁴⁸ Although we do recognise that the financial limit is not the only cause of invalid NA orders which may also be influenced by Altnets' operational processes, engineer training and experience, amongst other factors.

customers from excessive costs would be a logical step to take. This would also align with Ofcom's overall objectives for a network adjustment financial limit (as referenced above).

216. Also, we would welcome clearer guidance in the TAR final statement on what reasonable 'PIA pole adjustments' Openreach is required to fund, compared to the elements that PIA customers should be responsible for funding themselves.⁴⁹ For example, Ofcom's proposals in Condition 12A.4 restrict Openreach from charging for NAs when freeing up space or replacing defective unusable poles when they are requested for drop wire related NAs, but does lack some clarity when it comes to other as yet undefined overhead adjustments.
217. Therefore, Ofcom could helpfully clarify that any new additional poles required to support PIA customer deployments, which result from Openreach poles being at full capacity and/or which are not replacements for unusable poles hosting drop wires, are to be classified as 'new infrastructure' and hence are not 'PIA pole adjustments' as defined by Ofcom and therefore are not to be funded by Openreach.
218. It is clear that a reasonable financial limit for PIA pole adjustments would have important incentive effects to ensure PIA customers take account of the costs they generate in their business cases at least to some extent and also provide incentives to innovate and plan ahead to minimise costs for Openreach and its non-PIA customers.
219. Our recent operational experience is that PIA customers are not fully considering the overhead related costs and operational activities they are driving for Openreach at this time and this is a major concern to us. There remains considerable work to be done by industry to make multi-Altnet pole access work effectively in the future and having the right incentives in place will help focus Passive Industry Working Group (PIWG) discussion and industry SoRs on practical and efficient solutions (rather than being based on an assumption that Openreach will carry all the costs). We have also seen some initial evidence that some Altnets are using equipment to physically reserve capacity and frustrate others from using available space on the pole. We will need Ofcom support to resolve these types of behaviour.

⁴⁹ As Ofcom sets out for underground related works.

PIA Productisation and Order Processing costs

220. We have previously set out our position on the cost recovery of productisation and order processing costs for the PIA product in response to both the WLA⁵⁰ and PIMR⁵¹ Consultations.
221. Broadly, our view is that efficient investment decisions should be based on the merits of the case including amongst other things, forward-looking judgements on prospective revenues generated and the consequential costs incurred.
222. This is what Openreach faces when making its own development decisions. It assesses the full up-front costs, the resource implications and the prioritisation of any investment decision and then compares these to the anticipated benefits. However, the approach that Ofcom adopts for PIA productisation and order processing costs means that PIA customers have no strong incentive to be efficient in any of their process and systems development requests to Openreach.
223. This is borne out by our operational experience. Since Ofcom changed its policy on how such costs would be recovered for the launch of the WLA PIA product in May 2018, it is clear that many developments requested by Altnets as high-priority and delivered at significant cost to Openreach (and diversion of scarce resource) have either been little used or not been used at all by many Altnets.⁵²
224. However, despite these cost recovery and prioritisation issues, we do agree with Ofcom's overall approach on future systems developments, namely that they should be taken forward by industry and Openreach through the PIWG, this is at least a transparent mechanism for attempting to align development resource with PIA customers' stated priorities.

Other ancillary activities (PIA)

225. Ofcom's proposal for the pricing of PIA Ancillaries is that they should be regulated by Condition 6 'Basis of Charges'. This is a reasonable approach in our view, and we support it (leaving to one side the separate points we make on the treatment of NA and productisation costs above).

⁵⁰ See Question 7.2 in the Openreach response to the April 2017 PIA consultation.

⁵¹ See Question 6.3 in the Openreach response to the PIMR consultation.

⁵² For example, the poor initial take-up of API usage.

WLA Ancillaries

226. We support Ofcom's proposal to maintain CPI-0% indexation for WLA Ancillaries, both for consistency and pricing continuity. This is consistent with Ofcom's strategic objective of setting the right conditions to encourage investment in full fibre.

FTTP Connections

227. FTTP connection prices for all types and bandwidths have been set in agreement with ISPs under the Equinox offer.⁵³ This sets different prices in Area 2 and Area 3 for specific connection types. Equinox was designed to encourage adoption of FTTP, which benefits consumers through the provision of the best technology available and supports ISPs in migrating end customers through lower prices. This has been successful to date, and all ISPs subject to the requirements achieve the 90% target.

228. Ofcom's proposed regulatory intervention of a charge control ceiling on FTTP 80Mb rentals and separate basket controls for FTTP 80Mb Connections in Area 2 and Area 3 is therefore unnecessary and disproportionate. Ofcom's objective is to ensure continuity in the prices offered under Equinox 2 for different types of connection in Area 2 and Area 3 and that continuity is guaranteed under the terms of the Equinox 2 offer until March 2026.⁵⁴

229. Proceeding with Ofcom's proposal would result in negative unintended consequences:

- i. Removing the 80Mb product from the Equinox offer would weaken incentives for ISPs to adopt FTTP and produce other unintended consequences. Equinox has been effective in encouraging ISPs to adopt FTTP for new connections to their networks, which aligns with Ofcom's ambition to propel the UK to digital fuelled growth.
- ii. Ofcom's proposals would [X]. [X]. Ofcom should not set regulation that prohibits the market agreeing better commercial positions that also reflect sensible and competitive market outcomes – to do so is unnecessary and disproportionate.

⁵³ A list of ISPs who have signed up to Equinox was provided in S135 01802695 Tranche 1 question G1.

⁵⁴ This position is also put forward by Frontier Economics, who see the Equinox offer as providing the necessary price protection on FTTP. (Frontier: Approach to WLA Pricing Remedies page 19, commissioned by Sky, Vodafone and Platform X (TalkTalk Group)).

- iii. Regulating at an offer level sets the wrong economic incentives. By fixing a regulatory pricing cap at a level set under an offer, Ofcom is sending a signal that could significantly reduce Openreach's incentives to make further pricing changes. It is normal and legitimate to test price points to understand demand, but Openreach will be disincentivised to offer lower prices where they could become a maximum price going forward.
230. But despite this, in the TAR, Ofcom has proposed a connection basket for each of Area 2 and Area 3 at the prices set under Equinox 2. This applies only to the anchor 80Mb product where FTTC is not available, either due to it never having been built (e.g. new sites) or because the exchange has passed through the "First Threshold" under stop-sell and the premises has FTTP available. But it would still have a considerable effect on how we applied pricing and how we monitored compliance with a complex basket control.
231. The design of the charge control is fundamentally flawed, and will work against the objective of pricing continuity.⁵⁵
- i. A basket control will lead to greater pricing instability and uncertainty, and is not consistent with Ofcom's objective of pricing continuity. Compliance relies on revenue weightings which are only known in quarter 2 once prior year data has been published, and prices set for 1 April then need to be adjusted to ensure compliance. This means there will be two price changes in each year.⁵⁶
 - ii. Contractual increases are not taken into account. For FTTP 80Mb rentals, Ofcom has taken into account the contractual mechanism that allows rental prices to be reviewed during the sixth year of the contract (2026/27) by up to £1 per month. Ofcom has been inconsistent and not taken into account the same contractual provision on connection charges, which allows an increase of up to £20 in 2026/27.⁵⁷
 - iii. Initial prices would be set using indexed FY24/25 prices, which would be created for each individual connection type. For the Area 2 basket, this would require weighting the mix of Equinox Area 2 and Area 3 prices. Data to

⁵⁵ We note that this also covers some elements of the charge control design as covered in Volume 4, Section 6 of the Consultation Document.

⁵⁶ This problem could be reduced by use of single item controls (though this would not meet Ofcom's usual principles on basket design), but could not be eliminated as the Area 2 basket would need to be weighted by the geographic weightings.

⁵⁷ Equinox Contract, schedule 1 paragraph 15

perform this weighting is not available and would require system development to obtain. If Ofcom approximate the volume weighting for the initial prices it is highly likely to result in non-compliance from the start of the control – a change in weighting caused by just a few hundred circuits being incorrectly allocated would result in current prices being non-compliant.

Business standard FTTP Connection Pricing

232. As set out above, our position is that Ofcom should remove the charge control basket on FTTP 80Mb connections. However, if it does not, we consider it would still need to amend the proposed remedy, making clear that the anchor obligation only covers residential premises and not business premises, as defined by Ordnance Survey data.
233. Business customers have different needs to residential customers, and Openreach has developed tailored installation products which reflect the complexity involved in installations, e.g. the level of wiring within the premises and appointment times to suit end customers' needs. This seeks to provide the best end customer experience but does come at an additional cost. The Business Standard connection product is therefore £152.84 for a Premium install and £297.84 for an Advanced install in FY25/26. This would impact Openreach's ability to comply with the charge control basket, as this price is higher than any of those included by Ofcom in setting the basket cap.
234. Business customers generally order a bandwidth in excess of 80Mb, and so the Business Standard product ought not to be affected by the charge control ceiling. However, if offering an anchor 80Mb product at every premises is required, then an ISP would have the opportunity to order an 80Mb product to a business premises first to benefit from the lower price under the charge control ceiling and then pay only for a bandwidth modify to upgrade to a higher bandwidth rental service (though under Equinix a bandwidth upgrade is not chargeable). This creates a simple opportunity for ISPs to circumvent the policy.
235. Although ISPs should choose to order the more appropriate Business Standard connection reflecting the required engineering effort to ensure the correct end customer experience, orders prior to the launch of Business Standard have shown that generally ISPs will order the cheapest possible installation and hope that Openreach will deliver on the day to the required level (at a higher cost) or accept

the poor end customer experience. For this reason, we will not sell a standard FTTP installation designed for residential requirements at business premises.

236. If Ofcom implements the proposed 80Mb anchor price remedy despite Openreach's objections, Ofcom must at a minimum clarify that the obligation to provide an 80Mb anchor product does not apply to business premises (as defined by Ordnance Survey categories).
237. Additionally, we would ask Ofcom to clarify the naming for Area 2 80Mb Basket Item 3 - Standard Connection – All other bandwidths – Non New to Network – Residential Area 2. As all other items in the Area 2 and Area 3 basket align to Equinox price descriptions, excluding references to standard list price, we interpret that the third item in the Area 2 80Mb basket is aligned to an Equinox 'Non New To Network – Residential Area 2 standard connection (same ISP regrades) for 40/10 and 55/10'. If this is correct, we would note that as this charge is applicable for 40Mb and 55Mb regrades only it would attract no volume or weighting in an FTTP 80Mb basket. If this is not the intent, we would ask Ofcom to define in what scenario it considers the third charge listed in the Area 2 basket would apply and how it should be read in relation to the other charges in the basket. We also note that the referencing to "all other bandwidths" in the basket product definitions is contradictory when the basket is defined as including FTTP 80Mb connections only.

Fibre Voice

238. At Table 5.2 of Volume 4, Ofcom lists its proposals for charge controls on WLA ancillaries. This shows broad consistency with the WFTMR (with the exception of FTTP connections discussed below). However, a correction to this table is required: FVA with GEA (FTTP) Connection is listed as an item with a CPI-0% charge control. As this product has been withdrawn⁵⁸ and is (correctly) not mentioned in the legal instrument, it should be removed from this table.

⁵⁸ Withdrawn from new supply on 1/4/2020 and withdrawn from all support from 1/2/2025 as shown on the Openreach price list [Price List](#)

LLA and IEC Ancillaries

Ethernet - Removal of sub cap control from Cancellation and Early Termination Charges

239. Cancellation charges have historically been a percentage of connection charges (up to 100% if cancelled shortly before the connection date). Early Termination charges (ETCs) have historically been a percentage of rental charges (this can vary for term products, but in the standard contract is 20% of remaining minimum period rental charges). In the WFTMR, Ofcom introduced a sub cap on cancellation and ETC charges at CPI. At the same time the connection and rental charges were in a basket that could increase by CPI overall, but individual products could increase by more than this.
240. This has forced a disconnect between cancellation and ETC charges, and the connection and rental charges to which they are linked.
241. We requested Ofcom not to proceed with this change in the WFTMR⁵⁹ though Ofcom felt that a CPI-0% cap was appropriate on cancellations and ETCs; while the basket gave flexibility to increase rentals or connections by more than CPI the related charges should be protected.⁶⁰
242. In practice, Openreach has followed the control as required by Ofcom but at great complexity. As our billing systems were all set to charge the cancellation fees and ETCs at standard percentages, we have had to apply this by applying adjustment percentages to the cancellation and ETC percentage. This results in a complex presentation of the charges, with the example in Figure 4.3 below being just the early termination charges from the EAD pricing page.

Figure 4.3: EAD cancellation charges⁶¹

⁵⁹ Paragraph 9.102 of Openreach response to Ofcom's WFTMR Consultation (CONFIDENTIAL VERSION).pdf

⁶⁰ WFTMR, Vol 4 paras 5.89 to 5.91.

⁶¹ Source: [Price List](#)

EAD and EAD Sensitive Termination Charges

Where a product is not specified, the adjustment factor is 100%

Feature	Operative date	Until	Years after Contractual Delivery Date	% of Remaining annual rental at time of termination
EAD 10Mb Termination Charges Show historic prices ▼				
EAD 100Mb Termination Charges Show historic prices ▼				
EAD up to and including 1Gb Std Termination Charges	01/04/2024	31/07/2024	<1	97%
EAD up to and including 1Gb ER Termination Charges	01/04/2024	31/07/2024	<1	97%
EAD up to and including 1Gb LA Termination Charges	01/04/2024	31/07/2024	<1	98%
EAD Enable/EAD RO1 Termination Charges	01/04/2024	31/03/2025	<1	95%
EAD Enable/EAD RO1 Termination Charges	01/04/2025		<1	99%
EAD 10Mb and EAD 100Mb Std and ER Termination Charges	01/08/2024	31/03/2025	<1	88%
EAD 10Mb and EAD 100Mb Std and ER Termination Charges	01/04/2025		<1	89%
EAD 1Gb Std and ER Termination Charges	01/08/2024	31/03/2025	<1	97%
EAD 1Gb Std and ER Termination Charges	01/04/2025		<1	100%
EAD 10Mb and EAD 100Mb LA Termination Charges	01/08/2024	31/03/2025	<1	93%
EAD 10Mb and EAD 100Mb LA Termination Charges	01/04/2025		<1	95%
EAD 1Gb LA Termination Charges	01/08/2024	31/03/2025	<1	98%
EAD 1Gb LA Termination Charges	01/04/2025		<1	100%
EAD Sensitive 100Mb Std and ER Termination Charges	01/08/2024		<1	90%
EAD Sensitive 100Mb LA Termination Charges	01/08/2024	31/03/2025	<1	95%
EAD Sensitive 100Mb LA Termination Charges	01/04/2025		<1	96%
EAD Sensitive 1Gb Std and ER Termination Charges	01/04/2025		<1	98%

Termination Charges : 1Gb/s (60 month minimum period) - after delivery (Note 11)

Feature	Operative date	Years after Contractual Delivery Date	% of Standard Annual Rental Charge
	15/12/2010	<1	100
	15/12/2010	<2	90
	15/12/2010	<3	80
	15/12/2010	<4	70
	15/12/2010	<5	60

Termination Charges : 1Gb/s (84 month minimum period) - after delivery (Note 22)

Feature	Operative date	Years after contractual delivery date	% of standard annual rental charge
	08/07/2013	<1	110
	08/07/2013	<2	100
	08/07/2013	<3	90
	08/07/2013	<4	80
	08/07/2013	<5	70
	08/07/2013	<6	60
	08/07/2013	<7	50

Termination Charges : 10Gb/s (60 month minimum period) - after delivery (Note 26)

Feature	Operative date	Until	Years after Contractual Delivery Date	% of Standard Annual Rental Charge
	21/09/2015		<1	100
	21/09/2015		<2	90
	21/09/2015		<3	80
	21/09/2015	02/04/2018	<4	70
	03/04/2018		<4	0
	21/09/2015	02/04/2018	<5	60
	03/04/2018		<5	0

Termination Charges : 10Gb/s (84 month minimum period) - after delivery (Note 29)

Feature	Operative date	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	02/07/2019	100%	90%	80%	70%	60%	50%	40%

243. This negatively impacts ISPs as there is less transparency on the charges they can expect. The adjustment factors vary by product, but also by bandwidth increasing the complexity.
244. It has also required manually billing adjustments paid back as rebates to ISPs where our systems have been unable to manage the complexity of the adjustments.
245. This has been complex to operate, and adjustments have had to be made within year to ensure compliant outcomes. It has added over 128,000 calculation cells to the compliance model which need to be entered, reviewed and assured each year, taking significant effort. Ofcom will be aware from compliance submissions (and the accompanying notes) that this has sometimes required multiple changes in a year to ensure compliance. This will make the situation even more complex as the cancellation and ETC percentages will vary not just by product, but across geographies.
246. These downsides need to be balanced against the protection offered by the sub cap. In 2023/24 the total value of Ethernet cancellation charges was [X] and ETCs was [X], which is equivalent to only 1% of the total basket revenues. Had the charges remained at 100% of the connection prices, it would only have made a difference in revenue charged on Cancellations and ETCs of less than [X] in a year. This is not material, and the administrative effort of the current remedy is not proportionate in relation to this impact.
247. We consider that keeping cancellation and ETC charges as a fixed percentage of connections and rentals respectively gives a proportionate level of protection on charges. For simplicity of understanding, presentation and billing, we suggest that these are reset back to 100%. Given the level of materiality of revenue impact, we do not believe there is any risk of harm, however we could fix at a lower percentage but would wish to see this fixed for all products and bandwidths for simplicity (we would suggest 97% as being around the mid-point of current levels).

Shared Ancillaries

Electricity Power

248. In the Draft Direction on Electricity Charges (in 7 (a) of the schedule), Ofcom proposes to direct BT to publish information on its website including a description of how it purchases the services required for the provision of power, and an

explanation of the timing of BT's purchases of wholesale electricity and the impact this has on the setting of the electricity charge.

249. The timing of BT Group's wholesale electricity purchases is commercially sensitive information, as are the specifics of the strategy which underpin them. Given that BT Group operates in a competitive market environment we feel that publicly disclosing such information would be harmful to the commercial interests of our organisation and provide our competitors with an unfair advantage. We recognise though that this needs to be balanced with a need to be transparent in our demonstration of regulatory compliance.
250. The ultimate aim of BT Group is to deliver the best value for all its ISP customers, and managing our electricity costs is critical to achieving that goal. One of the key objectives is to avoid cost shocks resulting from volatile wholesale electricity prices, as experienced during the energy crisis. BT Group has always, and will continue to, take a fairly risk averse approach to purchasing energy, combining a mixture of long-term renewable power purchasing agreements with over the counter (OTC) transactions executed through its electricity suppliers. In addition to this we work closely with our advisors to help us the forecast third party charges which make up around 60% of the consumer bill. These include network charges and green levies as well as costs of balancing the network and "keeping the lights on". This area is becoming increasingly complex to forecast, long term, due to the huge amount of uncertainty around the impacts of the Government's Clean Power 2030 strategy.
251. It is our understanding that the proposed publication of information would be a one-off exercise, that would need to take place by 1 April 2026. We would like to discuss with Ofcom the level of detail it expects the publication would cover, noting our concerns detailed above, in order to reach the right balance of commercial confidence and transparency. Timelines for the publication of the proposed detail (given the need for some to prepare once the final statement is issued), and the specifics around the operation of the Agreed Upon Procedures (AUP) will also need to be agreed.

Charge Control design and Legal Instruments

Question 4.7: Do you agree with our proposals on charge control design? Please set out your reasons and supporting evidence for your response.

PIA

252. In Section 4, Ofcom sets out its proposals to set cost-based charge controls on PIA rentals and given the productive and dynamic efficiency benefits referred to in its analysis propose to use a glidepath approach. We agree with the glidepath approach.
253. In Section 4 Ofcom proposes to set cost-based charge controls on Physical Infrastructure (PI) services, because such services are fundamental components in facilitating Altnets to design, build and operate their networks. As such it is important that access seekers have certainty about the path of the prices of those PI services. Also, Ofcom considers that single service charge controls provide greater certainty for access seekers regarding future prices than using a basket approach. Therefore, consistent with their approach in the WFTMR, they propose a single service charge control for each PI access service. We agree with this proposal.

WLA

FTTP Basket Design

254. Please note that comments on the charge control design for FTTP Connections, which we believe has significant issues in terms of technical implementation as well as policy issues, has been addressed in our response to Question 4.6 so that the policy and basket design issues can be discussed in one place.

Condition 12B Composition of the LLU baskets

255. Within the charge controls (condition 12B), there are two LLU baskets that could benefit from simplification ahead of the TAR taking effect.
256. The LLU Tie Cables Basket has rolled forward for a number of controls, but contains very few products that still have live revenues against them. Ofcom will be aware of

Issued by: Openreach

Issue: 1

Date: 12/06/2025

this from the compliance submissions from Openreach which include revenues which reconcile to the RFS. In order to simplify the basket, making the effort to calculate and review it proportionate, we propose that the following 33 items can be removed from the basket:



LLU%20basket%20items%20to%20remove

257. Given there have been no revenues against these products for at least five years, and no revenues are expected as part of the exchange closure programme, there is no charge control protection required, this is clearly disproportionate. In the unlikely event that any of these products are ordered, ISPs would still be protected by the fair and reasonable charges obligation. [X].
258. Within the tie cables basket we note that on the new portal price list there will be changes in the presentation of BT provided Tie Cables and CP provided Tie Cables. Currently these are shown as a price for the first 100 pair cable (100 metres) and then the incremental charge for each 100 extra pairs. There is then a note to explain how to construct the price charged. This will be replaced with entries showing the price for 200 pairs, 300 pairs etc for greater transparency and to align with how ISPs are billed for the services. We request that if these services remain in the basket, the products in the new price list presentation are included, rather than the presentation referred to in the WFTMR, presuming these changes will be made before the TAR comes not effect. A summary of the changes will be shared with Ofcom when they are made.
259. We also note that the current initial charge for charge 35 "BT Provided external 500 Pair cable @ 100 metres – Connection charge per cable per extra 100m" and charge 38 "BT Provided external 500 Pair cable @ 100 metres - Rental per annum per extra 100m" detailed in the draft legal instrument reflect the price of these products as of 1 April 2025. Minimal price reductions were made to the price of these charges from 01/05/2025, to ensure product billability. We request that if these services remain in the basket, the final TAR legal instrument is updated to reflect the latest charges for these products, and any subsequent price changes in year required to balance the basket for 2025/26.
260. Within the Co-Mingling New Provide & Rental Services Basket there are two items which were withdrawn on 1 October 2022 which should be removed from the charge control basket moving forward:

Issued by: Openreach

Issue: 1

Date: 12/06/2025

MDF Site Access Escorted and Unplanned Assisted Access:

BT's Normal Working Hours, planned (hourly charge)

BT's Normal Working Hours, unplanned (hourly charge)

261. We also note that Section 2 of the Annex to Condition 12C refers to four services in the text, when there are only two services in the basket.

LLA and IEC

Condition 12E Basket Design - Ethernet Basket Prior Year Revenues

262. For the purpose of measuring compliance against the proposed Ethernet baskets in the first year of the control 2026/27, we note that we will not be able to provide revenue reconciliations aligned to the 2025/26 RFS, as the 2025/26 revenues will be published aligned to the WFTMR market definitions/boundaries.
263. 2025/26 revenues aligned to the TAR market areas will not be published until 2026/27 RFS is published, at which point the prior year to that RFS will be restated based on the TAR market areas. However, at this point in time there would be no ability to influence the compliance outcome of the year one pricing.
264. We propose that for 2026/27, we will derive 2025/26 prior year revenues by remapping the Ethernet data that is provided for RFS production to the new TAR areas and associating the output with the individual basket/products. This will see the top level total Ethernet revenue reconcile to the 25/26 RFS total Ethernet revenues, however there will not be a reconciled RFS TAR individual market for year one. From 2027/28, the prior year revenues from the 2026/27 RFS will reflect TAR markets.

Condition 12E Basket Design – System Development

265. The proposed Ethernet charge control will introduce a requirement for differentiated Ethernet charging for Area 2 (Access), Area 3 (Access) and IEC (Inter-Exchange Connectivity). These market areas will be defined by postcodes in the case of Area 2 and Area 3 and the IEC market will be defined as any circuits being served between BT exchanges.

266. Currently Openreach systems have not been designed to facilitate geographic charging.
267. Significant complex system development, estimated at [X] will be required to define logic as to how circuits are ascribed to a geographic market, and then ensure we have the ability to notify price changes, quote, and bill accurately geographic EAD pricing based on market area for 1 April 2026. This development cannot be completed in time for the start of the TAR. We would therefore ask that if separate basket controls for LLA are in the final statement, that there is a transitional period of a year to allow for implementation⁶².
268. Geographic pricing will significantly increase the size and complexity of the EAD price list, increasing the current presentation from c. 42 connection and rental charges, to 168 connection and rental charges. There will also be an associated increase in complexity of the presentation of ETC required adjustment percentages detailed further in our discussion ETC and Cancellation section in response to question 4.6 above.
269. The requirement to ensure compliance with multiple Ethernet Baskets would be expected to naturally drive pricing divergence. Should Openreach try to pursue a strategy of retaining price alignment nationally despite the separate baskets, the variances in prior year revenues for basket weightings can be expected to require bespoke in year adjustments to ensure compliance across all baskets, which may result in multiple in year price changes and over time a gradual divergence in pricing would still be inevitable.

Condition 12E Basket Design - Product inclusions

270. If operating multiple ethernet basket charge controls, we consider relative simplicity of each basket is key. Currently each item shares 198 columns in the Compliance model (7 for descriptions; 191 for metrics); this creates a challenge to review for Openreach operationally, Ofcom, and the AUP operator.
271. Condition 12E covered Ethernet and WDM services, and in Section 1 of the Annex to Condition 12E, the products included in the proposed ethernet baskets are listed. Given changes in the product portfolio since the WFTMR, we propose some

⁶² This issue was not a constraint for geographic connection prices as part of the Equinox offer, as the standard price list and billing system were not amended. This was possible due to the retrospective rebate structure built into this offer.

changes are made to the contents of the baskets. These will streamline the baskets making it more straightforward to operate them without compromising the market protections of the charge control. We consider that this step is especially important where compliance will be reported against multiple ethernet baskets.

272. Firstly there are products which have been withdrawn since 2021 and so should be removed from the list of services in the basket. These include EAD RO1 connections, EAD SyncE rentals and Connections, EAD Enable, ONBS RO1 and the full BNS portfolio.
273. Secondly there are products that while not fully withdrawn are expected to be before the start of the TAR (and if they are not will be down to very low volumes). This covers the full WES and BES portfolios, as well as products associated with migration of these products to EAD or EBD. The WES and BES portfolio current account for 140 lines in the WFTMR Ethernet Basket compliance model. Even if these products are not fully withdrawn before the start of the TAR, remaining volumes would be expected to be in the single digits and therefore have no impact on the reporting of basket compliance. To streamline the baskets we request that BES and WES be excluded from the control.
274. The full list of items that we think can be safely removed from the Ethernet basket are in the attached excel.



Condition%2012e%20ethernet%20basket%

275. Within Section 1 of the Annex to Condition 12E, this means the following headings can be completely removed:
 - i. Under Ethernet access Direct (EAD)
 - o WES/WEES/BES to EAD Transfer Migration charges
 - o EAD Enable
 - o EAD Enable Main Link Charge
 - o EAD Enable RO2 Resilience Main Link Charge
 - o EAD Enable RO1 Resilience Main Link Charge
 - o Under Ethernet access Direct (EAD) Main Link
 - o EAD Enable RO2 Resilience Main Link Charge
 - o EAD Enable RO1 Resilience Main Link Charge

Issued by: Openreach

Issue: 1

Date: 12/06/2025

- ii. Under Backhaul Network Services (BNS)
 - o Connection and rental charges
 - o Main Link charges
 - iii. Wholesale Extension Service (WES) & Wholesale End-to-End Extension Service (WEES) section
 - iv. Backhaul Extension Service (BES) section.
276. Similarly, we would ask that EAD modify and regrade charges shown in the below tables, are instead treated as 'Miscellaneous Ancillary Charges' with individual CPI controls for the purpose of a charge control, rather than included in each area basket:
- i. EAD Modify - Upgrade Charges (see note 21)
 - ii. EAD SyncE Modify - Upgrade Charges and Phase Synchronisation (see notes 21, 24, 25 & 27)
 - iii. EAD SyncE and Phase Synchronisation
 - iv. These EAD modify and regrades charges account for an immaterial amount of ethernet basket revenue, c.0.2% of the total basket, yet account for c. 30 products in the compliance model. We haven't changed these prices during the WFTMR so the potential impact of changing the control is very limited.

Legal Instruments

Question 4.8: Do you have any comments on the drafting (non-substantive) amendments to the charge control conditions described above and set out in Volume 7?

277. We have a large number of points relating to the draft legal instrument, which are set out below.

Changes to legal instrument structure by Ofcom.

278. We support the non-substantive amendments to consolidate and standardise the legal instrument, including the formulas.

279. One area of standardisation is the inclusion of the "Substituted Services" clause which has been included in each part of condition 12 where there is a basket control. We recognise that this is an evolution of condition 12E.19 from the WFTMR legal instrument and have no objection to the inclusion of this text. We would note our learning from the WFTMR that each replacement/substitution is a little different and in practice requires a discussion with Ofcom on the appropriate treatment in the compliance calculations. We therefore request that some text is added that the substituted services clause applies as Ofcom may direct to be appropriate in the circumstances.

General Note on the Openreach price list

280. The current Openreach price list (purple presentation) and associated systems Openreach uses to notify price changes are currently end of life. Work is currently ongoing to re-platform the price list. This change will result in changes to the presentation of the price which will affect where and how product charges are displayed. A limitation of the re-platformed price list (green presentation) is that, unlike today, a single charge can be presented per line, as additional information is displayed to ISPs showing the charge type, charge frequency, and Unique Price Code (UPC) that is reconcilable to their invoice as seen in Figure 4.4 below.

Figure 4.4: Example of new structure pricing portal

EAD circuits - Connection ^

Feature	Start Date	End Date	Charge £ Exc VAT	Charge Type	Charge Period	Unique Price Code
✓ EAD 10 ^{2,10,23}	01/04/2023		2,076.00	Connection	Non recurring	ETHEADXX00001
✓ EAD 100 ^{2,10,23}	01/04/2024		2,076.00	Connection	Non recurring	ETHEADXX00003

281. We will be engaging with Ofcom, the OTA and Industry during FY26, to take them through our plans to parallel run the two price list presentations for a period of time, to prove the functionality of the new system. After this time, the purple price list will be retired. We expect this to happen by 26/27.
282. However, as a result of the re-platforming there are changes to the table names where pricing is held e.g. the current "EAD circuits" pricing table which currently includes EAD connection charge, rental charge, rental charge where used for FTTP aggregation will become three distinct pricing tables:
- i. EAD circuits - Connection
 - ii. EAD circuits - Rental
 - iii. EAD circuits - Rental charge where used for FTTP Aggregation
283. In the Optical portfolio there are also changes which see pricing split across multiple pages on the new portal, to make the price list clearer and easier to navigate.
284. As the current legal instrument is drafted with reference to the current price list table names, where Ofcom refer to Openreach pricing pages and table names on the legal instrument, please note that these will need to be updated to reflect the new portal before the final statement. Openreach would be happy to explain changes made to the portal to Ofcom and provide a transition document showing the mapping of old table names (as referenced in the legal instrument), with their new tables name. We note that our proposal that Optical WDM services be defined by broadly, rather than with reference to specific pricing tables would also remove the need for this translation.

SMP condition 4.6

285. Ofcom is aware that Openreach charges for leased line connections based on the prevailing price at the time that the order is placed. That is because the date of placing an order is within the ISP's control, whereas the date of completion is not. Openreach intends to maintain this approach and will charge the prevailing connection price, compliant with the regulation in force at the time the order is placed. Where two orders are placed prior to the TAR entering into force but completed afterwards, their connection prices may be different if they were in different geographic markets at the time the orders were placed, even if they subsequently become part of the same geographic market under the TAR. Openreach considers that this will be compliant with SMP Condition 4.6, as drafted in the Consultation, but would welcome Ofcom's confirmation.

Notification periods at the start of the charge control (SMP Condition 8)

286. We request that at the start of the review period, normal notification periods are waived and the new prices can take effect from 1 April 2026.
287. Under the proposed charge controls, prices will increase up to CPI for the first year of the review period for the majority of products. Typically a price increase would require 90 days' notice, and the time and transparency allows an ISP to adjust to the higher price. However, at the start of a charge control, the price proposals will have been known to industry from the point of consultation, rendering the 90 days' notice ineffective as they will have had a year of notice. By setting weighted average price controls for year 1 Ofcom has understood this and reflected this in the charge control compliance calculation, rather than waiving the notice period for the start of the control.
288. The delay in the implementation of the price changes does not impact the average price charged across the year, but will negatively impact the timing of cash flows for Openreach. We are also concerned about the negative impact on transparency of compliance.
289. We have seen in previous reviews that the implementation of new prices during the control year to allow 90 days' notice (for example the WFTMR prices coming into effect from 1 July 2021) creates confusion for ISPs. Price changes to comply with the control are based on the change in weighted average price from one period to the next, which uses the average price that was charged across the year. When

price changes happen during a review period, it means that the price at a point in time during the year and the average price over the year will be different, and the price increase will not match CPI. This is little understood outside of regulatory teams and leads ISPs to misunderstand what price will come into effect and if a price increase has been compliant or not. ISPs also expect price changes to be on 1 April each year and budget with this in mind.

290. Price changes that can come into effect from 1 April at the start of the TAR period will therefore have sufficient notice, meet ISP expectations on timing and result in more transparency on how compliance has been met.
291. If Ofcom does not accept that notice periods for the start of the control should be waived due to transparency and cash flow impact, then Ofcom must waive the notice period for items that need to reduce to zero by 1 April 2026 to be compliant. This is applicable to Pole Top Equipment and Cable up a Pole for PIA, where the price cap is £0 from 1 April 2026.

Errors in Numbering and Referencing within the Legal Instrument

292. We note that there are a number of errors throughout the draft legal instruments in Volume 7, including typographical and referencing errors. We have not set out a complete list, but highlight some of the more material errors below.

Schedule 1, Part 1

293. There are a number of referencing errors in column 2 of Table 1A:
294. Supply of wholesale local access at a fixed location in WLA Area 2 (WLA Area 2):
295. Condition 5.2 is listed, however in Condition 5.2 WLA Area 2 is not listed as an applicable market. We believe WLA Area 2 should be listed in Condition 5.2.
296. Condition 5.8 is listed, however we do not believe this is appropriate for WLA Area 2 and it should be removed from Table 1A. (The presentation in Condition 5.8 is correct)
297. Supply of wholesale local access at a fixed location in WLA Area 3 (WLA Area 3):
298. Condition 5.2 is listed, however in Condition 5.2 WLA Area 3 is not listed as an applicable market. We believe WLA Area 3 should be listed in Condition 5.2.

Issued by: Openreach

Issue: 1

Date: 12/06/2025

299. Condition 5.8 is listed, however we do not believe this is appropriate for WLA Area 3 and it should be removed from Table 1A. (The presentation in Condition 5.8 is correct)
300. Supply of leased line access in LLA Area 2 (LLA Area 2):
301. 12G.20 is listed as an applicable condition. We believe this is incorrect and it should be removed from Table 1A as it applies to transitional markets. We believe the reference should instead be to 12G.21 which is otherwise missing.
302. We believe the text "12H.1 – 129, 12.11" should read "12H1-12H.9, 12H.11"
303. Supply of leased line access in LLA Area 3 (LLA Area 3):
304. 12G.20 is listed as an applicable condition. We believe this is incorrect and it should be removed from Table 1A as it applies to transitional markets. We believe the reference should instead be to 12G.21 which is otherwise missing.
305. We believe the text "12H.1 – 129, 12.11" should read "12H1-12H.9, 12H.11"
306. For simplicity, "7.6, 7.7, 7.8, 7.9, 7.10-7.18" could be written as "7.6-18". Throughout the table there are a number of other examples which could be simplified.
307. We believe that Condition 2.11 which relates to the provision of Dark Fibre Access, should apply to this market. It is not indicated as such on 2.11, and is not included in this Table 1A. We believe both need correcting.
308. Supply of interexchange connectivity in BT Only exchanges (IEC BT Only)
309. We believe that Condition 2.11 which relates to the provision of Dark Fibre Access, should not apply to this market. It is indicated as such on 2.11, and is included in this Table 1A. We believe both need correcting.
310. 12G.20 is listed as an applicable condition. We believe this is incorrect and it should be removed from Table 1A as it applies to transitional markets. We believe the reference should instead be to 12G.21 which is otherwise missing.
311. We believe the text "12H.1 – 129, 12.11" should read "12H1-12H.9, 12H.11"
312. 12I.8 is listed in Table 1, but the IEC BT Only market is not listed against the condition. We believe the reference against 12I.8 is incorrect and that condition should be updated.
313. Supply of interexchange connectivity in BT+1 exchanges (IEC BT+1)

Issued by: Openreach

Issue: 1

Date: 12/06/2025

- 314. We believe that Condition 2.11 which relates to the provision of Dark Fibre Access, should not apply to this market. It is indicated as such on 2.11, and is included in this Table 1A. We believe both need correcting.
- 315. 12G.20 is listed as an applicable condition. We believe this is incorrect and it should be removed from Table 1A as it applies to transitional markets. We believe the reference should instead be to 12G.21 which is otherwise missing.
- 316. We believe the text "12H.1 – 129, 12.11" should read "12H1-12H.9, 12H.11"
- 317. 12I.8 is listed in table 1A, but the IEC BT +1 market is not listed against the condition. We believe the reference against 12I.8 is incorrect and that condition should be updated.
- 318. Condition 12E.4 lists IEC BT+! rather than IEC BT+1
- 319. LLA HNR (Transitional) until 31 March 2031
- 320. Table 1A is missing a reference to Condition 8.5
- 321. Condition 12I.15 is not listed as applying in Table 1A, which we believe is incorrect. Condition 12I.15 is correctly shown as applicable to this market.
- 322. LLA Area 2 (Transitional) until 31 March 2031
- 323. Table 1A is missing a reference to Condition 8.5
- 324. Condition 12I.15 is not listed as applying in Table 1A, which we believe is incorrect. Condition 12I.15 is correctly shown as applicable to this market.
- 325. IEC DF Transition until 31 March 20[xx]
- 326. The end date should be stated in Table 1A rather than the placeholder text
- 327. We believe that Condition 2.11 which relates to the provision of Dark Fibre Access, should not apply to this market. It is indicated as such on 2.11, and is included in this Table 1A. We believe both need correcting.
- 328. 12I.8 is listed in Table 1A, but the IEC DF Transition market is not listed against the condition. We believe the reference against 12I.8 is incorrect and that condition should be updated

Schedule 1, Part 2

329. The interpretation section starts with paragraph 1 then moves to paragraph 18 in the version downloaded on the day of publication. We note that this has been corrected in the document available as at [24th] April and would appreciate confirmation of any other changes Ofcom have made since the Consultation was first published which may be more substantive.
330. In paragraph 1 item (cccc) should really be part of (bbbb). This would affect the reference of the items in the list below it.

Schedule 1, Part 3

331. In Condition 7, a number of conditions are subject to condition 7.17 (7.2 to 7.9). we believe they should all be subject to condition 7.16 rather than 7.17.
332. Condition 8.7 refers to the ECC balancing charge calculated in accordance with condition 12G.12, but we believe the correct refence is 12G.13.
333. Condition 11 has paragraph numbers under some tables with no text.
334. Condition 12 starts with paragraph 1 before moving to paragraph 22 in the version of the document downloaded on the day the Consultation was published. (This has changed to paragraph 6 in the version of the document as at 25 April 2025.)
335. Formula 2 (Prior Year Weighting Formula) in Condition 12 has an incorrect calculation for the number of days in the Second and Third Relevant year. As the second year of the control is a leap year, the prior year weighting formula for the Third Relevant year should have 366 days, while the Second Relevant Year should have 365. We note the numbering of the clauses here is also incorrect, going from i) to iv).
336. In condition 12B.13 (g) the reference to 12B.5 should instead be to 12B.4 (as this is where baskets are listed).
337. Condition 12C.3 refers to formula 7 by an incorrect name and should use the defined term Annual Maximum Charge Ceiling rather than Annual Charge Ceiling. This is also repeated at Condition 12D.4.

338. In condition 12C.11 (b) and (d) are the same text. Ofcom should remove (d) and might want to consider if any intended text has been excluded from this list in its place.
339. In condition 12C.11 (e) the bracket at the start of the sentence should be removed.
340. Condition 12C.14 (o) refers to Annex 1 of Condition 12C, however the Annex isn't numbered.
341. The annex to Condition 12C has links to define the items in the Area 2 and Area 3 connections baskets. We believe that the links are incorrect. Instead of referring to the Equinox long term offer (footnotes 2 and 3) or ACCN OR894 (which doesn't include the Equinox price changes) they should refer to the Equinox 2 offer prices found here [Price List](#)
342. The contents of the baskets in the Annex to Condition 12C are written to include "all other bandwidths" but should be specific to the 80/20mb charge only.
343. Condition 12C has an exclusion that the charge control only applies for FTTP where Copper Based Network Access is not available. Condition 12D.2 uses a more elegant way to achieve the same aim.
344. Condition 12D.6 (b) covers the two SFI products that Openreach sell; SFI Assure and SFI Frames Direct. This means that Condition 12D.6(a) is redundant as there are no other SFI products or modules that need to be covered by this condition. This would need that references to 12D.6(a) in 12D.6(b) would need to be removed, as well as the definition of SFI Service in 12D.11 (c) and (l).
345. Condition 12D.9 and Condition 12D.10 have duplicated. We believe 12D.9 should have text such as "Conditions 12D.1 to 12D.8 shall not apply to such extent as Ofcom may direct".
346. Condition 12D has SFI definitions that appear to be duplicates (12D.11 (i) and (k)). We would suggest deleting (k) which would impact the referencing of the items below in the list.
347. Condition 12E.12 could be covered by including references to 12E.5 and 12E.6 in Condition 12E.10.
348. Condition 12E.21 (b) refers to 12E.5 as a basket. However as per 12E.9, Main Link services are charge controlled individually. The reference to 12E.5 should be removed from 12E.21, and instead there should be a section similar to 12E.21 (d) to cover Main Link records.

Issued by: Openreach

Issue: 1

Date: 12/06/2025

349. Condition 12E.25(i) defines Main Link with reference to the EAD price list. Can Ofcom confirm it would not intend for any other Main Link services to be charge controlled (e.g. those relating to products other than EAD).
350. Condition 12E.25(p) creates a definition for Initial Charge which differs from other uses of the defined term Initial Charge throughout the other conditions in the legal instrument. To avoid confusion it would be better to have a different term here, such as "pre-offer price".
351. The Annex to Condition 12E section 1 includes Main Link services within the definition of the Ethernet Basket (which then also applies to Sections 2, 3 and 4 of the Annex). We understand that Ofcom has put individual charge controls on Main Link services as per 12E.5. Can Ofcom confirm that they intend to charge control these Main Link services individually as well as part of the baskets?
352. Section 6 of the Annex to Condition E has footnote 22 which we think is incorrectly written. Should this say "only applies to migration charges without an associated rental"?
353. The interpretation of the Annex to condition 12E refers EAD and EAD Rugged to the same link on the openreach web site. EAD Rugged pricing is on a separate link, however we do not believe it is correct to include EAD Rugged within the scope of this condition (as it is Street Access), and so believe the correction would be to remove all references to EAD Rugged from this condition.
354. 12G.11 bullet point b refers to condition 12E.9 for the purpose of complying with conditions 12E.4, 12E.5 and 12E.6. 12E.4 is covered under bullet point a under condition 12E.8 and should therefore be removed from bullet point b. 12E.6 applies to miscellaneous ancillaries that are out of scope of the balancing charge (under the WFTMR, the equivalent condition – 12G.10 only refers to the Ethernet basket and main link) and as such reference to this condition should be removed from the bullet point.
355. According to condition 12G.12, the provision of dark fibre access is in scope for the calculation of the balancing charge (in line with condition 12G.11 of the WFTMR) however dark fibre access has been excluded from condition 12G.13 which only refers to EAD and EAD LA connections (the equivalent condition 12G.12 in the WFTMR includes dark fibre access). It is our understanding that DFX should be excluded, but not Dark Fibre Access. Could Ofcom confirm if this is a mistake in the drafting, or if not please justify the change to exclude Dark Fibre Access?

356. In conditions 12l.2 and 12l.5, Ofcom makes use of Formula 1 to calculate the relevant year weighted average charge however it does not give it its name (Formula 1 (Current Year Weighting Formula)) unlike the other formulae used in the SMP condition (e.g. reference to Formula 7 in condition 12l.8).

Volume 7B VULA Direction

357. The TAR28 direction, in the background section contains one more paragraph than the 2021 WFTMR direction. As a result the references to paragraphs 5 and 6 in paragraphs 8 and 9 of the direction are incorrect and should be replaced with references to paragraphs 6 and 7.

Volume 7E Quality of Service Direction

358. With regard to QoS Standard 2 (provision completed on time) for FTTP, para 3.83 and Table 3.4 of volume 5 set the standard at 91%. The legal instrument (volume 7 part E, schedule 3, draft direction 3, para 5) sets the same standard at 90%. These should be consistent, notwithstanding points elsewhere that the level should be reconsidered.
359. According to the Consultation, paragraphs 3.31 and 3.42, the QoS standard for FTTP would only apply to Area 3 from year 2 however the legal instrument (volume 7 part E, schedule 3, draft direction 3, para 12) requires the dominant provider to comply with the QoS standards for MPF, FTTC and FTTP in the UK as a whole.
360. The Consultation is silent about the application of MBORC to the QoS standard calculations. The legal instrument (volume 7 part E, schedule 3, draft direction 3, para 13 (a) makes allowance for MBORC in the same way as the 2021 WFTMR. The allowance is however limited to MPF and FTTC and there is no such allowance in the legal instrument for FTTP which we believe is incorrect – FTTP should be included.

Direction 4 KPI reporting

361. The MBORC KPIs in the 2021 WFTMR were mis-labelled (this is not something we picked up at the time) and this is being continued in the TAR26. Could we therefore ask Ofcom to change the title of KPIs (ix) and (xiii) to "Number of..." instead of

"Percentage of...." to reflect the fact that the KPIs are asking for the number of orders / faults affected by MBORC that failed their commitment dates / SLAs and not for the calculation of a percentage.

Applicability of Copper Based Charge Controls drafting

362. Within the Consultation , Ofcom set out its intention that the anchor protection should be on FTTC (or SOGEA) 80/20Mb, except where this is not available, when it would be instead on FTTP 80/20Mb. One way it would not be available is where a First Threshold Notice has been declared (as set out in Volume 4 section 5.39). Another is where FTTC is not available at a premises as the network has not been built (FTTC was not deployed nationally and some new sites have been built with FTTP not FTTC), as per Volume 3 6.41 (c) says that where FTTP is not available and Openreach has deployed an appropriate network Openreach is required to provide FTTC 80/20Mb (emphasis added). This is presumed to take into account that there will be situations where there is no FTTP or FTTC network.
363. We believe that section 22(j) of Condition 12 (in the version downloaded on 20 March 2025, but also 6(j) of Condition 12 in the version available as at 25 April 2025), the definition of "where Copper Based Access network is available" does not match the intent set out in the Consultation.
364. As drafted, the legal instrument requires there to be an active FTTC circuit in place at a premises and Openreach have the ability to not provide FTTC if asked (e.g. First Threshold has been declared). We do not believe the active FTTC connection being in place is the correct requirement. For example, if a premises has MPF currently and is not within First Threshold footprint this would not meet the definition of copper based network being available. By this definition it would be the FTTP anchor that would apply, even though FTTP may not be available to the premises.
365. We think instead it would be better to change the text in section 22(j) of Condition 12 to be phrased in terms of the definition actually used through the charge controls in Condition 12, which is "where copper based access network is not available". The definition could then be:
- Copper based network access is not available at a location if:
 - the Dominant Provider does not have an active copper-based connection

- the Dominant Provider is not required to provide Copper-based Network Access in respect of that location for new requests under Conditions 1 and 2.

SFI condition 12D.7

366. Condition 12D.7a relates to the charge control for SFI modules which were bolted on to a SFI Base Module (where the visit charge was recovered). As these products were withdrawn in May 2020 this part of the condition can be removed.
367. Condition 12D.7b(i) sets out that the task time for SFI Assure and SFI Frame Direct should be fixed at the start of the control period (1 April 2026), consistent with the approach used in previous controls.
368. [X].
369. [X].
370. Given the falling volumes, that will only reduce further over time, the nature of the regulation on the SFI products is less material. We would propose that these items are changed to be CPI-0% single item charge controls. The current condition 12D.6 would instead be structured as are TRCs in 12D.3 and 12D.4.

Condition 12E

Annex to Condition 12E, Section 6: Miscellaneous Ancillary Services

371. In the Section 6 definition of "Miscellaneous Ancillary Services, EAD "Migration charges" is defined with a footnote "Only applies to rentals without an associated migration charge". It is not clear which charges it is considered this reference would refer to. On the EAD price list references to migrations are limited to two tables:
372. WES/WEES/BES to EAD Transfer Migration Charges – currently defined as product in the Ethernet basket
373. Managed Migration Options – separately defined in the Section 6 annex.
374. We also note that Managed Migrations Options are also fully withdrawn as of August 2021, and therefore do not need to be listed in the legal annex.

375. EAD and EBD Cancellation Termination charges are defined as subject to Miscellaneous Ancillary Services with a CPI control. We would ask that Ofcom clarify within the legal instrument that this CPI control does not apply to the price list tables that detail ETC or Cancellation adjustment percentages. If this control continues to exist, and this is discussed in more detail below, we require the ability to flex the ETC and Cancellation percentages adjustments by the required percentage required to demonstrate compliance with the control without additional constraint.
376. Additionally we do not consider that EAD Modify Circuit Shift charges should be defined as Miscellaneous Ancillary charges, as this acts as an additional constraint on pricing.
377. Shift – Internal is defined with reference to TRCs, which are already proposed to be charge controlled with a CPI control.
378. Shift – External Resite and Shift – External rearrange are defined as 50% of the connection charge, and calculation of the main-link charge. We do not consider it is appropriate to charge control these items with a CPI control as they are not list prices, and this would limit basket freedom, requiring Openreach to make CPI only increases to connection charges, effectively operating as an additional CPI sub-control.
379. We consider if Ofcom wish to charge control EAD Modify Circuit Shift Charges it should be explicit that this is limited to the Enable SyncE on EAD 10000 (all variants) charge only.

Figure 4.5 EAD Modify and Shift Charges on the Openreach price list⁶³

⁶³ Source: [Price List](#)

EAD Modify Circuit Shift Charges

Feature	Charge £ Exc VAT
Shift - Internal. Internal Shift of an EAD local end within the existing building.	Openreach Time Related Charges (TRC) will apply and can be found at link below. (Note 6, 7 and 13)
Shift - External Resite. Resiting of an EAD local end in another building served by the same local serving exchange	50% of circuit connection charge will apply, as applicable. The ECC flat rate fee included within the connection charge shown on the price list (if applicable) will not be included and no ECC exemption shall apply. (Note 6, 7 and 13)
Shift - External Rearrange. Rearranging an EAD local end in another building served by a different local serving exchange	50% of circuit connection charge will apply & Re-calculation of new revised Main Link rental charges. The ECC flat rate fee included within the connection charge shown on the price list (if applicable) will not be included and no ECC exemption shall apply. (Note 6, 7 and 13). Also check to ensure main link distance is not beyond the maximum.
Enable SyncE on EAD 10000 (all variants)	45.00

380. As detailed products Openreach propose for removal from the EAD basket in Section 1 due to withdrawal/imminent withdrawal, we consider should also not be included under the Miscellaneous Ancillary Services control:

- i. Wholesale Extension Service (WES) & Wholesale End-to-End Extension Service (WEES)
- ii. Backhaul Network Services (BNS)
- iii. Backhaul Extension Service (BES)

Condition 12E – Treatment of EAD Rugged

381. Within the Section 1 of the Annex to Condition 12E, Ofcom has listed EAD Rugged⁶⁴ as within the basket control, which is a remedy in the SMP LLA market. We believe this product portfolio has been incorrectly included within the SMP market and should be removed from Section 1. This has been discussed more fully in our response to question 4.3 above.

WDM products – clarity on products in scope

382. For the WDM Ofcom sets out the items included within the scope of the condition in section 5 of the Annex to Condition 12E. This lists products, and refers back to pages from the Openreach price list, with headings for "Connection and Annual Rental charges" and "Mainlink". This is a different approach from sections 1 and 6

⁶⁴ As found on the Openreach price list here: [Price List](#)

which list the table headings from the price list pages that the condition applies to. We find the latter approach offers clearer guidance on what should be included. Given the volume of Optical price tables, a broader positioning of all connection, annual rental charges and Mainlink charges listed on the Optical pricing pages, setting out specific exemptions may be more practical

383. Additionally, as Ofcom proposes to charge control WDM Services and Miscellaneous Ancillary Services with a CPI control, we suggest that for Optical Services the control could more simply be presented as a CPI control for all WDM Services. This would remove the need to define the charges captured under Section 1 and Section 6 of the annex, without any impact on the regulation or intent. It would also remove the requirement to assess each product (c. 1500 items) to assess which CPI control should apply.
384. A specific issue with the current approach is how customisation options should be treated in the control.
385. Our price list presents details on Optical pricing in a number of different ways, to help ISP customers understand the end pricing of their solutions given the complexity of the portfolio. While individual product component prices are listed with associated connection and rental charges, we also show pricing for base-build bundles, which are the total price an ISP customer would pay for a defined standard solution of bearer, chassis, filter and line card. We believe it is appropriate that these charges are included in the WDM price control.
386. Additionally, the price list also shows charges for customisation options for the bundles on the price list (in tables listed as customisation). These detail the incremental charge that would be incurred above the base-build bundle price, and reflected in an ISP customer's total bill, if one of the base build default components is replaced with an alternative component. ISP Customers are not charged the customisation charges, and they are not included in our billing tariff systems, they are charged for the components that are used to deliver their solution. As the proposed charge control for WDM services is defined as a single CPI-0% cap on each WDM Service modular component (6.65), we interpret this as meaning that the control would not extend to customisation charges as these, as outlined, are not WDM components. Were customisation charges to be charge controlled, this could create a disconnect between the charge-controlled item pricing and customisation charge. As rental charges are set to be divisible for monthly billing, the rounding needed to achieve this compliantly could result in a variance between

base build component charge and alternative component charge (both of which are charge controlled) of a slightly more than CPI price increase.

387. If Ofcom lists pricing table headings within the Annex to the condition, it would be clearer that these customisation pricing tables aren't in the scope of the control. For clarity the table headings that would be excluded are:
- i. OSA Filter Connect FSP3000 Chassis customisation*
 - ii. OSA Filter Connect FSP3000 Filter customisation*
 - iii. OSA Filter Connect FSP3000 Wavelength card customisation*
 - iv. OSA Filter Connect XG210 - Filter customisation*
 - v. OSA Filter Connect XG210 Wavelength card customisation*
 - vi. OSEA Filter Connect Lite Client Port Customisation
 - vii. OSEA 6500 Filter Connect chassis customisation*
 - viii. OSEA 6500 Filter Connect filter customisation*
 - ix. OSEA 6500 Filter Connect Wavelength card customisation (replacement card options)*
388. This would also mean the inconsistency between section 1 (where every heading is a pricing page) and Section 5 (where OSA Filter Connect and OSEA Filter Connect are listed as headings despite being a table on a page) would be resolved.

Scope of Section 6 of the Annex to Condition 12E

389. As noted in our comments on Section 1 of the Annex to Condition 12E, we consider that EAD Rugged is not within the scope of the SMP market and should not be listed in this section 6.
390. As noted in our comments on Section 5 of the Annex of Condition 12E, it is unclear why OSA Filter Connect and OSEA Filter Connect are listed here, given they not page headings, as all the other items listed here are. Being so specific with these products but not others implies that products not specifically covered because their table headings have been excluded are not within the scope of the control.

Condition 12F and new Cablelink services

391. Cablelink products are charge controlled in two conditions – a basket of cablelink products that traditionally serve Leased Lines products in Condition 12F, and individual charge controlled GEA Cablelink products in Condition 12C.
392. As we move ahead, it is likely the two product sets will consolidate. A move to EAD2.0 will see new head ends that can serve Leased Lines circuits as well as GEA products. These will require a new cablelink product. This will have a different technical structure to the current products, though it will serve a similar purpose of connected CP and Openreach equipment.
393. We propose that the new cablelink products should be launched at a price that is fair and reasonable, and would then be included in the cablelink basket covered by Condition 12F. This means we would apply Condition 12F.11 rather than 12B.8, in a situation where both could apply.

Condition 12I Structure of Dark Fibre Charge Controls

394. Ofcom extended the availability of the dark fibre product in WFTMR 21, which had access and inter-exchange components.
395. Openreach expanded the product offering, which replicated the structure of EAD products, where a circuit is possible from between exchanges (no access link), from an exchange to a client site (1 access link) and between two client sites (2 access link).
396. Openreach charges connections, rentals and mainlink for these products. The Openreach prices combine modular regulated aspects of the product, for example the connection price for a "Dark Fibre 2 Access Link – Single Fibre" is composed of two lots of "Connection for a single fibre circuit" (Condition 12I.1(a)) and one Initial Testing (Condition 12I.7(b)).
397. Now the product is developed, we would ask that Ofcom charge control the products that are sold, rather than the components costed ahead of launch. This could be done by summing the costings already modelled at the modular level, then blended CPI-X controls could easily be calculated. The structure of each product can be seen on the "12I – DFA Comp Outcome" sheet of the compliance model submitted to Ofcom annually.

398. This change will make the control easier to operate, but more importantly increase transparency, by allowing ISPs to understand how the price of the products they consumer will change over the course of the control.

Agreed Upon Procedures

399. Throughout Condition 12 there are requirements for the information provided by Openreach to Ofcom to demonstrate compliance to have been through assurance in the form of Agreed Upon Procedures (AUPs). Having experienced almost a full market review period of performing these checks, we would like Ofcom to consider if these have offered a proportionate level of value, given the significant administrative burden.
400. Each year as part of the compliance submission Ofcom receive queries connected with all tests. A review of these would show nothing substantive – i.e. that would have impacted the compliance outcome – has been identified. This is due to the extensive checks within Openreach on the compliance models, that start when pricings are proposed, are repeated mid-year to confirm compliance, and repeated again at end of year when the compliance submission is made.
401. The procedures currently cost BT Group around [£] each year and require significant additional administrative effort. Given there have been no impacts on compliance outcomes, we would request that the requirement for assurance on the compliance submission be removed moving forward into the TAR. This could also have the benefit of reducing the time needed to publish the compliance statement, and reinstate the end of June publication deadline.