



**Openreach's response to Ofcom's:
"Further consultation on leased
lines market analysis and various
pricing issues"**

17 December 2025

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Introduction

This document forms part of Openreach's response to Ofcom's Telecoms Access Review 2026. It is specifically in response to the 'Further consultation on leased lines market analysis and various pricing issues' (TAR November Consultation) and follows from our response to the March 2025 TAR consultation (TAR March Consultation).

1. Summary

The TAR November Consultation¹ is very narrow in its focus on a small number of methodological issues. We are concerned that the consultation lacks any broader cohesive consideration of Ofcom's approach to market definition, its overall policy position for leased lines and whether these reflect the future prospective competitive conditions for leased lines markets – without this, Ofcom will fall into error. This risks Ofcom setting a policy framework that will limit investment and competition in these markets. We therefore remain of the view that a more fundamental reappraisal of Ofcom's approach to leased lines market definition is needed.

Notwithstanding our broader concern about Ofcom's flawed framework, within the narrow parameters of the consultation we are mostly supportive of the proposed changes themselves, subject to the detailed comments set out below.

Leased Lines Access geographic market definition

While Ofcom has reassessed evidence and proposed some changes to the methodology driving the March 2025 proposals, this has only limited effect on the proposed geographic market boundaries. This means Ofcom is still proposing to radically shift its approach from that used in 2021 and, without further changes, would conclude that there is no scope for competition to develop in the supply of leased lines / equivalents in large parts of the UK where it is accepted that fibre networks have been, or will be deployed, by Openreach's rivals. The root of these flaws is Ofcom's proposal to continue to use its Network Reach Model (NRM). Ofcom has failed to take a suitably forward-looking analysis and approach to competition and regulation in a fast-moving dynamic market context.

Instead, Ofcom should maintain an approach which is consistent with the WFTMR and retain the alignment between LLA and WLA geographic markets for Areas 2 and 3. This would avoid the weaknesses and significant assumptions contained in the NRM.

While we set out our comments on the two narrow issues on which Ofcom is explicitly consulting, we stress that it is inappropriate to consider them in isolation, and Ofcom should take an alternative approach to market definition.

¹ Ofcom, ['Promoting competition and investment in fibre networks: Telecoms Access Review 2026-31: Further consultation on leased lines market analysis and various pricing issues'](#), 17 November 2025. (TAR November Consultation).

In relation to consolidation, Ofcom does not need to take a view on precise transactions which may take place - it should instead take account of all existing networks. This will allow it to take account of the true constraint provided by competitive networks, which will persist regardless of ownership.

In relation to the buffer distance, the use of this parameter is a fundamentally flawed approach, which fails to recognise that Altnets can connect to demand sites by using Openreach's PIA network, which they can connect into at any point, not necessarily near to the demand site. Further, the use of a static buffer distance is flawed because it does not take account of the dynamic expansion of networks - with each new connection widening its reach - and the adjacencies of connecting to multiple sites. Notwithstanding the above, even within Ofcom's own methodology its own evidence supports a longer buffer distance (at least 300m) since it should give greater weight to the upper percentiles or maximums of the connection distances it has examined. There is no basis to use a shorter buffer distance (50m) in HNR than in Area 2 and Area 3 (75-100m), nor to exclude CityFibre from the assessment of HNR. We would expect that revising this buffer distance would lead to many areas being reclassified, reducing the size of Area 3, increasing the size of HNR and potentially leading some HNR areas to be suitable to be classified with the CLA.

Charge control issues

We welcome Ofcom's proposals to correct errors affecting its proposed charge controls - namely, for PIA, removing a double count of the discount factor for lead-in link duct and joint boxes components in the simplified lead-in product, and, for leased line products, correcting a historic error in fibre cost allocation and other smaller corrections to allocated costs. These proposed corrections in the charge control will allow Ofcom to rectify errors in its TAR March consultation. At the same time, Ofcom should also review its assumptions on lead-in line length. We also welcome Ofcom's recognition that it is reasonable and pragmatic to allow to structure the glide path of the charge control in a way which gives time for implementation of sub national pricing for LLA active services.

Other issues

We note that Ofcom states explicitly that it received submissions on a wide range of other issues relevant to these markets following its TAR March Consultation² and that

² Ofcom, '[Promoting competition and investment in fibre networks : Telecoms Access Review 2026-31](#)', 20 March 2025, (TAR March Consultation).

some of these are not covered in this further consultation. We wish to emphasise the importance of all of the issues we raised and we refer Ofcom to our response to the TAR March Consultation. Our response to this TAR November Consultation should be read in conjunction with our initial response to Ofcom's proposals in leased lines markets.

2. Leased lines access market geographic definition

Summary

We are surprised and disappointed that the TAR November Consultation covers only two narrow methodological issues. As we have previously submitted, Ofcom must reconsider its entire approach to LLA geographic market definition to avoid defining geographic markets that do not reflect the available evidence. Otherwise, based on its proposed methodology Ofcom risks calling time on competition too early in the business connectivity market to the detriment of better market outcomes including lower prices and more competition.

In its TAR March Consultation, Ofcom proposed to find that LLA Area 3 had increased in size since 2021, notwithstanding clear evidence of growth of competitive networks and further prospective competition. In the November consultation, Ofcom's indicative estimates of the size of LLA Area 3 continue to find a larger area than under the WFTMR approach. However, clear evidence and examples of alternative network providers competing intensely for LLA customers show that it would be incorrect for Ofcom to find that the LLA market is now less competitive and less prospectively competitive than it was in 2021. Ofcom has failed to take a suitably forward-looking analysis and approach to competition and regulation in a fast-moving dynamic market context.

These results have arisen because Ofcom is proposing to resile from its successful, pro-growth, pro-investment approach in the WFTMR. It appears from both Ofcom's TAR March Consultation and its TAR November Consultation, that it intends to revert to the outdated Network Reach Model (NRM) to define geographic markets for leased line services, despite its express recognition in 2021 that it was unsuitable for setting the boundary of Areas 2 and 3.³ As previously set out in our March 2025 TAR submission, we consider that for Ofcom to rely on the NRM would be to fail to give due weight to the evidence provided by Openreach and other industry participants in response to Ofcom's March Consultation. It would run counter to the significant increase in actual and potential competition in leased lines markets.

Ofcom should recognise the scope for ongoing convergence between WLA and LLA products and consequently their respective geographic markets. In this consultation, Ofcom has not covered at all its consideration of the constraint imposed by other

³ TAR March Consultation, Vol 2, para 7.151.

products; in particular, those provided over multi-service networks (MSNs). This is a critical issue and it is not possible to take a view on the strength of the constraint of networks – including MSNs – without considering this question. We have submitted significant evidence⁴ in relation to the constraint that these services can pose, as have many of our competitors.⁵ Failing to take this into account will restrict the presence of flexible network competition across large parts of the UK, at odds with Ofcom’s duty to promote competition where appropriate.

Given this, Ofcom should maintain an approach which is consistent with the WFTMR and retain the alignment between LLA and WLA for Areas 2 and 3. This would avoid the weaknesses and significant assumptions contained in the NRM.

The NRM’s issues have been further exposed by the extension of its use beyond HNR. It is inherently inappropriate for identifying business demand site competition due to its lack of consideration of PIA, incorrect assumptions about competitor network build behaviour and high sensitivity to a range of assumptions used to populate the model. The minor tweaks to the NRM proposed by Ofcom do not remedy these defects.

Accordingly, while we give our comments on the two narrow issues on which Ofcom is explicitly consulting, we stress that it is inappropriate to consider them in isolation, and Ofcom should take an alternative approach to market definition – namely, maintaining the WFTMR approach and retaining alignment between LLA and WLA geographic market definition for Areas 2 and 3.

Consolidation

Ofcom has stated that only a subset of possible mergers and acquisitions would affect its LLA geographic market definitions, and that these are not presently expected or foreseeable developments. We do not consider this approach allows Ofcom to carry out its forward-looking analysis on the basis of all of the available evidence.

Ofcom does not need to take a view on precise transactions, rather it should focus on network presence and capability, which will persist regardless of ownership. This will allow it to take account of the true constraint provided by competitive networks, based on evidence which is available now. Ofcom’s views in relation to non-physical barriers

⁴ See, Openreach, [Annex 2: Network Technology Report](#), June 2025 and Openreach, [Leased line forecasts and trends](#), October 2025.

⁵ CityFibre, ‘[CityFibre response to the telecoms access review 2026-31](#)’, para 3.33-3.34; VM02, ‘[Telecoms Access Review, Virgin Media O2 response](#)’, June 2025, paras 99-100 and 105-114; INCA, ‘[INCA response to Ofcom’s Telecoms Access Review Consultation](#)’, June 2025, 282-290.

to entry (e.g. reputation) overlay the significance of the identities of asset owners and underplay the constraint provided by fibre in the ground. Its views are not based on any tangible evidence.

We believe it is appropriate to take into account all MSNs and indeed in doing so Ofcom would avoid the need to reach firm views about consolidation.

Amendments to NRM

We disagree with Ofcom's overall approach to LLA market definition. However, if Ofcom continues to use the NRM, we welcome its willingness to revisit key assumptions - but Ofcom must take into account all relevant evidence regarding flaws in the NRM and not limit itself to considering the buffer distance.

Buffer distance

While we welcome Ofcom's willingness to revisit the buffer distance, it is still based on a fundamentally flawed approach, which fails to recognise that Altnets can connect to a PIA network at any point in the network and connect to demand sites in this way, i.e. a network does not need to be close to the demand site itself for that site to be easily reachable. The limited evidence Ofcom presents on barriers to using PIA is at odds with the extensive usage of the product, the positive customer feedback, and the fact that some of these barriers (e.g. blocked duct) equally apply to Openreach's own use of its own Physical Infrastructure (PI).

Even if Ofcom continues to feel it necessary to apply a threshold buffer distance, Ofcom's own evidence supports a longer buffer distance than either the 75m or 100m distances that are illustrated in this consultation. Ofcom should give greater weight to the upper percentiles or maximums of the connection distances it has examined, since these illustrate that Altnets are willing to connect over those distances. This would support a buffer distance of at least 300m.

Finally, Ofcom's justification for seeking to update the buffer distance only for Area 2 and Area 3 is not substantiated by evidence. Intuitively, we would expect the buffer distance to be greater in HNR than Area 2 and Area 3 due to the greater density of businesses and adjacencies making any individual build more likely to generate revenue opportunities. Accordingly, in the absence of any concrete evidence that the buffer distance should be shorter in HNR than Area 2 and Area 3, there should at the very least be alignment across areas.

Ofcom must revisit its approach to leased lines geographic market definition

1. We consider that Ofcom's approach to LLA geographic market definition (and in particular its proposed use of the NRM) is fundamentally flawed. We set out the reasons for this, including a detailed explanation of why it is inappropriate to use the NRM in the Openreach June response,⁶ which should be read in conjunction with this response. It nevertheless appears from the detailed narrow issues (consolidation and buffer distance) on which Ofcom is consulting, that it intends to continue to use the NRM.⁷
2. In summary, the fundamental issues with using the NRM are that:
 - i. it does not sufficiently acknowledge the convergence that exists and is growing between WLA and LLA markets;
 - ii. as currently calibrated, it assumes that network builders have to be closer to demand sites than they actually have to be in order to place a competitive threat when considering serving them; and
 - iii. it is static and does not take account of the dynamic expansion of networks – with each new connection moving a network builder closer to potential customers.
3. In relation to the first, we have provided Ofcom with substantial evidence of the role of MSNs and their ability to easily provide services which are a suitable alternative for some leased line customers, such that they act as a competitive constraint.⁸ This is a factor relevant to the product market definition and which in turn should influence the geographic market definition. This is a further reason why separating out narrow methodological issues in isolation, such as those in this consultation, risks being redundant, when the overall framework should be reconsidered.
4. In relation to the second and third points, it does not reflect the impact of existing and future network investment, nor its own view on scope for Altnets to provide

⁶ Openreach, [Response to TAR con doc](#), (Openreach June response), Vol 2, paras 72-208.

⁷ TAR November Consultation, para 3.22.

⁸ See, Openreach June Response, [Annex 2: Network Technology Report](#), June 2025 and Openreach, [Leased line forecasts and trends](#), October 2025.

LLA services, leading to unrobust results out of line with the evidence and contrary to the requirement to take a forward-looking view.

5. By proposing to define geographic markets that do not actually reflect the current and future competitive conditions, Ofcom compounds the error by proposing remedies which will disincentivise future investment in Area 3. This is demonstrated by submissions from a range of network builders.⁹ Disincentivising future investment and competition in large parts of the UK would run contrary to Ofcom's statutory duties, which include the desirability of promoting competition in relevant markets and the desirability of encouraging investment and innovation in relevant markets, as well as the Government's growth agenda. It would also mean that the SMP remedies are not objectively justified and proportionate contrary to the requirements of section 47 of the Communications Act 2003.
6. It would clearly be an error for Ofcom to adhere slavishly to the outputs of the NRM. In the CAT's 2017 BCMR judgment,¹⁰ it said "*although Ofcom was plainly entitled to use the Network Reach Test to select broad areas consisting of many postcode sectors for further investigation, it does not follow that the candidate areas are set in stone so that the further investigation of competitive conditions cannot or should not take place on a more granular level within those areas. It would, for example, obviously be wrong to assume that because the wider area as a whole did not meet the Boundary Test (however that was defined), then no smaller part of that area could be considered effectively competitive.*"
7. This makes clear that reliance on the NRM does not absolve Ofcom of the duty to examine competitive conditions at a more granular level. This is all the more important in circumstances where it is on notice that the NRM's outputs are so counter-intuitive. Ofcom should address the evidence we have provided showing flawed outputs and should gather evidence itself to test other outputs of the NRM.
8. Notwithstanding the need for Ofcom to approach the outputs of the NRM with a critical eye, it should also remedy the defects of the parameters of the model and we discuss these specific issues below.

⁹ See, for example, ITS, [ITS response to Ofcom's Telecoms Access Review Consultation](#), paras 54-55; VM02, [Telecoms Access Review, Virgin Media O2 response](#), June 2025, para 113.

¹⁰ [2017] CAT 25, see particularly paragraph 431.

Network Reach Model (NRM)

9. Ofcom is persisting with proposing to use the NRM to define geographic markets but seeking to alter its assumption on the buffer distance. This is insufficient. Even with an amended buffer distance, many of the illogical outcomes cited in the Openreach June response persist, or where they change, the new classification does not alleviate the concern about that particular postcode sector – see Table 1.

Table 1: Anomalous postcode sector classification

Location	WFTMR	March 25 Con Doc	Nov 25 Con Doc	Comment
Lewisham	HNR	Area 3	Area 2	
York	HNR	Area 3	Area 2	Depends on threshold
	HNR	Area 2	Area 2	
Cambridge	Area 2	Area 3	Area 2/3	Depends on threshold
Brent Cross	HNR	Area 2	Area 2	
	Area 2	Area 3	Area 2	
Isle of Mull	Area 3	Area 2	Area 2	

10. The illogicality of the outcomes can be seen by looking at the aggregate 154 Postcode Sectors (PCS), which have moved from HNR to Area 2 or Area 3. Given the usage of the NRM in HNR is consistent with the WFTMR approach, this outcome can only be a result of the exclusion of CityFibre from the relevant competitors included in the HNR in the TAR consultation (see paragraphs 13 – 17 below for why we disagree with this exclusion of CityFibre). We do not consider it reasonable for these PCS' to be found less competitive than five years ago, and in some cases to be dramatically reclassified from competitive areas (HNR) to no prospect of competition (Area 3).
11. To avoid the misclassification of areas such as these, Ofcom should adopt a more comprehensive assessment incorporating MSNs, or at least a comprehensive re-assessment of the model's parameters. Hence, we strongly disagree with Ofcom's

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use of the NRM, if Ofcom does persist with it, it must make a number of fundamental changes to its assumptions, not just the narrow buffer distance it is now consulting on.

12. In Annex 1, we show updated results from the BT Group shadow model discussed in our June response¹¹. This again provides evidence of the sensitivity of Ofcom's modelling which is unsuited for a robust and forward-looking review of the market.

Treatment of CityFibre

13. We also take this opportunity to emphasise our disagreement with Ofcom's unjustifiable decision to exclude CityFibre as a current material and sustainable competitor to Openreach in the HNR. If it was to be taken into consideration, we would expect the HNR to increase in size and/or some parts of the HNR to be susceptible to being defined as CLA.
14. CityFibre already acts as a network consolidator¹²¹³ and is widely expected to accelerate its role as a future major consolidator (see discussion of recent Enders report in the following section).
15. In 2025, CityFibre has significantly expanded its presence in the Ethernet market (see below). This approach and focus on leased line services makes it even more unclear why CityFibre's network should only be considered a competitor in Area 2 and 3, and not HNR.
16. For example, in June 2025, CityFibre announced it had *"tripled the availability of its dedicated, enterprise-grade Ethernet services to now serve over 260,000 UK businesses"*,¹⁴ as well as making a number of improvements to its offering, stating: *"Today's announcement is a reminder that CityFibre is more than just a broadband network. We're building a digital infrastructure platform that serves the needs of all sectors of the market, from consumer services right through to enterprise-level connectivity."*
17. The exclusion of CityFibre as a relevant competitor in HNR would lead to confused and overly complex outcomes if CityFibre were to acquire a network. This is

¹¹ Openreach June [Response](#), Vol 2, box 1 and paras 117 - 130.

¹² [CITYFIBRE COMPLETES ITS ACQUISITION OF LIT FIBRE](#) | CityFibre

¹³ [CityFibre acquires Connexin's full fibre infrastructure...](#) | CityFibre

¹⁴ [CityFibre triples business ethernet availability for its...](#) | CityFibre

explained in further detail in our response to Ofcom's consultation questions related to Consolidation (see below), but in brief:

- i. If CityFibre acquires a network with presence across the UK, only the parts of the network in Areas 2 and 3 will be considered a constraint on Openreach.
- ii. If CityFibre acquires a leased line only provider present only in the HNR/CLA, Ofcom would then discount this network from being a potential competitive constraint, despite its current inclusion.

HNR deregulation

18. In the TAR consultation, Ofcom does not deregulate any further PCS' beyond the existing CLA.
19. This is despite five years of further build since the WFTMR. With no flexibility for Ofcom to deregulate PCS' during the TAR period, the current proposals will result in a 10-year period of no additional PCS' being deregulated.
20. This is the result of a backward-looking approach where Ofcom only considers the current market shares and number of nearby networks. Ofcom should account for PCS' where market shares are trending downward and will likely fall below 60% during the TAR period.¹⁵ Ofcom has not acknowledged this potential future development or done any forward-looking analysis to consider this outcome. If it does so, we expect it would find there are parts of the proposed HNR where we do not hold SMP.¹⁶
21. Without prejudice to all of these reservations, we now respond to Ofcom's consultation questions in this area.

Consolidation

Question 3.1: Do you agree with our reasoning on the impact of consolidation? Please set out your reasons and supporting evidence for your response.

22. We disagree with Ofcom's overall approach to assessing consolidation, as well as the two conditions it says must be met for consolidation to affect whether it

¹⁵ Ofcom consider the 50-60% BT market share relevant for deregulation in TAR March Consultation, Vol 2, para 5.132.

¹⁶ See, Openreach June [Response](#), Vol 2, paras 203-208.

includes the networks in its assessment. Ofcom should take account of all networks in the ground regardless of whether or not specific acquisitions and mergers occur.

Ofcom should take into account all MSNs regardless of consolidation

23. Ofcom states it is still considering responses related to the ability of all MSNs to provide leased line or leased line equivalent¹⁷ services and therefore act as a competitive constraint to Openreach. We reiterate our view that Ofcom should properly assess evidence of the convergence between WLA and LLA services and include all networks regardless of any consolidation.
24. First, this convergence applies on a technological level as outlined in the Openreach June response and specifically the Annex 2 Network Technology Report.¹⁸ That response explains that even though PON-based MSNs are architecturally different to dedicated leased lines, they can still offer services with capacity and security features which are similar from an end customer perspective. Presence of single mode fibre in an area gives flexibility to serve end customers of all types.
25. Secondly, Volume 2 of the Openreach June response presented specific examples to demonstrate the wide availability of leased line or leased line equivalent services offered by MSNs, which Ofcom erroneously excludes from its analysis. We expand on this evidence here with the examples below from the past five months since our June response. These show the pace of expansion of leased line equivalent offerings and emphasise why Ofcom must account for this clear trend in its forward-looking assessment over the TAR period:
 - a. Netomnia further expanded its business offerings by launching a B2B Wholesale Platform on which other ISPs can offer business services over the Netomnia FTTP network.¹⁹ Ofcom's proposal must take due account of this evidence of a significant network offering leased line or leased line equivalent services.
 - b. The following two examples clearly show that CityFibre's FTTP network is expected to be utilised to support CPs in selling LLA equivalent services to target and compete in the business market.

¹⁷ Ofcom describe 'leased line equivalent' as "services with features such as uncontended capacity, symmetric download and upload speeds, and quality of service parameters similar to point-to-point leased line services" in TAR March Consultation, Vol 2, footnote 335.

¹⁸ Openreach, June Response, [Annex 2: Network Technology Report](#), June 2025

¹⁹ [Netomnia Launch 8Gbps FTTP Biz Broadband to UK ISPs via Wholesale - ISPReview UK](#)

- c. In November 2026, Zen Internet began selling business services over CityFibre's FTTP network.²⁰
 - d. Likewise, CityFibre purchased LitFibre in 2024 and now offers three business packages (Lit Business Essential, Lit Business Pro, Lit Business Max) over CityFibre's FTTP network²¹. It is not clear why this network should be only considered a competitor in Areas 2 and 3 when these same services are available over CityFibre's entire network across the UK.
 - e. Community Fibre continues to expand its business offerings with an additional bandwidth now available over its FTTP network and explicitly marketed at business customers²².
26. Thirdly, Ofcom has not evidenced its view that non-physical barriers, such as reputation, are material barriers to entry. Indeed, as noted in the Openreach June response, Ofcom in fact cites a number of examples of successful recent entrants into the LLA market including ITS, Netomnia, brsk, Zzoomm, and AllPoints.²³

Specific consolidation requirements

- 27. We disagree with the two conditions Ofcom requires to consider consolidation in the NRM.
- 28. Ofcom states a specific consolidation transaction between providers must be "*sufficiently foreseeable*".²⁴
- 29. Consolidation is widely expected across the industry.²⁵ In waiting for details of specific transactions, Ofcom is ensuring its market review is reactive rather than forward-looking and will not achieve Ofcom's own stated aim of capturing developments which may affect competition over the review period.²⁶

²⁰ [Broadband ISP Zen Internet Expands UK Business Connectivity Products - ISPReview UK](#)

²¹ [Broadband ISP LitFibre Launch New UK Business Packages up to 2.4Gbps UPDATE - ISPReview UK](#)

²² [London ISP Community Fibre Launch 100Mbps "Business Ready" Broadband - ISPReview UK](#); [Business Fibre Broadband | Business Broadband Deals | Community Fibre](#).

²³ Openreach June [Response](#), Vol 2, para 197.

²⁴ TAR November Consultation, footnote 26.

²⁵ TAR March Consultation, Vol 1, para 2.35.

²⁶ TAR March Consultation, Vol 2, para 5.67: "As outlined in Section 1, our market reviews are forward-looking. We therefore need to sufficiently capture not only the existing competitive conditions but also the expected or foreseeable developments that may affect competition over the review period, such as new network build."

30. Treating information on specific transactions as the only relevant signal for consolidation is highly conservative and does not align with the consensus view among expert analysts that consolidation will occur.^{27 28 29 30 31 32 33} Individual Altnets are positioning themselves as either acquirors, or in as strong a position as possible to be acquired. Industry analysts do not question whether consolidation will happen, only its timing. Enders Analysis describe consolidation as "*inevitable*" and that it should happen "*sooner rather than later*".³⁴
31. We note that given the level of industry wide speculation about specific deals, we would be surprised if Ofcom did not actually hold concrete information about imminent transactions, in which case even within its own framework it must take these into account.
32. We acknowledge the difficulty of predicting the precise timing and details of individual transactions, but this does not mean the industry trend is not strong evidence which should be taken into account by including the MSNs (because they will be larger, stronger competitors post-consolidation) and producing holistic and forward-looking market analysis. Indeed, failing to include any particular transaction because it is not sufficiently foreseeable, is logically only consistent with a view that the most likely scenario is that no consolidation at all occurs. This is contrary to Ofcom's broader statements about the prospects for consolidation.
33. Ofcom's second condition, which must be met for consolidation to be taken into account, is that one party involved in the transaction must be a current material and sustainable LLA competitor.³⁵ This is particularly problematic given Ofcom excludes many Altnets, including CityFibre, from this definition.
34. The sector's short-term expectations of consolidation support our view that network in the ground is the relevant consideration, not specific ownership. As

²⁷ [Commercial reality check raises consolidation prospects for U.K. altnets | AlixPartners](#)

²⁸ [Home stretch for UK Fibre: Navigating the Consolidation Wave](#)

²⁹ [UK altnets: recent trends - BDO](#)

³⁰ [96% of UK Altnets are considering M&A, according to new research from Neos Networks - Neos Networks](#)

³¹ [Consolidation is coming for the UK altnet market: how to get your business ready? | Brodies LLP](#)

³² [Rob Bradley on Consolidation and Fixing the Turbulent UK Fibre Broadband Market - ISPreview UK](#)

³³ Consolidation was a major theme at Connected Britain 2025 with widespread discussion covering Altnet M&A and the number of providers expected to remain across the market. These points were raised in specific sessions such as 'Consolidation and competition - the future shape of the UK Telecoms Market', 'Future of the Altnet model', 'The Future of UK Fibre', and in other CEO and panel events.

³⁴ Enders Analysis "UK Altnets: Something's got to give" (24/11/25)

³⁵ TAR November Consultation, paras 3.13 – 3.15.

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consolidation occurs over the TAR period the networks of smaller operators will not be discarded, rather they will be merged with the acquirer's network. These networks exert competitive pressure on Openreach today, but even if Ofcom were (incorrectly) to discount them as not owned by a sustainable competitor, this will soon change with consolidation. Each of these networks will most likely soon be acquired by material and sustainable competitors.

35. It is neither robust nor consistent with the requirement to conduct a forward-looking assessment, to base a five-year regulatory regime solely on the current state of the market when significant shifts are 'inevitable' (per Enders³⁶) and a network which is not currently considered a sufficiently competitive constraint could readily become one in the event of expected M&A activity.
36. This is an example of an overly rigid and static proposal in a rapidly developing market. This is ill-advised and will lead Ofcom to impose inflexible, disproportionate and unnecessary regulation, which is not appropriate for a market which will evolve over the next five years. For example, according to the logic of the TAR November Consultation, if CityFibre (as a potential material and sustainable competitor) acquires a network with presence across the UK, only the parts of this network in Areas 2 and 3 will be considered to act as a constraint on Openreach. In the HNR the acquired network will be excluded along with CityFibre's original network.
37. Similarly, if CityFibre purchased a leased line only provider present only in the HNR and/or CLA, Ofcom would then discount this network from being a potential competitive constraint, despite its current inclusion. This contrast in treatment of a single acquired network does not pass a simple sense-check and reveals the unnecessarily convoluted approach Ofcom is proposing to take to geographic market definition.

Buffer distance

Question 3.2: Do you agree with our revised proposals relating to the buffer distance? Do you have a view on the most appropriate value of the buffer distance? Please set out your reasons and supporting evidence for your response.

³⁶Enders Analysis "UK Altnets: Something's got to give" (24/11/25)

38. Openreach welcomes Ofcom's reconsideration of the buffer distance. However, the proposals are too limited in scope and do not adequately address fundamental issues with the modelling approach and use of evidence.
39. Ofcom's analysis presented in Figure 3.1 of the November consultation shows that a material number of on-net circuits would have been excluded by a 50m buffer distance and remain excluded by even a 100m buffer distance. In one case (the eighth provider in the Figure) this is c.44% at 50m and c.25% at 100m for one provider. Whilst our response below assumes that buffer distance is measured between truly the last piece of an Altnet network and a customer, Ofcom's analysis suggests a significant additional buffer should be added to account for the reality of the distance of network extensions which have been built.
40. Ofcom fails to recognise that Altnets can connect to a PIA network at any point in the network and connect to demand sites in this way. The limited evidence Ofcom presents on barriers to using PIA is at odds with the extensive usage of the product,³⁷ the positive customer feedback, and the fact that some of these barriers (e.g. blocked duct) equally apply to Openreach's own use of its own physical infrastructure (PI). The extensive usage of the product includes its use to support business connectivity as well as to support FTTP services. We have seen that at least [redacted] PIA CPs have taken a lead-in to a business site.³⁸
41. Ofcom has also not considered the dynamic expansion of networks – with each new connection widening its reach – and the adjacencies of connecting to multiple sites.
42. Even if Ofcom continues to consider it necessary to apply a threshold buffer distance, Ofcom's own evidence supports a longer buffer distance than either the 75m or 100m distances that are illustrated in this consultation. Ofcom should give greater weight to the upper percentiles or maximums of the connection distances it has examined, since these illustrate that Altnets are willing to connect over those distances. This evidence indicates a buffer distance of 300m should be used at a minimum.
43. Finally, Ofcom's justification for seeking to update the buffer distance only for Area 2 and Area 3, and not HNR, is not substantiated by evidence. Intuitively, we would expect the buffer distance to be greater in HNR than Area 2 and Area 3 due to the

³⁷ [redacted].

³⁸ See, Openreach June Response, para 148.

greater density of businesses and adjacencies making any individual build more likely to generate revenue opportunities. Accordingly, in the absence of any concrete evidence that the buffer distance should be shorter, there should at the very least be alignment of it across areas.

Interconnection into Openreach PIA network is not fully evaluated

44. Ofcom's updated proposals extend the buffer distance due to the availability of PIA. Unfortunately, these proposals still downplay the role of PIA in significantly lowering the cost of network extensions and consequently increasing the distance network providers will be willing to extend their network to reach a customer.
45. As stated in the Openreach June Response the dig distance is largely irrelevant.³⁹ Where Openreach has closer access to a demand site than an Altnet, the Altnet can benefit from that closer access through PIA. The only relevant dig distance is that required to connect to Openreach's PI, rather than the final section to the demand site. Altnets can connect into Openreach's duct at any node and therefore can choose locations where the connection is as short and convenient as possible. Given the widespread availability and success of PIA, it is likely the Altnet is already connected to Openreach's duct network at some location and therefore the Altnet and Openreach would face the same dig requirement to reach a new customer or group of customers.
46. Ofcom presents the dig distance and PIA usage distance evidence as opposing ends of the spectrum in terms of determining the appropriate buffer distance. This should not be the case. As discussed above, the upper end of the PIA data should be considered the best measure of what distance extension is possible.

If Ofcom continues to use the NRM and a buffer distance it is still too short

47. We have explained why Ofcom's buffer distance methodology is conceptually flawed.
48. However, even if Ofcom persists with this approach, there remain serious issues with its calculation of this distance, which results in values which remain too short.

³⁹Openreach June Response, Vol 2, paras 139 - 143.

49. Ofcom's proposals are not supported by the evidence it sets out. The data presented does not support the proposed buffer distance and there is insufficient analysis to demonstrate the recommendations are appropriate.
50. Ofcom does not explicitly explain how it weights the evidence set out, only commenting, "*On balance, having examined all of the evidence in the round, we propose that a buffer distance longer than 50 metres and up to 100 metres...*".⁴⁰
51. Ofcom says the purpose of the buffer distance is to "*capture the distance at which LLA providers can supply – and compete for – customers who require a leased line*".⁴¹ If a buffer distance were relevant, we emphasise that the evidence to justify its length must inform how far a provider is *willing* to extend their network. It is crucial to separate the evidence which answers this question from that which measures average extension distances.
52. However, Ofcom's conclusion indicates it has underweighed the most relevant evidence and has been distracted by historical averages. We explain our specific concerns below.
53. The most relevant evidence Ofcom provides related to the distance providers would be willing to extend is from providers' provisioning policies and procedures. This shows that:
 - i. The availability of PIA means providers are willing to build networking extensions of between 300m and 5km in length.
 - ii. PIA can reduce the costs of network extensions by 30-80%.
54. These two areas of evidence demonstrate the buffer distance should be significantly extended from the limited increase proposed by Ofcom. Ofcom's original methodology for calculating the buffer distance was based on clear economic logic of a cost-threshold. The buffer distance no longer represents that as the supporting analysis has not been updated since the 2019 BCMR statement⁴² and does not take into account the significant impact of PIA.
55. We also note that Community Fibre advertises its business products with a measure of the number of businesses within 200 metres of its network.⁴³ This is

⁴⁰ TAR November Consultation, para 3.57

⁴¹ TAR November Consultation, para 3.23

⁴² BCMR Statement (2019), Annex 10.

⁴³ [Community Fibre Business Ready Broadband](#)

further clear evidence that Ofcom must further extend the buffer distance to match the reality of how far network providers are willing to extend their networks to serve new customers.

56. Ofcom presents other areas of evidence which are flawed in their interpretation or data quality to different extents. We explain these in the following paragraphs.

Build distances for LLA network extensions using PIA

57. Ofcom presents a summary of build distances using PIA for LLA customer-specific network extensions in table 3.2 of the TAR November Consultation.
58. First, this data should be appropriately considered as actual build, rather than reflecting how far a provider would be willing to build. Measures of historical build distances do not reflect an unwillingness to build further, but rather only the necessary extension distance for the sites that were actually connected. It is inevitable that these will contain connections that are shorter than the maximum viable distance.
59. If a network provider connected a series of customers which only required short build distances this would reduce the values displayed in the table. However, these short build distances are completely irrelevant and unrepresentative for how far a provider would be willing to extend and therefore offer no useful insight. For example, if a network provider was willing to dig 500m to a connect a site, and had connected one such site, but also 9 other sites that were only 50 metres away, the median dig distance of 50 metres would not reflect the distance that provider was willing to connect.
60. Likewise, if a network provider connected to one site that was 500m away from their network and then subsequently connected nine sites within 10m of that site, those subsequent nine sites would all show as being on-net (with no material build) despite all ten being 500m away from the original extremity of the provider's network.
61. Linked to the above, the presentation of statistics in the table distracts from the relevant data. In assessing willingness to extend a network, the lower quartile and median values are irrelevant and misleading. The upper quartile is the closest metric in the table to one that might be appropriate, but even this would be an underestimate of the distance a provider would be willing to build.

62. Ofcom’s evaluation of this data should focus on the maximum of this data to most effectively answer the key buffer distance policy question (or at least the upper decile to conservatively account for the prospect that the maximum is an outlier).
63. Second, Ofcom has presented data from only 4 network builders, of which, the first provider (first row) comprises the vast majority of the observations with the lower two rows each contributing less than 0.1%. Given all providers face the same PIA charges, Ofcom should pool this data before assessing the results and drawing conclusions. We note that the first provider has an upper quartile of 300-350m.
64. It would be appropriate to breakdown the data by year instead of by provider. Given the trend of increasing PIA usage⁴⁴, network builders are likely to become more familiar with PIA and there is likely to be a trend of increasing extension distances using PIA over time. This would be further evidence of Ofcom’s significant underestimation of both the length of extensions built, as well as the distances providers are willing to extend.
65. Each of these points above would likely lead to a conclusion of providers being willing to extend their networks over 300m due to the availability of PIA based on Ofcom’s data. This is in line with the evidence we highlighted at the start of this section as the most relevant for determining how far a provider would be willing to extend their network.
66. This distance is further extended if we then factor in the dynamic expansion of networks, which means that each new connection widens a network operator’s reach. Ofcom should either review and extend network boundaries every year or account for multiple network provider expansions over the period, which, for example, if it involved just two expansions of 300m would lead to a buffer distance of at least 600m. Ofcom could easily verify the need for dynamic updating or a longer buffer distance, by comparing the current network location data it has collected from Altnets (such as ITS and CityFibre), with the equivalent data that it held for completing the WFTMR 2021. Our strong expectation is that it would find that these networks expanded by significantly more than 50m over that period.

Dig distances for LL network extensions

67. Ofcom presents a summary of dig distances for LLA customer-specific network extensions in table 3.1 of the TAR November Consultation.

⁴⁴ TAR March Consultation, Vol 3, figures 5.1 and 5.2.

68. The data issues explained in the previous sub-section (related to data use and presentation) also apply to this table:
- i. Ofcom's evaluation of this data should focus on the maximum or upper decile of this data as a minimum.
 - ii. The data should be pooled between providers.
 - iii. The data should not be pooled across years. Each year should be presented to understand if there is a trend which can inform a forward-looking evaluation.
69. More fundamentally, this table is conceptually flawed. PIA *reduces* the required dig distances. To an even greater extent than table 3.2, this data not only offers no insight on willingness to dig but actually leads to concerningly misleading conclusions.
70. To illustrate this point, CityFibre commented on PIA saying "*Compared to self-build, PIA can cut the speed of rollout by roughly half. Instead of digging 9 metres per property on average, we typically need only dig around 4.5m*".⁴⁵ Ofcom's data would show this as a shorter dig distance (and based on Ofcom's interpretation would show less willingness to extend network and therefore result in assessing less competitive pressure on Openreach for demand sites), despite the fact it is actually an example of the increased competition enabled by PIA.

PIA: Practical issues and provider preferences

71. Ofcom claims PIA customers may not always be able or willing to use PIA to build customer-specific network extensions due to a series of practical issues and provider preferences.⁴⁶
72. Ofcom's commentary does not acknowledge the simple fact that Openreach faces exactly the same limitations in connecting its networks to demands sites as any PIA user. Ofcom does not assess the scale of these issues or the mitigations offered by Openreach, nor does it acknowledge that if providers choose not to use PIA, it will be for their own strategic reasons regardless of the suitability of PIA.
73. First, Ofcom claims these limitations mean PIA is limited in the assistance it gives network builders to compete with Openreach. However, it fundamentally does not make sense to claim providers will be impeded from competing with Openreach

⁴⁵ [Repurposing yesterday's network for our Full Fibre future | CityFibre](#)

⁴⁶ TAR November Consultation, para 3.39 – 3.41, figure 3.2.

when Openreach faces the exact same issues. If a duct is blocked near a demand site, Openreach will face the same additional cost as any other builder. No competitive advantage is gained.

74. Next, Ofcom does not consider the scale of these limitations of PIA, nor the mitigations Openreach has explained which address these issues. Ofcom cannot appropriately weigh the PIA limitations in its evaluation of buffer distance if it does not fully consider the mitigations we explain below. [§<]
75. In addition, the assumption of Ofcom's analysis is that PIA is always the preferred option, and any example of a provider not using PIA is necessarily a negative outcome and indicative of Openreach securing a competitive advantage.
76. This is inaccurate. Network builders may choose not to use PIA despite its availability for their own reasons:
 - i. Each provider has different strategies and approaches in how they develop their network. For example it is the chosen strategy of some providers to primarily choose to buy off-net, as is shown by the third provider in Ofcom's figure 3.2. This data does not indicate such a provider is avoiding PIA due to issues with the product.
 - ii. Where a provider can build cheaply to serve a number of demand sites, they may have a financial preference for owning their own duct network versus a series of PIA payments going forward. In each extension decision the provider is able to choose whichever approach suits it best.
 - iii. There are other financial reasons for preferring network build over PIA. Providers may prefer to have the duct as an asset on their balance sheet. This is especially relevant given the expected consolidation in the market as Altnets will make choices to maximise their market value if acquired.
77. Finally, the number of providers for which Ofcom has data is very small. As mentioned in our June response,⁴⁷ [§<] Altnets have taken a PIA lead-in to a business premise, yet Ofcom's presented data covers only eight (figure 3.1), five (table 3.1), four (table 3.2) or three (figure 3.2) PIA users. It is not reasonable to ignore the conceptual arguments related to PIA vastly reducing the need for dig, alongside the statistics showing massive take-up of PIA, and make sweeping and

⁴⁷ Openreach June [Response](#), Vol 2, para 198.

unmeasured judgements about the restrictions of PIA based on a very small sample of providers.

78. Ofcom describe PIA as a hugely important remedy with very high levels of take-up. The product itself has been shaped by industry engagement and with Ofcom oversight. Our PIA customers provide positive feedback on the product. If these issues have acted as barriers then we would expect Ofcom to be able to point at more concrete evidence of this being the case and question why Ofcom has not addressed these points in previous market reviews.

Networks grow incrementally quickly (i.e. following one network extension, they can extend incrementally further)

79. As discussed in the Openreach June Response,⁴⁸ the 50m buffer distance is still partially based on the assumption that a network builder will serve only a single end customer with an extension of their network.
80. A network operator which only extends its network for single customers and does not strategically plan for incremental future demand from other demand sites is neither an efficient nor a reasonable benchmark for a business which should be able to compete with Openreach. This argument alone justifies extending the buffer distance, even notwithstanding our other arguments.
81. The assumption of serving a single customer is unreasonable across the UK, let alone in the HNR given the density of demand sites, but Ofcom does not acknowledge this when considering extending the buffer distance in Areas 2/3 but not the HNR.

Difference in dig distance between HNR and Areas 2/3

82. Ofcom does not adequately justify maintaining the same buffer distance of 50m in HNR while extending it elsewhere.
83. Ofcom explains that the buffer distance is included in the modelling for two reasons:

⁴⁸ Openreach June [Response](#), Vol 2, paras 153 - 154.

- i. **Methodological imprecision:** imperfect data means not including a buffer distance would lead to instances where a connected site appears unconnected in the model. The buffer distance helps to mitigate this inaccuracy in two scenarios:
 - a. Where the exact coordinates of a demand site are unavailable, the postcode centroid is used instead as an estimation.
 - b. Coordinates of the site may not align with where the network physically connects to the site. If the coordinates are at the centre of a large site, there could be significant distance between the precise point estimate of the demand location, and where a network connects to the edge of the site.
 - ii. **Network extensions:** Network builders extend their networks to provide service to a new customer, a cluster of customers, and/or potential future customers. There are multiple options available for how a provider chooses to provision a network extension (dig cables in the ground, extend cables from poles, purchase PIA from Openreach).
84. All of these reasons apply equally in the HNR as they do in Areas 2 and 3. Ofcom's historical use of the NRM has never raised the prospect of applying different dig distances in different areas.
85. Ofcom's justification relies on the certainty of competitor presence. This is unrelated to willingness to build network extensions and already accounted for in Ofcom's identification of competitor networks to include in the analysis, and the 2+ networks which are required to be present to identify an area as HNR. The certainty of a competitor's presence is unrelated to the distance they would be willing to extend their network.
86. In addition, the logic of how a network builder would behave does not support a shorter buffer distance in HNR. A provider's willingness to extend its network is a balance between the cost and potential revenue through serving additional customers.
87. Demand sites are likely to be more clustered in the HNR, meaning an extension of a certain distance would be expected to allow a network to serve more customers in the HNR compared to Areas 2/3. This increases the revenue opportunity, and consequently the distance a network provider would be able to profitably extend their network.

88. Ofcom’s proposal implies it believes the opposite is true and providers are only willing to build shorter extensions in the HNR despite the larger revenue opportunity. It does not justify this view. This lack of justification lacks transparency.

Other NRM considerations

89. In the Openreach June Response, we argued for a reduction in the coverage threshold and the inclusion of a wider group of networks.⁴⁹ Ofcom has failed to re-consult on these issues. These are the three key moving parts of the NRM and as such their sensitivities should be assessed in combination rather than in isolation as Ofcom has done with the buffer distance in this consultation. The outcome will be flawed if Ofcom fails to amend its proposed approach based on the evidence we provided.

Additional submissions

90. We have seen that some respondents have made additional submissions to Ofcom following the TAR March Consultation, including two – Vodafone and Vorboss - that have suggested that Ofcom should not take into account leased line equivalent services in its market definition.

Vodafone⁵⁰

91. Vodafone has submitted that it considered there is a lack of prospective competition between PON-based networks and networks for leased lines during the TAR period. We consider [§<] clear examples of end-customers’ demonstrated willingness, and in some cases explicit requirements, to replace ethernet services with PON based services.⁵¹

Vorboss⁵²

92. Vorboss has submitted that it has serious concerns regarding Ofcom’s proposed treatment of leased line equivalent services. Vorboss’ submission focuses on technological differences between these services and services provided over PONs.

⁴⁹ Openreach June [Response](#), Vol 2, paras 110 – 130.

⁵⁰ VodafoneThree, [‘Comments on comments’](#), October 2025, paras 16-21.

⁵¹ See, Openreach, [Leased line forecasts and trends](#), October 2025 and Openreach, June Response, [Annex 2: Network Technology Report](#), June 2025,

⁵² Vorboss, [‘Concerns regarding the proposed redefinition of ‘leased line equivalents’](#), August 2025.

93. Vorboss' submission does not take account of the end service that can be delivered to customers, and accordingly whether from the demand-side there can be a degree of substitutability between these services. The fact that two services might have different technological characteristics is not a reason to exclude them from the same economic market or to ignore that they may be able to place competitive constraints on each other.⁵³

3. Simplified lead-in PIA charges

Summary

We welcome Ofcom's proposal not to apply its updated discount rate to the lead-in link duct and joint boxes components in the simplified lead-in product. This is a straightforward correction of an error, that would otherwise lead to a double counting of the discount factor.

We also provide more data regarding lead-in lengths, which is based on new analysis of the whole population of Altnet duct lead-ins. This evidence shows that the lead-in length parameter in Ofcom's pricing model grossly understates actual duct used for Altnet lead-ins, and that lead-in prices should be correspondingly adjusted upwards.

Question 4.1: Do you agree with our revised approach to the application of discount rate when calculating the charge control for simplified lead-in duct?

94. In our response to the TAR March Consultation, and with regard to simplified lead-in duct, we demonstrated that the shared duct and shared joint box exits components already had sharing factors built into their costs and to apply a further discount rate, to account for churn, was a double count and would therefore be an error.⁵⁴ For the reasons laid out in that response, **we agree that Ofcom is right to correct this error, so that the discount rate should not be applied to the shared duct and shared joint box exits components of the simplified lead-in duct.**
95. In this consultation, Ofcom acknowledges:

⁵³ See, Openreach, June Response, [Annex 2: Network Technology Report](#), June 202.5

⁵⁴ Openreach June [Response](#), Vol 4, para 159-169

- a. our objection to the lack of evidence for the proposed glide from today's 10% discount rate to a discount rate of 54% by the end of the period. We provided counter evidence that maintaining a 10% discount rate would better meet Ofcom's objectives; and
 - b. the engineering evidence we supplied showing that the average lead-in length, used by Ofcom for the calculation of the simplified lead-in price should be significantly increased. The current assumption, adopted by Ofcom in the WFTMR, clearly understates current and expected future use by Altnets.
96. We understand Ofcom is still considering the arguments and evidence we provided in our June Response (and subsequently in response to formal information requests) and will explicitly address these two concerns in its final statement.
97. We continue to believe that the current simplified lead-in product gives fibre-builders valuable flexibility in how they deploy their network and provides them with outstanding value for money, and we do not see any justification for reducing the price.
98. Since our June response, we supplied further engineering information to Ofcom regarding average lead-in line lengths⁵⁵ and expanded that analysis to be more complete⁵⁶. We now summarise our current position in relation to average lead-in lengths below.

Average Lead-in length.

99. Ofcom's TAR March Consultation proposed to adjust the sharing factors used for lead-ins and spine duct from the WFTMR assumptions but to maintain the assumptions for average lead-in lengths used in the WFTMR. In our June response, we explained that Ofcom should perform a complete review of all relevant factors before proposing such changes. Further, should Ofcom update the sharing factor for the Simplified Lead-in product, it is incumbent on it to also update the Lead-in length assumptions at the same time, given the engineering evidence that its assumed length clearly understates current and expected future use by Altnets.
100. The Simplified Lead-in product allows fibre builders to choose where they want to locate their fibre Distribution Point (DP) and declare the addresses of all homes served from that DP. They pay a Simplified Lead-in charge for each home

⁵⁵ [3<].

⁵⁶ See annex 2 below

connected regardless of the length or complexity of the infrastructure route between the sites.

- 101. As explained in our June response, this is not a surprise to us as we raised concerns during the WFTMR process 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.⁵⁷
- 102. This of course undermines Openreach’s ability recover the costs of these extended lead-ins as fibre builders avoid fairly contributing to the cost recovery of these additional duct lengths (nor is the duct included in the calculation of the simplified lead-in charge).

Analysis of average lead-in lengths

- 103. As Altnets self-declare the locations of both ends of their simplified lead-ins, we have been able to analyse c. [x] Altnet ducted lead-ins. Annex 2 provides a description of the method⁵⁸ used to calculate the averages in Table 2 below.
- 104. To analyse the actual lead-in use by Altnets, we looked at the locations of both ends on the lead-in on PIPeR⁵⁹ and measured the distances of duct used and number of joint boxes that are passed through.
- 105. The up-to-date current usage is shown in the right-hand side of Table 2, and the WFTMR assumptions Ofcom uses for pricing purposes is shown on the left-hand side. As is clearly shown, the actual use by Altnets of both dedicated and shared Lead-in duct is significantly higher than the assumed use for pricing purposes.

Table 2 – Assumed vs actual use of lead in by Altnets

[x]

- 106. These estimated averages are superior to those used by Ofcom in its pricing model because they are more accurate than its current but outdated assumptions and better reflect current and future likely usage:

⁵⁷ WFTMR, Vol 4, para 4.14

⁵⁸ This is a further development of the analysis we shared with Ofcom in SIR response [x].

⁵⁹ PIPeR (Physical Inventory, Planning and eRecords) is an Openreach system holding data relating to its physical infrastructure.

- i. in advance of the WFTMR, there was a relatively small number of Altnet connections and the WFTMR estimate was predominately based on Openreach usage (as a proxy for what Altnets would use in future). The updated estimate is based solely on Altnet usage, and the population is large enough that the average is a robust estimate.
 - ii. the majority of build will be complete by the time TAR comes into force; most DPs have already been installed. It follows that it is not expected that Altnets would or could change their behaviour and build DPs closer to customers and thereby reduce average lead-in lengths in future. As a result, the current usage data is a much better proxy for future usage.
107. Our strong view is that Ofcom should not only update other Simplified Lead-in sharing assumptions in its final decision, on the basis that using the WFTMR calculation would be incorrect, but it should also update the Lead-in length assumptions at the same time. To do otherwise would be an error, given the availability of more accurate and up to date evidence.

4. Cost-based charge controls in the LLA and IEC markets

Summary

We welcome Ofcom’s updating of its charge control models to reflect a historical error in fibre cost allocation and other smaller corrections to allocated costs, noting that the improved fibre cost allocation has been through a formal change control process and audit, and has now been adopted for RFS purposes. Thus, to do anything other than take it into account in the charge control would be inconsistent.

We also welcome Ofcom’s recognition that it is reasonable and pragmatic to allow Openreach (and consequently in turn CPs) an extra year to implement sub-national pricing for LLA active services. In this context, re-profiling its charge control proposals, to ensure Openreach doesn’t unduly benefit, appears proportionate.

Ofcom has not updated the volumes that it has used in determining the charge control. We believe it must do so for the final charge control, otherwise the X will be higher than warranted by the evidence Ofcom has gathered.

Question 5.1: Do you agree with our revised proposals relating to charge controlling active LLA services in LLA Area 3 and dark fibre services in the LLA and IEC markets?

Fibre cost reallocations

108. As laid out by Ofcom in the TAR November Consultation, it has been aware for some time of a significant misallocation of fibre costs to FTTP and FTTC services and away from LLA and IEC services. In considering how to deal with this, Ofcom went through rigorous due diligence to establish that this is an error that needs correction and that the proposed re-allocation of costs reflects the actual use of these assets by the relevant services. Stakeholders can take comfort that this is the right course of action given the considerable level of Ofcom oversight.
109. We agree with Ofcom that the methodological changes will correct erroneous assumptions and improve the accuracy of BT's reporting⁶⁰ and thereby, when adopted to forecast costs, will improve the accuracy of the costs considered for the relevant charge control services.
110. We also note that the corrected allocation of fibre costs has a material impact on the total costs of the relevant charge-controlled services. As a result, not correcting the allocation would result in charges being set below efficient costs. Correcting the allocation is consistent with Ofcom's objective of setting prices that would allow Openreach to recover its efficiently incurred costs. Further, below cost prices would encourage inefficient build / buy decisions, potentially crowding out efficient investment via alternative services.
111. We therefore agree with Ofcom that it is appropriate to implement the upcoming reallocation that BT intends to apply in its 2026 RFS, for the final statement cost modelling. To do otherwise would be to erroneously understate the relevant costs for estimating the charge controls.

⁶⁰ TAR November Consultation, para 5.17.

Glidepath designs

112. Ofcom proposes two key changes to glidepath design: a transitional year for LLA Area 3 Low Bandwidth (LBW) services and an amended sub-cap for Main Link services.

Transitional year - LLA Area 3 LBW services

113. We explained in our June response⁶¹ that significant complex system development would be required to enable us to notify price changes, quote, and bill accurately geographic EAD pricing based on market area for 1 April 2026. We further explained that this development cannot be completed in time for the start of the TAR. We proposed a transitional period of a year to allow for implementation. We also expect that CPs will require a transitional period in order for them to consume and implement geographic pricing (should they choose to do so). While, as per our original consultation response, we question whether CPs will actually do this, given the low levels of retail competition in Area 3, providing them sufficient time to implement billing changes before they come into force increases the likelihood of them doing so.

114. We are pleased that Ofcom has pragmatically decided to continue with a CPI-0% control in the first year with catch-up later in the control. We accept that, in these circumstances, it is fair that Openreach does not accrue incremental revenue benefit from the implementation delay. Our assessment is that the catch-up proposed by Ofcom ensures that this is the case.

115. We welcome Ofcom's proposal of a one-year transitional period and a catch-up that is designed to result in the same revenue giveaway over the life of the charge control.

Change to sub-cap for Main Link services from CPI-0% to CPI+5%

116. Openreach agrees with Ofcom that there is a significant increase in main link costs following the fibre cost reallocation. We also agree that, in these circumstances, imposing a CPI-0% sub-cap risks imposing on Openreach an obligation to set prices below the costs for main link rentals.⁶²

⁶¹ Openreach June [Response](#), Vol 4, para 267

⁶² TAR November Consultation, para 5.23-5.24

117. In these circumstances, we think it is appropriate that Openreach is provided more flexibility to rebalance prices within the basket. Openreach considers a sub cap of CPI+5% for Main Link services is sufficient to allow sensible rebalancing of prices.

Value of X

118. Ofcom proposes two key changes to the level of X: LLA Area 3 LBW services and DFX Main Link.

LLA Area 3 LBW services

119. We understand that if Ofcom were proposing a single X over a 5-year charge control for LLA Area 3 LBW services, it would be proposing, in the base case, a charge control of CPI-3.25% rather than CPI-6.75% in the March consultation. The 4% delta is mainly a result of the improved fibre cost allocation methodology.

120. But Ofcom is not proposing a single X, 5-year charge control for LLA Area 3 LBW services. Rather, Ofcom is proposing a transitional year in year 1 with a CPI-0% control and then, in the base year; a catch up in year 2 with a CPI -7.58% control followed by a CPI-1.75% control in years 3 to 5.⁶³ Ofcom maintains this is equivalent to a CPI-3.25% over the control period.

121. Below we outline that, for its final decision, Ofcom should use deaveraged Area 3 costs as the basis for the charge control and update its volume forecast downwards to reflect the worsening outlook for Openreach leased lines volumes. Further, a moderate upwards costs adjustment is required to forecast Non-Domestic Rates costs in order to capture the impact of the recent Valuation Office (VOA) decision on the value of BT's fixed network and the poundage rate set by the Government.

DFX Main Link

122. Ofcom has proposed a starting charge adjustment (SCA) of 29% and a glide path of CPI+7.25% in the base case for DFX Main Link rental services,⁶⁴ up from -14% and CPI-3.5% respectively.⁶⁵ We support this change in Ofcom's proposal. It recognises the costs that Openreach has incurred as a result of fibre investment and more fairly allocates those costs to the services that use those fibres.

⁶³ TAR November Consultation, Table 5.2

⁶⁴ TAR November Consultation, Table 5.2.

⁶⁵ TAR March Consultation, Vol 4, Table 3.1.

123. It is also more aligned with Ofcom’s objectives for charge controls: to balance the need to align prices with fully allocated costs, promote competition, and protect consumers from risks of excessive pricing.⁶⁶
124. When considering whether there is a case for an SCA (in addition to a positive glide path), Ofcom assesses:⁶⁷
- i. *“Whether the risks to economic efficiency or competition from distorted pricing signals are particularly significant; and*
 - ii. *Whether prices are significantly above or below cost for reasons other than efficiency or volume growth.”*
125. The change in fibre cost allocations is significant, leading to a large gap between prices and costs. This risks initial distortions in the form of allocative inefficiency or inefficient price signalling that could undermine investment via distorted build vs buy incentives. Relying on a glide path in isolation would produce lower initial prices, but then steep annual price rises thereafter to return prices to cost.⁶⁸ A combination of an SCA and positive glide best balances investment incentives and Ofcom’s objectives to protect consumers.

Cost adjustments for final statement

126. Ofcom proposes that it will remove mobile network licence costs from its cost modelling.
127. As identified by BT in its 2025 RFS, it is plain that mobile network licence costs were inadvertently allocated to services within Openreach SMP markets. On that basis, we agree that these costs should be removed from Ofcom’s cost modelling. Further, as Ofcom outlines in the consultation, we also assess this is likely to have a minimal impact on Ofcom’s proposals for dark fibre and Area 3 LBW charge control proposals.

⁶⁶ TAR March Consultation, Vol 4, Para 3.13-3.16.

⁶⁷ BMCR, 2016. [BMCR: Final Statement - Annexes 26-27](#). A26.14.

⁶⁸ Openreach June [Response](#), Vol 4, para 267

Updates since our June response

128. We now outline below updates since our consultation response in June that Ofcom should take into consideration in relation to Non-Domestic Rates costs, forecast volumes and Area 3 costs of supply.

Non-Domestic Rates (Cumulo costs)

129. In our June response we highlighted that a review of BT's business rates was ongoing, and the result would become clear prior to Ofcom's final decision.⁶⁹ Following the recent autumn statement, the England valuation and poundage rates are now set going forward. BT's is working on a new forecast of these Cumulo costs that reflects these changes.

130. These costs are allocated to Area 3 LBW services. We would be happy to provide Ofcom detail of our new forecast so that Ofcom can consider it for its final statement.

Volume forecasts

131. Our understanding is that Ofcom's volume forecasts for LLA and IEC services were based on inputs received from stakeholders, including Openreach, in Autumn 2024. That Openreach submission was itself based on assumptions about the market from early 2024. [REDACTED]

132. [REDACTED].⁷⁰

133. [REDACTED]

134. [REDACTED].

135. We note that the allocation of volumes between different geographic markets (including within Area 3), is affected by the treatment of cross-boundary circuits – which the evidence strongly shows should be based on the location of the end-premise (B-end), unlike under the current TAR proposals (see further discussion in Section 6 below).

⁶⁹ Openreach June [Response](#), Vol 4, para 96.

⁷⁰ [REDACTED]

Area 3 costs of supply

136. In our June response⁷¹ we outlined why it is reasonable to assume that the average costs of supply of leased lines services in Area 3 are higher than in the rest of the UK (Area 2, HNR and CLA). We also supplied historical evidence that the difference in the average costs would likely be substantial. As a result, we proposed that Ofcom should use Area 3 averaged costs rather than nationally averaged costs for its cost modelling. We also offered to agree a data submission for Ofcom so it could consider this issue more fully.
137. Ofcom did not engage with us on this issue following our response (despite multiple requests). In the absence of such engagement, we conducted further analysis of the costs of supply in Area 3. The detail of that analysis is in Annex 3 to this response. This shows that the average cost of supply in Area 3 is 13% more than the average national cost of supply.
138. We would like to take this opportunity to again 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 at least 13% to estimate true Area 3 costs of supply. To do otherwise would compromise its objectives:
- i. 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.
 - ii. It will further undermine investment signals already affected by this policy:
 - a. It will exacerbate geographic distortions and create cross-subsidisation from other areas and ultimately disadvantage Openreach in more competitive areas.
 - b. It will further undermine downstream competition from PIA operators.
 - c. Openreach has no obligation to extend its footprint in Area 3. Regulated prices set below the actual cost of supply in Area 3 will undermine the case for Openreach to extend its footprint in Area 3.

⁷¹Openreach June [Response](#), Vol 4, paras 81 to 91.

5. Dark fibre cost modelling: Openreach sales product management costs

Question 6.1: Do you agree with our revised proposals relating to the estimation of Openreach sales product management costs within our dark fibre charge controls?

139. Ofcom has proposed to change its treatment of Openreach Sales Product Management costs. These changes stem largely from BT's new cost allocation methodology. We support Ofcom adopting changes that reflect the up-to-date methodology used in the 2025 RFS. The Change Control process is robust and hence measures that have been through that process should rightly be reflected in Ofcom's regulatory considerations. To do otherwise would risk inconsistency and reduce transparency.

6. Other issues

140. Ofcom states explicitly that it received submissions on a wide range of other issues relevant to these markets following its March Consultation and that some of these are not covered in this further consultation.⁷² We wish to emphasise the importance of all of the issues we raised and we refer Ofcom to our response to the March Consultation. Our response to this consultation should be read in conjunction with our initial response to Ofcom's proposals in leased lines markets (Openreach June response).

141. Some stakeholders have made submissions to Ofcom on issues which are not addressed in Ofcom's consultation, and we respond to these below to the extent we are able to do so. We note that some of these responses contain redactions and it is not clear whether and to what extent Ofcom proposes to rely on these responses. Ofcom will be aware of its obligation to act transparently (including under section 47 of the Communications Act 2003) and we trust that Ofcom will provide us with the opportunity to comment on any representations and/or evidence which affects its conclusions to a material extent.

⁷² [TAR November Consultation](#), para 1.3.

Pricing notification waivers

142. We requested a notification waiver for price changes that might be required following publication of the March 2026 TAR Statement. VodafoneThree disputed that this was required stating that CPs needed the notification periods and this offsets the subsequent inconvenience of in-year price changes.⁷³
143. We welcome Ofcom’s proposal to maintain consistent charge control remedies across Area 2 and Area 3 for the first year of its proposed charge control. This will negate the need for a notification waiver since we expect to notify prices in advance and would not need to subsequently revise them in Area 3. Additionally, it is necessary to allow time for the implementation of systems that will permit geographic pricing.
144. We consider this approach is the most proportionate way for Ofcom to achieve its objectives, as well as being transparent to industry as a whole.

Cross boundary circuits

145. Ofcom’s TAR proposals require that access circuits that cross the boundaries between two LLA geographic markets should be classified as belonging to the least competitive of those markets.⁷⁴
146. Given the vast majority of Openreach’s access circuits are between a customer access site and an exchange, Openreach fundamentally disagrees with this approach - it is illogical, not objectively justified and disproportionate to achieving Ofcom’s objectives, contrary to section 47 of the Communications Act 2003.⁷⁵ The competitiveness of circuits that serve an end customer premise is determined by the presence of networks that can service that premise and not by the location of the A-end (exchange end). Where a circuit terminates has no bearing on the competitiveness of an end customer location – the choice of where we terminate a circuit is based on where it is efficient for us or the CP to aggregate traffic and not related to the availability of competing networks. It is the availability of rival networks that can serve that premise that determines the choice available to the premise and the competitiveness of that location.

⁷³ VodafoneThree, [‘Comments on comments’](#), October 2025, paras 1-3.

⁷⁴ [TAR March Consultation](#), Vol 3, table 7.1.

⁷⁵ See, Openreach June [Response](#), Vol 2, paras 186-194.

147. We also note that Ofcom's approach drives CP confusion, which we regularly see in the administration of our HNR and CLA offers – i.e. we have received requests from CPs to receive special offers for these areas on the basis of the B-end being present within them and they have been confused and disappointed when it transpires that requests which are cross-boundary may not be eligible for these offers.
148. This is a material issue and one Ofcom must revisit for its final statement.
149. We note that VodafoneThree⁷⁶ has opposed our suggestion to revise the treatment of cross boundary circuits. It appears to us, that VodafoneThree has not understood the nature of our submission (which illustrates our point that, as well as Ofcom's policy being illogical, it is confusing for CPs). VodafoneThree's comments appear to amount to a recognition that the Local Access variant of our leased lines is cheaper than standard services that incur mainlink and a request that services should not be penalised where they terminate at an exchange other than the local exchange.
150. The discussion of Local Access versus Standard circuits is irrelevant to our discussion of cross-boundary circuits, since the issue could arise in either case.
151. For example, consider an end-customer located in an HNR postcode (which by definition will have several network providers present) that is connected to its local exchange which happens to be in Area 3 (noting that this has become more likely as a result of Ofcom's proposals, as they would lead to there being significantly more Area 3 postcodes in urban areas like London). This customer would be entitled to Area 3 pricing. In this example, under Ofcom's proposed regulation the only way for the CP to pay HNR pricing would be to connect to an exchange further away that happens to be located in an HNR area. This increased distance would drive higher pricing as a result of mainlink charges, despite the HNR savings – i.e. the very issue Vodafone is concerned about. This illustration shows that Ofcom's approach is causing inefficiency and higher costs, where access pricing is driven purely on the basis of where the CP has chosen to take handover of the circuit rather than where the customer site is located.
152. Further, VodafoneThree refers to our exchange exit programme, which will reduce the number of exchanges and increase the number of services eligible to be local access variant. We would expect VodafoneThree to welcome this. However, if

⁷⁶VodafoneThree, ['Comments on comments'](#), October 2025, paras 11-15.

Ofcom does not change its approach, it will lead to fewer circuits being classified as Area 2, CLA or HNR. [3<]

153. The illustration set out above highlights the dangers of this illogical approach, which discourages the most efficient routing. This is unjustified and disproportionate and we urge Ofcom to approach this issue from a pragmatic real-world perspective, rather than a theoretical model-driven approach.

ECCs

154. Ofcom has proposed to increase the ECC threshold from £2,800 to £3,680.⁷⁷
155. As we set out in our response,⁷⁸ there is no need to change the threshold. 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.
156. VodafoneThree has supported Ofcom’s proposals,⁷⁹ but has not engaged with any consideration of the fairness of requiring the majority of customers to subsidise the minority. This has an impact on end-customers, and also affects Openreach’s ability to compete, since it increases the tendency of complex orders to be placed with Openreach due to the ECC threshold, with the corresponding balancing charge recovered from the connections of all orders hampering our ability to compete for the less complex orders. This promotes allocatively inefficient outcomes.

Charge control issues

157. We raised a large number of Charge Control specific issues in our Openreach June Response. We have requested a discussion with Ofcom on these issues, which has so far been refused.⁸⁰ These are all important implementation issues, and it is incumbent on Ofcom to consider and respond to these points in its Final Statement.
158. These issues include:⁸¹

⁷⁷ TAR [March Consultation](#), Vol 4, para 5.60.
⁷⁸ Openreach June [Response](#), Vol 4, paras 102-107.
⁷⁹ VodafoneThree, '[Comments on comments](#)', October 2025, paras 4-5.
⁸⁰ [3<].
⁸¹ Openreach June [Response](#), Vol 4.

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- ETCs and cancellations (para 239-247)
- Expectations on electricity reporting (para 248-251)
- SFI ceiling (para 366-370)
- DF charge control structure to reflect products sold (para 394-398)

Other issues raised

159. We strongly encourage Ofcom to adopt the amendments that we have requested in our response to the March consultation, noting in particular those raised in Volumes 3 and 4:

- Network extensions – we request that Ofcom explicitly sets out the criteria in which it would consider there to be a network extension.⁸²
- Restrictions Openreach faces when competing in bidding markets:
 - o We request Ofcom exempt bidding markets from the requirement to publish a reference offer, or at least exempt services used to support bids.⁸³
 - o Ofcom’s pricing proposals restrict Openreach’s ability to compete through geographic or conditional pricing.⁸⁴ This is especially problematic in bidding markets and results in weaker overall competition and higher prices for the end customer. We therefore also request that Ofcom exempt such bidding markets from restrictions on no undue discrimination that prevent us from competing on the merits.
- Parity of EAD2.0 and DFA – EAD2.0 is still under development and is fundamentally different to EAD and DFA in its architecture. There are no changes we can make to the underlying DFA product to give it closer parity to EAD2.0. We propose Ofcom reassesses the need for parity in 2031 when the product is mature in the market.⁸⁵ [3<].⁸⁶

⁸² Openreach June [Response](#), Vol 3, paras 388 - 397.

⁸³ Openreach June [Response](#), Vol 3, paras 398 – 402.

⁸⁴ Openreach June [Response](#), Vol 3, paras 518 - 525.

⁸⁵ Openreach June [Response](#), Vol 3, paras 409 – 416.

⁸⁶ [3<].

- Cablelink Service Connect – we would welcome clarity from Ofcom on i) where this product is captured in the charge control, and ii) whether it is captured within the ethernet QoS measures.⁸⁷
- EAD Rugged – we request Ofcom exclude this product from the SMP market in the same way as Street Access, the predecessor product, has been.⁸⁸

⁸⁷ Openreach June [Response](#), Vol 3, paras 418 – 420.

⁸⁸ Openreach June [Response](#), Vol 4, paras 99 - 101.

Annex 1 – BT shadow model geographic analysis

Box 1: Methodology for BT Group’s analysis of competitor network presence

- [X]

160. If Ofcom persists in using the NRM to define all geographic markets notwithstanding all evidence of its unsuitability, Ofcom needs to revisit its assumptions.
161. The 50m buffer distance for HNR is outdated. It is based on a 2017 cost model and no longer fit for purpose. The 75m to 100m buffer distance for Area 2 and 3 has been arbitrarily set by Ofcom and does not capture the extent to which competition may develop.
162. Ofcom’s Area boundaries are highly sensitive to this assumption. In BT’s July 2024⁸⁹ submission to Ofcom, it provided its own analysis of rivals’ network presence or reach to show that under larger buffer distances Altnets were within reach of most premises. BT also showed how, thanks to PIA, these premises would be profitable to build to.
163. BT have updated this analysis with data as of December 2025. [X]
164. Results from BT’s model show the extent to which increasing buffer distance increases the scale of Altnet reach and how sensitive Ofcom’s conclusions on Area boundaries are to this assumption.

Table A1.1: Share of premises with x or more competing networks to Openreach within different buffer distances in HNR postcodes (i.e. tables exclude Openreach)

Area	Ofcom, 50m		BT, 50m		BT, 100m		BT, 250m	
	x=2 or more	x=3 or more	x=2 or more	x=3 or more	x=2 or more	x=3 or more	x=2 or more	x=3 or more
Liverpool	87%	48%	[X]	[X]	[X]	[X]	[X]	[X]
Manchester	85%	72%	[X]	[X]	[X]	[X]	[X]	[X]

⁸⁹ BT, [Telecoms Access Review pre-consultation submission](#), July 2024, Appendix A.

North London	83%	38%	[X]	[X]	[X]	[X]	[X]	[X]
Birmingham	86%	57%	[X]	[X]	[X]	[X]	[X]	[X]
South West London	79%	41%	[X]	[X]	[X]	[X]	[X]	[X]
North West London	85%	54%	[X]	[X]	[X]	[X]	[X]	[X]
South East London	79%	53%	[X]	[X]	[X]	[X]	[X]	[X]
West London	81%	61%	[X]	[X]	[X]	[X]	[X]	[X]
Glasgow	85%	46%	[X]	[X]	[X]	[X]	[X]	[X]
East London	80%	60%	[X]	[X]	[X]	[X]	[X]	[X]
Total for HNR area	82%	46%	[X]	[X]	[X]	[X]	[X]	[X]

Table A1.2: Share of premises with x or more competing networks to Openreach within different buffer distances in Ofcom defined LLA markets based on BT's Altnet presence analysis (i.e. tables exclude Openreach)

Ofcom Market	% of premises with X or more networks (50m)			% of premises with X or more networks (100m)			% of premises with X or more networks (250m)		
	x=1 or more	x=2 or more	x=3 or more	x=1 or more	x=2 or more	x=3 or more	x=1 or more	x=2 or more	x=3 or more
HNR	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Area 2	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Area 3	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

165. The tables show that increasing the buffer distance significantly increases Altnet presence or reach. They also show that there is substantial Altnet presence in Ofcom's defined Area 3, despite this Area being defined as not potentially competitive:

- i. As shown by table A1.1, Ofcom's analysis determines that 82% of premises are located within 50m from two or more competing networks to Openreach. BT's more conservative analysis determines this number to be [X]%.

However, as the buffer distance increases, the share increases significantly, to [x] % for a 100m buffer distance and [x] % for a 250m buffer distance.

- ii. As shown by Figure A1.2, BT's analysis determines that [x] % of premises located within Ofcom's defined Area 3 are within 50m of at least one Altnet and [x] % are within 50m of at least two. When the buffer distance is increased to 100m, the shares become [x] % and [x] % respectively.
166. So, by increasing the buffer distance and/or taking a less conservative view of which Altnets represent potential competition, the tables show just how sensitive Ofcom's Area boundaries are to this assumption. They also show that Altnet presence in Area 3 is substantial and in stark contradiction to Ofcom's market definition. Likewise, we see that many postcodes in Area 2 meet Ofcom's criteria for HNRs.
167. Ofcom should be less conservative. It should:
- i. use the maximum buffer distance to more accurately capture potential competition if Ofcom persists in using the NRM model, or simply align WLA and LLA Area 2 and 3;
 - ii. increase buffer distances for HNRs to 100m; and
 - iii. take a less restrictive view of which Altnets represent potential competition in the LLA markets.
168. Collectively, these actions will greatly diminish the size of Area 3 and increase the size of HNR. This outcome will be far better aligned with the evidence of Altnet deployment and a more consistent view of potential competition.

Annex 2 – Analysis of Altnet ducted lead-ins

Introduction

169. Altnets self-declare the locations of both ends of their Simplified Lead-ins, the location of the DP at one end and the Unique Premise Reference Number (UPRN) at the other end.
170. Our methodology represents a further development of the work we shared with Ofcom in response to question H1 of statutory information request.⁹⁰ However, due to time constraints of that response, we were only able to run our analysis on a sample of [X] lead-ins. Since that response we replicated the process on all [X] ducted lead-ins that Altnets have self-declared.
171. We used the same analytical methodology as in our October sample of [X] lead-ins with one extra step to mitigate instances where the derived ‘virtual infrastructure’ values for lead-ins appear to be outliers and hence potentially too long to be considered a dedicated lead-in.
172. Should Ofcom update the sharing factor for the Simplified Lead-in product, it is incumbent on it to also update the Lead-in length assumptions at the same time, given the engineering evidence that its assumed length clearly understates current and expected future use by Altnets. We would be pleased to take Ofcom through these calculations in more detail and share the underlying data and illustrative diagrams to facilitate its review.

Methodology for identifying the route and length of each Simplified Lead-in.

173. To start the process for each sample record, we located the exact geographical point of the UPRN and then located the nearest piece of physical infrastructure within 10m of the premises which is likely to represent one end of the Dedicated Lead-in. We consider this is a reasonable starting point for the estimation process.⁹¹
174. As we explained previously, PIPeR does not record underground lead-ins for the majority of older network built, so quite often (almost half of the time) we cannot

⁹⁰ [X].

⁹¹ We note that this could on occasion identify a nearby address (e.g. a closely situated next door neighbour) rather than the target address. However, we do not anticipate any bias in this process (i.e. it is likely to be broadly correct but could equally estimate a longer or a shorter lead-in in some cases).

identify an underground lead-in on PIPeR at all. In these cases, we have calculated a straight-line distance between the nearest piece of shared infrastructure and the UPRN. In our analysis we label this 'virtual' structure as 'Status: Duct Section Not Found (DSNF)'.

175. In these instances (i.e. in a subset of the data) we then multiply the new virtual structure/section by a route to radial factor of 1.4⁹² to estimate the route length of the virtual lead-in infrastructure.
176. When we analysed the full [redacted] lead-ins we found that a number of these DSNF sections were actually very long. We assume that in these cases most of the DSNF sections must be serving more than one home. To minimise the average impact of very long lengths we assume only the first 10.7m (the WFTMR assumption) are dedicated with the remaining length being shared.
177. Ordnance Survey designates the location of UPRNs to be at the centre of the relevant premises and therefore we make a further adjustment to our calculations to reduce the risk of overstating the lead-in length (i.e. [redacted]⁹³ [redacted]).
178. Once we have estimated this crucial first length of infrastructure, we are then able to trace and measure infrastructure back to the location of the PIA CP's DP. We then categorise the measured infrastructure as shared with other premises (which is again likely to be a conservative assumption as there may be scenarios where a second segment of infrastructure is, in reality, dedicated to one premises). Following this, we count the number of joint boxes encountered on the route and calculate the number of exits by multiplying by two and deducting one.
179. We cannot measure how many lead-in fibres the PIA CP has passing through a piece of lead-in infrastructure and in any case, we recognise some of the properties available to the specific DP are in fact served by Openreach or another PIA CP. We therefore continue to use the WFTMR assumption of 3 average fibres per segment.

Sample size

180. We processed all [redacted] data points of self-declared by Altnets. Of these we excluded [redacted] because either we could not find an association between the DP and the UPRN

⁹²This is an often-used rule of thumb for route to radial length conversion which is based on Pythagorean Theorem where the hypotenuse of a triangle with a height and width of 1 metre is calculated as $\sqrt{1^2+1^2}$ which equals 1.4 metres (to one decimal place).

⁹³ [redacted].

or because the distance between the two was so long (>1.5km), i.e. we consider the data provided by Altnets is likely to be inaccurate.

181. We therefore measured a volume of [X] lead-ins, of which [X] required us to derive a 'virtual infrastructure', for part or all of the lead-in, of 'Duct Section Not Found'.

Annex 3 – Area 3 costs of supply

Introduction

182. It is well understood that costs of supply in less dense areas are higher than those in dense areas.
183. Ofcom themselves recognised this in the WFTMR: "*costs could vary by geography (i.e. between Areas 2 and 3)*"⁹⁴. They also gave the following useful examples of how the cost could vary: "*For example, differences in cable size, cable length, network density and input costs (e.g. pay rates, wayleaves, traffic management) could result in unit costs varying between geographic SMP markets*"⁹⁵.
184. We have developed a pragmatic methodology that can easily be applied to Ofcom's cost modelling to better reflect the known parameters that make it more expensive to build fibre networks in Area 3.
185. This analysis shows that circuits in Area 3 costs 13% more to provide than the national average.

Table A3.1: showing the relative unit costs for a standard EAD circuit

[X]

186. National costs in this table are FAC averages derived from the 2024/25 RFS costs after adjustment for the fibre allocation change.⁹⁶

Our Methodology

187. We mapped circuits in our Ethernet inventory to Ofcom's geographic areas using the post code list published in the March TAR Consultation.
188. We then looked up each circuit in our fibre inventory, INS. We then traced the route of each circuit and recorded information on each section of fibre used by the circuit: the length of fibre, then for size of the fibre cable and the number of fibres in use.

⁹⁴ WFTMR, Vol 6, para 4.123, page 86.

⁹⁵ WFTMR, Vol 6, footnote 223, page 86.

⁹⁶ [TAR November Consultation](#), paras 5.1 to 5.8

189. We then used 'standard' costs to cost up each fibre section and then divided the cost by the number of fibres in use in that fibre section to provide a cost of each utilised fibre (the cost of providing the circuits being the sum of the costs per fibre for all sections of fibre used by the circuit). We calculated the relative costs of providing a working fibre for each fibre component in each of Ofcom's geographic markets.
190. We then applied these relative cost factors to the components in used in Ofcom's cost modelling.

We found that on average Area 3 circuits were 17% longer than the national average.

Table A3.2: showing average length of Area 3 circuits compared to national average

[✂]

*Main links are charged on a per metre basis so the length is not relevant

We found that on average Area 3 circuits used significantly smaller fibre cable across all fibre components.

Table A3.3: showing the average number of fibres in cable sections in Area 3 compared to national average

[✂]

We found that on Average the fibre cables in Area 3 were less utilised than the national average for all fibre components.

Table A3.4: showing average number of utilised fibres in cable sections in Area 3 compared to national average.

[✂]

After applying 'standard costs' to the fibre information we found that the cost of proving fibre for Area 3 circuits was greater than the national average for all fibre components.

Table A3.5: showing the costs of fibre in Area 3 relative to national costs.

[X]