Telecoms Access Review (TAR) 2026

Openreach Submission

Non-Confidential version for publication

26 July 2024

"A blueprint for continued telecoms success in the UK"

The UK's fixed telecoms sector is a success story.

As an industry, we're bucking the trend of chronic underinvestment and disappointing outcomes in many regulated sectors – with an unprecedented wave of competitive private investment.

Millions of UK homes and businesses can now access ultrafast, ultra-reliable, full-fibre broadband services, and these new networks are being extended at a world-leading pace.

Meanwhile broadband prices have fallen in real terms[1] and average speeds are increasing as a fiercely competitive market delivers compelling choices and quality to customers throughout the country.

This digital revolution is a growth engine for our economy. And it's been achieved thanks to a stable public policy and regulatory environment that's given encouragement and long-term certainty to investors – as well as a level-playing field for fair competition.

Openreach sits at the heart of it.

Ofcom's Wholesale Fixed Telecoms Market Review (WFTMR), which took effect on 1 April 2021, delivered a five-year package of rules that the regulator said would endure for at least ten, assuming the outcomes were as expected. It also made clear that "full-fibre must be a fair bet" for investors over the longer term.[2] This was crucial, given the risk and long paybacks involved in big infrastructure investments.

Fast-forward to today and 169 companies are now using Openreach's ducts and poles to build competing networks and we've made full-fibre available to almost 15 million premises nationwide off our own back. We're reaching a further one million properties every three months, and we're on track with our ambition to reach 25 million by the end of 2026.

In a nutshell - the WFTMR isn't just working, it's working better than expected for the UK.

But the job's not done yet. And investors are yet to see if their big bets will pay off.

So, what next?

Ofcom's Telecoms Access Review (TAR) will now reassess and re-set the rules for another five years (from 1 April 2026).

Investment is set to continue for the rest of the decade as connections grow and upgrades extend to more challenging, and costly, parts of the country. In fact, Ofcom expects more than 90 percent of the UK could have access to full-fibre by 2026, compared with just two percent in 2016.[3] And for our part, we're confident Openreach can reach 30 million premises by the end of 2030, assuming the right regulatory and investment environment exists.

In that context, it's vital that Ofcom protects the certainty and stability the WFTMR delivered.

As a country, and now more than ever, we need to promote and maintain incentives to invest to help super charge UK economic growth. That includes the opportunity to realise the kind of returns that make massive infrastructure investments viable.

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[1] Ofcom Pricing Trends report, 2023
[2] Dame Melanie Dawes speech to FTTH Council Europe, 3 December 2020
[3] Ofcom (2023), 'Connected Nations: Supplementary report on Planned Network Deployments', October.

It is ultimately UK consumers who will benefit from this investment and increased competition, so Ofcom should reject calls from some parts of the industry to further restrict certain rules on how Openreach competes. Because it's clear that would lead to higher prices, weaker competition and a dilution of choice for consumers and businesses.

Given the thriving competition that's evident today, we believe Ofcom should seek opportunities to reduce and adapt regulation where appropriate and required. For example, by supporting a drive for efficiency and enabling Openreach to retire legacy buildings and services where modern alternatives exist. Quality of Service (QoS) standards must also evolve to reflect the positive shift from copper to fibre.

A bright, full-fibre future is in sight, where a vibrant wholesale and retail market offers brilliant value and choice. This will drive upgrades and benefits for all – with the strongest outcomes allowing fair competition to play out, on the merits, between all network providers.

Clive Selley, CEO Openreach
July 2024

How did this start?

In 2017, Ofcom's Digital Communications Review led to the creation of a more independent Openreach and set a new strategic objective for regulation to encourage *"large-scale deployment of fibre networks…driving widespread availability of competing ultrafast broadband services*".

This was followed by the Government's Fixed Telecoms Infrastructure Review in 2018, which stressed the importance of long-term stability in public policy and regulation to support network investments. It also identified greater competition between network builders as the best way to achieve good outcomes, with public funding where competition wasn't viable.

A Statement of Strategic Priorities for Telecoms, published in 2019, reiterated these principles and set the landscape for Ofcom to develop its regulatory policy.

This approach was then captured in the WFTMR with the new regulatory regime embedding several key themes:

1. **More certainty for investors**
   By moving to a longer, five-year, review cycle and setting expectations that the new regime would endure for at least a decade and that regulation would be consistent with 'fair bet' principles[4] over the longer-term.

2. **Access to Openreach ducts and poles**
   By making sure competitors could access Openreach's national network of poles and underground ducts on terms that would enable them to build full-fibre networks more efficiently.

3. **Safeguards in Openreach pricing**
   By establishing safeguard caps on prices for Openreach's legacy copper-based and business connectivity services, to provide stability in the anchor market prices at levels which Ofcom believed could allow efficient entrants to make a fair return on their investments.

4. **Controls on Openreach's commercial activity**
   By introducing new rules, over and above competition law, to monitor and regulate Openreach's commercial activity, addressing concerns that targeted geographic discounts or loyalty-inducing offers could unfairly deter Communications Providers (CPs) from partnering with its competitors.

5. **Support for the transition from copper to fibre**
   By adapting rules to enable legacy, copper-based, services to be retired as full-fibre availability and usage grew, whilst leaving some of the later thresholds open.

What did everyone expect?

As a package, the new rules were expected to deliver three positive outcomes:

[4] The fair bet principle requires giving investors the opportunity to earn returns equal to the cost of capital in expected terms over the investment lifetime: where there are significant downside risks, the fair bet requires the regulator to ensure investors have the opportunity to earn returns in excess of the cost of capital (commensurate with downside risk) over the investment's lifetime.

1. **More competition, investment and customer benefits**
   By driving efficient investment decisions from Openreach and its competitors, increased competition in the market would lead to wider availability, more choice, keen prices and higher quality broadband services for customers.

2. **Investment throughout the UK, including rural areas**
   Ofcom expected these dynamics to be strongest in urban areas (Area 2 postcode sectors[5]) and, whilst Openreach felt competition was viable across a much wider area, we committed to build full-fibre to 3.2 million premises in the UK's hardest to reach areas ('Area 3') by March 2026, leading to a more balanced availability of full-fibre during the first five years of the framework.

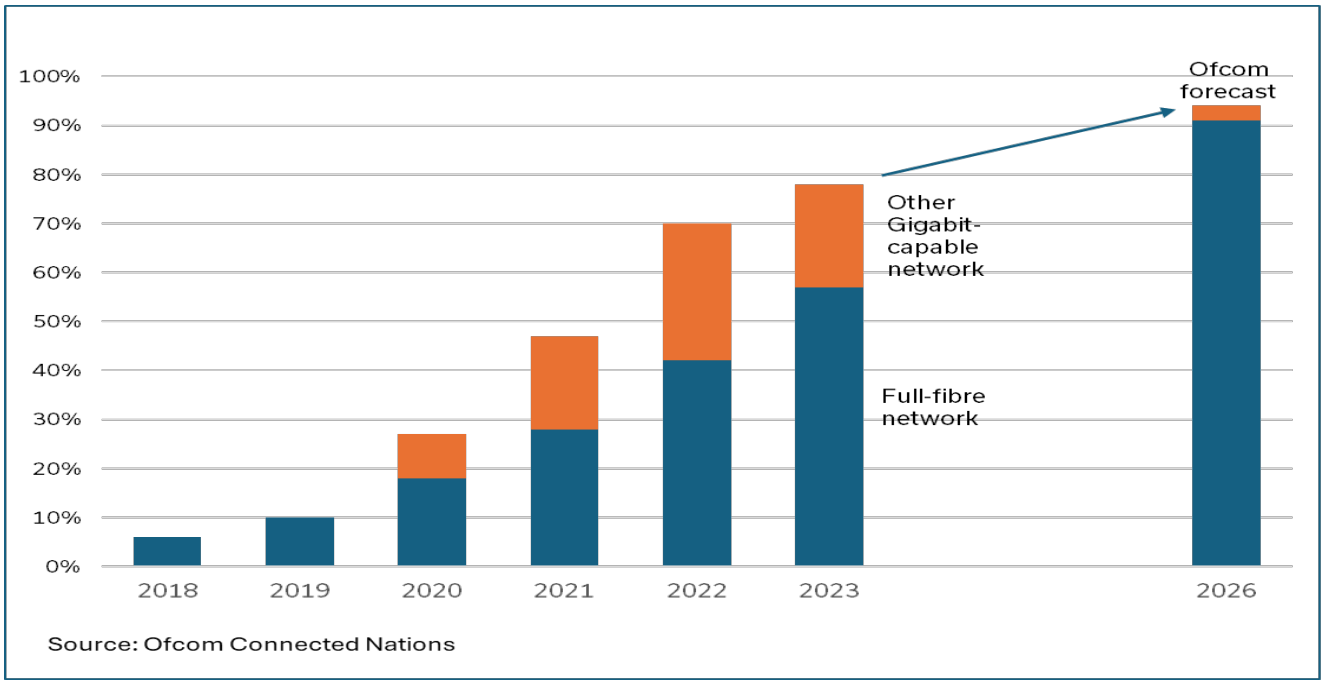
3. **Affordable and reliable services during the period of change**
   By keeping protections on Openreach's prices for legacy services, and on its Quality-of-Service standards, to make sure customers could still access affordable and reliable broadband throughout a period of unprecedented network transformation.

So, how's it playing out?

If anything, the WFTMR has delivered much more than expected.

Since March 2021, the availability of Gigabit-capable connections to UK consumers and businesses has exploded, and there are strong ambitions to extend this further by 2026.

Availability of Gigabit-capable Services in the UK



This has been driven by huge investment from Openreach and its competitors:

[5] Ofcom designated each UK postcode sector (c3,000 premises in each) as falling within Area 2 or Area 3 based on potential levels of competition in the period to 2026.

- Openreach's full-fibre network now passes almost 15 million premises. We've hit a peak build rate of one million premises a quarter and we're on track to hit our ambition of 25 million premises by the end of 2026. We've also connected more than five million customers to our platform so far.

- As part of our build, we've already met our commitment to reach 3.2 million premises in Ofcom's Area 3[6] under our own steam, and we now expect to reach more than six million in this area by 2026.

- Virgin Media O2 (VMO2) has extended its Gigabit-capable network to 17 million homes and continues to upgrade its DOCSIS technology to full-fibre, whilst extending its footprint by a further five to seven million premises through the nexfibre joint venture.

- Alternative network providers (altnets) claimed to have collectively passed almost 13 million UK premises by the end of 2023 and expect to reach almost 17 million by the end of 2024.

There's a significant overlap between the new networks, which means there's increased wholesale and retail choice for customers:

- Our estimates suggest that, by 2026, 74% of UK premises will be able to order a Gigabit-capable broadband service supplied by someone other than Openreach, and 18% of premises will only be able to order Gigabit-capable services from alternative networks;

- By 2026, more than half of the six million premises we'll have built to in Area 3 (where Ofcom believed we'd be the only supplier) will have been overbuilt by other networks.[7]

This investment and competition go beyond even the most optimistic expectations set back in 2021. And it proves the framework has given investors certainty and stability.

Anchor price regulation is creating enough space for commercial investments and protecting consumers from the risk of significant price hikes.

End customers and their service providers can choose to stay on legacy connections - with the twin protections of price stability and Quality of Service standards - or they can choose to upgrade to superior, future-proof services from the many competing networks.

It's also apparent that Openreach has delivered strongly against its obligations, Commitments and expectations under the regime, in particular by:

- supplying passive infrastructure services (duct and pole access) to 169 providers, across all parts of the UK, supporting competing network build in Area 2 and 3

- continuing to compete fairly on the merits, as confirmed by Ofcom's assessment of its 'Equinox' pricing offers introduced since 2021

- developing closer relationships with its CP customers – shown in strong customer satisfaction scores and innovative propositions developed to meet customer needs

[6] Defined by Ofcom in the WFTMR as the last 30% of the UK, where Openreach is the only operator providing a large-scale network.
[7] This supports the submission we made in the WFTMR that it is not possible to define accurately what premises fall into Area 2 or Area and shows that Ofcom was right to apply (most) remedies uniformly across both Areas.

Looking beyond 2026

With stability and certainty, investment won't stop in 2026.

Inevitably the pace of build will slow down, given the high level of overall coverage and overbuild expected by 2026. But investors will still extend their footprints and compete, both commercially and through public funding.

They'll also invest in two other ways.

Firstly, through consolidation, which is considered inevitable by many industry commentators and players across a heavily fragmented sector.[8] Some investors are already seeing opportunities to expand their reach with acquisitions, and others are looking to exit the market and realise value from their investments.[9]

Secondly, through a focus on connecting customers to drive long-term revenues and ultimately returns. Companies still need to invest heavily to connect customers as the orders come in, so it doesn't just stop when the build stops.

Competitive dynamics will continue to strengthen with wide and growing availability of competing full-fibre networks, the expected consolidation of altnets and related changes in retail and wholesale strategies of competitor networks, and ever-increasing end customer demand and willingness to pay for full-fibre network capabilities.

Retail providers will work with network providers to build compelling propositions and packages that drive greater adoption, improve customer satisfaction and retention, and expand long-term opportunities to increase customer value.

This will all propel the UK closer to a full-fibre future.

Our ambitions for 2026 and beyond

As we've laid out in our full submission, we believe the TAR should build on the success of the WFTMR by:

- maintaining certainty and stability on price regulation for at least the rest of the decade - as was envisaged back in 2021 - and continuing to only set direct charge controls on legacy services, with caps kept flat in real terms
- sustaining an approach that allows Openreach to compete fairly and introduce offers that support full-fibre adoption
- reducing regulation where entry has occurred, and competition is effective
- supporting efforts to improve long-term efficiency by removing any regulatory barriers which complicate the supply of legacy services where alternatives are available. In particular, enabling progress to exit exchange buildings
- evolving Quality of Service standards to reflect the changing mix of services used by customers

[8] See, for example, numerous public comments from nexfibre and CityFibre.
[9] See Section 2.

We believe Ofcom should reject calls to put more constraints on Openreach's ability to compete. These calls aren't justified, given the evidence of vibrant competition in our sector. They'd inevitably lead to consumers and businesses facing higher prices and weaker competition.

Ofcom also shouldn't be expected to 'pick winners', or to engineer market outcomes in ways that effectively transfer risks from investors to consumers. The rules already enable Ofcom to monitor and police market behaviour, and to make sure competition is fair, so the best outcome for the UK will come from maintaining that level playing field and allowing competition to play out.

Our vision for the future

With the right regulatory framework, Openreach's ambition will be to:

- provide a world-class service to all customers
- support further altnet build and investments to connect customers efficiently by continuing to provide access to our ducts and poles on fair terms
- extend our full-fibre network beyond 25 million, through additional commercial and public funded deployment, to reach 30 million premises by 2030
- invest significantly in connecting end customers to the full-fibre network, in partnership with our CP customers
- work closely with industry to make sure the specific needs of vulnerable customers and services supporting Critical National Infrastructure continue to be supported as we retire legacy services
- transform the long-term efficiency and sustainability of our network through well managed activity to close exchanges and retire and recover redundant legacy assets
- compete fairly in providing network access services across all parts of the UK with uniform national rental prices where this remains commercially viable

1. Introduction and structure of submission

1. Ofcom's Digital Communications Review (DCR) identified, among other things, that the UK was lagging behind international peers in the availability of full-fibre broadband services with estimates suggesting less than 2% of UK premises were served by FTTP at the end of 2015.[10]

2. Ofcom believed that the UK economy would benefit from wider availability of Gigabit-capable full-fibre fixed line connections and therefore set a strategic objective in relation to fixed networks to "encourage the large-scale deployment of new fibre networks over the coming decade, driving the widespread availability of competing ultrafast broadband services".[11] These key objectives reflected the government's strategic priorities for telecommunications resultant from the Future Telecoms Infrastructure Review (FTIR).

3. Ofcom's long-term vision was that measures to support competitive entry could strengthen competitive dynamics in fixed network access markets, driving incentives for all existing and potential future investors to expand the availability of high-quality full-fibre networks. This transformation of the UK fixed telecoms market would support strong outcomes for UK consumers and businesses in accessing broadband and high-speed business connectivity services.

4. Ofcom's 2021 Wholesale Fixed Telecoms Market Review (WFTMR) looked to deliver on this vision by taking a holistic, longer-term approach to reviewing and re-setting all regulatory rules applying to the supply of Openreach's passive and active network access services. The key features of this framework were:

Fair access to Openreach ducts and poles and dark fibre in Area 3…	… to support efficient altnet build
Stability in regulated prices for Openreach wholesale inputs…	… to support efficient competitive investment models and provide protection to anchor prices
Driving full-fibre investment across the UK…	… by securing Openreach commitment to build FTTP to 3.2 million premises in Area 3 by 2026
Ensuring fair competition in network access markets…	… by setting *ex ante* rules to assess Openreach commercial activity
Supporting withdrawal of copper where full-fibre available…	… to avoid inefficient dual running of legacy networks
Maintaining high quality of service…	... by retaining QoS Standards on existing Openreach services during transition
Providing long term certainty to all investors…	… by signalling expectation that framework would endure for at least a decade and commitment to the long-term fair bet

5. This framework was established as a package of measures which would work together to deliver Ofcom's strategic objective. Each element was aimed at either directly supporting increased full-fibre build from a range of potential market investors, including both Openreach and other builders, or ensuring a

[10] Figure 7, Section 4, Ofcom's "Digital Communications Review – initial conclusions" March 2016
[11] Section 4

smooth transition for CPs and their end customers from a world in which broadband services were based on Openreach supply of copper-based network access to the desired future end state where Gigabit-capable broadband services would be widely available across the UK, underpinned by competitive supply of full-fibre connections.

6. Ofcom's Telecoms Access Review (TAR) provides an opportunity to assess the success of this package of measures and consider the need for any changes. In this Submission we set out that there is very strong and clear evidence that the package of measures is driving competitive investment in the desired Gigabit-capable networks across the UK and effective competition at the retail levels. Consumers are winning.

7. As such, while some measures should evolve and adjust to reflect the fact that the market has moved closer to the desired end state, the core features of the framework should be maintained for at least the remainder of the decade, consistent with the long-term stability and certainty Ofcom looked to provide to investors back in 2021.

8. This Submission is structured as follows:[12]

- In **Section 2**, we present data and analysis summarising the success of the framework in growing the availability of Gigabit-capable broadband services and supporting strong and strengthening competitive dynamics across large parts of the UK. We consider the implications heading into the TAR for Ofcom's approach to defining product and geographic markets, identifying Significant Market Power (SMP) and framing its overall approach to setting remedies.

- In **Section 3**, we explain why we believe Ofcom should continue to provide stability in regulated anchor price caps in all WLA geographic markets where SMP is found in the TAR to support ongoing investment and competition in fixed network access services.

- In **Section 4**, we set out the importance of maintaining a balanced approach that ensures fair competition in the evolving WLA market, but that allows Openreach to compete on the merits and the benefits of competition to flow to end customers. We reject arguments being made by some altnets that Ofcom should increase restrictions on Openreach's commercial activity, which we believe would prop up inefficient entry and lead to high prices for consumers.

- In **Section 5**, we assess competition in the supply of business connectivity services and the case for a continuation of Ofcom's current approach to remedies. Generally, we consider that the markets for the provision of leased line services are working well, that there is overall market growth and that there is no case for a fundamental change to the remedies. Where we indicate a need for changes, these are, in the main, appeals for clarifications on detailed aspects of the implementation of the regulation.

- In **Section 6**, we set out the need for the TAR to adapt supply obligations on legacy copper access services where alternatives are available to support efficiency of supply and, in particular, to enable Openreach to exit an initial wave of buildings by 2030.

- In **Section 7**, we set out our position on how QoS Standards should evolve to reflect ongoing technological change. QoS Standards for copper-based services should be changed to national rather

[12] This Submission sets out Openreach's initial comments on the matters falling within the TAR. We reserve the right to make further representations as the TAR process progresses.

than regional metrics to reflect their declining volumes. Openreach is engaging with industry on metrics for FTTP services and there is no need for an additional regulatory intervention. For leased line services, Ofcom should review and revise the repair measure to ensure that it is robust to changes in the underlying mix of fault types.

- In **Section 8**, we set out our position on PIA which will remain a key underpin for Ofcom's framework. A stable regulatory environment for PIA has supported the success of the PIA product and should be maintained. Looking forward, we are already working with altnets to meet the requirements of the 'living together' phase of fibre deployment. We have highlighted some areas where Ofcom could support Openreach and industry to achieve this, namely in relation to longer term certainty on PIA pricing and network adjustments.

2. Investment and competition in Gigabit-capable networks

Key messages:

- There has been and will continue to be significant investment by Openreach and others in UK fixed access networks supported by the regulatory certainty created by the WFTMR, to the benefit of UK consumers.
- This is driving wide availability and increasing take-up of Gigabit-capable full-fibre broadband services with over 90% UK coverage expected by 2026.
- There is significant overlap of these new networks across the UK in both rural and urban areas resulting in strong competitive dynamics. The market is rapidly evolving: the scope for VMO2/nexfibre to wholesale and for altnet consolidation will strengthen dynamics further over the rest of the decade.
- We are moving towards a future market end state where the UK's broadband needs are met by the supply of competing full-fibre networks and where the role of regulation will be greatly reduced.
- This progress should be captured in Ofcom's approach to defining markets by geography and assessing SMP in this market review. We expect there will be scope for Ofcom to define an Area 1 where no SMP is found and for Area 3 to be much smaller.

2.1 Introduction

9. In this Section, we present data and analysis summarising the growth in the availability of Gigabit-capable broadband services across the UK and the strengthening competition in the supply of network access. We set out our views on how this evolving competitive landscape should be reflected in Ofcom's approach to defining geographic markets and identifying SMP.

2.2 Growth in coverage of competing Gigabit-capable networks

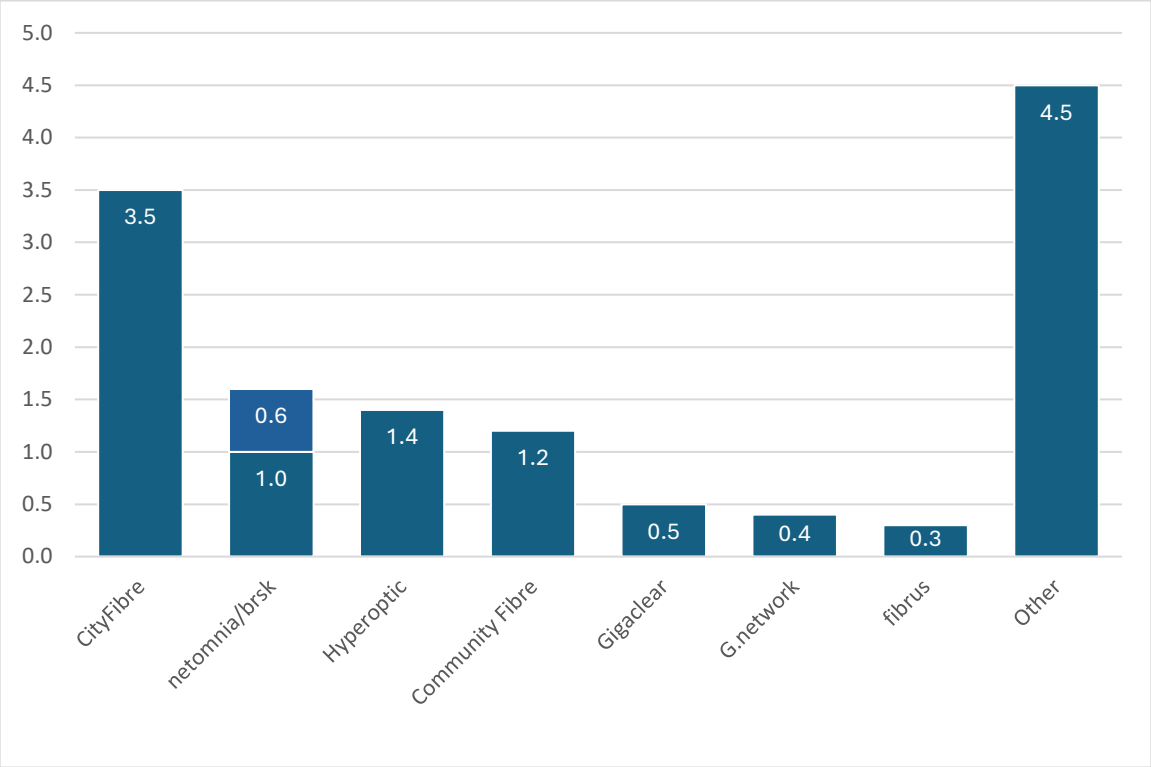
10. There is very strong evidence that the package of remedies introduced in 2021 is driving the desired level of competitive investment in networks delivering Gigabit-capable broadband services to UK consumers:

- **Openreach** has built FTTP to 15 million premises and since the start of 2024 has been building at a rate of 1 million premises a quarter and is therefore on a trajectory to reach its ambition to pass 25 million premises by the end of 2026. Openreach has already delivered on its commitment to build commercially to at least 3.2 million premises in Area 3 and expects to pass 6.2 million Area 3 premises by the end of 2026.
- **VMO2** has extended the reach of its Gigabit-capable UK network to over 17 million premises and is continuing its programme of upgrading its network with full-fibre broadband (which had reached 4 million premises by the end of 2023). Furthermore, **nexfibre** , a joint venture between Liberty Global (owners of VMO2), Telefonica and InfraVia Capital Partners, has plans to build by 2026 a full-fibre footprint to 5 million premises that are not currently served by the VMO2 network, with an ambition

to extend coverage to 7 million premises. nexfibre states it has already reached 1 million premises and will supply services to VMO2 as the anchor tenant.

- **CityFibre** states it has now reached over 3 million premises, with ambitions to supply full-fibre to 8 million homes and 800,000 businesses.
- **INCA** states that altnets, including CityFibre, have collectively built to almost 13 million premises by the end of 2023[13] and are expecting to reach 17 million premises by the end of 2024. We estimate that current build by the top 7 altnets is around 9 million premises with a long tail of smaller builders:

Figure 1: Altnet coverage, Q1 2024/25, Openreach estimates

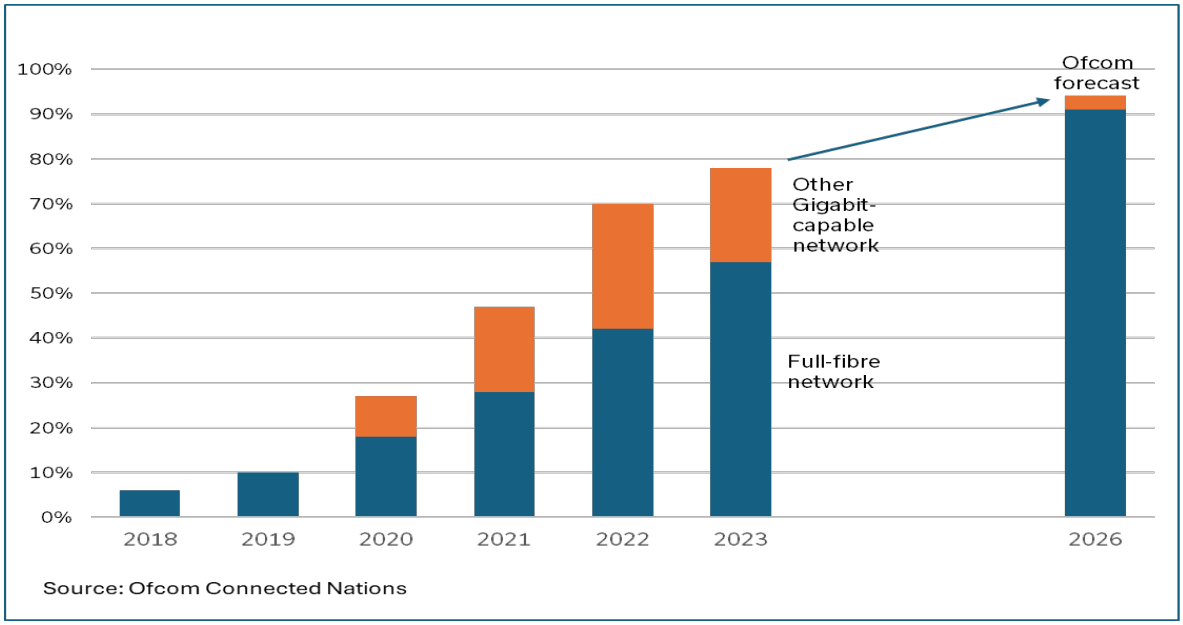


Note: netomnia and brsk have announced plans to merge, see below, so coverage data combined

11. This investment across the industry is reflected in Ofcom's Connected Nations data which shows availability of Gigabit-capable networks has grown from 27% of UK homes at the end of 2020 to 78% by January 2024. Full-fibre FTTP availability has grown from 2% at the end of 2015 to 18% in 2020 to 57% in January 2024. And with further network build plans gathered from across industry, Ofcom estimates that availability of Gigabit-capable network will increase to above 90% by 2026, with almost all of this being over full-fibre.

[13] 11.7 million unique altnet footprint allowing for overlap between altnet networks.

Figure 2: Overall coverage of Gigabit-capable networks



12. Ofcom will have a clear understanding of the extent of overbuild across the UK from the coverage data it has collected from individual network suppliers for the Connected Nations reports. Openreach analysis, based on publicly available information, suggests there is a growing level of competitive overlap between the new Gigabit-capable networks.

Figure 3: Current and forecast estimates of overlap of Gigabit-capable networks, total UK

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13. Our estimate of the overall availability of Gigabit-capable network access at the end of 2023 and 2026 broadly aligns with the data Ofcom has set out in its Connected Nations report – i.e. we estimate ✂ of premises had availability at end of 2023 and ✂ will have availability by end of 2026. Our assessment of

competitor presence shows that ✂ of UK premises can receive Gigabit-capable services from either VMO2 and/or altnets today and that this could rise to ✂ by 2026, comparable to our estimated Openreach coverage by that date. That is, the total competitor footprint will be of similar size to the Openreach full-fibre footprint towards the end of this review period.

14. Our estimates also suggest that build by VMO2 and/or altnets has extended into postcode sectors that Ofcom defined as falling within Area 3 in 2021. While this will include some publicly funded build, the vast majority is likely to be commercial build. Ofcom's approach to defining Area 3, and the relevance of this in terms of Ofcom's policy approach and remedies, is discussed further below, but Area 3 was intended to capture those parts of the UK where there was no or low prospect of competing networks developing.

15. Our analysis suggests that, in fact, ✂ of premises within the defined Area 3 could order a Gigabit-capable broadband service from either VMO2 and/or an altnet at the end of 2023, rising towards ✂ by the end of 2026. Our data also suggests that ✂ of the FTTP built by Openreach in Area 3 will be overbuilt by a competitor Gigabit-capable network showing that Area 3 as defined has not proved to be an enduring "Openreach-only" area. (We discuss the policy implications of this further below)

Figure 4: Current and forecast estimates of overlap of Gigabit-capable networks, Area 3

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16. For completeness, we set out our estimates of competitive overlap of Gigabit-capable networks serving premises in Ofcom's defined Area 2 postcode sectors.

Figure 5: Current and forecast estimates of overlap of Gigabit-capable networks, Area 2

2.3 Strengthening of competitive dynamics

17. As shown above, the success of the WFTMR framework in driving coverage from competing networks is undeniable. We are aware that some altnets are suggesting that take-up rates are relatively low on their networks and that the TAR should therefore introduce additional measures to promote the development of competition in the market (see Section 4). But we think this misrepresents both the current situation and the outlook: take-up on some networks is already high and there is clear evidence of increasing adoption of altnet services by end customers, resulting in increased levels of line losses on the Openreach network and of strengthening competitive dynamics as the market evolves and matures. There is certainly no evidence of market failure that would warrant additional regulatory intervention beyond that already set out in the WFTMR.

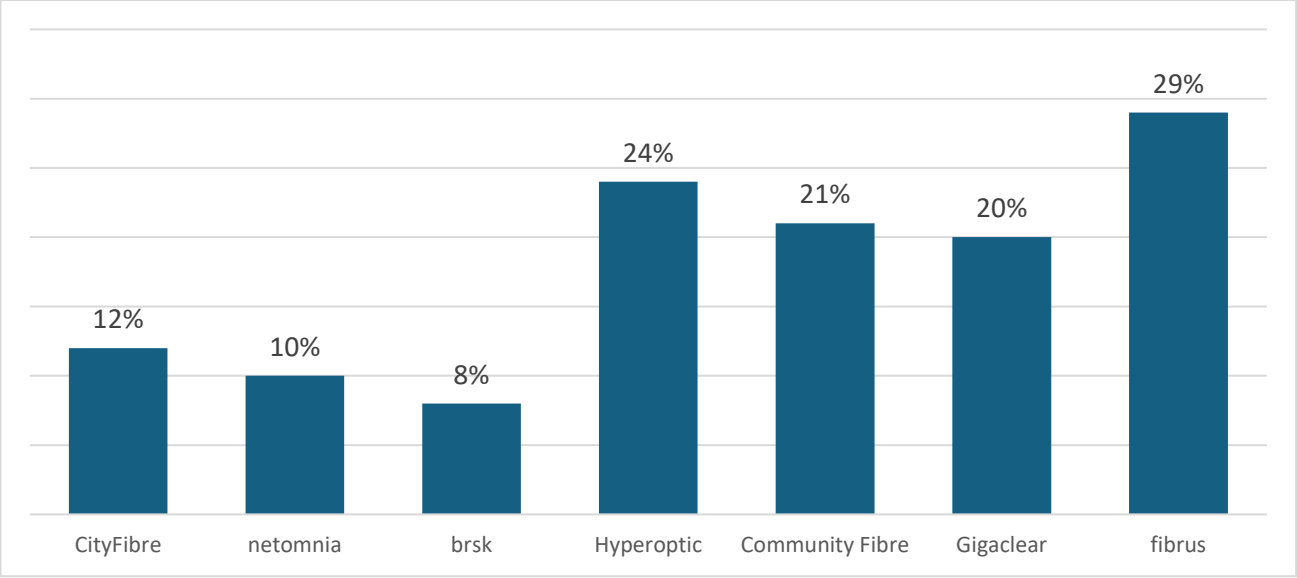
18. VMO2/nexfibre's take-up rate is already industry-leading, and its footprint and plans suggest this is set to continue:

- **Retail competition:** VMO2 states it has 5.7 million retail broadband customers on its 17 million Gigabit-capable footprint suggesting a take-up of 33%. VMO2 supplies almost 20% of retail broadband lines in the UK with an estimated market share of around 40% in its footprint and remains the largest network supplier of Gigabit-capable connections. Given its scale and position as an established retail player, VMO2's pricing of its services will impact market prices for ultrafast speed services and the requirements from Openreach CPs for wholesale prices that allow them to compete.
- **Wholesale competition:** In February 2024, VMO2 announced plans to create a distinct national fixed network company (NetCo) to "underpin full-fibre take up and roll out" and "offering clear wholesale choice at scale for other providers as a major alternative to… Openreach" as well as providing "… a platform for possible altnet consolidation." nexfibre will operate as a wholesale only network with VMO2 as anchor tenant on its growing footprint and is seeking to supply a wider set of wholesale customers. It has also suggested it will provide wholesale access across the combined VMO2/nexfibre footprint. This would strengthen direct competitive pressures on Openreach wholesale prices.

19. INCA estimates that take-up of services on the aggregate altnets' 13 million FTTP platform was about 2 million at the end of 2023 – i.e. around 15% - and it expects this to grow to 18% by the end of 2024.

20. As noted above, there are a significant number of altnet builders in the UK following different strategies in terms of where they have built and whether they provide retail or wholesale services, or a combination of both. Market analysis shows current take-up differs between altnets reflecting the relative success of these strategies albeit at a very early stage of network deployment.

Figure 6: Take-up on altnet networks, Q1 2024/25, Openreach estimates



Note: netomnia and brsk have announced plans to merge, see below

21. Our competitor tracking analysis suggests Community Fibre is offering the lowest retail prices for ultrafast broadband on its London-focused network. While localised, the availability of these broadband services at low prices is impacting Openreach volumes in these areas (see below) and will drive pressure on Openreach wholesale prices.

22. Hyperoptic is seeing strong take-up on its network which is focussed on supplying ultrafast full-fibre services to Multi-Dwelling Units (MDUs) driving migration away from Openreach copper-based network access services ✂

23. CityFibre is pursuing a wholesale strategy and has secured deals to supply full-fibre connections to TalkTalk, Vodafone and Zen – three out of the top 5 retail providers using the Openreach network – and many other smaller CPs. ✂

24. CityFibre has highlighted the steps needed to onboard successfully CPs to ensure orders can be placed, accepted and delivered to drive take-up and that it therefore expects take-up to grow significantly from current levels. It also highlights the much higher than average take-up levels it is seeing on its earlier build – e.g. 32% on its Milton Keynes build which started in 2018 and 27% in Aberdeen.

25. ✂.

Figure 7:

✂

26. Furthermore, the highly fragmented altnet sector is also seeing increased consolidation that should strengthen competitive dynamics in the supply of full-fibre broadband services as provision of wholesale access will likely benefit from increased scale of players. For instance:

- nexfibre acquired Upp (c175k homes) in September 2023 and announced interest in acquisition of other altnets.
- CityFibre completed acquisition of Lit Fibre's network covering 200-300k homes from Newlight Partners. CityFibre has publicly stated that the acquisition of Lit is the first of several deals it expects to close over the next two years as part of its ambition of "cementing its position as the UK's third digital infrastructure platform of scale".
- In June 2024, netomnia and brsk announced plans to merge their combined network footprint of around 1.5 million premises, with a stated target to reach 3 million premises by the end of next year and supply wholesale services to CPs.
- In March 2024, Fern Trading completed the consolidation of its four regional full-fibre broadband businesses, merging Jurassic Fibre, Swish Fibre, Giganet and AllPoints Fibre into a new business, Fern Fibre Trading Limited ("FFTL"). FFTL has said it will now follow the wholesale strategy of AllPoints Fibre, owning the fibre infrastructure and looking to sell wholesale services to multiple ISPs.

27. This trend of mergers and acquisitions is expected to continue over the period ahead of the TAR and beyond. The pace and nature of changes in market structure will be hard to predict into the next market review period, but even early activity demonstrates the long-term value that network in the ground will generate and the long-term pressure this will bring to bear on the market. As set out below, this is why Ofcom should consider all investment in place by 2026 as relevant in considering forward-looking competitive pressures.

2.4 Implications for market definition and Significant Market Power

Product market definition and approach to finding SMP

28. Market definition within market reviews is ultimately a means to an end. We are in a period of radical transformation in the supply of broadband services to UK end customers in terms of both technology shifts and competitive choice of network. As shown above, market dynamics are shifting in real time and

will continue to shift during the period of the TAR consultation where Ofcom is considering its options and into the 2026-2031 period where the TAR framework will apply. This underlines the need to take a forward-looking approach in assessing the strength of market dynamics over this five-year period and reflect this in the overall approach to defining markets, assessing SMP and ultimately, as discussed further in this submission, setting remedies.

29. In the WFTMR, mirroring the approach taken in previous market reviews since the early 2000s, Ofcom defined a Wholesale Local Access (WLA) market, as providing wholesale inputs supporting the supply of broadband services to UK end customers. This WLA market comprises copper, cable and full-fibre connections. Given the relatively high base of customers still purchasing copper-based standard and superfast broadband services in 2026, we believe demand-side chains of substitution to full-fibre broadband services are likely to remain sufficiently strong in the 2026 to 2031 review period to support the same wide WLA product market that incorporates both legacy copper and Gigabit-capable technologies.

Defining geographic markets in the TAR

30. Our analysis shows there is wide availability of Gigabit-capable networks across the UK. But there are also differences in the level and nature of competition between areas. In the WFTMR, Ofcom differentiated geographic areas based on judgements about the *future potential* for competition to emerge. Actual competitive build in the period since then allows for a more robust analysis, to which Ofcom should add an assessment of the potential for further build into the 2026-2031 period. Ofcom will especially need to consider whether actual and forward-looking competitive dynamics in any geographic area are strong enough to remove SMP findings. But it will also be important in any areas where SMP is retained that Ofcom reflects the potential for dynamics to shift during the five-year period and reflect this in the way SMP remedies are set.

31. Ofcom's approach in the WFTMR categorised UK postcode sectors into three distinct geographic areas as set out below:

Ofcom's 2021 definition	Ofcom's 2021 categorisation criteria	% of UK prems in category
Area 1: effectively competitive	At least three competing networks + evidence of market constraints on Openreach	None
Area 2: potential for material and sustainable competition to emerge	At least one other actual or planned network in postcode sector[14]	70%

[14] Measured at 50% coverage of the c3k premises within each postcode sector

Area 3: low expectation that material and sustainable competition would emerge	No actual or planned build identified in postcode sector	30%

32. Ofcom's approach identified areas with the potential for "material and sustainable competition to emerge" based on the existence of future build plans of VMO2 and CityFibre only. It did not give weight to future build plans from other investors in the market given greater uncertainties about their ability to deliver those plans and/or endure in the market over the longer term. Also, Ofcom's approach to defining Area 2 did not consider the extent to which build may be economic and assess whether plans may therefore be likely to emerge in postcode sectors moving forward.

Proposed changes to Ofcom's methodology in 2026 to reflect market outlook

33. We propose Ofcom adjusts its methodology for categorising postcode sectors in the TAR to capture the extensive level of actual and planned build from all network builders. We see no basis in this review to continue the 2021 approach of effectively discounting build by competitors other than VMO2/nexfibre or CityFibre in considering whether markets are competitive or whether there is the prospect of competition emerging, noting:

- The overall size of the combined altnet footprint in the ground today is significantly higher than contemplated at the time of the WFTMR, standing at over 13 million. CityFibre is the largest altnet but represents just over 25% of this altnet build. The availability of services at the retail and wholesale level from a wider group of increasingly substantial altnets is clearly relevant in considering the current and future state of competition.
- Consolidation which has occurred to date or is in progress, and anticipated consolidation in the near future, suggest all network in the ground and all committed network build is relevant to future competition. It is no longer necessary for Ofcom to make future-looking judgements about the sustainability of individual altnets.

34. We also propose that **Ofcom's approach to defining Area 1** in the TAR does not rely solely on the presence of at least two competing networks but considers the overall strength of competitive dynamics in constraining Openreach activity. Where taken together, or in some cases even individually, these competitive dynamics place a significant constraint on Openreach, these areas should be classified as Area 1. This assessment of competitive dynamics, should, among other things, capture:

- The relative scale and strength of VMO2/nexfibre in constraining Openreach's supply of WLA services on a forward-looking basis. As noted above, VMO2 already has a strong retail market presence in their 17 million footprint and their pricing of ultrafast broadband services provides a strong indirect constraint on the prices Openreach could charge for wholesale WLA inputs to our CP customers. VMO2's creation of NetCo and/or availability of wholesale services into the market from the expanded nexfibre footprint will increase the constraints on Openreach further during the review period. Detail on the plans and ambitions for NetCo and nexfibre's role in providing access to the VMO2 footprint as well as the extended nexfibre area will likely emerge during the period of the TAR consultation and should therefore inform Ofcom's assessment.
- The relative strength of CityFibre as the largest altnet and as a wholesaler already supplying WLA inputs to, among others, Vodafone, TalkTalk and Zen – CityFibre is looking to extend its footprint to 8 million lines and potentially further through industry consolidation.

- A detailed assessment of underlying trends in an evolving market that places weight on network churn rates in overbuild areas and analyses data to capture different age-cohorts of altnet build. Point in time measures of take-up on growing footprints ignores dynamic competition and will be less insightful than looking at take-up on these cohorts – e.g. altnet build in 2021 or 2022 – in considering the strength of competition and how this will evolve.
- The strength of the countervailing buyer power of the largest retail CPs who face choices in wholesale suppliers in large areas of the UK. Whether they choose to use VMO2/nexfibre, CityFibre or any other altnets, the option of using these networks will provide a strong constraint on Openreach pricing through the period of the TAR.

35. **Area 2** should then be defined as any postcode sectors that do not fall within Area 1 but nevertheless contain actual or planned competitive build. We expect that with high availability of other network providers in this area, the competitive dynamic will only strengthen over time and the expectation should be that SMP will fall away in the future (to the extent that it still exists). As market reviews are periodic, point in time exercises involving judgement about forward-looking market dynamics over a 5 year review period, there is clearly a risk that any SMP falls away before the next review in 2031 in all or some of what may be defined as Area 2 in the TAR in 2026. This risk should be acknowledged and reflected in Ofcom's approach to setting remedies: in simple terms, Ofcom should avoid imposing rigid restrictions on Openreach's commercial activity in an evolving market (see Section 4).

Relevance of defining Area 3 in setting policy

36. **Area 3**, by extension, would include any postcode sectors where there had been no material level of competitor build up to 2026 and where Ofcom identifies no plans for any competitor build in the period 2026-2031. However, we do not think it is helpful to consider that this area will be "non-competitive"/"Openreach-only" over the long run given the market is evolving and reflecting on the lessons from the 2021 categorisation of postcode sectors. Ofcom should certainly not use this categorisation to take a different approach to remedies within whatever is defined as Area 3 in 2026.

37. During the WFTMR consultation phase ahead of 2021, many stakeholders, including Openreach, made the point that Ofcom's methodology risked understating the potential for material and sustainable competition to emerge in postcode sectors categorised as falling within Area 3.[15] The concern was that this could then lead to Ofcom imposing remedies in the defined Area 3 that were inappropriate and could actually deter investment in Gigabit-capable networks that would otherwise have been commercially viable and attractive.

38. In its final Statement of March 2021, Ofcom accepted that its approach involved judgement and was an approximation of where material and sustainable competition could emerge.[16] Ultimately the remedies Ofcom applied to Openreach's supply of WLA in defined Area 2 postcode sectors and defined Area 3 postcode sectors were identical. Specifically:

- Regulated PIA remedies applied across the whole of the UK such that altnets could use PIA to support build in Area 3 as well as Area 2
- Anchor price caps on WLA rental services were set at the same levels in both areas
- Connection price caps were the same in both areas
- Ofcom's restrictions on geographic rental pricing (SMP remedy 4.4) applied within both areas

[15] See para 7.30 onwards, WFTMR Statement, Volume 2.
[16] Para 7.19, WFTMR Statement, Volume 2.

- Ofcom's 90-day notification requirements and analytical framework for assessing conditional pricing offers applied within both areas

39. Therefore, while in 2021 Ofcom categorised Area 3 as an area where material and sustainable competition was considered unlikely, it set regulation in a way that would support and enable commercial build wherever investors believed this would be efficient and provide opportunities to earn a fair return.

40. In practice, Ofcom's decision defining the boundary between Area 2 and Area 3 only really mattered from a policy perspective to the extent that Ofcom sought a specific commitment from Openreach to build full-fibre to 3.2 million premises within the defined Area 3 postcode sectors during the market review period. The context to Openreach giving this commitment was Ofcom's concern that as competitive investment in Area 3 was considered unlikely, this could reduce incentives on Openreach to build full-fibre. But, as expanded on in Section 3, our analysis was that there would be competitor build in the defined Area 3 but that there were commercial and strategic opportunities to extend our build into this geography. And we are, in fact, building much more than the 3.2 million we committed to build in March 2021 and expect to reach 6.2 million premises in Area 3 by 2026.

41. As our data and analysis has shown above, there has been competitive build in the defined Area 3 postcode sectors and we expect that ✂ of our 6.2 million Area 3 build will, in fact, have been overbuilt by a competitor by 2026. We were therefore correct not to base our investment decision in this area on any assumption that we would be the only supplier.

42. In our view, the fact that there has been more competition than Ofcom expected can be viewed as a success of Ofcom applying a common set of remedies across geographic areas where SMP had been found, regardless of Ofcom's judgements on the likelihood that material and sustainable competition would emerge. As we explain in Section 3 below, it is therefore important that Ofcom's approach to setting remedies in the TAR continues to take the same approach across any redefined Area 2 and Area 3 to maintain incentives to invest.

Conclusions on market definition in the TAR

43. In summary, we propose Ofcom define the following WLA geographic markets in the TAR:

Proposed definition	Proposed criteria
Area 1: effectively competitive by 2031	Forward-looking assessment of strength of competitive dynamics constraining Openreach
Area 2: other areas with actual or planned competitive presence	Not captured in Area 1, but areas of actual or planned build by other providers with potential to become effectively competitive
Area 3: no competitive presence identified in 2026	No actual or planned build by other providers identified, but potential for competition to emerge

44. We would expect Ofcom's assessment to identify that many postcode sectors now fall within Area 1 and that Area 3 would be considerably smaller than in 2021.

45. Ofcom should also acknowledge the judgements involved in categorising postcode sectors on a forward-looking basis in an evolving market, particularly where uncertain developments – e.g. the extent and

timing of industry consolidation, new wholesale supply agreements – could materially shift market dynamics during the five-year review period. This uncertainty should then be reflected in Ofcom's approach to remedy setting.

3. Setting remedies in WLA markets to sustain investment and fair competition

Key messages:

- Where SMP is found in WLA markets, Ofcom should maintain its approach to regulating Openreach price levels, with CPI price caps on MPF and 40Mb/s FTTC rental prices as the anchor services.
- Ofcom's approach is clearly working given the extensive deployment of full-fibre across the UK, but the job is not done: ongoing investment through the remainder of the decade and beyond to extend full-fibre coverage and competition and to connect customers to the new networks will best be supported through maintaining consistency in Ofcom's approach to price regulation as signalled in 2021. Strong retail level competition in the supply of broadband services will continue to drive strong consumer outcomes.
- Ofcom should maintain the same anchor pricing approach in Area 2 and Area 3: applying the same SMP remedies has supported competitive, commercial investment across different parts of the UK and will drive more uniform consumer outcomes.

3.1 Introduction

46. In this section, we consider the remedies that should apply to constraining Openreach price levels where SMP is found in WLA geographic markets. We set out:

    - In the WFTMR, Ofcom developed its approach to regulating the prices of anchor access services in previous reviews to set CPI price caps focussed on supporting opportunities to invest in FTTP networks.
    - The clear success of this approach to date in supporting competitive investment across Area 2 and Area 3 and allowing flexibility for the market to develop propositions reflecting evolving consumer demand for FTTP services and ultrafast broadband capabilities.
    - The benefits of maintaining this approach in the TAR to drive ongoing investment in extending FTTP availability and competition and in driving ongoing adoption of FTTP services and faster speeds.

3.2 Flat real terms price caps on anchor services were set in 2021 to support FTTP investment

Anchor price approach to regulation has supported network upgrades for a number of years

47. In principle, in setting SMP remedies in relation to Openreach price levels, regulation will look to strike a balance between:

    - Protecting CPs, and ultimately downstream consumers, from the risk of industry price rises;
    - Ensuring continued investment by Openreach to support ongoing supply of services;
    - Sending efficient price signals to competitors to Openreach to invest; and
    - Providing incentives to Openreach and others to innovate and invest in new technologies to meet evolving customer demand.

48. Anchor price regulation has been very successfully used over a number of years to support upgrades in network access capabilities:

    - Between 2008 and 2018, Ofcom regulated Openreach price levels for unbundled copper loops as the anchor service. CPI-X price caps were set by reference to models forecasting the efficient forward-looking cost of supplying the unbundled copper used by CPs to supply standard-speed broadband services to consumers. Ofcom did not place direct regulatory caps on Openreach's pricing of new Fibre to the Cabinet (FTTC) overlay services enabling CPs to offer superfast-speed broadband services.

    - In 2018, Ofcom regulated Openreach price levels for unbundled copper loops and 40Mb/s FTTC overlay services as the anchor services. Direct controls were not set on Openreach pricing of higher bandwidth FTTC services or on any FTTP services supplied to premises where the anchor services were available.

49. Ofcom's approach aimed to support investments in new, alternative technologies at a time where willingness to pay for the incremental capabilities of new access services was uncertain. That is, Openreach or other network builders would invest in alternative technologies to the extent that the cost of these could be recovered by the long run prices end customers would be willing to pay for the higher capability and reliability new broadband services offered relative to those supported by anchor services. Under this approach, Openreach made superfast broadband services available to over 97% of UK premises from 2008 onwards and set prices to support progressive adoption of these services. Openreach then upgraded further areas of the country with FTTP under the Fibre First scale build programme announced in 2018.

Ofcom's 2021 approach to capping anchor prices focussed on the impacts this could have on decisions to make FTTP investments

50. In 2018, Ofcom took an approach to modelling the forward-looking costs of supplying FTTC connections, as the anchor service, that effectively assumed there would be no investment in FTTP by Openreach or new builders. This approach pushed down FTTC prices in the market based on the assumed volume growth and ongoing cost efficiencies of meeting future broadband demand from the supply of FTTC. While Ofcom's general belief was that this would support efficient investment decisions by Openreach or others in building new FTTP access networks, it did not explicitly model the opportunity for them to do so and consider how price regulation of existing anchor services might impact decisions to invest in new services.

51. In contrast, in the WFTMR, Ofcom more explicitly considered whether the maximum regulated anchor price levels it allowed Openreach to set would likely support opportunities to invest in full-fibre.

52. To assess the impact of anchor price levels on altnet decisions to invest, Ofcom modelled the long-term costs of building and operating full-fibre networks to supply WLA inputs to CPs supplying retail ultrafast broadband services to UK consumers.

53. This modelling identified an opportunity for efficient entrants to pursue a viable investment strategy to deploy full-fibre on the expectation that they could earn average long term monthly revenues per line of c£9.53-£13.67 in 2020/21 terms.[17] This modelling assumed the hypothetical new entrant would build a network covering 5-8 million UK homes and earn a fair long-term return for its investors at these prices

[17] Para A15.85, Annex 15, WFTMR.

if they gained long-term take-up of 30-40%.[18] Ofcom stated that this finding from its modelling was consistent with the business case information it had gathered from entrants during the consultation.

54. Ofcom then assessed whether its policy decisions, including the price caps placed on anchor services, would be consistent with altnets being able to realise this opportunity. The regulated price of an Openreach MPF plus overlaid 40Mb/s FTTC VULA connection in 2021, following the path set by the 2018 anchor price control, was about £12. Ofcom separately modelled the expected incremental value to CPs of a full-fibre connection versus an FTTC based connection at the same headline speed and concluded that this was at least £1.70. That is, its assessment was that it was reasonable to assume that Openreach and efficient other builders could sell wholesale 40Mbps full-fibre connections into the market in competition with prevailing anchor prices at a price of at least £13.70. This was just above the top-end of Ofcom's modelled cost range and Ofcom therefore concluded that holding anchor prices stable at 2021 levels, in real terms, over the long-term would be supportive of altnet investment in FTTP.

55. It followed that had Ofcom continued with its 2018 regulatory pricing approach and required further reductions in anchor price levels – e.g. with an approach to modelling costs of supplying the anchor services that continued to assumed no FTTP build – then this would have reduced the opportunity for investors to sell 40Mb/s connections at £13.70. This would then have undermined the opportunity for altnets to invest in building networks as modelled by Ofcom.

56. We were also clear to Ofcom that its 2018 approach to regulating the price of the 40Mb/s FTTC anchor service created challenges for Openreach in deciding whether to upgrade its network to FTTP. If regulatory cost-based controls for the legacy anchor services had been set in 2021 on the basis of a hypothetical, inflated view of the number of connections Openreach would supply – i.e. ignoring effects of the availability of FTTP – then decisions to overbuild the legacy network with FTTP and migrate connections would have presented a significant risk of under-recovering the legacy asset costs. The risk of such losses would then need to be factored into Openreach decision-making and, all else equal, act to deter any decisions to overbuild FTTP.

57. Our modelling of this effect, shared with Ofcom as part of the WFTMR consultation, suggested that maintaining stable legacy anchor prices through the long-term period of transition from legacy to FTTP would mitigate this cost exposure and therefore support our investment decision to upgrade our network.

Anchor price cuts in 2021 would have undermined investment decisions in Area 3

58. As noted in Section 2, in the WFTMR Ofcom framed Area 3 as an area where there was no or low potential for material and sustainable competition to emerge. As such, Ofcom had started the WFTMR consultation with a belief that a ***different*** approach may be needed to drive investment in Gigabit-capable networks with a focus not on promoting competition but on supporting Openreach investment.

59. In its initial January 2020 consultation, Ofcom considered two approaches in Area 3 which were both presented as allowing legacy anchor prices across all Area 3 connections to be set at levels that would reflect the level of investment in full-fibre in Area 3.

- Under the first approach, Ofcom would have, in contrast to Area 2, set cost-based charges for legacy services from April 2021 which would have ***reduced*** anchor prices. Those charges would then only

[18] Para A15.84, Annex 15 WFTMR .

have been allowed to increase each year to reflect the extent to which full-fibre was actually built by Openreach to premises in Area 3 postcode sectors.

- Under the second approach, Ofcom would have set legacy anchor prices in Area 3 at levels that reflected the forecast level of full-fibre build Openreach would deliver to premises in Area 3 postcode sectors. The extent to which this may have reduced anchor prices was dependent on the assumed level of future build.

60. In both cases, Ofcom's initial rationale was that its regulation would only allow Openreach's legacy anchor prices to be above the efficient forward-looking cost of supplying legacy anchor services to the extent that this would then fund what would otherwise have been assumed to be uncommercial full-fibre build in Area 3.

61. Ofcom's approach looked to set regulation in a way that would mean prices across all forms of network access supplied into Area 3 would support the recovery of combined costs of supplying legacy and FTTP services. This combining of costs and revenues across technologies and across end customers was presented as being similar to approaches taken in some other regulated sectors where prices levels for regulated services are allowed to rise to support desired investments to underpin the long-term provision of services – e.g. higher water prices to support investment in sewage treatment facilities or desalination plants.

62. In considering its options, Ofcom used its full-fibre cost model to estimate the cost of deploying, provisioning and supplying full-fibre at different levels of coverage to Area 3 postcode sectors and considered the extent to which those costs would be recovered from an assumed volume of Openreach full-fibre customers paying an assumed average price premium relative to the anchor superfast-capable services.

63. In most modelled scenarios Ofcom identified there would be a shortfall in recovering full-fibre costs directly from full-fibre revenues. Ofcom also therefore modelled an expected level of over-recovery that could be earned from the provision of legacy services under different levels of regulatory anchor price caps to consider whether this could offset any shortfalls.

64. We were clear during the 2021 consultation that we did not agree with many of Ofcom's modelling assumptions for Area 3 build or with its overall proposed approach to regulation in Area 3 and its framing of its proposals as a "RAB approach". In particular, we questioned:

- **Ofcom's outlook for commercial competitive fibre build in Area 3 postcode sectors**. Our own early build experience suggested that build costs for many premises in postcode sectors falling within defined Area 3 could be similar to those supporting commercial build in defined Area 2 postcode sectors and that the 'hockey stick' curve of build costs may be flatter for longer relative to Ofcom's modelled assumptions. This would support all potential investors in building in these postcode sectors. Altnets would also have opportunities for commercial build adjacent/close to publicly funded areas.
- **Ofcom's modelling assumptions that Area 3 was an 'Openreach-only' area** and would remain so over the long-term, albeit with some volume loss to altnets receiving government funding and switch of lines to wireless solutions. This underpinned assumptions that Openreach could build a 7 million footprint across Area 3 before 2031 and would get 90% take-up on FTTP over the long term as well as retain legacy volumes before full-fibre was built.
- **Ofcom's assumptions that CPI indexation of legacy anchor prices would result in over-recovery of legacy anchor costs in Area 3.** We did not identify any significant scope for over-recovery of these

costs in the long term given the risks of line loss and the need to take account of the risk of under-recovery of undepreciated asset values ahead of retirement. We took the broader view that CPI indexation of legacy anchor services would simply mitigate the risks of long-term under-recovery of legacy asset values, on a national basis without material deviations between Ofcom's defined geographic markets.

- **Ofcom's proposed long-term approach in Area 3**: in positioning its pricing decision as a "RAB approach" we were unclear whether this implied it would limit returns available on Area 3 build on an, in our view flawed, assumption that competition risks were lower.

65. Taken together, we had concerns that Ofcom's initial proposals, as we understood them, would not incentivise investment in full-fibre. Any Ofcom approach that reduced legacy anchor prices in Area 3 below those elsewhere would, in our view, actively undermine investment decisions in Area 3 by Openreach and by altnets. This included the likely impacts that anchor price reductions would have on our ability to recover long-term legacy costs in scenarios where we had overbuilt our fibre network.

66. However, we did see an opportunity to deliver commercial build within Area 3, at risk, as part of our overall national FTTP build plan if Ofcom applied the same regulatory approach to anchor pricing in Area 3 as it proposed to apply in Area 2. It was on this basis that we made a commitment to Ofcom that we would build FTTP within the defined Area 3 postcode sectors such that we would reach commercial coverage, excluding publicly funded build, of 3.2 million premises by March 2026.[19]

67. In light of this commitment, Ofcom proposed to regulate legacy anchor price levels in Area 3 at the same level as Area 2. Ofcom modelled that this approach was consistent with setting an "expectation of cost recovery" on Openreach's build, but we continued to have issues with Ofcom's modelling assumptions as set out above. Our view was that competitive threats existed in Area 3 but that opportunities to earn a fair return on these investments as a part of our overall scale build case existed. Any reduction in anchor prices in 2021 would have undermined this assessment.

Ofcom's anchor pricing approach has more than delivered against stated outcomes

68. Ofcom's focus in 2021 was in ensuring that its package of measures was consistent with its objective of promoting competitive investment in full-fibre networks. Ofcom's approach to regulating Openreach's WLA prices was a key part of this package, as was providing confidence to would-be investors that its regulatory approach would likely endure for at least the rest of the decade and potentially beyond if investment continued and market outcomes were strong.

69. As detailed above, Ofcom modelled an *opportunity* for potential entrants to deploy full-fibre networks, sell services and earn a fair long-run return for investors. In modelling particular build, cost and take-up scenarios, Ofcom was not pre-determining what strategies actual entrants would or should follow, but looking to establish a regulatory framework that would support efficient and informed investment decisions. Outcomes set out in Section 2 show that altnet investment has gone well beyond what was assumed in the model (i.e. building to the cheapest to serve 5-8 million premises in Area 2 postcode sectors).

70. This highlights the diverse strategies altnets have followed, for example, based on pursuing value in investment plans beyond that captured in Ofcom modelling arising from, for example:

[19] As noted above, this target has already been met and we are now progressing towards achieving total Area 3 coverage of over 6 million by 2026.

- beliefs about build costs and capabilities;
- driving higher/earlier take-up in perceived underserved areas or by targeting build at particular segments – e.g. local or regional build strategies or targeting supply to MDUs or new sites;
- driving incremental revenue over the long-run from sales of higher bandwidth FTTP services and/or through diversifying to supply business connectivity services;
- driving higher margins from retail sales; and/or
- securing anchor tenants via long-term supply deals with CPs and/or with arrangements to supply infrastructure to local authorities.

71. Investors will have considered the regulatory framework in place and the underlying logic of Ofcom's approach to promoting competition and pursued strategies based on their own beliefs about market opportunities and risks.[20]

72. The fact that there have been significant levels of investment by Openreach and other network builders across both Area 2 and Area 3 is testament to the success of Ofcom's package of measures, including its approach to regulating Openreach WLA prices. End customers and CPs see increasing availability of ultrafast-capable broadband connections and increased choice of network supplier. This will drive lower prices, better value and greater innovation to the long-term benefit of consumers.

3.3 Ofcom should maintain its approach to regulating anchor prices in the TAR to support ongoing investment

The benefits of Ofcom's current approach to regulating anchor prices

73. We continue to support Ofcom's WFTMR approach to maintaining the 40Mb/s superfast-capable anchor product price at 2021 levels in real terms. In signalling an expectation that this approach would remain in place for at least 10 years – and longer if supporting investment and strong market outcomes - Ofcom's overall approach to constraining Openreach price levels sets a strong pro-investment policy balance by:

- **Providing stability for CPs and UK consumers** in the provision of broadband connections through a period of network transformation: by focussing the CPI-0% anchor price regulation on the 40Mb/s superfast broadband access service, no end customers would be worse off as full-fibre networks are deployed with anchor protections only needing to shift to same-speed FTTP services where FTTC services were not available.
- **Providing stability and certainty to all potential investors** that the opportunity to build/expand FTTP networks, acquire customers and drive adequate returns will not be undermined by the regulation introduced in 2021 and/or by unanticipated future changes to that regulation.
- **Avoiding regulation of new FTTP services and letting the market shape commercial structures to drive take-up:** allowing all potential investors in new full-fibre networks to make choices about where, when and how fast to build and providing the flexibility to develop propositions in the market to compete against the regulated anchor service with higher-speed services. Investment and commercial decisions would reflect investor beliefs and perceptions about end customer demand and willingness to pay for higher capability connections over the short and long term. Ultimately, market propositions and outcomes would be driven by evolving consumer demand and not unduly shaped by detailed regulatory pricing requirements on a broader range of services.

[20] This is an important consideration heading into the TAR where altnets appear to be seeking material changes to the framework after investments have been made.

- **Supporting cost recovery on legacy services ahead of retirement**: Allowing legacy prices to remain at levels that provided a clearer opportunity for Openreach to recover the full undepreciated value of legacy assets and ongoing costs of operating the legacy network through a period of market transition away from those services where volumes are expected to reduce to zero over a 10-20 year timeframe.

Further investment after 2026

74. The overall level of investment in the period since the WFTMR framework was established has been strong across Area 2 and Area 3. But the job is not done. Beyond 2026, we see three areas where investment will continue and where maintaining the anchor pricing approach is important:

- **Ongoing build** by Openreach and others driven by incremental commercial opportunities and funded build. While Ofcom estimates that over 90% of the UK could be covered by full-fibre networks by the start of the next review period, there is scope for further build to both fill gaps in coverage and extend competitive overlap. Openreach has announced an ambition to reach as many as 30 million homes by 2030, subject to the right investment conditions, and VMO2/nexfibre's and CityFibre's publicly stated ambitions stretch beyond 2026. Other altnets can also be expected to continue build. All incremental build decisions will be supported by stability and clarity on regulated prices and would be undermined if Ofcom shifted its approach.
- **Provisioning connections** to new full-fibre networks. Take-up can be expected to grow significantly in the period from 2026-2031 and average costs to connect homes are broadly similar to average costs to pass homes. Commercial decisions about short and long-run pricing of full-fibre services to drive take-up will be supported by stability and clarity on regulated anchor prices over the long term and consistency with the approach Ofcom set out in the WFTMR about how and when it would, and would not, introduce price regulation and how it would support the long-term 'fair bet' for investors.
- **Consolidation across networks** is anticipated as noted in Section 2. Efficient valuations of networks will require stability and certainty of regulatory pricing as this provides the baseline for long-term market pricing of access services across the value chain. Any changes in Ofcom's anchor pricing approach would devalue these networks.

75. With ongoing investment in the UK fixed access market, investors will reasonably expect Ofcom to maintain its approach to regulating Openreach anchor price levels as set out in the WFTMR consistent with its positioning of a 10-year vision.

76. Ofcom should also maintain the same approach across all geographic areas where Openreach is found to hold SMP – i.e. in the newly categorised Area 2 and Area 3.

77. To the extent that Ofcom positioned its approach in Area 3 in 2021 as a "RAB approach" and set out analysis based on assumptions about combined legacy and FTTP revenues earned across 20 years, this analysis will be less relevant if much of the build undertaken is, as we would expect given estimated levels of competitor overbuild, re-categorised as falling within Area 2 in 2026.

78. To the extent that a new smaller redefined Area 3 is identified as "Openreach-only" in 2026, maintaining anchor prices at stable real terms levels remains the best means to support further commercial investment decisions by Openreach and others as set out above.

79. We also reiterate that maintaining legacy anchor prices at 2021 levels in real terms mitigates the risks that legacy costs may not be recovered where Openreach overbuilds its legacy network with full-fibre. This allows decisions to invest in FTTP in Area 3 to be based on expectations of the long-term revenues that can been earned on future FTTP.

80. To be clear, therefore, we believe that where SMP is retained, Ofcom should retain CPI-0% rental price caps on 40Mb/s anchor services through the TAR. Caps should apply to FTTC services with flexibility for these to shift to same-speed FTTP services where these are available (see Section 6). These caps, together with strengthening competitive dynamics through competitive build, consolidation, availability of wholesale alternatives and strong countervailing buyer power from retail CPs, will remain sufficient to constrain Openreach prices at all other bandwidths.

4. Supporting fair competition in the supply of full-fibre broadband services

Key messages:

- All builders of full-fibre networks face the commercial challenge of driving take-up: Openreach should be allowed to compete fairly on the merits and have the commercial flexibility to introduce any offers and market propositions that do not harm competition.

- With wide availability of competing networks across the UK, Ofcom should consider options to deregulate or adjust *ex ante* rules set in 2021 with the specific objective of protecting nascent competition during the scale build stage. At a minimum, Ofcom should ensure that *ex ante* rules allow it to assess Openreach offers on a case-by-case basis taking account of evolving market conditions during the five years TAR remedies will apply. Ofcom has reviewed Openreach offers under current *ex ante* rules since 2021, including the Equinox FTTP offers, and found no competition concerns.

- It follows that there can be no justification for tightening regulatory restrictions on Openreach's commercial activity: rigid, blanket restrictions on behaviour that take no account of evolving market conditions or effects on the market would dilute competition and harm UK consumers.

4.1 Introduction

81. In the WFTMR, Ofcom set *ex ante* remedies in relation to geographic discounts and other commercial terms which addressed concerns that certain Openreach commercial activity could raise competition issues and deter the rollout of new full-fibre networks by altnets. We are aware that some altnets have suggested Ofcom should tighten and/or extend *ex ante* rules in the TAR.

82. In Section 2, we set out evidence showing the strong and strengthening competitive dynamics in the provision of WLA services as Openreach, VMO2/nexfibre and altnets invest in Gigabit-capable fixed access networks across the UK. Positive outcomes for UK consumers will result if providers of WLA services supporting the provision of broadband connections are allowed to compete fairly on the merits with efficient pricing driving take-up of ultrafast broadband services and boosting the digital economy. Regulatory concerns should only arise if Openreach activity could unfairly harm competition: Ofcom has assessed Openreach activity since 2021 under the WFTMR framework and found no competition concerns. Against this backdrop, altnet demands for tighter regulation that would restrict competition on the merits should be rejected.

83. In this Section, we address:

    - The importance of commercial flexibility in supplying broadband services. To drive take-up, all full-fibre broadband providers need to set prices taking account of evolving end customer value. The availability of innovative propositions and offers designed to encourage upgrades of broadband services to FTTP should be seen as a feature of well-functioning competitive markets. Regulation should allow Openreach to compete fully on the merits and only seek to restrict activity that could unfairly harm competition.

- The basis on which Ofcom set *ex ante* remedies in the WFTMR to promote competition and how these remedies have been applied in assessing Openreach offers, finding no competition concerns.
- How Ofcom should approach its assessment of the need for those *ex ante* remedies in the TAR.
- Why tighter *ex ante* restrictions on Openreach activity would be unjustified, dilute effective competition and limit efficient market outcomes causing long-term harm to UK consumers.

4.2 The importance of commercial flexibility in driving take-up of full-fibre broadband

84. As set out in section 2, there has been significant investment in competitive full-fibre networks across much of the UK. We expect that by 2026 over 90% of UK premises will have access to full-fibre broadband and almost three quarters will have the option of using a supplier other than Openreach.

85. Take-up of full-fibre services is increasing over time but there is much to do to support adoption by all consumers where available with over 75% of UK broadband consumers still served by copper-based connections supported by Openreach regulated anchor services. In seeking to drive take-up of FTTP, all providers - whether at wholesale or retail level - need to offer full-fibre broadband services on terms that reflect end customer valuations.

86. Take-up of FTTP will be driven by three broad areas of market activity:

- **Customer-driven upgrades** to full-fibre: experience to date suggests that there will be a percentage of customers in any area who will see clear value in migrating to full-fibre where available and will pay higher premiums to take higher bandwidth variants.
- **Market acquisition activity** for new retail broadband connections: household/business formation and retail market switching between CPs will drive take-up of full-fibre supported by regulatory stop-sell of copper-based broadband in notified exchanges and by the Order Mix Targets within Equinox (see below).
- **CP-driven proactive upgrades** of their broadband customer base: where CPs see value in migrating their existing of base of customers served by copper-based broadband connections onto full-fibre connections.

87. Within Openreach, we track the “Percentage of Base” taking FTTP services within our FTTP footprint by age of build and this shows ✂

Figure 8: Proportion of BB Base on FTTP as a function of footprint age (months)

✂

88. ✂ Differences in strategy reflect perceptions of the value to the CP of such upgrades relative to cost at the present time – i.e. the long-term value they see from upgrading customers in terms of increasing revenue opportunities, maintaining competitiveness in the retail market, improving the customer experience and/or reducing their costs to serve.

89. It is vital, given this, that wholesale network access suppliers like Openreach engage effectively with CPs to understand the commercial barriers and challenges in upgrading customer connections – e.g. to better capture their perceptions of value and how these might shift over time. We also need to explore opportunities to share value with our customers where this is mutually beneficial. This was the basis on which the Equinox offers for the supply of FTTP were designed, following requests by CPs: providing long-term certainty around rental prices for different FTTP bandwidths and improved terms to connect and migrate lines on the basis that CPs would commit to using FTTP as the primary service for competing for broadband lines. ✂

90. Development of these types of offers should therefore be viewed as a positive feature of a well-functioning competitive broadband market supporting strong consumer outcomes. We consider that pricing innovation that meets consumer-led CP demand should be presumed pro-competitive unless there are genuine reasons why this may not be the case. We are concerned, therefore, that many altnets have expressed views which imply that any offers put forward by Openreach are inherently problematic, suggesting that *ex ante* remedies should be tightened to restrict Openreach's ability to introduce them. Our clear position is that offers should be allowed so long as the specific terms do not work in a way that unfairly deters CPs from using altnets. This should be assessed on a case-by-case basis taking full account of the details of any offers and all relevant market circumstances.

4.3 *Ex ante* remedies in the WFTMR to promote competition

The basis on which Ofcom set ex ante remedies in the WFTMR framework

91. In the WFTMR, as part of measures aimed at promoting competition, Ofcom wanted to assure potential investors in UK fixed access networks that it would take effective steps to ensure fair competition between Openreach and other market players.

92. Ofcom therefore set *ex ante* remedies in the WFTMR that addressed concerns about certain types of commercial pricing and offers we might introduce in the market that could harm the nascent competition Ofcom wanted to promote. Specifically, *ex ante* remedies were set to address concerns with:

- Conditional pricing: Ofcom required that we provide 90 days' notice of any offers which made the terms and conditions of supplying WLA services conditional on the volume or range of services purchased. In simple terms, Ofcom was concerned that such offers could create loyalty-inducing effects which deter CPs from splitting wholesale supply between different access providers and, therefore, undermine altnet rollout plans. Ofcom signalled that it would use the 90-day period to assess the detail of conditional offers and use its powers to block any pricing that presented risks to the use of altnets.
- Geographic rental pricing: Ofcom extended the scope of remedies first introduced in 2018 to limit our ability to geographically differentiate pricing within Area 2 and Area 3 for all WLA rental charges, including FTTP prices, without Ofcom's prior consent. Ofcom indicated that its concern was that we might target discounts at areas where altnets had built or planned to build in order to deter rollout by new builders.

93. Both approaches were positioned as providing protections to new network build by altnets during a period when they were looking to rollout network and establish themselves in the market.[21] But Ofcom did not impose an outright ban on Openreach commercial offers with any form of conditionality, accepting that these could give rise to consumer benefits and that it would therefore assess the terms and likely impact of any offers on a case-by-case basis.[22] Ofcom also acknowledged that there were circumstances where geographically differentiated pricing could be beneficial and therefore provided scope for consent to be requested and granted.[23]

Ofcom's assessment of commercial pricing offers under the WFTMR framework

94. At the time of the WFTMR Statement, Ofcom noted that Openreach had three live offers which resulted in differences in rental pricing on a geographic basis. Ofcom temporarily exempted these offers from the geographic pricing restriction and consulted on whether to grant consent. Ofcom found that none of the offers represented targeting of altnets that could deter their rollout plans. Ofcom therefore granted consent.

95. Openreach triggered the 90-day conditional pricing review period under SMP Condition 8.6 in (i) notifying the Equinox offer in July 2021 and (ii) notifying the Equinox 2 offer in December 2022.

96. These offers were then assessed in detail by Ofcom. In particular, Ofcom considered scenarios under which the need to meet Order Mix Targets (the percentage of total Openreach orders placed on FTTP in a period) to receive discounts may have the same effect as volume commitments and therefore have

[21] See para 7.44, Volume 3, WFTMR.
[22] See para 7.152, Volume 3, WFTMR.
[23] See para 7.73, Volume 3, WFTMR.

potential impacts on CP decisions to use altnets. These scenarios were based around the ongoing share of acquisitions CPs could make using Openreach copper-based network access services.

97. Scenarios that could raise theoretical concerns were generally considered unlikely to arise based on the evidence Ofcom collected. Furthermore, within the revised Equinox 2 offer, we introduced mechanisms to allow CPs to remove areas where they used altnets from Order Mix Targets so even the theoretical risks could not arise. In both reviews, Ofcom found that the offers did not raise any competition concerns.

4.4 Reviewing *ex ante* remedies to promote competition in the TAR

98. In our response to the WFTMR consultation, we set out our view that the *ex ante* remedies set by Ofcom were unnecessary given that Ofcom could rely on competition law to address any specific concerns with Openreach commercial activity. Ofcom responded that it saw a need for *ex ante* rules to guard against specific incentives for Openreach to deter new altnet rollout during the expected build phase from 2021. In relation to geographic pricing, Ofcom was clear that its concerns were about discounts being targeted at areas of new (or potential) network build, not at "established operators within their existing footprint"[24] – this should include operators such as VMO2. Ofcom's guidance on how it would assess conditional pricing was also clear that its concern would be with impacts on "nascent network competition".[25]

99. It follows that, as networks are built and competition becomes established, the ongoing need for *ex ante* remedies to address potential competition concerns, over and above competition law, should be revisited.[26]

100. In Section 2 of this submission, we set out our view that with extensive availability of competitive networks from VMO2/nexfibre and from altnets, there should be scope for Ofcom to define a geographic Area 1 where there is effective competition in relation to the supply of WLA services. It would follow that no *ex ante* remedies would apply in this area. However, if Ofcom were to take a more cautious approach in withdrawing SMP in areas where there is competitor build (defining a smaller Area 1 and a larger Area 2), then it would still need to take account of the fact that competitor build is in a radically different place in 2026 compared to 2021. The stated concern in 2021 in setting *ex ante* remedies was Openreach's incentive and ability to "deter altnet rollout". That concern must be significantly reduced heading into the TAR period.

101. At the very least, the radical growth in competitor presence and the evidence of strengthening competitive dynamics reinforces the need to ensure that any *ex ante* remedies retained in the TAR allow for Ofcom to consider specific commercial activity on a case-by-case basis taking full account of market circumstances and likely effects on competition.

102. Our view is that Ofcom's assessments in reviewing geographic pricing offers in 2021 and in reviewing the Equinox offers in 2021 and 2023 confirmed that that the current *ex ante* remedies were sufficient to allow Ofcom to consider the effects and potential harms raised by the specific offers. In all cases no competition concerns were found.

[24] See para 7.44 , Volume 3, WFTMR.
[25] See para 7.152, Volume 3, WFTMR.
[26] A point explicitly accepted by Ofcom in relation to geographic pricing at para 7.74, Volume 3, WFTMR.

103. For instance, the process triggered by SMP Condition 8.6 and the framework followed by Ofcom worked to provide a high degree of scrutiny of the Equinox offers before they took effect. As such, they provide a good example of the adequacy of the existing *ex ante* remedies under the WFTMR. The offer was scrutinised thoroughly, found to cause no expected harm, and is demonstrably not causing harm in the market today given the use of altnets' networks by CPs who have signed up to Equinox.

104. But importantly, Equinox is then delivering against Openreach's commercial objectives and supporting strong consumer outcomes by driving CPs to acquire end customers on full-fibre broadband services meaning retail competition is shifting many customers from copper-based services to FTTP. The framework has therefore been applied in a way that has allowed Openreach to introduce an innovative offer to meet market demands and deliver our commercial objectives, while causing no harm to competition. This remains a justifiable and proportionate template for assessing fair and effective competition on the merits moving forward.

105. Similarly, it is vital that *ex ante* remedies do not set an absolute barrier to introducing any form of geographic rental discount. Openreach has not requested consent from Ofcom for any geographic discounts in rental charges since 2021. In fact, to date, we have maintained uniform national rental pricing on WLA services, including FTTP, across Area 2 and Area 3 ✂. But with shifting market dynamics into the TAR review period, no commercial options should be ruled out. ✂

106. It follows, as expanded below in commenting on anticipated altnet demands, that there should be no tightening or extension of current *ex ante* rules for instance to restrict our ability to differentiate geographic prices for connection prices. Discounting of connection charges within defined SMP geographic markets would not raise competition concerns where this was, for example, reflective of cost differentials or where used to drive proactive upgrades where shared value opportunities were identified – e.g. as described above to support migration of faulting lines.

4.5 Anticipated altnet demands for tighter regulations in the TAR are not justified

107. During the course of Ofcom's reviews of Openreach's Equinox offers, some altnets argued that Ofcom should review its approach to assessing Openreach commercial activity. Heading into the TAR, we anticipate that those altnets will again argue for additional *ex ante* measures to restrict Openreach's flexibility to compete. While we reserve the right to respond to specific proposals made by third parties, we have attempted to anticipate the arguments some altnets may make in this submission.

108. While we have not seen any written detail of specific proposals from altnets for changes they would like to see in the TAR, and we understand that altnets do not speak with a single voice, we anticipate based on public comments that certain altnets may push for Ofcom to tighter regulation in the following areas:

- Introduce tighter **restrictions on conditional pricing**
- Introduce **price floors** on Openreach WLA services
- Introduce **restrictions on the frequency of price changes** and/or the period in which Openreach can negotiate with its customers.

109. All these potential proposals, individually and collectively, would go well beyond the more balanced *ex ante* remedies introduced by Ofcom in 2021 as they would reduce or potentially remove altogether Ofcom's ability to assess specific issues on their merits and in the context of market conditions. Despite the clear success of the WFTMR, it appears that altnets are pushing for more rigid rules based on general assertions about what should be considered "harmful" and "unfair" over the five-year period of the review.

110. At a headline level, these raise significant concerns that Ofcom is being asked to fundamentally shift the balance of the framework away from simply ensuring Openreach competes fairly on the merits to a much more restrictive approach to protect individual competitors. Such demands would be wrong in principle given that any dilution of efficient and fair competition will ultimately harm UK consumers. It is hard to see how a tightening of the rules could be objectively justifiable or proportionate, given that the WFTMR framework has achieved more investment and stronger competition than anticipated at the time.

111. To be clear, all investment decisions made by Openreach under the WFTMR framework to date were based on our understanding that we would be allowed to compete fairly on the merits and to respond reasonably and proportionately to changing competitive dynamics in the market.

112. We accept that Ofcom will want to continue to scrutinise the detail of our market activity in selling access services and driving migration from legacy copper to new full-fibre services. As set out above, while we see scope for deregulation given the radical changes in competitor network rollout, we believe the *ex ante* remedies introduced in 2021 can allow Ofcom to assess our offers in a balanced way – i.e. one that can provide assurances to all market players that Ofcom will block activity that harms competition but that also allow efficient and effective competition on the merits. This will require Ofcom to consider the likely effects of any commercial activity taking account of relevant market circumstances.

113. Any altnet demands for tighter restrictions which move away from an effects-based assessment of the risks of harm run counter to the evidence set out in Section 2 that the competitive dynamic is strong and strengthening over time. Even if Ofcom takes a cautious approach in finding SMP and defining Area 1 in 2026, there is a reasonable likelihood of events changing the basis for that assessment during the 2026-2031 period – most notably VMO2's NetCo and/or nexfibre providing wholesale access to a retail CP or CityFibre or another consolidated wholesaler striking further wholesale deals. It is vital to ensure that any *ex ante* regulatory conditions in place can take account of changing market circumstances. We are concerned that altnets appear to be seeking a tightening of rules and asking Ofcom to remove or limit its regulatory discretion to consider the detail of any specific activity – e.g. by proposing changes that may no longer allow the detail of specific conditional offers to be assessed.

114. Notwithstanding these headline arguments that any tightening of restrictions cannot be justified, we set out more detail on why Ofcom should not change specific rules.

Further restrictions on commercial offers

115. As noted above, Openreach's Equinox offers show the positive benefits that innovative commercial offers can have in driving take-up without deterring use of altnets. Those offers encouraged our retail CP customers towards acquiring end customers over full-fibre connections and supporting consumer upgrades through lower migration charges. The test for any future offers should remain whether those offers contain any form of conditionality that could have the effect of deterring CPs from using altnets.

116. If all conditional offers were prohibited, without an assessment of their effects, then this would capture offers which would achieve positive consumer outcomes and cause no harm to altnets. This would

prevent us from working with our customers to develop mutually beneficial offers for their end customers, undermining one of the key achievements of the DCR and the Commitments. We would also be concerned if Ofcom introduced restrictions that unduly delayed our ability to introduce offers into the market through extending notification requirements.

117. Notwithstanding this, we request that Ofcom sets out further guidance within the TAR on the analytical framework which Ofcom would apply to its assessment of offers, with the aim of simplifying understanding for all stakeholders and confirming the key issues Ofcom would consider. This should focus on identifying likely harm or the risk of harm arising balanced against the cost to consumers were disproportionate requirements placed on Openreach, compromising its ability to meet its CP customers' needs.

118. It is also important, however, that Ofcom's approach to assessing offers gives flexibility to consider broader market conditions. ✂

Price floors

119. As we understand it, some altnets may be arguing that Ofcom should establish price floors for Openreach FTTP prices based on the outputs of an updated version of Ofcom's 2021 cost model.

120. In principle, requiring Openreach to price no lower than a pre-determined level for a five-year review period would carry significant risk that the full benefits of competition, in terms of efficient pricing reflecting forward-looking costs of supply and end customer valuation of the services supplied, would not flow through to consumers. This is why price floors are not considered regulatory best practice.

121. Any demands to introduce price floors in the TAR should also be rejected, for reasons including:

- A price floor could be set above Openreach's costs of supply which would restrict our ability to price efficiently at levels that drive take-up and would harm the investment case for further build and harm consumers.
- A price floor on Openreach could be set above the costs of supply faced by VMO2/nexfibre seeking to sell wholesale services from an established platform, as well as new build – this would provide unwarranted protections to a rival.
- A price floor could be set above the value CPs (and ultimately their end customers) place on the services being delivered.

122. The rationale for demanding that Openreach should not price beneath a defined price floor would be that lower prices could have the effect of unfairly causing efficient competitors to exit the market in this TAR review period. But this would not be the case, including by reference to Ofcom's 2021 model or any reasonable update to it.

123. Ofcom's 2021 cost model set out the forward-looking opportunity for efficient entrants to invest in full-fibre networks and supply services competing against stable and certain anchor price levels. The outputs of this model – essentially identifying a constant level of monthly ARPU that could deliver a fair return to the hypothetical entrants under different scenarios – were primarily used as a check on the consistency of the WFTMR framework against Ofcom's stated strategic objective: specifically, whether the level at which Ofcom regulated the legacy anchor prices could act to deter the efficient investment Ofcom wanted to see by new entrants. The model did not define the minimum pricing a rational, efficient

supplier would need to set at any point in time but was an attempt to consider whether would-be investors would see a long-term opportunity to deploy network and earn a return.

124. We would further note the following about Ofcom's cost model:

- Ofcom modelled a fixed annuity over 40 years – i.e. a constant average unit price per connected line that would deliver full cost recovery including a fair return on the modelled level of assumed investment. While all investors will want to recover the full costs of investment over the long term, it is recognised that lower pricing may be required in the short term to support take-up at a time when end customer valuations of the full capabilities of full-fibre networks may be lower. And it could be efficient in the short run to price such that all short-run marginal costs were recovered.
- There was a significant range between the high and low end of costs modelled by Ofcom in 2021 reflecting different scenarios modelled around efficient supply by altnets. While Ofcom set price caps for legacy anchors at levels it believed would maintain incentives for entry by reference to the top end of the modelled range, it did not conclude that any pricing beneath this level would unfairly harm efficient entrants.
- Ofcom's approach did not consider all sources of value available to altnets in seeking to generate returns on their investment including revenues from business connectivity services, from higher bandwidth services and/or from other services. Allowing for these sources of value would reduce the revenue an entrant would need to recover from FTTP lines to earn a long-term return on the investment. Ofcom's approach was therefore conservative in this regard.

125. These issues with setting price floors would be amplified if any altnets suggest that Ofcom generate a new cost range in 2026 capturing higher costs and/or lower take-up based on updated information and/or individual altnet experience. This would include, for instance, if altnets were suggesting that Ofcom should capture higher costs of serving Area 3 premises based on decisions to build in those areas and/or higher costs of financing their investments compared to Ofcom's estimates of the efficient cost of capital made ahead of 2021.

126. Updating costs and revenue requirements in this way would ignore the fact that altnets have made investment decisions based on their assessment of risk and reward opportunities taking account of:

- Expected build costs for the deployment plan they are following;
- Expected take-up on that network reflecting perceived end customer demand and level of competitive overbuild;
- Costs of financing and risks of that changing over time for subsequent tranches of build; and
- The WFTMR framework as set out in 2021.

127. Those expectations may have been better or worse than comparable metrics assumed in Ofcom's model and/or different altnets may have under or over-called assumptions used to construct their investment case versus outcomes in delivering those plans to date and/or updated long-term expectations about costs or volumes. But this would not justify adjusting regulated anchor prices - or Openreach full-fibre prices - moving forward to levels that somehow seek to "ensure" investors earn a particular return on their investments. To do so would directly pass the downside risks taken by one set of investors at the outset of their build projects onto UK end customers. This is not appropriate.

128. Furthermore, with expected consolidation in the market, introducing regulatory protections on price levels would have the effect of inflating the value of altnet investments relative to their value today

which would reflect end customer valuations of the services supplied. Efficient consolidation requires Ofcom to maintain a consistent regulatory approach to that signalled to all investors including its approach to ensuring fair competition. This approach did not include protections from Openreach competing fairly on the merits. If some investors have overpaid to build networks or face challenges in extracting value at current market prices, then it follows that they would sell their assets at a lower cost. But this would present opportunities for the acquirers of those assets to adopt different strategies to extract value.

Restrictions on frequency of price changes or on customer engagement

129. We are aware that some altnet complaints about Openreach's Equinox 2 offer focussed on the fact that Openreach was changing its FTTP prices in April 2023, building on the framework put in place in the original Equinox offer in October 2021. Altnets complained that this change followed what was perceived as an extended period of engagement with industry.

130. As noted, it is vital to drive migrations by aligning prices more closely to the perceived value the FTTP connection provides over the short and long term. Revisiting price structures at a time where demand was evolving and CPs were forming views on the value of upgrades to them – e.g. in terms of acquisition, retention and opportunities to upgrade over time – should not be surprising and, in our view, should be seen as a positive feature of a strong supplier-customer relationship and attempts to align strategic and commercial ambitions. Historically, Openreach faced criticism from CPs that it was insufficiently alive to the challenges faced in the market and the needs of its CP customers, and change in this relationship was one of the key successes achieved by the DCR and the Commitments.

131. We are also aware that concerns have been raised that the introduction of Equinox 2 resulted ✂. But given that nothing in Equinox ✂ , this has to be considered competition on the merits.

132. ✂

133. Moreover, we see no reason why Openreach should be hampered in our ongoing relationship with any CP customer so long as this does not restrict CPs from using altnets and remains consistent with regulatory requirements and our Commitments. In fact, it would be an obviously bad market outcome and go against the spirit of the Commitments we made in 2017 if we were restricted in our ability to work in partnership with CPs – to ensure we were meeting and responding to their needs.

134. This exposes why Ofcom should not be asked to focus on regulating to deliver specific competitive market outcomes but must instead remain focussed on assessing whether outcomes are a result of fair competition between players or unfair behaviour. To date, no substantive issues have been found.

Concluding comments

135. The balance of the framework is right today in ensuring competition between Openreach and others in the market remains fair and can deliver the best market outcomes. It has achieved more than anticipated at the time the WFTMR was put in place. There is no basis to conclude this balance isn't working today and calls for more rigid rules are unjustified.

5. Business markets

Key messages:

- Openreach provides high quality leased line products and excellent service to its customers. In doing so, we're facing increasing competition particularly in the Central London Area (CLA), High Network Reach Area (HNR), and in mobile backhaul and bidding markets in Areas 2 and 3.

- Ofcom's approach to remedies is working. It has successfully generated competitive investment in multi-service networks providing a wide range of choices to CPs, many of whom are taking advantage of these choices through multi-sourcing. This competition is incentivising product innovation by Openreach and others for the benefit of consumers.

- In Area 2, Ofcom should continue its pricing approach for active products, which is achieving its objective of promoting infrastructure competition. There has been substantial build of new multi-service networks which have the capability to serve business markets. These networks are already exerting competitive pressure and over time this will increase further, eroding prices and returns. Any change to Ofcom's approach would harm the business cases of those that have invested on the basis of the existing framework.

- In Area 3, the VHB access remedy remains relatively nascent, but our forecasts expect take-up to grow significantly over the course of the TAR period. There has also been sizeable network build - significantly more than expected - which would be undermined by changes to the regulatory remedies. This Area 3 network build tends to be in areas where there is most demand for business services, so has a disproportionate impact on competition for business services in Area 3.

- Ofcom should restate and clarify some aspects of the existing regulations, including in relation to Network Extensions.

5.1 Introduction

- Openreach provides a wide range of high-quality leased line products to CP customers. Our products are available nationally and serve diverse customer use cases. We are successful in this market in the face of longstanding competition, which has previously led to reduced regulation in some parts of the market. This competition continues to increase for new provisions and in particular for higher bandwidth services, bid contracts and mobile backhaul circuits. Altnets that have built new multi-service networks are key to driving increased competitive intensity and are targeting business customers with business-focused products.

- Generally, we consider that the markets for the provision of leased line services are working well, that there is overall market growth and that there is no case for a fundamental change to the price or non-price remedies. On the contrary, significant change would risk undermining regulatory certainty and

further competitive entry. Ofcom has acknowledged the importance of pricing continuity[27] and this has been a key part of its stated strategy to promote competition, which will protect consumers.[28] Whilst we would encourage Ofcom to fundamentally maintain its strategy for leased lines remedies, we also believe there is a need for Ofcom to update its analysis and definitions (e.g. geographic market definitions) within that overall framework to take account of competitive network footprint expansion, which should lead to some further deregulation, including reclassification of geographic areas.

- We support continuity of the existing framework and acknowledge that it works together as a complete package. As the SMP operator, our experience of how we comply in detail with the rules highlights aspects of the regulations which would benefit from clarification, and we have set these out below.

5.2 Competition

- Competition in parts of the leased lines markets has been intense for many years. Now, consumer choice, in the form of substitutes for leased lines supplied over altnets' multi-service networks, is increasing further. This convergence is driving a step change in competitive intensity. We also expect that where altnets are providing business services over multi-service networks, they would be able to benefit from cost efficiencies (relative to our legacy leased line services), and hence offer keenly priced services.
- Openreach competes with multiple different network providers to provide leased line services. **Figure 9** gives an overview of our understanding of the business connectivity value chain and shows that we compete with suppliers such as VMO2, CityFibre, Colt, Zayo, and Commsworld in providing services to CPs.

Figure 9: Business connectivity value chain

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- We find that this competition is increasing, particularly with the growing reach of multiple altnet multi-service networks. While Ofcom is better placed to gather detailed information on market shares and altnet successes, we can report on the trends and competitive pressure we face directly ourselves. Evidence of growing competition includes:

[27] Ofcom (2021), 'WFTMR, Volume 4', para 1.175.
[28] Ofcom (2021), 'WFTMR, Volume 4', paras 1.175 and 2.94.

- **Aggressive pricing by altnets –** We have seen evidence of altnets quoting extremely aggressive prices, including for higher bandwidths (i.e. 10Gb).[29] Our understanding is that there are a wide range of other providers offering leased line services at similar or better price points than Openreach and with similar SLAs.

- **Price competition in the CLA and HNR** - Openreach faces the strongest competitive conditions for leased lines in the CLA and HNR areas. These areas have the greatest presence and strength of constraint from rival providers. Openreach responds to this competition through differentiated service as well as commercial offers to try and retain and win customers. ✂[30] Accordingly this competitive pressure and our response to it led to lower prices for end customers. We anticipate similar competitive pressure will build in other areas following the recent investment in build in those regions.

Table 1: ✂

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- **Declining net adds** – We understand that the business market overall is growing, reflecting growing data use by end customers and the need of end customers for an increasingly wider range of use cases. However, we ✂ anticipate that altnets are being increasingly successful in winning new business in the growing market.

Figure 10: ✂

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[29] We have seen examples of alt-nets such as Community Fibre, netomnia and G.Network, offering aggressive pricing above 1Gbs.
[30] ✂

- **Smaller CPs switching to altnets** – ✂ This is supported by public information regarding some of the altnets' named partnerships with smaller CPs.

Table 2: ✂

✂

- **Large bid contracts –** Demand for leased line services is very varied, including variation in the packages of services that are required. Some large customers, often public sector organisations such as councils, NHS, MoD, have a need for a package of leased line services to be provided at a set of named locations. These are typically procured via competitive tenders, to which CPs can respond using different network providers. We have found that contracts such as these are often highly competitive, for example, large contracts, such as ✂ have been won by CPs using altnets.
- In the face of this competition, we seek to respond and undertake initiatives and innovations to maintain attractive propositions to our customers. We have referred to some of our pricing offers above; in

addition we focus on service as a differentiating factor, and innovation in products, such as the development of EAD2.0.

- **Development of EAD2.0** – We are undertaking significant investment to develop a new EAD service which will allow us to better respond to competitive pressures. One of the key rationales for this innovation is to provide better flexibility for customers that might want to upgrade bandwidths in stages. Business customers are increasingly demanding higher bandwidth solutions as end customer data use increases. As customers move to higher bandwidth services they typically pay higher headline charges for the service but actually receive a lower cost per Mbit as a result. This is good for consumers in the longer term. It also facilitates innovation and flexibility by CPs by allowing them to have greater control over terminating equipment and in some cases, removing the need for extra devices in the provision of the service. Additionally, it facilitates efficiencies in space and power use.

5.3 Returns

Returns - Area 2

- In Area 2, Ofcom was very clear in the WFTMR that pricing continuity, i.e. maintaining price caps on all services at their then current levels in real terms, would best meet its objective of promoting competition and investment in Gigabit-capable networks by Openreach and other operators, and also protect consumers and existing models of downstream competition in the short term.[31] CityFibre, VMO2 and others all said that Ofcom's approach would support investment, and that price reductions would harm their business case. Ofcom's conclusion about pricing continuity was true then and is true now.

- In Chapter 2 we outlined in broad terms how successful the policy has been in encouraging network investment from altnets and Openreach; altnets are present in the majority of areas and build continues at pace. Further, these competing networks typically offer both broadband and leased lines services. The upshot is that altnets are very active in the leased lines market and competition is intense and heightening. There is also evidence of innovation e.g. fractional rate service offerings, which will tend to stimulate the competitive dynamic. Moreover, we can see that downstream CPs are starting to multi-source supply where altnets are available and this trend will only increase as the reach of altnets is extended over time. It is therefore clear that Ofcom was right to consider leased lines an important source of demand (and revenue) for altnets and that if pricing continuity was maintained it would encourage competition for leased lines services.

- Any review by Ofcom of Openreach's reported leased lines returns should find no major cause for concern. Prices themselves remained flat in real terms (and in some cases fell in real terms where we did not adopt the full flexibility permitted by the charge control), so consumers continue to be protected. Further, one would expect that these prices and returns will be eroded further as competition continues to develop. This was seen ✂ as evidenced above in **Table 2**. This is consistent with Ofcom's stated strategy: it is the higher leased line wholesale prices that makes investment more attractive for new competitors, by increasing their expected returns. On the basis of the above, a continuation of Ofcom's pricing approach is warranted in the TAR.

Returns - Area 3

- Ofcom was very clear in the WFTMR that, in relation to leased lines, dark fibre should be the primary focus for regulation to promote investment in Gigabit-capable networks by Openreach, promote

[31] Ofcom (2021), 'WFTMR, Volume 4', paras 1.175.

competition based on access to Openreach's networks and protect consumers.[32] To that end Ofcom maintained pricing continuity for active leased lines, keeping prices flat in real terms, and setting cost-based pricing for dark fibre alternatives in order to encourage the take up of dark fibre. Its PIA remedy also supports the roll-out of altnets. Overall, Ofcom has met its objectives, with Area 3 investment by Openreach in Gigabit-capable networks much higher than anticipated (see Figure 4 above) and the resulting network footprint has been delivered faster than anticipated.

- In Area 3, Ofcom also considered that active leased line prices being set above Fully Allocated Cost (FAC) is a transitional issue as customers increasingly migrate to using dark fibre services. Dark Fibre Access (DFA) is still in its infancy, volumes started at a low base and remain low compared to active products (<1,000 circuits) but there are ✂ customers using DFA and usage is increasing. Indeed, we anticipate a sizeable shift to dark fibre with ✂ DFA circuits by 2028/29.

- Further, Ofcom did not anticipate altnet network build in Area 3. However, in actuality a significant degree of build has occurred within Area 3. This network build tends to be in the more urban areas of Area 3 where one would expect the majority of businesses requiring leased lines to be located. This shows, Ofcom's pricing continuity policy is both facilitating altnets to be very active in the leased lines market and supporting DFA based competition. Moreover, it is accepted that investment in Area 3 is more challenging for altnets than elsewhere. As a result, leased lines are logically even more important as source of demand (and revenue) for altnets than elsewhere.

- Given these early signs that the market appears to be on the trajectory Ofcom intended, there would be a significant risk from Ofcom altering its approach in Area 3. Lowering active leased line prices in Area 3 will make DFA less attractive, undermining its objective of generating competition based on access to Openreach's network and also undermining infrastructure build where investments have been made by altnets using PIA. We think that the evidence Ofcom is gathering will show that there is no fundamental barrier to greater take-up of DFA and that CPs need some time adjust their supply choices (see section below). Therefore, Ofcom should maintain its continuity approach to active leased lines prices and instead focus on addressing any barriers to DFA take up.

Accounting treatments

- We expect that Ofcom will be assessing Openreach's leased lines profitability as part of its market analysis. For instance, we are aware the Ofcom has already been comparing returns between specific product and market types.

- BT's Regulatory Financial Statements provide some insight into our returns but must always be understood in the context of how they have been set up and the accounting methods employed. In particular, the accounting methods have largely been implemented after we have already designed and provided products. We supply, and have always supplied, EAD services as a single product, regardless of whether this is supplied to a premise or between two exchanges. The application of Ofcom's separate LLA and IEC markets has therefore artificially divided this product into two markets and required an allocation of costs between the two markets.

- Given the above, Ofcom must interpret its findings in relation to accounting profitability of different services very carefully. It would be incorrect to draw conclusions on the level of the returns of individual services without taking account of their place in the wider portfolio, the associated cost allocation and the context of the historical basis for the accounting treatment. This is particularly important for

[32] Ofcom (2021), 'WFTMR, Volume 4', paras 2.94.

comparisons of access and inter-exchange markets and connection and rental charges, where reported returns may otherwise be misleading.

5.4 Pricing flexibility

- We consider that there is scope to evolve some of our regulatory obligations in order to promote greater competition, improve efficiency and therefore improve outcomes for consumers.

Ability to compete in bidding markets

- We consider that our regulatory obligations actively give our competitors an advantage. For example, the requirement that Openreach publish a reference offer means that in areas that are tending to competition, our competitors know our exact pricing. This issue confers a particular advantage on our competitors for contracts that involve bidding, where they can price just below our list prices. In turn this removes Openreach (and CPs using only Openreach) as credible bidders thus reducing the number of credible bidders customers can choose from. This reduction in choice is likely to result in higher prices compared with the counterfactual where all bidders' bids are sealed. In short, in this context, price transparency can actually lead to higher prices due to the creation of a focal point and the lack of uncertainty among bidders.

Geographic discounting

- Ofcom's current regulation restricts Openreach's ability to offer geographic discounts for leased line services rental charges within the Leased Lines Area 2 geographic market. Such discounts are prohibited unless Ofcom grants explicit consent following the process set out in the WFTMR Annex 11.

- Openreach continues to believe that this restriction is detrimental to competition and consumers. It restricts our ability to offer price discounts to customers and hence softens the benefit of competition where it emerges.[33]

- Ofcom should reconsider this restriction and properly weigh the risks against the benefits of commercial schemes with geographic features for leased lines markets. For example, Ofcom should consider the potential efficiencies and customer benefits derived from commercial arrangements based on geographic commitments or that such arrangements are not automatically harmful to competition. In many cases the opposite is true, and such arrangements can support more efficient economic outcomes to the benefit of end customers. Indeed there can be strong objective justifications that are not anti-competitive for such geographic price variation, such as differences in supply costs.

- In leased lines markets, an increasing amount of business is now being awarded via competitive tendering processes. The mechanics of such processes, such as the obligation to respond to a tender within a certain time limit mean the need to obtain permission if the arrangement was geographic in nature would place Openreach, and the CPs using the Openreach network for the purposes of bidding, at an unfair structural disadvantage. It can also reduce the effective number of bidders especially where some bidders primarily or only use Openreach. This harms customers and leads to higher prices/worse terms. It could also lead competitors to "price follow", having sight of Openreach's offer. This places

[33] In our view, the restriction in the leased lines market was largely justified by the arguments related to the WLA market and it was unclear what was the impetus for the extension of the restriction to leased lines in the WFTMR. The Leased Lines Area 2 market does not give rise to competition concerns that would justify continuing the current restriction on geographic discounts.

Openreach at a disadvantage and harms the proper functioning of competition in the market, to the detriment rather than benefit of end customers.

- If Ofcom were to remove the restriction we would be able to compete more flexibly. Openreach would nevertheless continue to carry out its own assessment to ensure any commercial arrangement is compliant with its other SMP obligations and competition law.

5.5 Geographic market definition

Access markets

- Given the above changes in the competitive landscape, we believe that Ofcom should review its geographic market definitions as part of its market review. Since the start of the WFTMR, both ourselves and other providers have built substantial amounts of network. In taking into account the extended reach of other providers networks, we anticipate that some areas would be suitable for reclassification to reflect this enhanced competition. In particular, we would expect that some areas that were previously classified as HNR have now seen further roll-out of competitor networks such that they should be treated in the same way as the CLA and deregulated. Additionally, some parts of Area 2 or 3 may now be suitable to be classified as HNR.

Interconnectivity markets

- For interexchange services, Ofcom defined each BT exchange as its own market, and conducted its SMP assessment on the basis of the presence of other providers at or nearby to the exchange, with the dark fibre interexchange remedy being imposed where there were no providers nearby.

- We expect that Ofcom will revisit its SMP analysis and when assessing the presence of Principal Core Operators (PCOs) will find that it needs to redefine a number of exchanges from BT+0 or BT+1 to BT+2, and consequently where Openreach would not be found to have SMP, those exchanges would be deregulated.

- Further, where competitors have their own network architecture independent from Openreach facilities (other than PIA), this should be accounted for over and above access to Openreach's network and presence in exchanges. Ofcom's previous SMP determination only took account of PCOs present at an exchange. We believe the competitive constraint from nearby networks should be considered at the Market Definition stage and not just the remedies stage.

- Ofcom previously noted that PIA can reduce the cost and time of network build,[34] and hence by implication increases the strength of constraint from nearby networks and/or increases the distance from an exchange at which a nearby network could be considered a constraint. Ofcom previously stated "PIA has only relatively recently been available to operators of networks providing only leased line services"[35] and this meant that it placed significant weight on existing presence at an exchange.

- Given that the PIA remedy has now been in place for several years, we believe that more weight should be given to the potential for competition at exchanges from nearby operators using PIA (and an external cablelink). Ofcom should therefore reassess its approach to SMP assessment in the IEC market, given the reduction of BT+0 and BT+1 Exchanges and the growth in the use of PIA and self-built network. A

[34] Ofcom (2021), WFTMR, Volume 2, para 8.289, d).
[35] Ofcom (2021), WFTMR, Volume 2, para 8.

mechanism to do this would be to increase the proximity distance threshold and take account of this at the market definition stage.

- We consider that since the IEC market has become more competitive, there is a weaker case for regulation being imposed at all, even when some BT+0 exchanges remain. Regulating even a small number of exchanges in the IEC market has consequences across the whole market. In practice regulation of these exchanges limits our prices and offers across the IEC market (in turn preventing end customers from benefiting from such offers), since we often offer service across all of BT+0, BT+1 and BT+2 exchanges, particularly when designing packages of backhaul for CP customers.

- We are also concerned that the current mechanistic approach to classification of exchanges (BT+0 etc) leads to the imposition of regulation where there is no real demand for presence in BT exchanges because alternatives have become available. For example, if PCOs stopped being present in exchanges because they no longer had demand to be there, this should not lead to re-regulation of an exchange, where, by definition, there is no demand. Where a CP has chosen to site its head-end 'network node' inside a BT exchange because it is cheaper or more convenient to do so than a commercial building, then we do not believe that this should force us to provide backhaul on regulated terms, rather than commercially. In these circumstances CPs have the choice as to where to site their head-end and therefore we believe Ofcom should consider them competitive, using a similar argument as Ofcom has previously used in finding links between data centres and CP network nodes as trunk and presumed competitive.[36]

Cross geographic market boundaries circuits

- Ofcom sets out in the WFTMR, that where different ends of a circuit are located in different geographic markets they should be classified as belonging to the 'least competitive' of the markets.[37]

- We consider that it is more appropriate for circuits with a single customer end to be classified on the basis solely of the location of the customer/B-end e.g. if a circuit serves a customer premise in the HNR from an exchange located in Area 2, this should be classified as an HNR circuit, and not, as currently, an Area 2 circuit. This is because the exchange a circuit terminates in has no bearing on the competitiveness of a business location, and the terminating exchange is arbitrary based on where it is efficient for us to aggregate our traffic. Competitors may choose to serve a premise from their own network or via a different routing or exchange. Hence the key feature of how a circuit should be classified is its susceptibility to competition as determined by that location's geographic market definition.

5.6 Dark fibre

- Openreach provides regulated dark fibre products within the Area 3 (DFA) and IEC (DFX) markets. Take-up of these services has been increasing over the course of the WFTMR period and we now have nearly ✂ CPs established as customers for such services.

The Area 3 Dark Fibre remedy

- In the WFTMR, Ofcom imposed the remedy that Openreach must provide Dark Fibre Access (DFA) services at a cost-based price in Area 3. We expect that Ofcom will review the effectiveness of its remedy as part of the TAR. In doing so, it must be mindful of its overall objective of promoting competition. In the WFTMR, Ofcom stated that its objective was to promote competition based on access to

[36] Ofcom (2019), BCMR19, Volume 2, para 7.8.
[37] Ofcom (2021), WFTMR, Volume 3, paras 5.119-5.120.

Openreach's network;[38] it will find that there has been more infrastructure build in Area 3 than originally expected (much of which is build using our PIA product). Such competition is valuable for consumers, and should be welcomed by Ofcom rather than undermined by changes to the existing framework.

- The current volume of DFA is ✂ circuits, with ✂ making material use of DFA in Area 3. We note the recency of the remedy and expect take-up to increase over the next few years.
- The DFA remedy has only been in place since April 2021 and hence CPs have had a limited time to plan and take up the product. There is a degree of time lag in changing over circuits, contractual minimal terms unwinding and preparing to consume a product. While ✂ has a material number of circuits, ✂ in total have taken ✂, meaning they are capable of consuming more and could be positioning to do so. Indeed, from our perspective we do not see any fundamental barrier to greater take-up. Within our Medium Term Plan (MTP) we forecast there to be ✂ DFA circuits by 2028/29 with new DFA connections accounting for ✂ of all new low-bandwidth EAD and DFA connections.

- More fundamentally, Ofcom recognised the risk that DFA has to undermine incentives for network competition and hence applied the remedy only to Area 3, in order not to undermine investment incentives in Area 2. However, even in Area 3, there has been greater than expected investment and take-up of PIA, which in turn may have limited the take-up of DFA. This is a sign of competitive success, with competition emerging even further up the value chain than originally envisaged. There is therefore no basis to adjust DFA pricing which would risk undermining this investment. In addition, DFA prices remain significantly below active EAD prices and hence from a pricing perspective it remains an attractive option. It is unlikely to be the cost of the service that is a barrier to customers taking up the service, given that it has been set at cost.
- In our view it is critical that Ofcom maintains certainty by leaving the DFA remedy as it is. Any change to adjust the remedy (e.g. to revise the pricing in Area 3), would significantly undermine the build in Area 3 that has occurred and reduce incentives for further build. As Ofcom said in the WFTMR, imposing DFA where there is, or there is likely to be potential for, competitive network investment would increase incentives for telecoms providers to continue to rely on access to Openreach's network rather than build new networks themselves.[39] This in turn removes an important source of demand (and revenue) for telecoms providers looking to deploy competing networks.

Exchange exit

- As Ofcom will be aware, and as set out elsewhere in this response, Openreach, working with industry, is in the middle of conducting a programme of exchange exit, with the intention to move to a more efficient network design with scope for cost savings and efficiencies.
- Openreach currently offers interexchange dark fibre (DFX) at 'BT only' exchanges with no competing networks close by, as per the WFTMR regulatory obligations set by Ofcom.
- To date, a small number of CPs have taken this product and a small number of DFX circuits are in use. Of the exchanges that Openreach plans to exit first (108 exchanges incl. 3 trial exchanges), only 22 exchanges have a regulatory obligation to offer DFX and from these there are a very small number of

[38] Ofcom (2021), 'WFTMR, Volume 4', paras 2.94.
[39] Ofcom (2021), 'WFTMR', Volume 3, para 6.28.

DFX circuits in use. When Openreach exit these exchanges, Openreach recognises that this will have implications for CPs currently using DFX.

- Where CPs are currently using DFX to backhaul Openreach provided access products, Openreach plan to provide access services directly from the designated OHP exchange (receive site) on the equivalent of local access pricing, which should mean these DFX circuits are no longer needed.
- Where CPs are using DFX to backhaul traffic from their own networks (including where they have built using PIA) or other licensed operators' networks, Openreach understands this would have implications for those CPs in terms of moving their Point of Presence out of the affected exchange. The CP will also need alternative means to aggregate and backhaul their traffic. These scenarios are very limited, especially within the priority 108 exchanges to be exited, which are those that will be affected within the scope of the TAR period.
- Given that the obligation to provide DFX is defined on the basis of exchanges (see Schedule 4 of the WFTMR), the framing of the remedy in the WFTMR does not readily fit this scenario. We consider that Ofcom should review this as part of the TAR. In doing so, it should be cognisant of the purpose of the DFX remedy which is to promote competition in the provision of connectivity between exchanges and as an enabler for infrastructure build in marginal areas.[40]
- Openreach is keen to limit disruption to CPs who have architected their networks based on Openreach DFX in good faith, prior to Openreach announcing its exchange closure programme. However, we would like Ofcom to make clear that any solution to this issue would not require Openreach to provide equivalent services to CPs who are not in that position. Therefore, in considering potential solutions where exchange exit affects DFX circuits, Ofcom should give a clear indication of how any solution might be implemented, how it fits with regulatory obligations (e.g. compatibility with Equal Treatment) and its limitations (e.g. limited to existing circuits, limited to avoid increased scope of the remedy).

5.7 Network Extensions

- Openreach has an extensive network across the UK. The provision of new leased line services can require new network deployment such as fibre cabling or duct build. In a minority of cases (1-2% of orders) the extent of the new build is significant and we consider constitutes a network extension.
- Our provision of leased line services is subject to the network access obligations under SMP Conditions 1 and 2 and Openreach is required to make network adjustments. However, these obligations are not unlimited. They are intended to facilitate access to our existing network and do not require Openreach to extend its network through the construction of new physical or fibre infrastructure.[41]
- Notwithstanding the above, Openreach has historically honoured requests for network extensions and done so on equivalent terms for other orders that are captured by SMP regulation. However, we believe that such orders fall outside the scope of regulation, and that in future we could offer them on commercial terms. Once the network has been built, we accept that it is common network and would fall under the scope of our existing regulatory obligations.

[40] Ofcom (2021), WFTMR, Volume 3, para 6.151.

[41] As acknowledged by Ofcom in the WFTMR, see for instance Volume 3, paragraph 6.73: "Openreach is not required to construct new physical or fibre infrastructure for competing telecoms providers outside its network footprint. This would amount to an extension of the network rather than making use of existing assets".

- Openreach has developed its own draft internal policy in relation to network extensions which is intended to create fairer investment terms for leased line orders requiring build beyond Openreach's network footprint that CPs and End Customers wish to proceed with, as it is likely the resulting network extensions are likely to be short-lived and in many cases replaced by Openreach's scale multi-service network.

- Openreach's proposed definition for a network extension is a circuit that requires either more than 100 metres of new duct to be built or greater than 1km of new cable to be laid from the nearest fibre flexibility point. We note that relying on a threshold to define the boundary of regulation is not unprecedented. Indeed, it is necessary and Ofcom has used a threshold to define the boundary of regulation in relation to the IEC and Access markets, relying on the distance from a fibre network flexibility points.[42]

- While we consider that Openreach could unilaterally take this commercial decision, and that it would be compliant with the regulation as currently implemented, we have not done so to date, because of a lack of regulatory certainty. Ofcom has said network extensions fall outside regulation but we consider it would be helpful if it provided greater clarity regarding what constitutes a network extension as distinct from a network adjustment.[43]

- We would welcome a statement from Ofcom that Openreach can determine which requests constitute a network extension, providing it uses objective and reasonable criteria, such as those set out in paragraph **Error! Reference source not found.**. This would provide greater certainty to industry and give us greater reassurance to implement our commercial policy which is already compatible with the existing regulations and subject to our Commitments, including the principle of Equal Treatment.

- We note we have made previous submissions and had past discussions with Ofcom about these issues in 2021 and 2022, but these have not achieved sufficient clarity and we would welcome such clarity being built into the TAR.[44]

- As an additional piece of wider context, Openreach's investment in a new multi-service network is increasing the availability of FTTP and leased line services across the UK. This will result in leased line customers seeing average Excess Construction Charges (ECCs) reduce as more premises are within reach of our fibre network.

5.8 Space and Power

- We have obligations to provide space and power at BT exchanges as services which are ancillary to regulated services. Generally, our services are well received and the regulatory obligations work well, but we believe that there is scope for greater efficiencies, which will be particularly important in light of our exchange exit programme.

- There is only a finite amount of space available within each exchange and therefore it is important that it is used efficiently so that we accommodate as many parties that wish to use our network as possible. The electronics used to power telecoms services are a significant consumer of power. Therefore, it is

[42] Ofcom's IEC market analysis WFTMR Statement Vol. 3, paragraph 6.1 "[...] continue to impose a requirement on Openreach to provide access to dark fibre in IEC market from BT Only exchanges with no competing networks close by" defined as "with no competing networks within 100m".
[43] Ofcom (2021), WFTMR, Vol 2, paragraph 6.170.
[44] See, Letter from Mark Shurmer to Dave Clarkson entitled 'Wholesale Fixed Telecoms Market Review Statement: Proposed approach to identifying "network extensions" for DFA and active leased lines', dated 22 April 2021.

important that such services are as efficient as possible for the benefit of reduced CP and end customer costs, as well as contributing to enhanced sustainability of the UK.

Non-enduring exchanges

- Openreach's exchange exit programme means that it will exit the majority of its exchanges in the longer term and 108 shorter term. Where we are exiting exchanges, it is important that regulatory obligations to provide space and power do not force us to incur inefficient costs (which will ultimately be passed on to customers) through expanding space in non-enduring exchanges which will only be relevant for a short period before exchange exit. We should not be required to upgrade (e.g. generator upgrades) or do enablement works to upgrade these exchanges on an incremental basis. We believe it is reasonable to impose such terms now, but would welcome regulatory clarity through Ofcom confirming this limitation to the scope of our regulatory obligations where we have notified exit of an exchange.

Enduring exchanges

- Our list of enduring exchanges has been published and remains largely unchanged since 2020. There is only a finite amount of space within these exchanges and Ofcom should be prepared to support measures to promote fair access to CPs and to support consolidation of space and power where appropriate.

- Where demand for space in enduring exchanges may be high, Ofcom should ensure that it gives Openreach the appropriate opportunity to avoid undue requests for space that will lead to overall inefficient use of that space.

- We therefore suggest that Ofcom ensures that the right incentives are in place for CPs to use space efficiently, including consolidation where appropriate. Some CPs have multiple Points of Presence (POP) which could be consolidated in order to reduce power consumption. We believe that consolidation can potentially be a 'win-win' for both CPs and us. We will work with CPs to promote this, but Ofcom need to be prepared to put in place a suitable framework to support this.

5.9 Requested clarifications

- Openreach has a number of requests for practical changes and clarifications to the existing regulation.

Multiplexing

- The current regulatory definitions and obligations (e.g. reference offers) are based on the definition of leased lines as a dedicated fibre for EAD, Optical and dark fibre products.

- An alternative to a dedicated fibre is multiplexing. Multiplexing uses a single connection (fibre, copper pair, coax cable or radio link) to carry multiple customer connections.

- At some of the edges of our network we currently have sparse fibre capacity and can face constraints, such as subsea cables in Scottish Highlands and Islands. In these cases, the regulated limits on DFA/DFX pricing could lead to demand outstripping capacity so the question is whether we would have flexibility to provide services over shared fibre to enable greater efficiency and avoid driving incremental subsea cable costs.

- We recognise the importance to customers of dedicated leased lines in most circumstances. However, we would welcome Ofcom's consideration of whether there are certain circumstances where Openreach should be permitted to fulfil its access obligations through multiplexing.

Leased lines for FTTP aggregation

- We provide leased lines for a range of purposes. Where CPs may use them for the purposes of aggregating their FTTP traffic, we apply a commercial level of charges. This is consistent with Ofcom's view as set out in the WFTMR (Volume 3, para 5.110). We do not believe we should be require to build others' fibre access networks, and therefore circuits for the purposes of FTTP aggregation should remain outside our regulatory obligations and only provided on commercial terms.
- Ofcom has already made it clear that circuits used for the purposes of FTTP aggregation fall outside the scope of our regulatory obligations.[45] We request that Ofcom restate this and continue to be explicit that such circuits remain outside the scope of our regulatory obligations for the next market review period. This is also consistent with Ofcom's policy to encourage alternative network build.

[45] Ofcom (2021), WFTMR, Volume 3, para 5.110.

6. Copper retirement: ensuring regulation of copper-based network access services enables exchange exit and long-term efficiency in the supply of network access

Key messages:

- Openreach's investment in fibre, together with the planned closure of the PSTN network in 2027, presents a once in a generation opportunity for Openreach and its CP customers to **rationalise their legacy copper-based services and network architecture**. This will lead to lower costs for industry, sustainability benefits from lower energy consumption, and wider societal benefits from the deployment of full-fibre, ultimately to the benefit of UK citizens and consumers.

- Openreach has announced plans to **consolidate its exchange estate** from around 5,600 exchanges today – which is a legacy of the PSTN rollout which began over a century ago – **to around 1,000 enduring exchanges** housing the Openreach handover points that can support nationwide coverage of our long-term broadband services as well as the supply of leased lines access services. To exit exchanges, we need CPs to migrate end customer connections to alternative products and platforms. We have consulted with CPs on the terms for exiting the first 108 exchanges, and (as of July 2024) are in active discussions with CPs about the proposed timeframes and commercial terms that will apply in these exchanges.

- But our experience in supporting commercial migrations from trials in Salisbury and Mildenhall demonstrates that there is a need for regulatory clarity around our ongoing supply obligations to deal with non-responsive CPs and end customers. The existing "copper retirement" framework set out in the WFTMR does not provide this clarity to establish the necessary 'regulatory backstop' for withdrawing certain exchange-based copper access services (MPF and SOTAP).

- We therefore set out proposals for how regulation in the TAR could evolve in relation to the terms of supply of MPF and SOTAP in exchanges where we have given and those where we will give notice of our intention to exit. This would allow exchange exit to happen promptly and efficiently and support the first wave of exits by 2030.

- We also propose how Ofcom can adapt and complete its broader Copper Retirement framework set out in the WFTMR to support withdrawal of all forms of legacy copper broadband access services in any exchanges where alternatives are available.

6.1 Introduction

136. The way voice and broadband services are provided to UK consumers has shifted away from the traditional reliance on legacy copper connecting premises to one of Openreach's local serving exchanges:

    - **The legacy PSTN network is closing:** BT has announced plans to shut its PSTN network in 2027 and Openreach has correspondingly announced plans to withdraw WLR as the majority of end customers

move to All-IP voice solutions, with Openreach making new solutions available to support the current needs of vulnerable and CNI end customers.

- **There is near-universal (c97%) availability of superfast broadband connections supplied over FTTC technology today…:**
- **… and rapidly growing availability of ultrafast broadband connections:** As shown in Section 2, Openreach is on track to pass 25 million premises with full-fibre by 2026 and has an ambition to pass 30 million premises by 2030 under the right conditions. In addition, we expect further commercial rollout by our competitors, as well as publicly funded build. It is therefore reasonable to expect that by the 2030s the vast majority of UK premises will have access to full-fibre broadband services.
- **Wireless and satellite broadband solutions will play an increasing role** filling most of the remaining gaps in full-fibre network coverage over time as they will be the most efficient means of delivering broadband access services in some hard-to-reach areas[46].

137. This transformation in the supply of services over fibre-based broadband networks presents opportunities for Openreach and industry to drive greater efficiencies in the supply of services currently provided over legacy copper assets. In investing to upgrade network capabilities, Openreach needs to have confidence that it will be able to rationalise its network access portfolio and migrate end customers away from legacy copper-based broadband services where alternatives are available. As Ofcom has stated, Openreach "should not have to incur unnecessary costs in running two parallel networks".[47]

138. However, regulation currently applies to Openreach's supply of all available forms of fixed network access, including copper-based access services.[48] It is therefore vital that those rules adapt to support efficient migration and service withdrawal where this is based on industry engagement, reasonable terms and timeframes, and protections for vulnerable customers.

139. Some issues relating to the future supply of legacy copper-based services were considered in the WFTMR: the "**Copper Retirement**" framework in that review introduced triggers to amend certain rules on the supply of all legacy copper-based services when ultrafast coverage thresholds were met by Openreach in individual Openreach exchange areas and subject to certain notification requirements.[49]

140. But that framework is not sufficient to support opportunities to drive cost efficiencies before the end of the 2020s. We could support the provision of broadband services to the majority of customers through the supply of both FTTP and FTTC delivered via SOGEA, as well as maintaining our provision of regulated leased line access services, using fewer than 20% of the exchange buildings we currently use.[50] However, to generate cost efficiencies we would need to withdraw MPF and SOTAP services from the remaining 80% of exchanges – and the current framework does not provide a mechanism for doing this.

141. In principle, we believe it is reasonable to withdraw existing forms of network access where:

- Alternative forms of access are available that are capable of supporting comparable or improved consumer services;
- We have consulted with CPs to develop operational processes and commercial terms that can support migrations of services in the desired timeframes; and

[46] As well as providing competition to fixed broadband in other areas
[47] Telecoms Access Review 2026 - Starting work on the 2026-2031 review (ofcom.org.uk), para 2.15
[48] Other than WLR
[49] As explained further below, 'stop sell' could be applied at 75% ultrafast availability and the regulatory anchor price cap could be moved to 40M FTTP services at 100% ultrafast availability, less exceptions.
[50] The total annual cost (rent + energy + other costs) to BT of the 5,600 exchanges is c. £690 million (based on 24/25 budget). The corresponding figure for just the 1,000 enduring exchanges is £330 million.

- Industry processes are established to protect the specific needs of vulnerable customers where migrations are required.

142. We have consulted with industry on plans to support migrations to FTTP and SOGEA and to leased line access services provided from an alternative exchange. While industry discussions continue, we believe these proposals, once finalised, would be consistent with these principles and we should therefore be able to withdraw exchange-based copper services such as MPF and SOTAP which currently support the supply of standard-speed broadband services. This would then enable an initial wave of exchange exit by 2030.

143. But a regulatory backstop, clarifying supply rules, is vital to deliver the plan. In this section we therefore set out our proposals for how the TAR can support these ambitions by adjusting supply rules in relation to MPF and SOTAP where we have notified CPs of our plans to exit exchanges and where alternative access services are available. This framework can also support further waves of exit in the next decade.

144. We also set out our views on how the current Copper Retirement framework relating to the withdrawal of all forms of copper-based network access, including SOGEA, in all exchanges where full-fibre or alternative forms of access are available should be completed and updated in the TAR to facilitate a broader set of efficiency improvements over the longer-term.

6.2 Establishing a regulatory framework in the TAR to support efficient exchange exit

The opportunity and benefits of exchange exit

145. Openreach currently provides network access services to its CP customers from 5,600 exchange buildings.

146. Openreach believes that the long-term end state of its network will be full-fibre, served from c. 1,000 Openreach Handover Point (OHP) exchanges, and migrating end customer connections to FTTP will be a key enabler of exchange exit.

147. But while FTTP is our key long-term strategic product, SOGEA supplied over FTTC technology is available to provide superfast broadband services to the vast majority of premises today, and can also be supplied from the same 1,000 OHP exchanges. Leased line access services can also be supplied from these same exchanges. The process of exiting non-OHP exchanges while still providing access services to meet the needs of all UK consumers and business can therefore begin now.

148. Exchange exit will provide significant benefits for the telecoms industry, for "UK plc" and ultimately for UK citizens and consumers. In particular, it will drive:

- lower costs of long-term supply resulting from savings in exchange building costs;
- lower long-term costs to CPs as they no longer require space and power within exchanges and avoid the need to face higher costs if remaining in underutilised exchanges for an extended period;
- simpler and more reliable access networks, requiring less maintenance effort;
- simpler Openreach product portfolio, supporting an improved CP and end customer experience and streamlined processes;
- a more sustainable network, significantly reducing BT's energy footprint by ✂ per year[51] and saving ✂ per year;[52]

[51] This is equivalent to the total energy consumption of ✂ medium-sized homes, according to https://www.ofgem.gov.uk/average-gas-and-electricity-usage

[52] Total for all c. 4,600 non-enduring exchanges, at January 2024 prices

- improved reliability and security, since maintenance spend can be spread across a more manageable number of exchanges, ensuring that these are fit for purpose in the 2030s and beyond; and
- freeing up brownfield land for development, including in many prime locations.

Openreach engagement with industry on exchange exit plans

149. Given the identified opportunity to exit exchanges (and risks of not exiting) and the benefits to Openreach, CPs and UK citizens and consumers in doing so, in December 2020 Openreach consulted with CPs on a plan to reduce the number of exchanges to the c. 1,000 "enduring exchanges" over the long-term, enabled by the industry shift to fibre networks[53] and to exit c. 100 exchanges by December 2030. We have subsequently worked with CPs and other stakeholders on how to deliver a first wave of 108 exchange exits (the “priority 108 exchanges”). We have also provided CPs with the list of all enduring exchanges.

150. In summary, under the plan in the 108 priority exchanges:

- the vast majority of premises currently served by MPF would be able to migrate to Openreach FTTP or SOGEA supplied from an enduring exchange;
- MPF and SOTAP[54] would be withdrawn by defined dates, since these require E-side copper (i.e. copper lines between the exchange and a street cabinet);
- SOGEA would remain available to all premises since this does not use copper between the exchange and the street cabinet;
- SOTAP for Analogue would remain available where required for CNI/vulnerable customers, by using copper re-arrangement to provide the service from a neighbouring exchange. We expect the volumes of such re-arrangements to be low and reduce over time, since the majority of customers should migrate to FTTP, SOGEA or a mobile solution; and
- leased line access services will need to be migrated to enduring exchanges.

151. Openreach has now made detailed proposals to CPs to provide commercial and operational support for the required migration activity and to exit the priority 108 exchanges in four different phases by 2031. As of July 2024, we are in ongoing discussions with CPs about the detail of these proposals, but believe they provide an opportunity for our CP customers to manage end customer migrations and reduce their long-term costs of supply. We propose to update Ofcom on the progress of these discussions in September or October 2024.

The need for regulatory clarity and support to enable exchange exit

152. While we expect that progress in migrating services from closing exchanges can be largely commercially driven, recent experience shows that this may not be enough to ensure all CPs migrate all services in the necessary timeframes. Specifically, our All IP trials in Salisbury and Mildenhall have shown that a significant number of small CPs did not engage with Openreach to migrate customers away from WLR services to FTTP or SOGEA services. Additionally, some end customers did not engage with their CPs to enable migration. We see similar challenges in the early exchange exit trials.

[53] The c.1,000 enduring exchanges are Openreach Handover Point (OHP) exchanges, meaning that they house the equipment that provides FTTP, FTTC and G.fast services to end customers, and "hand over" these services to CPs. The greater reach of fibre (compared with copper) means that we can provide national coverage of fibre services from these c. 1,000 exchanges, meaning that the remaining c. 4,600 exchanges will no longer be required once all customers have migrated from copper to fibre.

[54] WLR is also being withdrawn nationally by January 2027. Any FTTC service provided in conjunction with MPF would effectively become redundant, although CPs would have the option of migrating MPF/FTTC lines to SOGEA.

153. These non-engaged CPs and end customers could effectively "hold the rest of industry and other consumers to ransom" by not taking the steps required to migrate services and enable exchange closure. This could prevent Openreach, CPs and, ultimately, citizens and consumers receiving the benefits of exchange closure despite industry having invested time and money in preparing to exit exchanges.

154. Regulatory requirements for Openreach to supply certain forms of network access services could be relied on by CPs to defer migrations and delay exchange exit. Regulatory requirements to supply those services on regulated terms could also limit the commercial levers available to incentivise efficient CP behaviour – e.g. to pass through any costs of delayed exit onto CPs that did not enable timely exit.

155. We therefore see a need for regulation to change to provide a backstop to support our ability to drive efficient migration activity. Such a backstop would provide increased confidence among all CPs that exchange exits will be implemented across industry as a whole, and would help CPs to explain to their end customers why services need to be migrated.

156. As set out below, this backstop is particularly important in relation to our supply of MPF, given existing regulatory remedies requiring that we supply whenever a CP "reasonably requests" that we do so (with no clear guidance on what requests might fall outside the requirement).

157. We do not believe that our regulatory obligations to supply leased line access, PIA or exchange-based services would be affected by our exchange exit plans – we believe we could meet these obligations by providing services from enduring exchanges instead of the exchanges that we are exiting.[55] However, we do see a need to clarify how pricing remedies and terms of supply (e.g. SLAs) for these products would apply where we may choose to have a period of time where we continue to supply existing services from the exchange we wish to exit but at higher prices given the options we have made available, in reasonable timeframes, to support migration to alternative services. We believe it will be important to use pricing to signal the inefficiency of individual CPs remaining in closing exchanges where migration options have been made available.

158. We also anticipate that we shall need to develop further commercial propositions to enable successful exchange exit. Such propositions are likely to include elements of geographic pricing (given the limited geographic footprint of the exchanges to be exited) and conditionality (to incentivise CPs to migrate customers). We do not believe that such offers would be inconsistent with the policy underlying the current *ex ante* remedies relating to geographic rental discounts or to assessing conditional offers, as they would not impact CPs' decisions to use altnets. However, it will be important for regulation to be capable of being applied in a way that supports commercial propositions designed to support migration efforts completed within the desired timeframes.

Proposed adjustments to regulatory supply rules in TAR

159. Under the WFTMR Copper Retirement framework, we must continue to meet new requests for MPF "on reasonable request" until a First Threshold Notice is issued and to supply MPF on charge controlled terms until a Second Threshold Notice is issued.[56] There is no agreed route to withdraw MPF under the current Copper Retirement framework.

[55] We note that we expect Ofcom to clarify future obligations related to interexchange dark fibre services, as discussed in Section 5.
[56] As stated in WFTMR Vol 3 para 2.153-158 (p41-44)

160. We propose that the TAR effectively addresses this by explicitly changing the supply rules in relation to MPF[57] within exchanges that have been notified for exit and on the basis that reasonable commercial and operational proposals to exit have been offered to CPs. The TAR should:

    i. explicitly reflect the fact that the Priority 108 exchanges have been notified before 1 April 2026 such that supply rules would adapt for these exchanges at defined dates

    ii. allow us to issue formal "Exchange Exit Notifications" for additional exchanges moving forward within the TAR period, providing clarity on the rules that would apply to exiting the next wave of exchanges after the Priority 108 into the 2030s.

161. We propose the supply rules would adapt in the following way:

    i. In the Priority 108 exchanges, Openreach would no longer be obliged to provide new MPF connections after the defined **stop-sell date** or ongoing MPF connections on regulated terms after the defined withdrawal date to relevant premises where either:
        a. **Openreach FTTP is available**; or
        b. **Openreach FTTC is available** thereby enabling services to be provided using SOGEA.

    ii. After the defined **withdrawal date**, Openreach would be able to either:
        a. withdraw MPF services to relevant premises; or
        b. continue to offer MPF but with prices no longer being subject to a charge control. Openreach could then subsequently withdraw services at a time determined by Openreach.

162. For the Priority 108 exchanges, the defined dates by which SMP Conditions 1 and 2 would adjust in relation to the supply of MPF would align with the specific dates set out by Openreach in relation to stop sell and withdrawal of MPF in its proposals to industry published in March 2024,[58] i.e. stop-sell within 12 months of notification and the following withdrawal dates:

    - April 2028 for the 12 Phase 1 exchanges, plus the 3 pilot exchanges
    - April 2029 for the 20 Phase 2 exchanges
    - April 2030 for the 30 Phase 3 exchanges
    - December 2030 for the 43 Phase 4 exchanges

163. For exchanges beyond the Priority 108 where we may notify plans to exit within the TAR period, defined dates would be set out in proposals to industry following consultation and confirmed in the formal Exchange Exit Notifications to Ofcom.

164. As noted, we would expect to continue to make SOTAP for Analogue available to support the ongoing provision of services to CNI and vulnerable customers where necessary.

[57] If SOTAP is subject to SMP regulation following the TAR, our proposals here should be read as applying equally to SOTAP.

[58] Dates are stated on p32 of the condoc response document. The detailed list of exchanges is on p54 of Openreach's June 2023 exchange exit consultation document.

165. While we expect to make FTTC and/or FTTP available to the vast majority of premises in the Priority 108, there will be some premises for which this will not be the case. In particular, premises in 'not spots' not covered by Openreach's FTTP or FTTC network but where:

- premises are capable of being supplied by other competing fixed networks (whether via commercial or publicly funded build); and/or we have been unable to gain access to premises to provide FTTP (e.g. MDUs where the landlord has withheld consent to access); and/or
- the costs of Openreach deploying SOGEA or FTTP to 'not spot' premises would be uneconomic relative to the provision of satellite and/or wireless solutions to support end customer broadband services.

166. We are discussing options with CPs to find an appropriate solution for end customers currently served at these premises. We will also clarify to Ofcom the likely volume of premises within the Priority 108 exchanges where FTTP or SOGEA would not be available. Subject to identifying reasonable migration options with CPs (taking into account the materiality of numbers of customers affected), we consider that the TAR should clarify that obligations for Openreach to continue to supply MPF to these premises should also fall away by the defined date.

167. The above approach would provide clarity on supply rules relating to MPF moving forward. However, it would also be helpful if Ofcom more generally clarified circumstances under which ongoing requests for certain forms of network access under SMP Condition 1 and SMP Condition 2 would not be considered reasonable. We request clarification that, in principle, requests should not be considered reasonable where:

- CPs have acceptable alternative access services available from Openreach (e.g. SOGEA or FTTP) to support their provision of broadband services to end customers, and
- Openreach has proposed reasonable commercial terms and timeframes to migrate to those services.

168. Under this interpretation, and given our commercial and operational offers to industry to migrate services to support our exchange exits by 2030, we believe our stop-sell and withdrawal timeframes from MPF would be consistent with our regulatory obligations under SMP Condition 1 and SMP Condition 2.

169. We note that in the WFTMR, Ofcom suggested a similar interpretation of ongoing obligations to supply services where alternatives were available, albeit in relation to Openreach withdrawing service in BDUK areas where a competitor had rolled out FTTP. Specifically, Ofcom stated that "… in cases where it is no longer reasonable for Openreach to be required to provide services, it is a commercial decision for Openreach to withdraw service."[59]

170. We request that Ofcom confirm our proposed interpretation of the existing SMP Conditions in the context of the proposals we have put forward to support exchange exit. Such an announcement could be made well before the new TAR rules come into force in April 2026, and would greatly reduce the uncertainty that Openreach and CPs currently face when formulating exchange exit plans.

6.3 Updating and Completing the Current Copper Retirement Framework

171. The above changes to the TAR framework (and/or application of that framework) should support exchange exit opportunities before 2031 and into the next decade. However, there are broader

[59] para. 2.70 of Volume 3

opportunities to rationalise Openreach's network access portfolio and withdraw all forms of copper-based network access, including SOGEA, where alternatives are available.

172. In this section we therefore propose changes to the Copper Retirement framework that Ofcom introduced in the WFTMR to establish a clearer means for delivering these opportunities. We propose Ofcom could revise its approach to Copper Retirement by supporting pathways to service withdrawal at the premises level, not at the exchange level. This would better reflect the progress made across industry in driving availability of full-fibre broadband services, which does not map precisely onto exchange areas. If Ofcom does retain exchange level coverage measures, we set out proposals for which premises within exchanges should be treated as exceptions and excluded from coverage measures.

The Current Framework

173. In the WFTMR, Ofcom recognised that it would be inefficient for Openreach to supply network services from two parallel networks in the long run and that any requirement to do so would act as a deterrent to Openreach upgrading its network.[60]

174. The current Copper Retirement framework set out in the WFTMR adapts regulation where exchange-level coverage thresholds for the availability of ultrafast access connections are met and where certain notification requirements are followed:

    i. rules on supplying new copper-based network access connections drop away where there is 75% ultrafast coverage in an exchange (Threshold 1 – "stop sell"), and

    ii. charge controls on copper services drop away in exchanges where ultrafast coverage is 100% (Threshold 2).

175. In both cases, Ofcom defined coverage by reference to "Relevant Premises served by [a] Local Serving Exchange but excluding any premises that Ofcom may from time to time direct."[61] Ofcom has not directed which premises could be excluded from coverage measures. In the WFTMR, Ofcom stated that in defining criteria for which premises it would treat as "exceptions" it would "… balance the need for certainty, for Openreach to reasonably be able to achieve exchange complete and for Openreach to be required to roll out as broadly as possible in an exchange area."[62]

Updating the Framework to reflect premises level availability

176. Ofcom set the coverage thresholds in exchange areas at a time when fibre rollout by both Openreach and our competitors was significantly lower than it is today and will be by the start of the TAR period. As well as wanting generally to set policy to promote full-fibre investment, Ofcom was concerned that, in the absence of such thresholds, Openreach may "target lesser coverage across more exchange areas to the detriment of the altnet investment case".[63] A particular concern was that altnets could be less inclined to invest in exchange areas that had been partially covered by Openreach.[64]

177. As noted, the high levels of FTTP coverage by both Openreach and our competitors by 2026 will mean the UK's FTTP coverage could be c. 90% and growing.[65]

[60] WFTMR vol. 3 para 2.65
[61] SMP Condition 1.6 (a) and (b)
[62] WFTMR, volume 3, para 2.140
[63] WFTMR vol 3 para 2.67
[64] WFTMR vol 3 para 2.10
[65] Source: Ofcom Connected Nations Supplementary report on Planned Network Deployments 2023 p4 (this states that coverage could be as high as 91%)

178. This means that UK consumers are getting the strong outcomes from full-fibre availability and competitive choice targeted by Ofcom and that the forward-looking concerns Ofcom had in 2021 about Openreach pursuing a more targeted build strategy with lower levels of exchange coverage should no longer exist. This could support a revised approach to Copper Retirement rules that is not based on exchange-level ultrafast coverage but on availability of ultrafast services at the ***premises*** level, noting that all supply obligations would remain in place for the supply of copper-based services to any premises where ultrafast services were not available.

179. Given the progress on overall full-fibre coverage and the clear need to migrate customers away from legacy copper services supporting broadband, it is important that the industry limits the number of new copper lines that are installed in the late 2020s. The installation of new copper lines will be unattractive financially, as well as being environmentally wasteful. It will also increase disruption for end customers who will need to migrate lines to fibre in subsequent years. The case to adapt stop-sell rules to apply at the premises level wherever FTTP is available, independent of exchange-level coverage, is therefore particularly strong.

180. We therefore propose that in the TAR from April 2026, stop sell of MPF and SOTAP should apply across the UK to any premises (irrespective of exchange-level ultrafast coverage) that meet either of the following criteria:

- **all lines in the premises have migrated to Openreach FTTP –** once customers have migrated to FTTP or SOGEA we do not see a need for continued access to MPF (or SOTAP) services; or where
- **Openreach FTTP has been available for at least 12 months –** this notification period is the same as for the current 75% stop sell threshold and provides all CPs sufficient time to make any required changes to their systems and processes.

181. As with the stop sell rules introduced in the WFTMR, we would expect to make exceptions, e.g. for CNI/ vulnerable customers who require copper-based services, although we would expect such exceptions to become increasingly rare over time as the market shifts from copper to fibre services.

182. This approach to supporting stop-sell on the basis of premises level availability of FTTP could then follow through into Threshold 2, where anchor price protections would move to FTTP, and Threshold 3, where existing services could be withdrawn after further reasonable notification periods.

Proposals for Threshold 2 if Exchange-Based Criteria are Retained

183. If Ofcom decides to keep exchange-level coverage measures for Threshold 2 (and Threshold 3) in the TAR, we propose that it should define the exceptions to the requirement for ultrafast broadband to be available to 100% of premises. We suggest this includes (without limitation) the following categories:

    i. *Premises that Openreach cannot access.* There are many premises that Openreach cannot cover with FTTP due to lack of access, especially due to landlords not granting wayleaves. In such cases, we can build to the curtilage, but cannot extend the infrastructure inside the building to enable customers to be connected. This is particularly common in dense urban areas, which tend to have a lot of MDUs, including in many areas of exchanges that we are aiming to exit by 2030. We do not believe our inability to access premises in one part of an exchange area should impact our ability to change the price of copper across the rest of an exchange area.

    ii. *Premises served by other fixed networks*: While Openreach may choose to build full-fibre to these premises, it will only do so if it is commercially viable. Given the presence of an alternative option

for end customers, we do not believe our decision whether to cover such premises should affect our ability to modify the prices of legacy services.

iii. *Premises in defined Intervention Areas*: These premises should be covered by publicly funded build over time and Openreach should not be required to build ultrafast capabilities.

iv. *Any other premises where commercial ultrafast coverage would be uneconomic relative to alternative means of supporting services to the end customer including satellite and wireless solutions*: Ofcom should allow Openreach the opportunity to demonstrate why additional build of ultrafast networks would not be commercially viable in any given exchange by reference to unit economics of incremental build required to otherwise reach exchange "completion". Targeted public funding should mean very few premises falling into this category but lack of coverage to this premises should not delay progress on Copper Retirement to all other premises in an exchange.

Proposals for Threshold 3 (Copper Retirement) if Ofcom retains exchange level coverage measures

184. Ofcom did not define the Threshold 3 criteria in the WFTMR. However, in October 2020 it published proposals for copper withdrawal regulations,[66] with the key proposals being:

i. Openreach needed to have completed ultrafast coverage in an exchange area;
ii. take-up of copper services should be less than 10% of relevant premises in a completed exchange; and
iii. there would be a 2-year notification period, and Openreach would need to have completed ultrafast coverage in an exchange area before publishing the notification.

185. With the proposed "exceptions" defined above, we suggest that Openreach would be able to implement Threshold 2 notices across a broader range of exchanges. Moving regulatory anchor price protections from 40Mb/s FTTC services to 40Mb/s FTTP services will encourage faster migration by CPs of their base of customers. CPs will also have the ability to migrate customers to other networks where available. In these circumstances, we believe the TAR should allow withdrawal of all MPF and SOTAP services. We do not believe a take-up measure is appropriate as this could act as a disincentive for CPs to migrate.

[66] Consultation: Copper retirement – conditions under which copper regulation could be completely withdrawn in ultrafast exchanges - Ofcom

7. Quality of Service

Key messages:

- Openreach is proud of its track record of delivering consistently high levels of service performance across the WLA and Leased Lines markets. Service in 2023/24 hit record levels in respect of copper on-time provision and on-time repair, and customer satisfaction remains at very high levels. Likewise for Leased Lines provision and repair service in 2023/24 reached very high levels with accompanying strong satisfaction.

- Mandatory QoS Standards have proved effective in driving up service performance to good levels, and driving them up further would result in disproportionately high costs. In fact over the period of the TAR market trends such as the migration of volumes from copper to fibre and growing competition means that Ofcom will need to review and evolve QoS Standards to ensure that they remain appropriate and proportionate.

- For wholesale local access, Ofcom should review the QoS measures in light of the move from copper to fibre-based services.
    - Ofcom should set the copper-based services on a national, rather than regional basis.
    - Ofcom should not set regulatory QoS for FTTP given this issue is under live discussion between Openreach and Industry.

- For leased lines, Ofcom should review the current repair measure and ensure it is suitable in light of the potential for changes in the fault mix. It should exclude MBORC from the measure.

7.1 Introduction

186. Openreach attaches great importance to delivering high levels of service for our customers. Service performance is a key driver of satisfaction for both end customers and our CP (Communications Provider) customers. We engage with customers carefully at monthly service forums listening to any issues, providing them with data on our service and explaining initiatives and improvements that we are making. Service is part of Openreach's scorecard against which Openreach's performance is measured, and management bonuses (including executive bonuses) are determined.

187. Our SMP obligations include a requirement to comply with QoS standards in the Wholesale Local Access (WLA) and Leased Lines Access (LL) markets. We pay utmost heed to these and are proud of our performance in delivering against them. In 2023/24, we exceeded all of the standards. These successes have been realised through operational and management focus on service and close collaboration with our customers.

188. Ofcom has historically intervened in QoS because of its concerns about Openreach's performance and poor QoS arising from insufficient competitive pressure. In recent years, we believe we have demonstrated strong performance and customer-focused behaviours. The competitive pressures that have arisen fulfil much of the role of constraining us as regulatory QoS Standards are intended to. Indeed,

we often refer to our QoS obligations as part of our commercial proposition to customers. Therefore, the QoS measures sit alongside other incentives we already face for delivering for customers.

189. As set out below, we consider that certain market trends will impact over the next market review process, meaning that Ofcom will need to review and evolve QoS Standards to ensure that they remain appropriate and proportionate. Most notable amongst these trends is the migration of volumes from copper to full-fibre and the growth in competitive constraints.

7.2 Wholesale Local Access

190. Ofcom first introduced QoS standards for copper services in 2014 in order to drive up Openreach service levels.

191. In the WFTMR, Ofcom considered it necessary to continue using QoS standards in order to "deliver the QoS customers require" and to "ensure…effective downstream competition".[67] However it also noted that the existing QoS standards were bringing Openreach's service quality to a good level and that standards stricter than the ones for 2020/21 could result in disproportionately high costs.[68]

192. Ofcom considered in 2021 that the QoS framework satisfied the tests set out in section 47 of the Communications Act, since it was[69]

a) objectively justifiable
b) not unduly discriminatory
c) proportionate
d) transparent

193. Ofcom currently requires that Openreach's copper performance meets or exceeds each of 30 QoS standards. These correspond to the 30 green cells in Figure 11, and comprise 4 metrics that are measured in each of 7 UK regions, plus 2 metrics that are measured at a national level.

Figure 11: 23/24 Copper Performance vs Ofcom QoS Standards

	Full Year performance (RAG 2023/24 QoS stds)					
Ofcom QoS std Performance	FAD 10 days	L2C On-Time	T2R SML1	T2R SML2	T2R SML1 in 5wd	T2R SML2 in 5wd
Scotland	97.1	95.9	88.3	87.2	98.3	97.9
Northern England	98.1	96.3	88.3	87.6	97.8	97.6
Wales and Midlands	96.7	95.8	88.0	87.1	97.8	97.4
London and South East	98.6	96.0	89.2	88.4	98.5	98.0
East Anglia	99.4	96.0	88.7	87.5	97.6	97.1
Wessex	96.9	96.2	87.3	86.7	97.1	96.7
Northern Ireland	99.9	97.1	91.7	88.5	98.6	97.9
UK	97.8	96.0	88.4	87.5	97.9	97.5
QoS Standard	*89%*	*94%*	*85%*	*85%*	*97%*	*97%*

[67] WFTMR, Vol 5, para. 2.6.
[68] WFTMR, Vol 5, para 3.4.
[69] Communications Act 2003 section 47, as quoted in WFTMR, Vol 5, para 6.4.

194. Openreach believes that Ofcom should consider making changes to its QoS framework for copper services in light of the market changes which have already started and are expected to increase over the remainder of the period covered by the WFTMR and accelerate further in 2026-31 (which will be covered by the TAR rules). Key changes that we expect include:

i. ***Copper provision volumes are forecast to decline by*** ✂ between 21/22 and 27/28, meaning that national volumes in 27/28 are expected to be lower than the volumes in ✂ of the 7 regions in 21/22 (Figure 12)[70]. We expect this decline to continue beyond 27/28 as FTTP coverage increases and customers migrate to FTTP over either the Openreach network or our competitors' networks.

Figure 12: 23/24 Copper Provision Volumes

✂

ii. ***Total repair volumes (combined for copper and FTTP) are projected to decline by almost*** ✂ between 21/22 and 27/28, as shown in Figure 13. This decline is driven primarily by the migration to FTTP, which has a fault rate that is ✂ lower than that of copper. We expect fault volumes to continue to decline after 2027/28, driven by migration from copper to FTTP. Figure 13 also shows that the fault mix will change significantly, with FTTP faults accounting for ✂ of total faults in 21/22 and ✂ by 2027/28.

Figure 13: FTTP and Copper Fault Volumes

✂

[70] The figures in the chart were produced before the announcement that PSTN closure would be delayed from December 2025 to January 2027. Factoring in this delay would change the volumes between 24/25 and 26/27, but would not impact the figure for 27/28.

iii. *The proportion of faults in rural locations increased from* ✂ *in April 2021 to* ✂ *in March 2024*, as shown in Figure 14, and we expect this trend to continue into the 2026-31 period. This change is driven by the combined FTTP coverage of Openreach and its competitors being higher in urban areas than rural areas, and levels of competition also being higher in urban areas. This means that migration to FTTP (provided by Openreach or our competitors) is occurring more quickly in urban areas than rural areas. We expect that by the mid-2020s virtually all urban premises will be covered by at least one FTTP network, and that by 2030 a substantial majority of copper customers will be in rural areas, since most urban customers will have migrated to FTTP.

iv. This change is important for QoS metrics, since as shown in **Figure 15** on-time repair is significantly higher in Area 2 (a proxy for urban areas) than in Area 3 (a proxy for rural areas). This is due to travel times being higher in rural areas, and repair work often being more complex due to the idiosyncrasies of rural networks. We expect these factors to become increasingly important in the late 2020s, as copper repair work becomes increasingly concentrated in remote areas.

Figure 14: Repair Volumes Rural/Urban Mix

✂

Figure 15: Area 2 vs Area 3 Service Performance

✂

Openreach Proposals

Overview

195. We believe that Ofcom's use of QoS standards has been successful in driving Openreach to deliver higher service levels for copper services. An important aspect of Ofcom's initial QoS regulation was the recognition that regulated prices needed to be adapted to reflect the higher cost of providing improved service levels, thereby enabling Openreach to fund the extra resources required to deliver the required service levels.

196. We therefore propose that Ofcom should continue to set QoS standards for copper services for the period 2026-31, although as noted below we suggest these should be updated to reflect market changes.

197. While we agree that QoS standards have played an important role for copper products, we believe regulation should only be extended to new products such as FTTP when there is a compelling reason to do so.

Copper (inc FTTC) Provision and Repair

198. While we propose that Ofcom continues to set copper standards for the period 2026-31, we believe these should be updated to reflect factors such as the following:

i. FTTP will be available to c. 90% of premises by 2026 (and coverage will increase further by 2031)

ii. Openreach has delivered consistently strong copper service performance over the past ten years

iii. CPs no longer consider Openreach copper service performance to be a significant concern

iv. volumes of both copper provisions and copper repair will be significantly lower and more geographically dispersed during the period 2026-31 than they were in 2021-26

199. *Choice of Metrics:* We believe the use of QoS standards for copper services has been effective, and therefore propose that Ofcom continues to set standards for copper services for the same metrics as today, i.e.

i. First Available Date (FAD)

ii. On-Time Provision

iii. On-Time Repair for SML1 and SML2

iv. 5-working-day repair tails for SML1 and SML2

200. *National vs Regional Metrics*: The current framework requires Openreach to meet copper QoS standards in each of 7 regions. Given the market changes noted in paragraph 194, in particular the decline in copper provision and repair volumes, we believe that it will no longer be objectively justifiable or proportionate to use the same regional standards from 2026. We therefore propose that any copper standards be set at a national rather than a regional level, reflecting the expectation that national copper volumes in the late 2020s will be comparable to regional volumes in the early 2020s. The flexibility that this provides will help to offset the headwind of volumes becoming increasingly rural and therefore having higher task-times.

201. *Target values*: Consistent with our belief that the current copper QoS metrics have met Ofcom's objectives, we propose that the target values remain at their current levels in 2026. However, it is currently unclear whether this level will continue to be appropriate throughout the five-year period from 2026-31, since we expect copper volumes to become increasingly concentrated in remote areas as customers migrate to FTTP. We therefore propose that in the TAR Ofcom maintains the current targets for 2026-31, but states it will review its QoS policy if volumes for copper repair or provision fall below 0.25 million per quarter for two consecutive quarters.

202. *Area 2 vs Area 3*: Ofcom may consider restricting copper QoS standards to areas where we do not face competition. However, premises in such areas are often remote, and will become increasingly so as competitors increase their coverage, which is mainly focused on urban areas. The low volumes and bespoke nature of engineering work in such areas would make it difficult to set standards that were objectively justifiable and proportionate (as required by the Communications Act), and hence we propose that standards should be set across the entire country, rather than just in areas where Openreach is the only network provider.

Openreach Proposal for FTTP Provision and Repair

203. While we accept the value of having QoS standards for copper products (albeit they need updating), we believe that when new products such as FTTP are introduced, Ofcom should only intervene when there is a compelling case to do so.

204. We do not believe it would be proportionate or objectively justifiable for Ofcom to intervene by setting QoS standards for FTTP in the TAR since

    i. Openreach is just one of many FTTP providers, with our competitors having built FTTP to around the same number of premises as Openreach has and across the UK as set out in section 2. The widespread availability of alternative networks means that CPs and end customers have a choice of providers, and Openreach therefore faces significant competitive pressure to maintain high service levels

    ii. Openreach pays SLGs to CPs for every case where SLA targets are missed, which provides a further incentive to maintain high service levels

    iii. FTTP is inherently more reliable than copper, with fault rates around 60-65% lower than for copper lines, which leads to significantly higher service availability for end customers

    iv. Openreach publishes KPIs for FTTP. This transparency means that CPs and Ofcom would be made aware of any decline in Openreach's service performance and could engage with Openreach as appropriate to correct this.

v. Service quality is a key competitive differentiator, and regulatory intervention would risk distorting network competition

vi. Ofcom could introduce QoS standards for FTTP at any point after April 2026 if it felt that Openreach's service performance was inadequate.

205. If Ofcom did decide to extend QoS standards to FTTP, we would suggest its proposals should be informed by the outcome of the ongoing OTA-led initiative to define FTTP service requirements. The outcome of this process will include a list of metrics against which Openreach and CPs will measure performance.

206. The metrics being considered in the OTA-led initiative include but are not limited to those already in place for copper QoS standards, i.e. FAD, on-time provision, on-time repair and repair tails. We expect these to be the most relevant for the purpose of setting QoS standards.

Additional Considerations

207. *Composite Repair*: We considered the potential to set QoS standards for the combined total of FTTP and copper volumes, rather than for copper only. This would have the benefit of reducing (but not eliminating) the impact of copper repair volumes becoming increasingly rural, since the impact of very challenging copper repair work in remote areas would be partially diluted by less difficult FTTP repairs in urban areas. However, we are not proposing it in this submission since:

i. we believe any proposals about FTTP QoS standards should be based on the outcome of the OTA-led initiative, which is still ongoing

ii. it could potentially create a perverse incentive to allow FTTP fault rates to grow, so that QoS-compliant FTTP fault volumes could offset non-compliant performance on copper volumes

208. *KCI2 Assure Provisions*: We recognise that CPs have concerns about our service performance for KCI2 Assure provisions. We are actively working with CPs to improve this, and are already seeing benefits of our new hybrid model that enables many complex provisions to be completed in a single visit, rather than the previous 2-stage approach. We will continue to work with the OTA and CPs to improve further in this area, and do not believe that regulatory intervention would lead to a better outcome, particularly given the risk of unintended consequences, e.g. disincentives to roll out to remote areas which will have complex provision requirements.

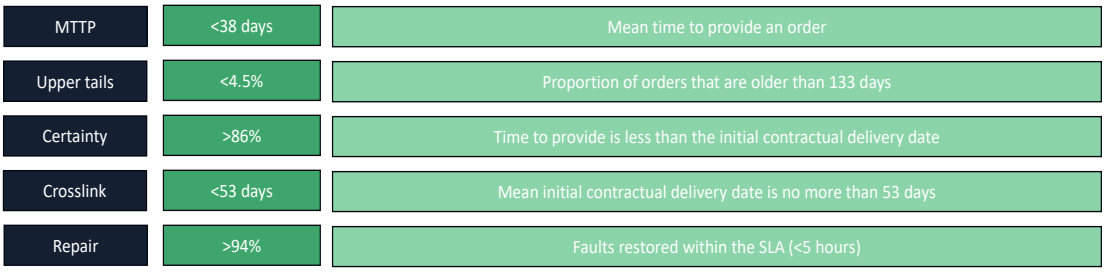
7.3 Leased lines

209. Openreach is committed to delivering great service to its customers when providing all of its wholesale services, including leased line services. We do this for commercial reasons, to maintain good relationships with our customers. Customers are generally happy with our leased lines service performance. Our Net Promoter Score (NPS) in May 2024 was 49.8 on a 12-month rolling average basis. We engage with customers carefully at the monthly Ethernet Service Forum (ESF), listening to any issues, providing them with data on our service and explaining initiatives and improvements that we are making.

210. In addition to our commercial incentives, the current regulated Quality of Service (QoS) standards set mandated levels of service. We pay upmost heed to these and are proud of our performance in delivering against these. In 2023/24, we exceeded all of the standards by a comfortable margin. These successes have been realised through operational and management focus on service and close collaboration with our customers.

211. The leased line QoS Standards were first introduced in the BCMR2016 and last revised in the WFTMR. Ofcom currently imposes five such standards, four for provision and one for repair. Ofcom will want to assess whether a review of these standards is required as part of its forthcoming review. Indeed it has stated that it will consider whether changes are required to existing remedies, including quality of service standards (current measures shown in Figure 16 below).[71]

Figure 16: Current Leased Lines QoS Standards



212. Ofcom has historically intervened in QoS because of its concerns about performance and poor QoS. In recent years, we believe we have demonstrated consistently strong performance and customer-focused behaviours. The competitive pressure that has arisen (see section on business markets) fulfils much of the role of constraining us as regulatory QoS Standards are intended to. Indeed, we often refer to our QoS obligations as part of our commercial proposition to customers. Therefore, the QoS measures sit alongside other incentives we already face for delivering for customers.

213. We are largely supportive of a continuation of QoS measures for leased line services. In particular, we would not oppose the continued application of the four provision metrics at their current level. We would also accept some form of repair QoS Standard, but consider the current metric and level needs revision. We have previously highlighted to Ofcom, issues with the current repair metric that create perverse incentives in relation to fault volumes and risk jeopardising the future achievability of the standard. In this submission, we reiterate these concerns and propose alternatives that could address these issues.

Provision metrics

214. Ofcom has set four QoS Standards (MTTP, Upper Percentile, Certainty and Crosslink) to address timely delivery of provisions. They function as a package to ensure outturn delivery on average (e.g. MTTP), for complex orders (e.g. tails measures) and for individual orders (e.g. certainty and crosslink) all face a degree of constraint.

215. We exceeded these measures over the last year. Further, where possible we undertook work to address the age of the current workstack and ensure that we are well positioned to continue delivering in the future. While there is always a risk from adverse events that could affect our performance, we continue to work hard to meet these measures, which we have shown we can achieve in recent years.

216. We do expect there to be some volatility in our performance in future years, as various changes will occur in our network, which are developed below in this submission. For example, the development of new products such as EAD2.0 will change the way we deliver services and should allow us to deliver services more quickly. In addition, exchange exit will lead to the migration of a large number of circuits through cease and re-provide journeys. We will communicate to Ofcom in advance where we expect such factors to affect our performance. In the event that any particular factor had a material detriment

[71] Ofcom (2024), 'Telecoms Access Review 2026', para 3.11.

on our performance, which we are not expecting, we would anticipate that Ofcom should review the QoS Standard and in the meantime, should a Standard be missed, take this into account.

217. Overall, we are currently providing great service and expect to continue to do so. While we consider there could be a case for stepping back from QoS for leased lines provision (in particular in light of the transparency provided by our KPIs and the current level of our SLGs), we would not object to the continued imposition of this obligation at the current levels.

EAD2.0

218. We recognise that providing great service on delivery is important for our customers and that were our performance to deteriorate it would adversely affect our commercial ability to sell new services to customers. Similarly, we need to respond to competitive pressure by providing the types of services that customers need. We are aware that there is a trend among customers to move to higher bandwidth products, however our traditional EAD product does not offer discrete transmission rates at bandwidths between the 1Gb and 10Gb. We've responded to this by developing new products such as EAD2.0. This is an innovation to provide a better service to customers and a new way of delivering EAD services. We anticipate that it will be launched around March 2026, although this is subject to change following ongoing development of the product.

219. If EAD2.0 had been launched during the WFTMR review period, our interpretation is that it would be captured within the current QoS metrics. Specifically, it would fit in the current definition of 'Relevant Ethernet Services' to which QoS Standards apply[72], since it would likely meet the criteria of having been developed wholly or in part as a replacement for EAD. We therefore anticipate that Ofcom would find it appropriate to apply QoS to EAD2.0 upon its launch and that it would seek to do so by combining it with the existing EAD product (and the other relevant ethernet services).

220. For the provision metrics, we accept that, assuming QoS Standards continue, EAD2.0 services would be captured within them. One key advantage of keeping the two services within a set of combined provision metrics, is that it will avoid issues around low volumes leading to volatility. Such an issue could arise if the two products were captured in separate metrics, where we might expect low provision volumes of EAD2.0 at the beginning of the market review period, while CPs begin take-up of the new service, and low EAD volumes towards the end of the period, as more customers take EAD2.0 services. This would be analogous to the issue arising in the Wholesale Local Access market as copper volumes decline and FTTP volumes increase.[73]

221. For the repair metric, the impact of EAD2.0 is harder to predict and how this can be addressed should be considered carefully in setting the metric, as discussed below.

Repair metric

222. The current QoS metric for repair requires that at least 94% of all faults achieve a restored service within the SLA of the relevant product.[74] We remain concerned that this metric is a poor measure of our actual performance. Under this current measure we face risks to our performance from underlying fault mix trends and events that are outside our control.

[72] Notification of Directions to BT under section 49 of the Communications Act 2003 and SMP Condition 10 (Quality of Service Directions), Schedule 1, Direction 1, (xii).
[73] As explained in paragraph 194
[74] The SLA is 5 hours for Ethernet and Cablelink services and 18 hours for dark fibre (reflecting that faults on this service must be fibre faults by definition).

223. In previous submissions to Ofcom (see Annex 1 of Ofcom's MTTR consultation[75]), we explained the threat that changes in the fault mix (i.e. increases or decreases in the volumes of different fault types) posed to the achievability of the current metric. This risk remains and is an inherent feature of a metric made up of a composite of different fault types. Our recent and ongoing compliance with the current measure is not a reflection of this risk reducing in the long-term.

224. We have also explained that the inclusion of faults caused by Matters Beyond Our Reasonable Control (MBORC) in the measurement of our performance puts us at risk of non-compliance through no fault of our own. Faults arising from such events are typically the hardest to repair. By definition we do not have control over their volume and therefore when there are increases in the volume of these events, our overall performance suffers through no fault of our own. We have seen such increases in the last few years and expect them to increase further, due to a greater amount of third party work on or near our network (using PIA) and an increase in adverse weather conditions. We therefore continue to believe that MBORC faults should be excluded from the measurement of the QoS Standard. An allowance for MBORC events is not unprecedent (c.f. the high-level MBORC allowance for WLA).

Fault mix

225. The current repair QoS metric is a composite, in that it is made up of multiple fault types that have materially different average repair times, but are all subject to the same SLA (except for dark fibre circuits). Openreach's performance is therefore affected by changes in the volumes of such faults.

226. In our previous submissions on MTTR[76], we highlighted that we were concerned that our work to reduce the volume of the easiest to fix faults, risked jeopardising our performance against the repair QoS metric. In practice, the risk to our overall performance has not been borne out in the last two years[77], largely because the volume of such faults (customer faults) has not fallen further (see Figure 17 below).

Figure 17: Annual fault volumes by fault type

✂

[75] Openreach Submission published as Annex 1 to Ofcom (2023), 'Quality of Service for Ethernet and Dark Fibre', July.
[76] Openreach (2023), 'Response to MTTR consultation', August.
[77] In 2023/24 we achieved a QoS repair performance of 95.7%.

227. The halt in decline of customer faults has been out of our control, for example, a contributory reason is due to transformations that some large CPs have undertaken that have increased their volumes of 'right-when-tested' faults. Nevertheless, our measured repair performance has actually benefited from this continued volume of customer faults. This serves to illustrate the issue with the current metric, that this adverse trend has in fact improved our performance and the repair QoS standard provides no incentive to reduce the volumes of these through work we can do and through working with our CPs.

228. While our performance on repair meets the current Standard, we remain concerned that this form of metric is not sustainable, and request Ofcom changes the measure.

229. Fundamentally, the issue arises because of significant differences in resolution types across fault types. There are five main categories of fault type, customer, fibre, electronics (Network Operations Centre (NOC)), electronics (field) and incident (MBORC). The average resolution times of these fault types vary significantly. Customer faults are usually cleared as 'right when tested' and hence are recorded with a resolution time of 1 min, whereas MBORC faults had an average resolution time of around ✂ hours in 2022/23.[78]

230. These different resolution times lead to different average success rates against the SLA. For example, customer faults have a ✂ success rate against the SLA, whereas MBORC faults have a success rate of ✂ [79]. Conversely fault types within Openreach's domain have more similar success rates, ✂. Namely, Electronic Field faults have a success rate of ✂, Electronic Network Operations Centre (NOC) faults have a success rate of ✂ and Fibre faults of ✂.

231. These differences in resolution times and success against the SLA mean that any changes in volumes of the most extreme fault types can drive our outturn performance. Hence, the critical feature of any revised approach is that the two fault types with the most extreme resolution times – namely, customer and MBORC faults – are both treated in the same way i.e. both excluded. These two fault types act as a natural counter balance to each other and it would not be appropriate to include one within a repair measure but not the other.

232. There are two approaches to addressing the issues, in order to reduce the impact on service performance of volatile fault volumes. The first option would be to split the measure into its components (and preferably remove the extreme fault types too). The second option would be to retain a composite measure but remove the most extreme fault types.

A narrower composite measure

233. One approach to addressing the issue of shifts is volume would be to retain a composite measure, but remove fault types with the most extreme resolution times. In this case, this would involve removing customer and incident (MBORC) faults from a repair measure. It would be critical to remove both of these types together since they have a counterbalancing affect, and removing just one would leave a distorted and ineffective measure. This would leave fibre and electronic faults within the measure, which have similar resolution success rates, and hence they are more suitable for remaining in the measure together.

[78] For more detail see, Openreach (2023), 'Response to MTTR consultation', August, Figure 6.
[79] Between 2020/21 and 2023/24 the annual rates varied for each fault type as follows, ✂

234. Alongside changing the fault types included within the measure, the level of the standard would also need to be revised. It would be set at a level lower than the current standard reflecting that the large volume of quick to resolve customer faults were now excluded. It could be set at a level close to historic performance, with an appropriate buffer to cater for underlying volatility. This would require a level of ✂ compliance with the SLA.

235. This approach of excluding customer and MBORC fault types was a key part of our previous MTTR proposal. We proposed a MTTR measure, focused on electronic and fibre faults (i.e. customer and MBORC faults would be excluded), providing that it was set at a reasonable level (between ✂ and ✂).[80] We still consider this would be a viable option (see paragraph 249), but recognise that Ofcom previously decided not to change the repair metric.

Splitting the repair measure

236. If the repair measure was split into different metrics for different fault types, e.g. electronic and fibre faults, this would protect against changes in volumes of different fault types affecting measured repair performance. Splitting the repair metric would necessitate that the level of the Standard is recalibrated for each fault type.

237. Recognising that we might need to set the target differently for different repair types, these Standards could be informed by the current proportions of different fault types for which we have been able to meet the SLA (subject to our comments about EAD2.0 below), namely:

    1..1.1. For electronic field faults, ✂ within the SLA;

    1..1.2. For electronic NOC faults, ✂ within the SLA;

    1..1.3. For fibre faults, ✂ within the SLA.

- Alternatively, the split Standard could be set on an MTTR basis by fault type. As discussed in the MTTR consultation, MTTR would give a better incentive for each fault type to be resolved as soon as possible. This could require levels set as:

    1..1.1. For electronic (field) faults, within ✂;[81]

    1..1.2. For fibre faults, within ✂.[82]

238. Splitting the repair measure into different fault types would help ensure that the measure remains appropriate throughout the market review period, by addressing the potential impact of EAD2.0 on repair (see paragraph 242 below) through its changes to the fault volume mix. However, this alone may not be sufficient and future re-reviews may be required (see paragraph 244 below).

Recalibrating the current metric

239. Absent making changes to the metric itself, simpler, but less effective options would be:

240. **Ofcom should acknowledge that it will keep the fault mix and its impact on QoS under review** – Ofcom acknowledge that it may need to review changes in fault types and ensure that regulatory QoS Standards

[80] Openreach (2023), 'Response to MTTR consultation', August, para 1.17.2.
[81] Based on Openreach performance for this fault type in 2022/23.
[82] Based on Openreach performance for this fault type in 2022/23.

remain appropriate within the forthcoming market review period. While this option provides a transparent acknowledgment of the problem, it does not provide any certainty for Openreach.

241. **Give allowance within the repair standard**: A straightforward option would be to provide an additional allowance with the setting of the repair Standard to recognise that if there was an adverse movement in fault volumes (e.g. reduction in right-when-tested faults), then we may be unable to meet the Standard. Alternatively, Ofcom could build in an *ex ante* adjustment (or discount) to the measure, should such an adverse trend in fault types arise.

EAD2.0

242. Our launch of a new ethernet product - EAD2.0 – is a key innovation that should help deliver all-round a better service to customers. However, it will have an impact on our repair performance due to differences in how we will deliver that service and the nature of that impact is not yet clear. For example, EAD2.0 will include an Optical Test Head at the remote end. The presence of an Optical Test Head should allow us to diagnose network faults faster, which in theory may support us in resolving individual faults more quickly. However, its overall impact on our repair performance is not clear, because we may be able to use the Test Head to run tests before customers report faults and hence may have a greater ability to do proactive work to resolve faults, prior to customers reporting such faults. However, this also presents a risk of changes to the fault mix. Specifically, there is a risk that we proactively resolve the easiest to fix faults before they are reported by customers, and we are left with faults that are raised to us as being the faults which are harder to fix. We do not wish to be disincentivised from doing work which gives a better experience for customers.

243. The overall impact of EAD2.0 on repair performance is difficult to predict. Given there will be no EAD2.0 volumes prior to the implementation of the TAR, Ofcom will need to set any QoS Standard without supporting data. We therefore consider that it would be prudent for Ofcom to build into its TAR a mechanism to allow future flexibility. This could either be a commitment to re-review its QoS Direction after a designated period (e.g. halfway through the market review period) or a trigger to do so following a given event (e.g. 10% of the installed base is EAD2.0).

244. The option of a split repair measure outlined above, would provide some protection against changes in different fault types. However, even with such a measure in place we still consider that it would be necessary to build in the ability to re-review the Standard as volumes of EAD2.0 orders (and associated faults) emerge.

MBORC

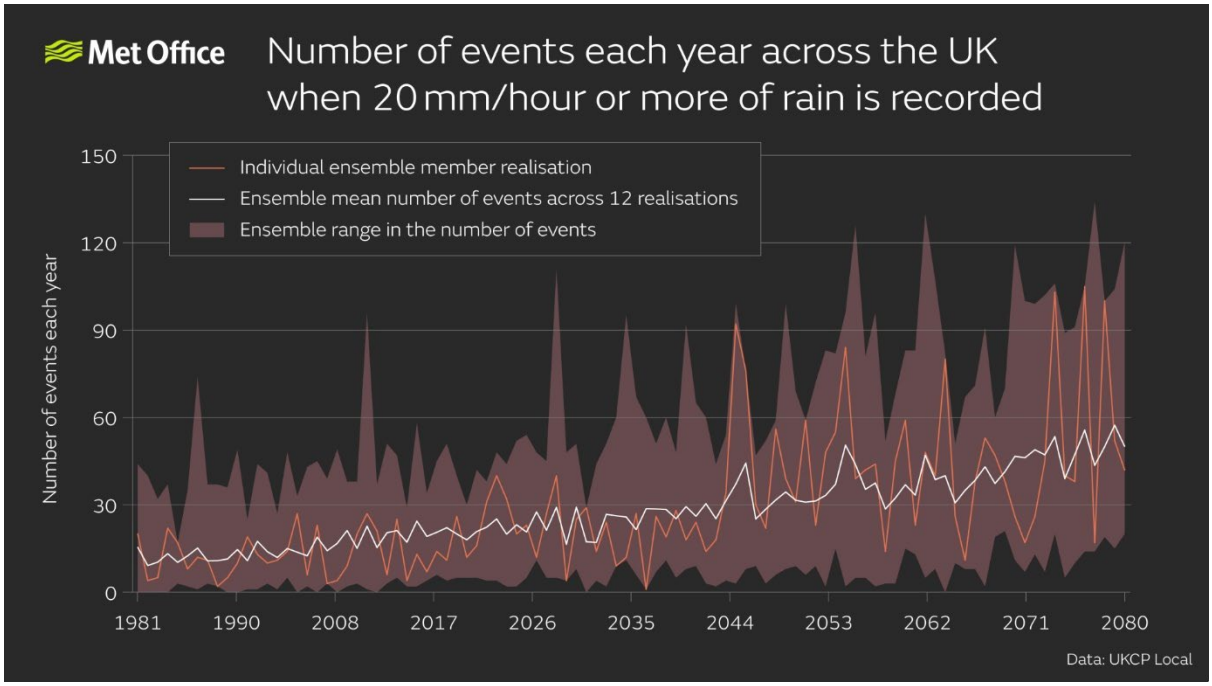
245. We outlined above reasons to remove certain fault types. In this sub-section we expand on the rationale for removing MBORC faults.

246. We continue to believe the inclusion of MBORC faults is not appropriate for the repair metric. They are typically faults that take relatively complex to fix and hence have longer average resolution times (for example, fibre breaks due to third parties, or extreme weather). As such our performance against the repair metric is subject to changes driven by these volatile external trends. Hence, we believe MBORC should be excluded from the repair QoS measure, in particular if Ofcom adopts an MTTR measure. We

elaborated on the reasons for this in our initial submission to Ofcom's MTTR consultation[83] and our response to the consultation.[84]

247. We have seen an increase in the volume of MBORC events in recent years: they have roughly doubled in both absolute volume and proportion of all faults, from ✂ in 2020/21 to ✂ in 2023/24. We anticipate that this will continue. Currently the most common types of MBORC events is caused by third parties. As more third parties work on and near our network (e.g. through the increasing use of PIA) we would expect such faults to grow in volume. Further, the volume of faults arising from extreme weather conditions and force majeure, is also expected to grow. For example, the Met Office forecasts that instance of events with extreme rainfall (that presents a flooding risk) are expected to grow.

Figure 18: Forecasts of extreme rainfall events[85]



248. Whilst we believe that MBORC should be excluded from the QoS measure, we recognise the importance of Openreach continuing to address MBORC faults as effectively as possible. Ofcom acknowledges that it has not seen any evidence of Openreach gaming MBORC declarations. We have robust governance processes[86] in place and contractual commitments to customers. Further, we have proposed to continue to report on MBORC in our KPIs, thus allowing Ofcom (and CPs) to transparently monitor how we respond to these fault types. Customers are also able to monitor our MBORC declarations and can challenge these if they consider them inappropriately called.

OTR vs MTTR

249. During the MTTR consultation we advocated a change from the OTR metric to an MTTR metric. Our proposed change would benefit our leased line customers, through alignment with industry standard metrics, providing a clearer understanding of underlying performance, better incentives to fix all faults included in the measure as quickly as possible, and an incentive for Openreach to continue to reduce the

[83] Openreach Submission published as Annex 1 to Ofcom (2023), 'Quality of Service for Ethernet and Dark Fibre', July.
[84] Openreach (2023), 'Response to MTTR consultation', August.
[85] New research shows increasing frequency of extreme rain - Met Office
[86] Openreach (2023), 'Response to MTTR consultation', August, paragraphs 3.25-3.33.

volume of easier-to-fix faults. Benefits to leased line customers in turn improve the services that they can offer to end customers.

250. We continue to believe that a change in the metric has merit, but consider the issues outlined above (which were part of the previous MTTR proposal) to be of primary importance, as opposed to the change in metric itself. We note that a change to the metric may fit well with a split of the repair metric by fault type.

KPIs

251. Ofcom has imposed extensive reporting obligations, requiring us to provide to Ofcom and in some cases publish, KPI information. We have reviewed the information that we report on and consider that some simplification could be made without loss of meaningful information for Ofcom or CPs. In Table X below, we present our view of the current set of KPIs.

Table 3: Assessment of current KPIs

KPI ref	KPI	Notes and our proposal
a	Mean time to provide	Keep
b	Fault repair performance - On Time Repair	Ensure aligned with repair metric (if current measure is revised).
c	Delivery date certainty - % performance to iCDD	Keep
d	Lower percentile Time to Provide (< 29wd)	We propose to remove this. In order to meet the MTTP QoS Standard we always need to complete a certain percentage of orders under a certain threshold of time, however, the 29 days threshold is arbitrary. We consider that the KPI has little value
e	Upper percentile Time to Provide (>133wd)	Remove (this is covered by the Upper QoS - which is a better 'lead' measure) so KPI has little value
f	Crosslink (iCDD MTTP)	Keep
g	Mean time of the closed upper percentile (>133wd)	Remove (this was created to make sure that when an order become a tail there are still incentives to address that order, but the current upper percentile QoS measure provides incentives to close tails)
h (i)	Open Tails (snapshot) the % of workstack >133wd	Keep
h (ii)	Open Tails (snapshot) the average age of orders >133wd	Keep
i	Average time to deliver the order at the 97th percentile	Remove (KPI has little value and appears arbitrarily set)
j	Order validation, percentage validated within SLA	Keep (or change to a Mean Time To Validate)
k	Mean time to issue the iCDD	Keep
l	% performance in issuing the iCDD to SLA	Remove (or keep and remove 'k', as only need one KPI around issuing the iCDD)

m	% of orders that had a change to CDD (non-customer reason)	Remove (we consider these 3 KPIs need changing into 2 KPIs that measure delay, 1 for customer delay, and 1 for Openreach delay)
n	Average duration of the CDD change (non-customer reason)	
o	Average duration of the CDD change (customer reason)	
p (i)	% of orders that had traffic management delays applied	Remove (we are not sure the relevance to have these KPIs that solely focus on specific delay types)
p (ii)	The average delay of traffic management delays applied	
q (i)	% of orders that had wayleave delays applied	
q (ii)	The average delay of wayleave delays applied	
r	Number of live circuits in the network (WSS)	Keep (but we query what value this serves)
s	% performance against the final CDD	Remove

252. For clarity, in Table 4 below we present out view of an appropriate future set of KPIs.

Table 4: Proposal for future KPIs

KPI ref	Description	Category
j	Order validation (% to SLA or MTTV)	Speed
l	iCDD issue (% to SLA or MTTI)	
a	Mean time to provide	
c	Delivery date certainty	Certainty
f	Crosslink (iCDD MTTP)	
h (i)	Open Tails (snapshot) %	Tails
h (ii)	Open Tails (snapshot) age	
-	Volume of Customer delays per order	Delays
-	Volume of Openreach delays per order	
-	Mean time to repair	Repair
b	On Time Repair (if needed)	
r	Volume of live circuits (if needed)	Working System Size

253. Secondly, Openreach also submits that the current way the KPIs are split could be simplified, to make the report more succinct. Currently a lot of the KPIs are split by products, regions, category, and BT & non-BT. We suggest that Ofcom reviews whether this level of granularity in the monthly reporting is

indeed required, and whether alternatively some of these splits could be removed (e.g. change to a split which is only 'Product' and 'BT versus non-BT'.

254. Finally, Ofcom also requires Openreach to provide narrative reports relating to the causes of delay ('bi-annual tails report').[87] Ofcom explained that the rationale for the report was to ensure Openreach to understand the causes and limit the time to provide the most complex orders.[88] These reports show consistently that the main causes of delay are factors caused by third parties such as traffic management and wayleaves. It is therefore unclear to us, as to how useful these reports are for Ofcom. For example, we note we have received few or no queries in relation to them and limited engagement on their contents. We therefore request Ofcom considers whether such reports should remain part of Openreach's reporting obligations.

[87] WFTMR, Volume 7, Notification of Directions to BT under section 49 of the Communications Act 2003 and SMP Condition 10 (Quality of Service Directions), Schedule 2, Paragraph 8.
[88] See, BCMR (2019), Volume 2, paras 15.120-15.124.

8. Physical Infrastructure Access (PIA)

Key messages:

- Since 2019, Openreach's PIA product has become an essential part of the UK wide rollout of full-fibre networks by altnets.
- A stable regulatory framework has supported this success - with PIA remedies that were proportionate, enabling Openreach to continuously and efficiently evolve the product to meet altnets' needs.
- Looking forward, we are already working with altnets to meet requirements for the 'In-life/Living Together' phase of fibre deployment - hence we have outlined some areas where Ofcom could support Openreach and industry to achieve this, as well as providing some longer-term certainty on PIA pricing and Network Adjustments (NAs).

8.1 Introduction

255. We remain fully committed to delivering a best-in-class Physical Infrastructure Access (PIA) product and fully recognise the important role that it plays in Ofcom's regulatory framework to support alternative investment in fibre networks.

256. In our view, the product regulation, specification and pricing regime established by the WLAMR 2018 and WFTMR market reviews remains fit-for-purpose for the next review period. The framework has provided the flexibility for us to work proactively with our customers and other stakeholders to reflect the changing requirements of PIA users as they have shifted their focus from planning and building networks, to maintaining networks, and more recently to acquiring and connecting end customers.[89] Our main asks are for Ofcom to consider longer term issues related to PIA pricing, Network Adjustments (NA), and the 'In-Life/Living Together' stage of the PIA product.

257. The pivotal point for the PIA product was the launch of the new PIA Reference Offer in April 2019 (i.e. the new PIA contract) as illustrated in Figure 19 below. Although the new offer became effective at that date it was based on several years of intensive preparatory work by Ofcom, the OTA, altnets and Openreach. It took a relatively low volume and low-profile product into the mainstream to underpin the regulatory framework introduced by the WLAMR 2018.

Figure 19: Key dates in PIA timeline

258. To meet our and PIA users' future needs we will need to continually invest in and develop physical infrastructure API and Portal functionality, all underpinned by extensive engagement with PIA users. That detailed engagement is important to us in order to understand all the requirements for our infrastructure, both from PIA users as well as our own, and to facilitate extensive trialling and

[89] Please refer to the presentation we gave to the Ofcom Telecoms Access Review (TAR) team on 29 May 2024 - arranged by M. Hoban (Openreach) and K. Hatfield (Ofcom), where we set out our comprehensive programme of work to evolve PIA into a live multi-CP environment often referred to as 'In-Life' or 'Living Together'.

introduction of new processes to enable multiple altnets[90] and Openreach to work together in the physical infrastructure (PI) network to:

- manage physical infrastructure repairs and incidents,
- address physical infrastructure capacity challenges and
- streamline network adjustment (NA) orders.

This builds on the extensive developments and enhancements we have already made to PIA since the major relaunch of the product in April 2019.[91]

259. We aim to continue with this proactive and cooperative approach, but as we set out below, we believe we will need Ofcom support, and industry to step up to the mark in several key areas.

260. We raise some of these specific concerns later in this document in Section 8.3, along with some specific points regarding PIA pricing (including hosting charges) in Section 8.4 below. We also seek reassurance that the costs of PIA related assets are updated and properly reflected in the TAR pricing review, and that in the longer-term Ofcom is open to reassessing cost allocations to ensure they will fairly reflect market developments and market share changes should they occur.[92]

8.2 PIA Progress to Date

PIA Performance

261. In this section we recap some of the key developments and current metrics for PIA.

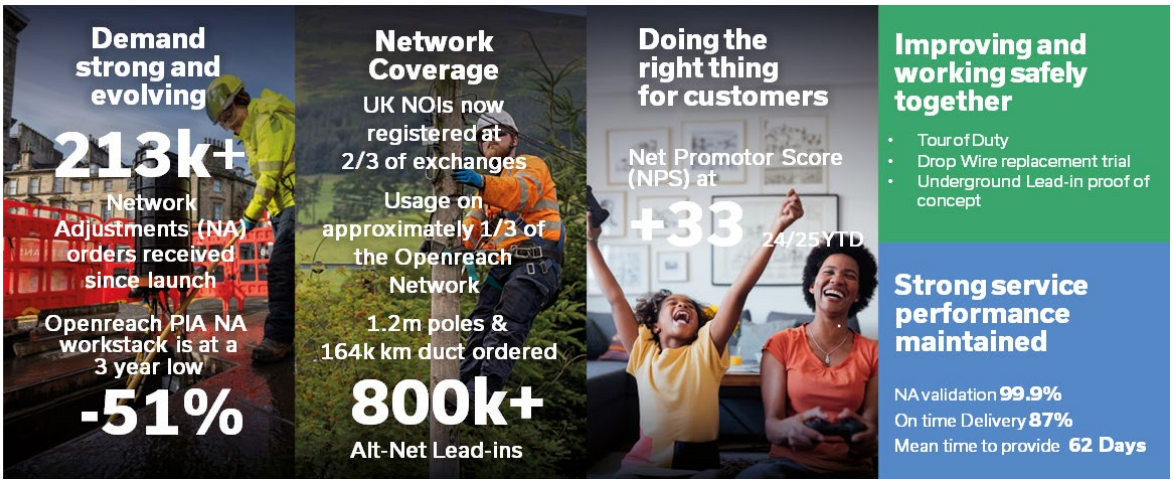
262. Ofcom's objective was that PIA would form a key element underpinning Ofcom's framework for competition at a network infrastructure level in order to deliver faster and broader UK full-fibre rollout. And that it would do this by:

- Reducing altnet build costs and enabling more competitive bidding for publicly funded programmes.[93]
- Reusing existing infrastructure and therefore addressing many environmental concerns, traffic management issues, duplicated ducts and poles in local areas etc.

263. The graphic below (**Error! Reference source not found.**) summarises the latest position:

[90] Now with significant volumes of 'live' fibre customers.
[91] For example, we delivered everything we stated we would do in our response to the last market review, namely the 'Day 2' requirements.
[92] ✂
[93] In the WLA MR 2018 Ofcom estimated PIA reduces *"average cost per home passed in some cases by up to 50%"*.

Figure 20: Summary metrics for PIA



264. There is no doubt that substantial progress has been made to date with the PIA product now having:

- 169 customers established (c.30 in early 2019),
- Orders of 164k km of duct (with 75k km built),
- 1.2 million poles (with 563k built)[94] and
- Over 800k lead-ins.[95]

265. Overall, this has resulted in large increases in **Network Coverage** and an NOI footprint that now stretches to a presence in two thirds of all UK exchanges and actual usage (built and planned) on approximately a third of the Openreach network. In addition, altnets have submitted more than 800 thousand customer connections with almost half a million of those submitted in the last financial year. Given the lag in altnet connection data our expectation is that the number is already significantly higher than this and that this will be reflected in our reporting at the end of next quarter.[96]

266. Given the importance of PIA to all stakeholders our goal is to provide an excellent **Customer Service** and elevate PIA to be the best product it can be. Our current rolling 12-month Net Promoter Score (NPS) is +33 for this year and +32 on a rolling 12-month basis. This is a very positive customer satisfaction rating, and indicative of our continuous efforts to improve our service based on users' feedback.

PIA Trends

267. Underlying the aggregate numbers set out in Figure 20 there are some emerging trends which point to an evolution in the demand profile for the product. These are illustrated in Figure 21 below, and may also indicate opportunities for regulation and/or pricing to change in the longer term:

[94] For comparison Openreach's network is approximately 486k km of duct and 4.1 million poles.
[95] Data is compiled from March and April 2024 PIA usage reports. New quarterly Q1 figures are due in July 2024.
[96] Our regular quarterly usage report will be sent to Ofcom as usual in mid-July 2024 which will include updated figures.

Figure 21: PIA Trends

✂

268. With reference to Figure 21 above, the overall demand for PIA has remained strong but there has been a shift in industry focus in the latter half of 2023/24:

- **Notices of Intent (NOI) Demand:**[97] Consumption patterns have changed with cumulative NOIs received to date exceeding 250k and remaining high from a historical perspective. However, they did reduce from the peak in-year volume received in the last financial year 2022/23. This change seems to be indicative of a more realistic and stable picture of what PIA users are actually building using the PIA product.
- **NOI Completions:** NOI Completions reflect actual network build that has been completed in altnet deployment areas, and the net NOI orders remaining[98] (the active NOIs) reflect a reasonable estimate of altnet 'work-in-progress' (WIP) using PIA - i.e. what altnets are likely to build using PIA over the build period/next year or so. This underlying pattern is also reflected in the charts for Network Adjustment (NA) demand and Customer Lead-Ins.
- **Network Adjustments (NA):** Within the pool of active NOIs (WIP) the requirement for NAs is stabilising as more of the altnets' target build is completed (e.g. blockages have already been cleared, D-poles already replaced etc.). Since launch, our teams have handled over 213 thousand NA orders, but now with our continued focus on PIA delivery, a more stable NA intake, the successful trialling of the Tour of Duty (TOD)[99] and the fact that many altnets are now capable and choosing to undertake underground (UG) NA work for themselves (i.e. using self-provide orders (SPOs))[100] the Openreach NA workstack is now at a three-year low, enabling PIA users to progress and complete the vast majority of their build programmes with minimal dwell from NAs.
- We should also note that 99.9% of NAs were validated within the 5-day Service Level Agreement, and 87% delivered on the customer's confirmed date, with a mean time of 62 working days. These

[97] NOIs are essentially PIA 'orders' - i.e. an Altnet places an NOI with Openreach via the PIA ordering system stating it plans to use various quantities of ducts, poles and chambers in a specified area as part of its build planning process.
[98] Net NOI orders would be calculated from total NOIs registered with Openreach minus NOI Completions and NOI Cancellations. We use this Net figure to calculate what we refer to as the 'Pipeline' in our quarterly PIA usage reports supplied to Ofcom.
[99] TOD reduces the need for real time transactional NAs as Altnets and Openreach work together to forward plan D-pole replacements.
[100] Resulting in the delivery of ✂ self-provide orders (SPOs).

metrics compare very favourably to Openreach's own internal measures as set out in Figure 22 below.

- **Lead-Ins:** PIA users are increasing connecting end customers using PIA. This metric is increasing rapidly but is still likely to lag the real volume as we are entirely reliant on altnets self-reporting their 'live' connections. The reporting of a 'live' connection also triggers our ability to bill them, and historically altnets have been very slow to report their connections to Openreach.

PIA Quality of Service

269. As noted above in the discussion of NAs, No Undue Discrimination (NUD) metrics have remained favourable to PIA users since first publication in Q1 2019. The latest figures published are included below in Figure 22:

Figure 22: Network Adjustment NUD KPIs Q4 (Jan-24 to Mar-24)

Network Adjustment NUD Key Performance Indicator (KPI)	PIA Comparator	Openreach Comparator
Mean Time to Provide (working days)	60.3	93.6
Performance vs CCD%	89.0%	55.9%
Time to Verify (working days)	0.8	10.2
NA Invalid %	15.7%	6.5%

Source: 2023-24 Q4 Openreach PIA Comparator Report.

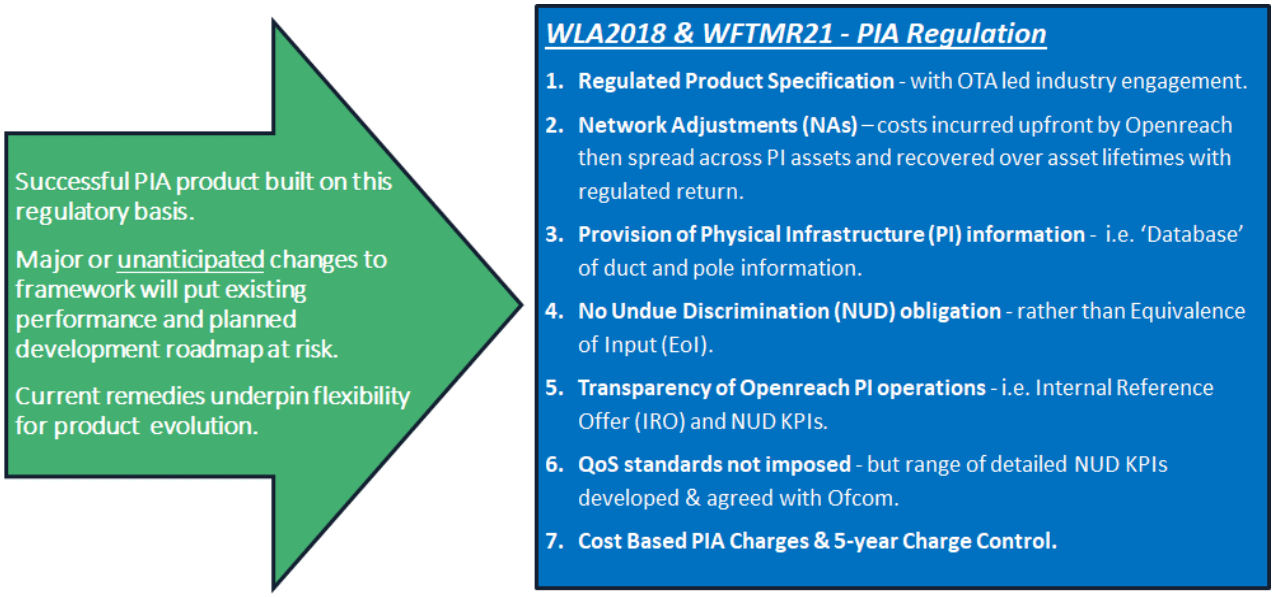
270. The figures compare favourably to Openreach's own internal measures, and this has been a consistent picture since 2019. We have also worked in an extremely open and proactive way with Ofcom's PIA monitoring team to develop and implement a range of NUD KPIs covering many different aspects of the product, and the work is still ongoing and evolving as altnet consumption patterns change. We regularly meet with Ofcom to investigate trends and queries arising and are continuing to introduce new performance and NUD KPIs in-line with the feedback collated by the Ofcom team from consultations with PIA users. Further details on the full range of NUD KPIs can be found in the PIA Internal Reference Offer (IRO)[101]. KPI usage is now well established, and we regularly update the Passive Products Industry Working Group (PIWG) as well as using the metrics internally as control measures to monitor and ensure NUD compliance throughout the organisation.

Regulatory Framework

271. These outcomes have all been supported by the stability and inbuilt flexibility of the regulatory framework that has been in place from April 2018 to date (please see Figure 23 below):

[101] Please see 'Supporting documents' at Physical Infrastructure Access(PIA) (openreach.co.uk).

Figure 23: PIA regulatory framework provided flexibility for product and systems evolution whilst also imposing strong regulatory controls (e.g. NUD, Openreach transparency, PIA KPIs etc)



272. With regard to **Product Specification,** we were able to work collaboratively with the OTA and altnets to continually refine and enhance aspects of the product. Examples include such important product enhancements as Path to Collaboration (PTC), TOD, Drop Wire replacement trial and the Hazard Directory to name but a few. None of which were explicitly specified in the regulation but rather are the result of intensive work by the OTA, altnets and Openreach to evolve the product.

273. We strongly support the flexibility of the **No Undue Discrimination (NUD)** approach compared to an inflexible Equivalence of Inputs (EOI) obligation. Openreach has been able to work proactively with PIA customers, plus openly share its thinking and progress with Ofcom directly (and with industry CEOs) to develop tailored systems for PIA customers to access the key physical infrastructure data they require. In our view any move to change the operating model to a more restrictive and disproportionate one (e.g. equivalence or further separation of PI within Openreach) would represent a huge diversion of resources away from PIA users, bring no foreseeable commercial or operational benefits, as well as severely impacting the currently agreed roadmap for the product.

274. We also fully understood the need to support **Transparency** of Openreach's internal operations by enabling detailed comparisons with the PIA product. We committed to producing regular updates of the Internal Reference Offer (IRO) and worked hand-in-hand with Ofcom over several years to enhance and refine the document. We remain committed to updating the IRO as and when changes occur to the PIA product or when Openreach changes its internal use of physical infrastructure.

275. Ofcom's approach of not mandating specific Quality of Service (**QoS standards and Key Performance Indicators (KPIs)** was also appropriate given the constant state of evolution of the product, and its systems and processes. Again, we were able to work with Ofcom directly to prioritise the important metrics early in the life cycle of the product and then to continue to expand and enhance the range of reporting of KPIs as it evolved. We are still continuing to do this and expect to introduce a number of innovations in this area over the coming year.

Market Outcomes

276. More broadly in terms of the development of the **overall fibre market**, a key aim of Ofcom's policy:[102]

- Full-fibre is now available to more than half of the UK (57%) up from c.10% in 2019, and Gigabit-capable networks cover over three-quarters of the UK (78%).
- The ability to access decent broadband (i.e. services greater that 10Mb/s) has improved significantly. That is, the number of premises requiring the broadband Universal Service Obligation (USO) has fallen significantly decreasing from 610k premises to 61k in the same period.
- Full-fibre coverage in each of the four nations rose above the halfway point during 2023.

277. In addition to these strong growth statistics, Ofcom and altnet feedback is that the PIA Product works well[103] and:

- There has been positive feedback from Ofcom and altnets on how we approached and developed the PIA Internal Reference Offer (IRO).
- NUD KPIs have been consistently favourable – with no evidence of systemic undue discrimination.
- ✂ [104] and
- There has been a continuous stream of investment and quality delivery by the Openreach PIA teams on systems, processes, poling, lead-ins, and PI data.

278. Despite all this, we recognise that PIA is not a silver bullet for investors, as building full-fibre networks will remain a long term and risky business case for altnets and Openreach. But the available evidence strongly supports the view that we have leant-in and delivered on our commitments for PIA and remain committed to doing so for the next review period. At this point disproportionate changes to PIA regulation (such as further separation of Openreach into a 'Duct & Pole' company) would risk derailing what has already been delivered to date and what we now have in place for TAR and beyond.

8.3 Future PIA Developments

PIA Roadmap

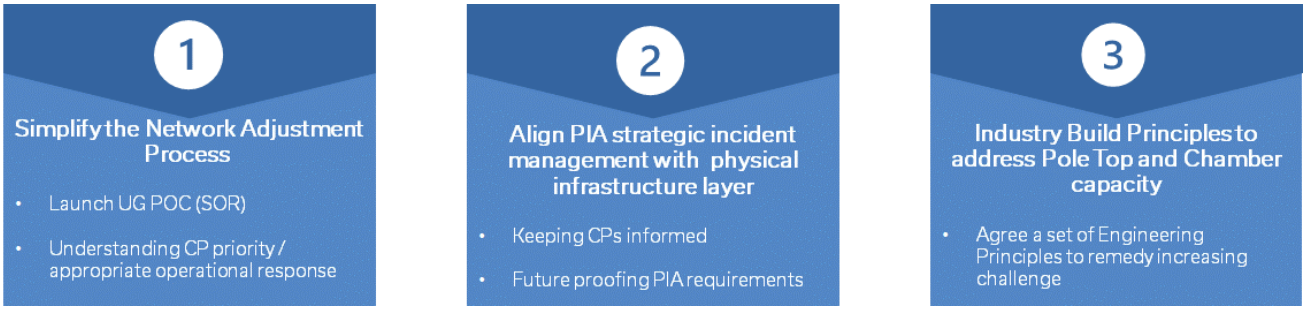
279. We have already shared significant details with Ofcom of our development plans based on our work with altnets and the OTA. This was set out in the presentation made to Ofcom on 29 May 2024 and slide pack provided on 4 June 2024.[105]

280. In the presentation we outlined the work programme we have going forward to evolve the PIA product to meet the scenario that we and others refer to as 'Living Together' – i.e. one where multiple altnets and Openreach work together to resolve the challenges of many independent 'live' networks sharing the same physical infrastructure layer.

281. To do this we have listened to PIA users feedback and now have a series of significant developments in play which we have grouped into three main subject areas:

[102] Data taken from the Connected Nations report - December 2023.
[103] Our current rolling 12-month Net Promoter Score (NPS) is +33 for this year and +32 on a rolling 12-month basis.
[104] ✂
[105] ✂

Figure 24: The three major development areas we plan to deliver ('Big Three Things').



282. We see these developments as key to delivering what PIA users want and need for the future evolution of the product.

Support required from Ofcom and Industry

283. As the product is evolved into the 'Living Together' phase, consumption continues to increase, patterns of usage change and more networks are completed, it is becoming clear that there are some important themes that must be addressed more widely, and as Openreach cannot resolve them unilaterally, they will require both industry and regulatory attention to make significant progress:

Efficient use of Physical Infrastructure (PI) and avoiding unnecessary duplication:

- We see the strengthening of Access to Infrastructure (ATI) regulations and other regulatory and governmental interventions as essential to underpin efficient industry wide PI use and enable Openreach to have effective reciprocal access (including for example stronger guidance on the interpretation of fair and reasonable access rights).
- This is required along with comparable commercial rates and a comparable Terms and Conditions (Ts & Cs) framework to PIA to support effective shared use of all PI.
- This will help avoid duplicated infrastructure, unnecessary environmental impacts, and residential complaints (e.g. for new and/or duplicated poles).
- More specifically altnets (including Openreach) should be able to use other altnets ducts, poles and chambers (particularly between Openreach assets).
- Measures need to be introduced by Ofcom which support the use by all altnets (including Openreach) of stranded altnets infrastructure (for example where the original altnet is no longer operating).

Managing Congestion of Poles and Chambers:

- Changes to Openreach Engineering Policy will be required which will need industry and/or regulatory support (for example equipment size standards to ensure efficient use of limited underground chamber and/or pole space).
- This will also require the rights and ability to move active equipment.
- There needs to be greater capability to share common types of industry attachments to poles (i.e. 'Iron Works') - e.g. Universal Pole Bracket (UPBs), stand-off brackets etc.
- We are also seeking the re-introduction of regulated charges for apparatus hosted in the Openreach underground chambers (i.e. joint boxes and manholes). More details are set out in Section 8.4 'PIA Pricing' below.

Preventing Damage to Network Apparatus and Reducing Service Impacts to End Customers:

- Changes to Openreach Engineering Policy will be required to ensure apparatus is not 'crammed' into chambers.

- Altnets need to substantiality improve 'Whereabouts' compliance to ensure traceability and accountability.
- We are already working with industry on a number of 'levers' to address this industry concern, and we will need Ofcom to support us in our new proposals to hold industry to account, as measures may be seen as too stringent by some altnets and not stringent enough by others.

284. ✂

8.4 PIA Pricing

285. We remain broadly supportive of Ofcom's key principles for PIA pricing (i.e. full cost recovery, level playing field and incentivising full-fibre investment) however for the avoidance of doubt we set out some specific points below.

PIA Rental Pricing Levels

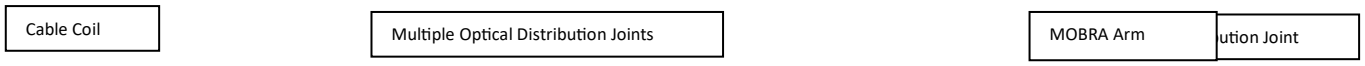
286. We are looking to Ofcom to provide reassurance both in the near and longer term:

- In the near term, as an essential part of the TAR review of PIA prices, we are looking to Ofcom to accurately capture our forward-looking costs of investing in physical infrastructure assets by (i) fully reflecting the starting value of our physical infrastructure assets in its modelling based on the latest available regulatory finance data as its starting point and (ii) to include our current best estimates of forecast costs.
- In the longer term, we are looking for a commitment from Ofcom that PIA rental prices will, if need be, be reviewed to reflect an appropriate share of the end customer value derived from the use of Openreach physical infrastructure by altnets. For example, Ofcom could signal that certain PIA rental prices (e.g. multi-bore duct rental) where external PIA users contribute a relatively low proportion of overall costs is likely to need to increase to ensure that cost recovery is shared between Openreach and other network builders in a sustainable way. We understand Ofcom's initial approach was based on broad assumptions to generate a degree of pricing stability and support market entry, but market developments are now increasingly picking up pace and a fuller analysis is likely to be essential in the foreseeable future, perhaps becoming apparent during the new review period.

Cable Coil and In-life Splicing Hosting Charges

287. In our response to the last market review (WFTMR) we disagreed with Ofcom's decision to remove certain PIA hosting charges. In our view directly charging customers for chamber occupancy was the most appropriate cost recovery and charging mechanism and much more likely to incentivise better use of scarce asset space. Please see Figure 25 below which illustrates the emerging issue of chamber congestion and targeted 'box only' NOIs.

Figure 25: Emerging problems with chamber congestion.



Overview of the products

288. There were eight Openreach product variants affected by Ofcom's decision to remove charges:

- Customer Apparatus In-line Splice hosting and Distribution joints (2 variants – per joint box or manhole hosting).
- Customer Apparatus Cable Coil Hosting (6 variants - small, medium and large - per joint box or manhole hosting).

Our concerns

289. At the time, Ofcom set out its assumptions and logic for removing the 'cable coil and in-line splice hosting' rental charges. However, we now have four years additional experience of PIA customers' use cases and our view remains that the policy is not the right approach from a cost recovery or engineering incentives perspective.

290. In particular, we are becoming aware of use cases where altnets appear to be targeting the use of Openreach chambers (i.e. the non-chargeable PI elements) in a disproportionate way and even more so in some new build sites scenarios where specific commercial arrangements with developers make it even more commercially advantageous to bypass rental of other chargeable Openreach PI assets. We aim to compile further analysis of the data and when it becomes available, we would be pleased to share with Ofcom.

291. PIA customers are now consuming a far greater volume of these products (particularly 'Customer Apparatus In-line Splice hosting and Distribution joints') whilst also recording the volumes more comprehensively in our inventory systems. We are still assessing the potential cost of this 'occupancy' at the time of this submission but would expect to be able to supply Ofcom with volume and cost data well before its target date for consultation.

292. We expect demand for these products to continue to grow as altnet network build increases. Therefore, it seems both a logical and reasonable basis for a direct cost recovery charge, especially as even with a zero charge, PIA users still need to record the location and type of equipment placed in our physical infrastructure for planning, security, and operational reasons. Hence there would be little or no operational overhead to the reintroduction of the charges.

293. All altnet kit (coils, in-line splice and distribution joints) will vary in size or specification, but it is clear that certain items will have a much larger occupancy than others, and in some cases constitute the predominant or even entire usage of the physical asset. Please see Figure 25 above which shows examples of the types of congestion issues being experienced in the network – i.e. more distribution/in-line splice joints occupying large volumes of space for which no rental charges are paid. Therefore, it is essential that the PIA rental charging and cost recovery mechanism recognises this usage in a direct way to incentivise the efficient use of space and good engineering practice.

294. We have no desire to unpick the PIA cost model in any complex way, but it is clear that action is required, and even a simplified or perhaps nominal set of charges would provide better incentives than no charges at all. However, the charges would need to reflect the volume of space occupied in some way (e.g. small, medium, large) to underpin the correct incentives.

Next Steps

295. At this point, our major concern is the inability to charge for Distribution Joints, and our priority is for that to be corrected. However, there may also be opportunities for reintroducing and simplifying other hosting charges even though altnet demand may not be as high as for Distribution Joints. We also think there could be a need to consider specific chargeable variants for new build sites, where commercial arrangements with developers may currently be distorting altnets incentives and use cases even further.

296. Therefore, we would like to discuss possible options with Ofcom prior to a final decision being made on the TAR PIA charge control.

8.5 A Longer-Term view of Network Adjustments (NA)

297. As noted earlier in this document, we are progressing a series of developments to transform the PIA product for 'Living Together' including innovations to streamline the NA process, and we see this as taking us seamlessly into the next review period and meeting one of the PIA users' key requirements for the in-life product.

298. However, we also discussed the various underlying trends in PIA usage in Section 8.2 where overall NA demand appears to be levelling out as PIA users focus on refining and completing their build programmes, and in addition, are also carrying out large proportions of NAs themselves as Self-Provide Orders (SPOs) particularly in the UG network.

299. Our position on NAs has always been that Openreach should only be required to bear the upfront costs of NAs where there are clear and demonstrable benefits to the Openreach infrastructure and its wider customer base. We acknowledge that Ofcom took on board many of our concerns and reflected these in the PIA regulatory framework in order to reduce the financial and operational risks to Openreach and its non-PIA customers. Additionally, the situation has moved on considerably, as we have now established highly efficient controls which are performing well for Openreach and PIA users[106] and we have further NA innovations planned for the next review period.

300. However, our key concern remains, that the NA obligation as it stands still means that PIA users are not subject to the same incentives as Openreach to minimise NA costs.[107] Rather than PIA users being incentivised to drive down the cost and incidence of unnecessary adjustments as Openreach does for its own programmes, they are able to claim back costs from Openreach when carrying out SPOs and/or request Openreach to carry out and fully fund, often more complex and costly NAs on their behalf. Some altnets still push back against entirely reasonable controls that they themselves would be legally obligated to apply in their own businesses.

301. We consider that the more NAs that altnets are able to carry out and fund for themselves, the better they are incentivised to optimise deployment costs, and potentially the better long-term outcome for end customers and altnets. We note that Ofcom also considered this as potentially the most effective

[106] Please see the comparative NUD KPIs shown in Figure 22.
[107] Hence there is still significant time and cost expended in dealing with use cases where altnets are incentivised to try and characterise jobs as NAs to receive payment and are still prone to providing poor quality evidence or justification etc.

means of deployment in the WLA market review[108] and that it was particularly relevant where civil engineering tasks were time critical.

302. Such an operational model would not require an NA order for an SPO or Openreach provided adjustment[109] and would also remove the need for the Openreach validation process because altnets are funding the work themselves, and therefore able to carry out the work to their own schedule. The significant difference from the last market review is that altnets now have both the operational capability and cash flow to work like this, should they choose to do so. This is evidenced by the vast majority of NAs in the UG network now being carried out as SPOs (c.95%).

303. These are all relevant considerations when related back to the points made about altnets' changing patterns of consumption in Section 8.2 above. Given the altnets clear engineering capability to deliver NAs, we now consider that looking to the longer term it is the right time to question whether the principle that Openreach should fund all NAs *ad infinitum* should still apply. On refection, it does seem disproportionate that it should.

304. Delving further into the detail is it necessary to draw out some important distinctions. For example, the situation is likely to be different for D-pole replacement NAs compared to other NAs. Openreach already has a significant asset assurance programme in place for D-poles and hence it is hard to argue that altnets should pay for NAs associated with such replacements. Although, it should be noted that we may be replacing such D-poles earlier and potentially at a higher cost if replacement is triggered by an NA. However, the TOD innovation is already reducing the demand for transactional NAs for D-poles, and if altnets can improve their forecasting and subsequent usage of replaced poles then there would not seem to be a strong argument in changing this part of the NA regime.

305. However, that cannot be said of pole top space NAs or UG NAs. In the longer term these are much more likely to only benefit a single altnet, making it harder to argue that this fits with the reasonable, necessary, efficient, and mutual benefit criteria that underpin the argument in support of Openreach funding NAs. Therefore, in our view, and in the long run, Openreach should not be expected to pay for those NAs which we reasonably believe are not efficient or not providing enhancement to common parts of the network that Openreach and/or other altnets might be likely to use.

306. This is more akin to an evolution of the NA concept than its removal. Now that multiple altnets have already occupied the commonly accessible parts of the PI network (or are likely to do so over the earlier part of the next control period) this makes NAs more likely to benefit only one PIA user (e.g. an altnet making a specific end customer connection). Hence, we are looking to Ofcom to consider how the NA obligation might be amended so that we are able to protect Openreach operationally and financially and support the best interests of all our wholesale customers and end customers in the longer term.

8.6 Other Items for Consideration

PIA Health and Safety (H&S) – Recent Industry Proposal for Independent Board

307. Openreach takes its H&S responsibilities very seriously and are more than aware of the extremely serious repercussions for our direct labour, engineering partners, PIA users and the general public of H&S failures. We are continually looking for ways to improve and work safely and have numerous internal and external initiatives, and training programmes in place which are under constant review and

[108] For example, see Ofcom's comments in paragraphs 6.134 to 6.138 of its 'WLA Market Review – Consultation on Duct and Pole Access remedies' published 20 April 2017.
[109] Referred to as Network Adjustment Service Orders (NASOs).

development. We alone hold the legal liability for our actions and face the constant and detailed scrutiny of the BT Board, Openreach Executive and Non-Executive Directors, shareholders, the H&S Executive and ultimately the UK legal system.

308. Hence, we cannot understand how the recent proposal for an 'Independent H&S Board', tabled by INCA at the May 2024 Passives Industry Group, can be considered as feasible. The reality is that such a board cannot meaningfully hold a position of responsibly for any part of Openreach's H&S policy and practices.

309. If PIA users wish to associate and cooperate to raise their H&S standards, then we have no objection to that. However, the way that the proposal has been framed means that Openreach could and would not agree to act upon decisions being made by such an external board.

310. In addition to this fundamental objection, there are numerous other concerns:

- ✂.

- We are not clear that the proposed organisation wants to take on the responsibility of collating and processing the detailed data required for such a role, or indeed are resourced to do so.
- There is an apparent failure to recognise that altnet and Openreach positions are not symmetrical. PIA users are tenants in BT Group's property and Openreach is responsible for operating and maintaining that property. This is why Openreach grants a licence and PIA users pay for the licence. It is also the reason why PIA users are subject to comprehensive terms and conditions, including those relating to H&S.
- We also have responsibilities under the H&S Act and Occupiers' Liability Act. Hence it would not be a tenable position for Openreach to be reporting to an external (and possibly altnet influenced) organisation on issues concerning Openreach or our partners actions.
- Additionally, we cannot see how we could share specific incident information with detailed location and altnet details with the proposed third-party organisation, as we would be sharing Customer Confidential Information (CCI). At minimum altnets would need to explicitly agree to this sharing, but there may also be wider data protection and confidentially issues to assess and address.
- Last but not least, we have significant industrial relations issues to deal with as we have responsibilities to our employees, and the relevant communications unions may have significant reservations about allowing a third-party to make H&S decisions directly affecting their members interests.

311. In summary, the proposal is not well thought through, and rather than being helpful could be seen as potentially diversionary, or perhaps commercial driven. We take our H&S obligations extremely seriously and look to altnets to also step up and face their H&S responsibilities directly when using our physical infrastructure.

Topics covered in other parts of this Submission:

312. Given that this Submission addresses the entire scope of the TAR, sub-parts of other sections touch on topics which are also relevant to PIA. Hence rather than address those topics multiple times in the document we refer directly to the relevant sections below. Should Ofcom wish to discuss any of these points in relation to PIA we would be more than happy to arrange dedicated sessions.

Exchange exit

313. Please see our comments on Copper Retirement in Section 6 of this document. The points made apply equally to PIA space usage, cable chambers and Cablelink.