Promoting competition and investment in fibre networks:

Telecoms Access Review 2026-31

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1. Price regulation in WLA markets

1.1 In this section we set out our proposals in relation to price regulation in the Wholesale Local Access (WLA) markets in WLA Area 2 and WLA Area 3.

WLA Area 2

The competition problem

1.2 In WLA Area 2, there is a risk that, absent regulation, BT would have the incentive and ability to fix and maintain wholesale prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users, including through weaker retail competition.

Our objectives

1.3 Our market analysis has indicated that in WLA Area 2 there is the potential for material and sustainable competition to Openreach in the commercial deployment of competing networks.

1.4 In developing our proposed pricing remedies for WLA Area 2, we have had regard to our overarching legal duties. Consistent with the approach to remedies set out in Volume 3 Section 1, we have exercised our discretion in setting these controls in favour of an approach that promotes investment and competition in gigabit-capable networks by Openreach and other communications providers. We also seek to protect consumers and competition based on access to Openreach's networks as network competition develops.

1.5 Promoting investment and competition means:

- Promoting network competition in relation to investments that have been made in gigabit-capable networks during 2021-2026.
- Recognising that a significant amount of investment will be needed over the review period as competing networks connect customers and grow their customer base.
- Recognising that while the majority of investment in gigabit-capable networks for coverage is likely to have occurred by 2026, further investment to expand coverage is expected.

1.6 Network competition will further the interests of consumers through improving choice, quality and lowering prices in the long term. In many areas effective competition may emerge in time such that the need for regulation falls away.

1.7 While we are starting to see competition emerge, we also acknowledge this will take time and the risks arising from BT's SMP remain for the 2026-31 review period. Therefore, we consider regulatory intervention is required to protect consumers and existing models of downstream competition in the short term.

Summary of our proposals

1.8 We propose a pricing continuity approach, where:

- An inflation indexed charge control is set on MPF and FTTC 80/20 rentals (or FTTP 80/20 rentals where a copper-based service is not available).
- Other bandwidth rentals are subject to a requirement that charges are fair and reasonable.[1]

Our approach in the WFTMR21

1.9 In our WFTMR21, we set remedies to promote competition and investment in fibre networks, while protecting consumers and existing models of downstream competition in the short-term.

1.10 We considered that encouraging competition in networks that offer broadband services would also incentivise Openreach to build gigabit-capable networks at scale. As such, competitive pressure, combined with regulatory support for Openreach's build, was intended to drive the transformation of Openreach's network, adding to the benefits arising from a more competitive future.

1.11 We decided that a regulatory approach that provided pricing continuity met our objectives. More specifically this meant:

- keeping existing price caps on wholesale services, i.e. MPF and FTTC 40/10, at the same level in real terms as applied in March 2021.
- maintaining a fair and reasonable condition on prices which were not subject to charge controls thereby allowing Openreach continued pricing flexibility on higher bandwidth services.
- where copper services were not available, that is, mainly where Openreach had deployed its fibre network and withdrawn new access to copper services, applying a charge control to the FTTP 40/10 service. This was set at the same level as the price cap for the FTTC 40/10 service with the addition of a premium to reflect the additional benefits of fibre over copper.

1.12 We anticipated that setting price caps at the same level in real terms on MPF and FTTC 40/10 allowed prices to be set above costs on those services. Furthermore, we expected that the constraint imposed by the 40/10 charge control on higher bandwidths, where Openreach would have pricing flexibility, would gradually reduce over time.

1.13 We considered the approach would promote network competition since:

- Higher wholesale prices strengthen the case for new entry by increasing the expected revenues for each premises served and improving the margins for a competing network.
- Higher wholesale prices incentivise ISPs to use competing networks which would support the business case for rivals building those networks.
- The level of the price caps we were setting sat above our estimates of the range necessary to allow a competing network operator to profitably offer a range of full-fibre services in the market.

1.14 We recognised that building a gigabit-capable network is a major investment with long payback periods, and that Openreach and other operators face risks when investing.

[1] For the reasons explained in Volume 3 Section 4, we also propose to impose a requirement that charges for FTTP 80/20 should be fair and reasonable in addition to the charge control.

Because of this, we also recognised that the question of how we would approach regulation in the future mattered for investment decisions during the review period (i.e. 2021-2026). Therefore, we set out how we expected to approach future decisions on regulation, while also noting the need for us to take account of relevant circumstances at the time.

Rationale for our proposals

1.15 Our approach to price regulation since 2021 (and indeed before this) is delivering against our objective of promoting competition and investment in fibre networks, while protecting consumers and downstream competition in the short-term.

1.16 Since 2021, we have seen significant investment in gigabit capable networks by a range of rival network providers with Openreach responding by accelerating the deployment of its own fibre network.[2]

1.17 We have considered whether pricing continuity would meet our objective of promoting competition and investment while protecting consumers and competition based on access to Openreach's network while network competition develops.

1.18 By pricing continuity, we mean:

a) Continuity in price levels - Continuing to set a charge control on an entry-level superfast product (referred to as the anchor product), at current price levels in real terms; and
b) Continuity in approach for non-charge controlled products - For other bandwidth services not subject to a charge control, maintaining a requirement that prices are fair and reasonable, therefore allowing Openreach greater pricing flexibility on these products.[3]

1.19 In our WFTMR21, as part of reaching our decision to adopt a pricing continuity approach, we also considered an alternative option of bringing Openreach's wholesale copper prices closer to costs.

1.20 At that time this was a relevant option to assess since under a scenario where there was limited investment in competing networks, Openreach would not have been incentivised to respond by deploying its own fibre network. Consequently, Openreach would have been expected to maintain volumes using its on-going copper network, and its unit copper costs would have been somewhat below prices under a pricing continuity approach.

1.21 Since the WFTMR21 there has been significant investment in fibre networks by both rival providers and Openreach. This means that a scenario where Openreach has maintained volumes on its on-going copper network is no longer relevant given the investment that has taken place.

1.22 Openreach's volumes on its ongoing copper network are expected to continue to decline. By the end of the forthcoming charge control period, we forecast Openreach's outturn costs for its copper services to be broadly comparable to prices that would be set under a pricing continuity approach. Therefore, an option that brings copper prices closer to costs is not materially different to pricing continuity.

1.23 We note that an approach that brought copper prices closer to accounting costs over the 2026-31 review period could result in price volatility, with prices falling at the start of the

[2] See Volume 2 Section 2.
[3] In Volume 3 Section 4, we set out our fair and reasonable pricing proposals.

control period, before increasing by the end of 2031. We consider that this price volatility would negatively impact investment in competing fibre networks.

1.24 Therefore, we do not consider that an approach of bringing copper prices closer to costs is a relevant (or meaningful) alternative option to consider.[4]

Description of the pricing continuity approach

1.25 Below we describe what pricing continuity entails, first in terms of the anchor product we propose to select and second in terms of the level of the charge control we propose to set on that anchor in 2026/27. We then assess this approach against our objectives.

Choice of anchor

1.26 In previous reviews, our underlying approach was to adopt a basic superfast broadband product as the anchor that promotes investment by Openreach and competing networks while sufficiently protecting consumers. In the WFTMR21, we maintained 40/10 as the anchor product.

1.27 We consider that our underlying approach to the anchor product in previous market reviews remains relevant and is consistent with our overarching objectives. As explained in Annex 8, we provisionally consider that adopting an 80/20 anchor better maintains continuity with our underlying approach given subsequent changes in the market. Therefore, in this section, we consider a pricing continuity approach that uses the 80/20 product as the anchor.

1.28 Under our proposals a charge control would apply to MPF and FTTC 80/20 rental charges.

1.29 In areas where a copper based 80/20 service is not available[5], or where the first threshold has been met under our proposals to support copper retirement, we propose to charge control the rental charges of the 80/20 FTTP product.[6]

The prevailing price of the anchor product

1.30 The broad principle of pricing continuity is to set a charge control at the prevailing price (in real terms) of the anchor product.

1.31 The first issue to consider is what represents Openreach's prevailing price since it has a list price but also offers discounted prices (or actual prices) which are very different. These differences are illustrated below:

- The current list price for FTTC 80/20 sits significantly above the current list price of the FTTC 40/10 variant - £255.36 (including MPF) compared to £177.23 (including MPF) respectively. However, Openreach offers unconditional discounts on the FTTC 80/20 service which brings the price (including MPF) to £191.11.[7] Under Openreach's unconditional offer, prices are contracted to increase by CPI each year, until 2026 when the discounts lapse.

[4] For the avoidance of doubt, we remain of the view that a reduction in price caps, or introduction of price caps on bandwidths above a basic superfast product, would reduce the incentive to invest in competing networks - including the significant investment that will be needed over the 2026-2031 review period as competing networks connect customers and grow their customer base - and so would not achieve our objective of promoting competition and investment.
[5] By this we mean where there is no FTTC connection to a premises (and no new FTTC connection is offered).
[6] Consistent with our current approach, we do not propose to mandate access to a standard broadband equivalent on Openreach's full fibre network given the limited number of consumers that are anticipated to be remaining on standard broadband services and affected by our proposals relating to copper retirement.
[7] Openreach's current MPF price is £104.11. The MPF price is not subject to a discount.

- The current list price for FTTP 80/20 sits above the current list price of the FTTP 40/10 variant - £253.44 per year compared to £201.91 per year respectively. However, under Openreach's Equinox 2 offer, the price of FTTP rentals, except FTTP 40/10, are discounted, conditional on an ISP meeting certain targets relating to the percentage of new orders they place which are FTTP. These discounts reduce the rental price of FTTP 80/20 to £194.52 per year. This is below the current list price of FTTP 40/10 which is £201.91 per year.

1.32 We consider that the discounted FTTC 80/20 price and FTTP 80/20 price are so broadly taken[8] up that they more closely represent the actual price customers pay than the list price.[9] Therefore, we propose to use the discounted prices as the prevailing prices in our charge control.

Calculating the level of the anchor price

1.33 In terms of setting the level of the charge control in the first year of the control, we propose to take the FTTC 80/20 discounted price in 2025/26 and uplift it by CPI.[10] As an indication, this is expected to result in a price cap of around £199.76 per year including MPF.[11]

1.34 For FTTP 80/20, we propose to use the FTTP 80/20 discounted price in 2025/26 and uplift it by CPI, which reflects the terms of the Equinox 2 agreement. The Equinox 2 agreement allows for Openreach to increase rental charges in 2026/27 by a further £1 per month. We consider that this is an integral part of the Equinox 2 agreement and therefore propose to allow Openreach the flexibility to make this increase by incorporating this into the first year of the charge control. As an indication, this is likely to result in a first year price cap of £215.33 for FTTP 80/20.[12]

1.35 In our WFTMR21, we added an explicit fibre premium uplift to the charge control when it applied to FTTP services. This was used as a proxy to reflect the additional customer benefit of FTTP compared to FTTC (and thereby mitigate the risk of the charge control effectively tightening when it applied to FTTP) given at that time there was a lack of evidence regarding customers willingness to pay for FTTP (i.e. through taking FTTP).

1.36 However, given the increased take-up of FTTP, we no longer have this gap in evidence. We consider that the additional value that customers place on FTTP is revealed by the prices Openreach has committed to in the Equinox 2 agreement, and which we have reflected in our proposed charge control. In other words, a fibre premium is already included in our proposed charge controls.[13] Therefore, it is not necessary to include a further explicit fibre premium uplift in our charge control.

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[8] Most ISPs pay the Equinox 2 discounted prices.

[9] Under the terms of the offers currently in place, ISPs pay the list price and receive a rebate for the difference between that and the discounted price up to six months later. Our proposed charge control would require Openreach to charge no more than the discounted price, which we recognise requires a change from the current payment structure. We invite views on this approach.

[10] Using 2025's October 12 month CPI rate.

[11] We have inflated the 2024/25 price (£191.11) by the October 2024 12-month CPI rate (2.3%) to calculate a 2025/26 price of (£195.51). We have then used the OBR forecast CPI rate for 2026/27 (2.2%), taken from its October 2024 economic outlook, to estimate the indicative 2026/27 price.

[12] We have inflated the 2024/25 price (£194.52) by the October 2024 12-month CPI rate (2.3%) to calculate a 2025/26 price of (£198.99). We have then used the OBR forecast CPI rate for 2026/27 (2.2%), taken from its October 2024 economic outlook, and then added £12, to estimate the indicative 2026/27 price.

[13] As an indication of the actual fibre premium reflected in Openreach's prices and therefore our charge controls in the first year, this is the difference between our indicative figure of £215.33 for FTTP 80/20 and £199.76 per year for FTTC 80/20 (including MPF) i.e. around £1.30 per month.

1.37 We now turn to considering our proposed pricing continuity approach against our objectives. We break our assessment down by:

- Impact on competitive network investment
- Impact on Openreach investment
- Protection of consumers
- Protection of downstream competition

Impact on competitive network investment

1.38 As explained earlier, since 2021 we have seen significant investment by rival networks supported by a pricing continuity approach. These investments have long pay back periods, that extend beyond a single charge control period. We consider that it is important that our approach to regulation recognises these longer pay-back periods and is consistent with the investment signals that we have previously provided.

1.39 We consider that a pricing continuity approach is supportive of rival investments made to date and provides incentives for future investment, including the significant investment that will be needed over the 2026-2031 review period as competing networks connect customers and grow their customer base.

Pricing continuity continues to promote competition and investment

1.40 In the WFTMR21, we estimated the costs of an entrant deploying a fibre network in WLA Area 2 using our 2021 Fibre Cost Model. The range of costs that we derived from our Fibre Cost Model were used to check that our charge control provided a set of prices that allowed a reasonably efficient operator to profitably offer a range of full-fibre services to the market.

1.41 We have updated elements of our Fibre Cost Model to check that our proposed charge control allows a reasonably efficient operator the opportunity to profitably offer a range of full-fibre services in the market and continues to support our objectives of promoting competition and investment.

1.42 We have revised elements of our Fibre Cost Model, where updated or actual information is available which can replace the forecast assumptions that we used in our 2021 Fibre Cost Model. This includes:

- Updating network element unit costs
- Updating opex costs[14]
- Updating WACC assumptions from 2026
- Updating our assumptions regarding costs recovered through connection charges
- We have also corrected the take-up assumption we had in the 2021 Fibre Cost Model to reflect the modelling assumption in our Statement
- We have also updated the geographic boundaries to reflect our proposals in the TAR26 consultation.

[14] This includes revising the calculation for PIA lead-in opex costs from a per metre basis to a per line basis.

1.43 Based on our updated cost modelling, we estimate that an entrant operator in WLA Area 2 would have to charge between £11.22 and £17.03 per month (in 2024/25 prices) to recover its efficiently incurred costs over the modelled period. In comparison we are proposing a charge control for FTTC 80/20 and FTTP 80/20 rentals (in 2024/25 prices) at £15.91 and £17.15 per month respectively at the start of the control period.

1.44 Given this, we consider that our proposed pricing continuity approach is consistent with allowing a reasonably efficient operator to profitably offer a range of full-fibre services to the market and continues to meet our objective of promoting competition and investment in gigabit networks. We also consider that our proposed approach is broadly consistent with investment signals we gave in the WFTMR21 as the level of the updated range is similar to that of the WFTMR21 range.[15]

1.45 Several stakeholders have argued that more extensive updates to our cost modelling should be undertaken to reflect evidence relating to the actual network deployments by altnets (such as network design).

1.46 The aim of our cost modelling is to estimate the reasonably efficient costs of a hypothetical operator deploying a fibre network (as opposed to the costs of any specific operator).

1.47 We recognise that, in reality, operators will have made their own choices around their networks and business models - such as those relating to network design and configuration. This means evidence on actual network deployments will vary across operators.

1.48 Given our aim is not to model the costs of a specific operator, there is no single correct approach to updating assumptions relating to network design; scale of build; passive infrastructure re-usage; and customer take-up as part of our entrant cross-check. While our modelled network is unlikely to match the network configuration or design of any specific operator (and cannot match all operators) we consider the assumptions made in the WFTMR21 provide a reasonable representation of a hypothetical reasonably efficient entrant operator.

1.49 We are also mindful that the assumptions we used in our cost modelling in the WFTMR21, provided investment signals to altnets and Openreach. These signals will have informed choices around business models and investments – such as those relating to network design, where to deploy a network, and indeed choices not to invest. Where there is no single correct answer on how to update our modelling assumptions, aligning our modelling to more closely reflect a specific operator, risks undermining the investment decisions of other operators. Ofcom's goal is not to ensure that individual stakeholders (whether altnets or Openreach) achieve their business targets. Nor is it Ofcom's goal to shield stakeholders from the wider economic environment – that is a risk for them and their investors to bear.

1.50 Further details of our modelling are provided in Annex 15.

Impact on Openreach investment

1.51 We consider that pricing continuity, through supporting competition in rival networks, will promote Openreach's continued investment in its fibre network. This is because Openreach will have a strong incentive to invest, due to the risk of losing volumes to competition from rival networks if it does not.

[15] The WFTMR21 WLA Area 2 entrant cost range is £11.40-£16.95 in 2024/25 prices.

1.52 Openreach has deployed FTTP to 17m premises as of January 2025, and has plans to extend its FTTP footprint to 30m premises by the end of 2030.[16] Openreach has highlighted the importance of regulatory stability to support its plans. For example:

- Openreach's Annual Review 2024, refers to a need for a continued period of regulatory and Government policy stability.[17]
- Openreach's internal documents on the potential long-term value of FTTP investments refer, among other things, to the importance of maintaining the broad regulatory framework established by Ofcom in the WFTMR21.[18]

1.53 As noted above, we consider that our proposed approach is broadly consistent with investment signals in the WFTMR21 as the level of the updated range is similar to that of the WFTMR21 range (when converted to 2024/25 prices).

1.54 We consider that competition from rival networks is the key to driving Openreach to invest. However, we also consider that our proposed charge controls in relation to FTTC and FTTP (where FTTC is not available) provide Openreach with an opportunity to recover its efficiently incurred costs, and are consistent with providing incentives for investment in its fibre network.

Protection of consumers

1.55 In this section, we explain why the proposed pricing continuity approach would protect consumers in the short term while network competition develops.

1.56 We discuss the following:

- Protection of consumers on standard and superfast broadband services at speeds of 80/20 and below.
- Protection of consumers on higher speed services.

Protection of consumers on standard and superfast broadband services at speeds of 80/20 and below

1.57 Under our proposals, customers on the Openreach copper network taking standard broadband or superfast broadband at 80/20 will be directly protected through our charge controls on MPF and FTTC 80/20. Customers on Openreach's fibre network taking FTTP 80/20 will be directly protected through our charge controls on FTTP 80/20 when it applies.[19] In all cases, prices for these customers will not increase in real terms.

1.58 Although we are not proposing to charge control 40/10 broadband services, we consider that customers taking the 40/10 service will be protected by the charge control on the

[16] A record year for UK broadband build and usage, Openreach, 6 January 2025.
[17] Building the connections that matter, Annual Review 2024, Openreach, 2024.
[18] Openreach Valuation (OLB(24)55i Openreach Valuation Jun 24), 11 June 2024. Openreach response to the s.135 notice titled Telecoms Access Review 2026, dated 19 June 2024.
[19] We propose to charge control the rental charges of the 80/20 FTTP product in areas where a copper based 80/20 service is not available, or where the first threshold has been met under our proposals to support copper retirement.

80/20 product, since they could switch to the 80/20 product in the event of a price increase.[20]

1.59 Where FTTP is available, but no charge control applies to FTTP 80/20 – because a copper based 80/20 service is available for new provisions – we consider that FTTP customers taking speeds up to 80/20 will have protection from the FTTC 80/20 charge control. This is because:

- Openreach will be aiming to migrate the customer base from its copper network across to its fibre network, and so a charge control on the FTTC 80/20 service will provide a constraint on the price it is able to charge for FTTP 80/20 (given customers could remain with/switch to FTTC 80/20).
- We also anticipate that potential competition from rival networks will increasingly act as a constraint on Openreach's ability to increase the price of the FTTP 80/20 service where it is not directly protected from the proposed charge control.

1.60 We have examined the proportion of Openreach's customer base that would be taking standard and superfast broadband services at speeds of 80/20 and below, and so would be protected from our proposed charge controls in the way described above:

- As at June 2024, around [✂] 75-85% of Openreach's broadband customer base (i.e. standard broadband, FTTC and FTTP combined) were taking products at bandwidths at or below 80/20. Given this, we expect a significant majority of Openreach customers will be taking these products at the start of the review period.
- Over the market review period we anticipate a trend of customers moving to higher bandwidths. In 2029/30, forecasts indicate that around [✂] 40-50% of Openreach's broadband customer base will be taking products at bandwidths at or below 80/20. This is still a significant proportion of Openreach customers.

Protection of consumers on higher speed broadband services

1.61 Under the proposed pricing continuity approach, there would be no direct protection on broadband services at bandwidths above 80/20, although Openreach would be required to provide those higher bandwidth services on a fair and reasonable basis.

1.62 We have examined the proportion of Openreach's customer base that are forecast to be taking services at bandwidths above 80/20 over the market review period:

- As at June 2024, around [✂] 15-25% of Openreach's broadband customer base (i.e. standard broadband, FTTC and FTTP combined) were taking products at bandwidths above 80/20.
- In 2029/30, as customers migrate to Openreach's fibre network and move to higher bandwidths around [✂] 50-60% of Openreach's total broadband customer base would not be directly protected from our proposed charge controls. The vast majority of Openreach customers taking services above 80/20 will be those that have migrated to Openreach's fibre network[21] with around [✂] 80-90% of Openreach's fibre customer base forecast to be

[20] At the wholesale level, the current price differential is modest. The price of FTTC 80/20 (after discounts) is around £1.16 per month higher than the price of FTTC 40/10. The price of FTTP 80/20 (after discounts) is below the price of FTTP 40/10.

[21] A small minority of customers using G.Fast will take services above 80/20 using Openreach's legacy network.

taking bandwidths above 80/20 and not directly protected from our proposed charge controls.

1.63 Despite this, we consider that over the next market review period, a charge control on 80/20 services will provide sufficient customer protection to higher bandwidth services.

1.64 First, we anticipate that potential competition from rival networks will increasingly act as a constraint on Openreach's ability to increase prices on higher bandwidth services that are not directly protected from the proposed charge control.

1.65 Second, the charge control on 80/20 services will act as an anchor, constraining the price of higher bandwidth services since Openreach will be aiming to migrate the customer base from its copper network across to its fibre network. This is because for most customers, the highest bandwidth available on Openreach's copper network is 80/20, and a key factor in influencing a customer's decision on whether and when to switch to the fibre network is the availability of higher bandwidth services and the price of those services (relative to 80/20). Increasing the relative gap between the prices of 80/20 and higher bandwidth services is likely to discourage some customers from migrating to fibre (since customers are less likely to perceive a value for money benefit of switching).

1.66 Finally, we note that Openreach may also be constrained to some degree from increasing the price of higher bandwidth services as result of the risk of some customers spinning down to the 80/20 service that is charge controlled.

Protection of downstream competition

Copper-based services

1.67 Under the proposed pricing continuity approach, MPF and FTTC 80/20 based products are subject to an inflation indexed cap. Consequently, downstream competition would be protected from Openreach setting high wholesale prices relative to BT's retail prices, resulting in a margin squeeze, on each of these copper-based products. Other bandwidths on the copper network are not subject to a charge control. In theory, this could mean that BT could set high wholesale prices on these products that impacts retail competition.

1.68 However, we do not consider this is a significant threat to the sustainability of retail competition over the 2026-2031 review period for the following reasons:

- Openreach is required to provide downstream products on an Equivalent of Inputs (EOI) basis which means that all retail competition has equal access to Openreach's FTTC services.
- Openreach is required to set wholesale charges for all other FTTC bandwidth services that are fair and reasonable which would address the risk of a margin squeeze, and therefore mean that retailers will be able to compete for those customers that demand higher bandwidths. [22]
- A margin squeeze is unlikely to be a successful strategy since:
  - FTTC bandwidths below 80/20, are expected to account for a decreasing proportion of customers over the review period. In addition, the proposed charge control on 80/20 effectively puts a limit on these prices increasing. Taken together, these both mitigate the impact on retail competition.

[22] Our proposed guidance on fair and reasonable charges is set out in Volume 3 Section 4.

> FTTC bandwidths above 80/20[23] account for a small minority of copper volumes. Furthermore, the proposed charge control on FTTC 80/20 is expected to constrain these prices.

- We anticipate that competition from rival networks, that is supported by pricing continuity, will increasingly protect retail competition.

FTTP services

1.69 Openreach is required to provide network access to FTTP products on a fair and reasonable basis. Where copper-based products are not available, the FTTP 80/20 product is also subject to an inflation indexed cap with all other bandwidths continuing to be subject to a fair and reasonable pricing requirement. In theory, this could mean that Openreach could set high wholesale prices for other FTTP bandwidth products, leaving competing retailers dependent on selling the FTTP 80/20 product only.

1.70 However, we do not consider this is a significant threat to the sustainability of retail competition over the review period for the following reasons:

- Openreach is required to provide downstream products on an Equivalent of Inputs (EOI) basis which means that all retail competition has equal access to Openreach's FTTP services.
- Openreach is required to set wholesale charges for other FTTP bandwidth services that are fair and reasonable which would address the risk of a margin squeeze, and therefore mean that retailers will be able to compete for those customers that demand other bandwidths.[24]
- Engaging in an effective margin squeeze for FTTP bandwidths below 80/20 is unlikely since these products account for a small minority of customers which is expected to decline still further over the review period. Furthermore, we note that Openreach currently sets its FTTP 80/20 price below its FTTP 40/10 service.
- Engaging in a margin squeeze on higher bandwidths may be commercially costly for BT since FTTP 80/20 is likely to remain a reasonable substitute for higher bandwidths over the review period. Therefore, the main effect for BT of setting high wholesale prices might be to forego the additional revenues it might otherwise have earned if it priced higher bandwidth services more attractively.
- We anticipate that competition from rival networks, that is supported by pricing continuity, will increasingly protect retail competition. As such, if BT sought to engage in a margin squeeze on higher bandwidths, we would anticipate that retailers would increasingly switch volumes to rival networks.

Provisional conclusions

1.71 We are proposing to adopt a pricing continuity approach in WLA Area 2 as it meets our objectives. We have explained above how a pricing continuity approach will promote competitive network investment, promote Openreach's investment, protect consumers and protect existing models of downstream competition. We are therefore proposing:

- An inflation indexed charge control is set on MPF and FTTC 80/20 rentals (or FTTP 80/20 rentals where a copper-based service is not available).

[23] A small minority of customers using G.Fast will take services above 80/20 using Openreach's legacy network.
[24] Our proposed guidance on fair and reasonable charges is set out in Volume 3 Section 4.

- Other bandwidth rentals are subject to a requirement that charges are fair and reasonable.[25]

Proportionality of our proposed approach

1.72 We consider that this approach is effective for the reasons set out above, and is the least onerous option for achieving our objective. We have not identified any adverse effects that would be disproportionate to the aim pursued.

Legal tests

1.73 We are proposing SMP conditions on BT in relation to the market for WLA in Area 2 to give effect to these pricing remedies. Further details of the proposed charge controls can be found in Section 3. Our draft SMP conditions can be found in Volume 7.

1.74 As explained above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end users.

1.75 As required by section 88 of the Act, we consider that the setting of each of these draft SMP conditions would be appropriate for the following purposes:

- promoting efficiency;
- promoting sustainable competition;
- conferring the greatest possible benefits on end users of public electronic communications services having regard, where relevant to the market analysis, to the long-term interests of end-users in the use of next-generation networks; and
- promoting the availability and use of new and enhanced networks.

1.76 We have also considered:

- the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
- the benefits of predictable and stable wholesale prices in ensuring
  - efficient market entry; and
  - sufficient incentives for all undertakings to bring into operation new and enhanced networks.

Promoting efficiency

1.77 We consider that supporting network competition and investment by Openreach and others through our pricing regulation promotes efficiency. In addition, in the absence of competitive pressures, we believe that Openreach would have limited incentives to reduce its costs of providing WLA services. Our proposals also encourage Openreach to achieve greater productive efficiency by allowing it to keep any profits it earns from reducing costs over the review period.

Promoting sustainable competition and conferring the greatest possible benefits on end users of public electronic communications services

1.78 The proposed pricing remedies are intended to incentivise investment in new networks by both rival network operators and Openreach. As explained above, we have seen significant

[25] For the reasons explained in Volume 3 Section 4, we also propose to impose a requirement that charges for FTTP 80/20 should be fair and reasonable in addition to the charge control.

network build since 2021, and expect a substantial amount of investment to occur over the 2026-2031 review period as competing networks look to connect customers and continue to build their networks. This will play an important and long-term role in protecting consumers and promoting sustainable retail competition.

1.79 We consider that continuing to support and incentivise investment in new, rival networks will deliver the greatest possible benefits for end users. In reaching this provisional view, we have had regard to the long-term interests of end users in the use of next-generation networks.

Promoting the availability and use of new and enhanced networks

1.80 We are satisfied that our draft SMP conditions promote the availability and use of new and enhanced networks.

1.81 Our proposed pricing continuity approach promotes investment in very high capacity networks by competing network providers. This competitive pressure provides Openreach with a strong incentive to invest. Where a copper based 80/20 service is not available, we propose to charge control an 80/20 equivalent on BT's full fibre network. Our proposals support a regulatory transition from copper to full-fibre services. Our proposals taken together will lead to increased availability and use of new and enhanced networks.

The extent of the investment and the benefits of predictable and stable wholesale prices

1.82 We have taken account of the extent of BT's investment in the matters to which the proposed charge control conditions relate by encouraging network competition, which provides an incentive for Openreach to invest in fibre, ensuring Openreach can make a reasonable return on its investments.

1.83 As our draft SMP conditions involve price controls on the provision of network access to existing network elements, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring-

- efficient market entry; and
- sufficient incentives for all undertakings to bring into operation new and enhanced networks.[26]

1.84 Our draft SMP conditions involve imposing a price cap on 80/20 products at their current actual levels in real terms. This is the highest speed product available for the vast majority of customers on Openreach's copper network and will therefore provide a cap for most customers on Openreach's copper network.

1.85 We consider that for higher speeds not subject to a price cap, on both Openreach's copper network and fibre networks, the price cap on Openreach's 80/20 products will constrain Openreach's prices. Therefore, our draft SMP conditions allow predictable and stable wholesale prices. We consider that this level of price regulation promotes efficient market entry by competing network providers and promotes Openreach's investment in gigabit-capable networks. Consequently, we are satisfied that our draft SMP conditions provide

[26] We also note the provision section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions other than those imposed under section 87(9) would ensure effective and non-discriminatory access. We have considered whether these tests may be satisfied in this case. We have provisionally concluded in light of our proposed SMP determinations that they would unlikely be satisfied.

sufficient incentives for all undertakings to bring into operation new and enhanced networks.

1.86 In Volume 4, Section 7, we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

Concerns about low FTTP prices

1.87 Several stakeholders have raised concerns about Openreach setting FTTP prices that are too low, as opposed to being too high, given the potential impact on network competition and have called for a price floor to be imposed.

1.88 In our WFTMR21, we set out a concern that Openreach may use geographically targeted price reductions in order to deter rollout in areas where others are starting/planning to roll out new fibre networks. To address this concern, we decided to restrict Openreach's ability to discriminate through geographically targeted price reductions by imposing a specific provision in our no undue discrimination condition.

1.89 We propose to maintain the geographic pricing restriction for the 2026-2031 market review (see Volume 3 Section 9).

1.90 In addition to geographically targeted price cuts, stakeholders are also concerned about 'across the board' price cuts by Openreach. Lower Openreach FTTP prices place commercial pressure on altnets. However, in itself this does not imply that those prices raise competition concerns. Subject to the requirements and restrictions set out in the WFTMR 2021 Statement and to the requirements and restrictions we are proposing for the 2026-2031 review, Openreach is allowed to compete with altnets and to make pricing offers. Indeed, this is consistent with our objectives to promote network competition.

1.91 However, we would be concerned if Openreach set its FTTP prices at a level that undermines the opportunity for a reasonably efficient competitor to recover its costs.[27] This would undermine the development of material and sustainable competition, which would be detrimental to consumers in the long term. In any consideration of whether the level of Openreach's prices raise *prima facie* concerns, one of the indicators we would look at is how Openreach's average FTTP price compares against our estimate of a reasonably efficient operator's costs derived from the 2026 Fibre Cost Model. We do not intend for this comparison to be a bright line test; given the wide range of costs, we would look at where Openreach's average price sits relative to the range.

Future price regulation and the fair bet

1.92 We recognise that building a gigabit-capable network is a major investment with long payback periods, and that Openreach and other operators face risks when investing. Because of this, we recognise that the question of how we would approach regulation in the future matters for investment decisions. This is why in WFTMR21 we provided clarity on our future regulation of fibre, setting out a long-term path for approaching future

[27] In Volume 3 Section 4, we set out our view that Openreach has the ability and incentive to enact a price squeeze between PIA prices and FTTP prices by reducing its downstream FTTP prices. To address the risk of such a price squeeze, we are proposing a requirement for FTTP charges to be fair and reasonable at all times. We interpret this requirement for fair and reasonable charges to mean Openreach should not set prices that leave an insufficient margin between its weighted average FTTP price and PIA prices.

decisions.[28] In this sub-section, we are reiterating how we would expect to approach future decisions.

1.93 We believe that competition is the most effective driver for innovation and investment. Our regulatory approach is to promote competition and investment in gigabit-capable networks and to this end we are taking a number of measures designed to support investment by BT and other operators:

- Providing access to Openreach's ducts and poles
- Indexing existing regulated copper prices (through our pricing continuity approach)
- Giving pricing flexibility on services above a basic superfast product (80/20)
- Allowing a price premium on the new full-fibre network
- Supporting the retirement of the copper network

1.94 Since the turn of the decade, we have seen significant investment in fibre networks by Openreach and competing networks. We anticipate investment in fibre networks to continue over the next five years. We expect competition from new providers to continue to develop as they establish themselves as sustainable competitors. This will put us on a path to even greater deregulation in the future, allowing competition to replace regulation permanently. Where effective competition emerges, there will be no need for Ofcom to regulate.

1.95 However, effective competition is unlikely to emerge in all parts of the UK and this raises questions about the market conditions that would cause us to consider the need to extend price controls and how such price controls should be constructed. We cannot prejudge what actions we will take in the future, as any pricing decisions in future reviews will be made in light of the circumstances and legal framework applicable at that time. Nevertheless, we would look carefully at a range of factors when deciding what further regulation, if any, was needed to address any finding of SMP.[29] For example:

- Ongoing investment and competition beyond 2031: By 2031, our strategy will have been in place for ten years to allow for network rollout to occur and competition to develop. It is possible that investment and the development of competition could continue beyond 2031. If this proved to be the case, we would expect to regulate in a way that continued to support this, while ensuring that consumers continue to be protected. In considering this, we would expect to look at the extent to which investment has already led to an increase in material and sustainable competition during the preceding ten years, and the extent to which competition may credibly intensify further beyond 2031.
- Absent investment and competition: in the future there may be areas where there is no on-going investment, and material and sustainable competition has not emerged and is not expected to. In these areas we would expect to look at consumer outcomes. It is possible that consumers in these areas benefit from competition through a common pricing approach (i.e. Openreach adopts the same prices here as in more competitive areas), or that Openreach has committed to supply on attractive commercial terms. If that is the case, it may be that light touch regulation is appropriate (or even no regulation on prices).

[28] While noting that our future decisions will depend on the circumstances that exist when we carry out future reviews.

[29] Our general approach to market analysis is described in Volume 2 and Annex 5.

- Where none of these circumstances apply, we may need to set cost-based prices going forwards.

1.96 If we decided circumstances require a return to a cost-based control in parts of the UK, we would ensure that operators have a fair bet on investments. This is a principle that we have consistently supported and honoured and continue to do so.[30]

1.97 An investment is a 'fair bet' if, at the time of investment, the expected return is equal to the cost of capital. In the case of BT's full-fibre investment, we believe that the measures we have put in place since 2021 and are proposing in this consultation support BT's full-fibre investment and significantly de-risk the investment case. However, we accept that some risk remains, and that BT should be allowed the opportunity to earn and keep a higher return than normal if it is successful. This is consistent with the fair bet principle.[31]

1.98 Should we need to regulate in future, we would check to ensure that BT had a fair bet. Our guiding principle in assessing this would be to consider whether, at the time BT took the decision to invest, it would have gone ahead with the investment if it had understood the regulation we were proposing to adopt.[32] In doing this we would assess the risks BT faced when making the investments and the cost of capital relevant to those investments at the time they were made. We would then look to ensure that the expected returns were sufficient to ensure that it had been compensated for those risks, i.e. the fair bet had been honoured.

1.99 In setting any future charge control, our policy would be to ensure that BT could keep any upside it had earned up to that point and ensure that it has the ability to earn its cost of capital going forward.[33]

1.100 We recognise that in the early stages of deploying a full-fibre network BT would incur significant capital expenditure with relatively low revenue from FTTP services. One important element of our approach to any future charge controls will therefore be our assumptions about how Openreach's assets have depreciated. Our approach to depreciation will determine the value that Openreach would derive from its investments in the period where it is subject to any charge control. While we would have to consider the prevailing circumstances at the time, we would expect to use economic depreciation rather than accounting depreciation when looking at Openreach's full-fibre investment. Economic depreciation calculates depreciation based on the revenue earning potential of assets (and the services those assets provide) rather than based on a set amount of cost each year (as with accounting depreciation).[34]

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[30] The main recent example was Ofcom's approach to setting price regulation on FTTC in the 2018 WLA. See paragraph 1.88 of January 2020 Consultation

[31] It is important to provide sufficient potential for BT to earn more than the cost of capital when the investment goes well to compensate for the losses BT could incur if the investment goes badly. Otherwise, BT would not have an incentive to make risky investments, and consumers would not have the benefits of its investment.

[32] This is consistent with the approach we used when assessing the fair bet in relation to FTTC investments in the 2018 WLA Statement. See Annex 6, 2018 WLA Statement, Ofcom, March 2018.

[33] If BT makes higher profits than its cost of capital in the period to 2031 (taking into account high returns on copper products), that would be to its benefit.

[34] This avoids the inverse relationship between in-year utilisation and unit costs prevalent under accounting approaches to depreciation in these circumstances. We have used economic depreciation in the past when faced with investment in a new network (e.g. when calculating charge for mobile and fixed call termination and as a cross-check for FTTC services in the 2018 WLA).

1.101 We would expect to depreciate Openreach's assets assuming that Openreach is able to achieve constant per line revenue that would be sufficient for Openreach to recover its costs (including its WACC). In the event competition does not develop to the extent we expect and we come to set a cost-based charge control, we would expect to maintain this historical assumption even if Openreach achieves greater recovery per line than we forecast. In reality, if competition does not develop, we would expect Openreach to be able to achieve a price higher than our assumed price per line, and therefore higher recovery than we would have assumed based on economic depreciation.

1.102 Under this approach BT would be able to earn a return above its cost of capital over the whole full-fibre investment cycle, even if cost-based regulation were introduced part way through the investment cycle.

1.103 This approach to pricing and deprecation would mean that in those areas where competition does not emerge, Openreach would have had ample regulatory support and funding for its full-fibre roll-out.

1.104 We consider that this description of how we might expect to approach future regulation provides Openreach (and other operators) with a sufficient basis to continue to move forward with their gigabit-capable roll outs.

WLA Area 3

The competition problem

1.105 In WLA Area 3, there is a risk that, absent regulation, BT would have the incentive and ability to fix and maintain wholesale prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users, including through weaker retail competition.

Our objectives

1.106 Our market analysis has indicated that in WLA Area 3 there is unlikely to be the potential for material and sustainable competition to Openreach in the commercial deployment of competing networks.

1.107 In developing our proposed pricing remedies for WLA Area 3, we have had regard to our overarching legal duties. Consistent with the approach to remedies set out in Volume 3 Section 1, we have exercised our discretion in setting these controls in favour of an approach that:

- promotes investment in gigabit-capable networks by Openreach; and
- promotes competition based on access to Openreach's networks, and protects consumers.

1.108 We consider this will best serve the interests of consumers, as the roll-out of gigabit-capable networks will deliver long term consumer benefits.

Summary of our proposals

1.109 We propose a pricing continuity approach, where:

- An inflation indexed charge control is set on MPF and FTTC 80/20 rentals (or FTTP 80/20 rentals where a copper-based service is not available).

- Other bandwidth rentals are subject to a requirement that charges are fair and reasonable. [35]

Our approach in the WFTMR21

1.110 In our WFTMR21, our objectives in WLA Area 3 were to promote investment in gigabit-capable networks by Openreach; to promote competition based on access to Openreach's network; and to protect consumers (the objectives we have outlined above for the 2026-2031 review period remain consistent with this).

1.111 We decided to adopt a RAB approach to incentivise Openreach to invest in fibre networks, where it would otherwise have weak incentives to invest, since it provided more certainty of cost recovery relating to its fibre investment. Under the RAB approach, the costs of Openreach's fibre investment can be recovered across copper and fibre services together.

1.112 We implemented a forecast RAB approach, whereby the form of the price cap was set in advance and remained fixed for the duration of the control based on a forecast of fibre build and investment costs and forecast costs of continuing to run the copper network. This approach was backed by a BT Commitment to commercially build out its fibre network (i.e. without public subsidy) in Area 3 to at least 3.2m premises cumulatively by the end of 2025/26.

1.113 We recognised that there were various ways to set charge controls that were potentially consistent with providing Openreach with an expectation of cost recovery over the lifetime of the copper and fibre network (given its planned build in Area 3). However, we considered that given the forward-looking nature of our market analysis, a RAB approach that resulted in consistent pricing across WLA Area 2 and WLA Area 3, would reduce the impact of a regulatory boundary (which is inevitably an approximation of reality).

1.114 Our analysis indicated that indexing copper services at bandwidths up to 40/10 by inflation and allowing price flexibility on higher bandwidth copper services (and fibre services) sat within a reasonable (and plausible) range of profiles that provided the expectation of cost recovery when viewed over 20 years. This assumed the deployment of an FTTP network reaching 7m premises (of a total of 9m premises) in Area 3 by 2031, with 3.2m premises reached by 2026. We assumed that deploying FTTP to the final 2m premises in Area 3 would need public subsidy.

1.115 We considered that an indexed inflated charge control on copper services at bandwidths up to 40/10 protected customers from excessive prices and promoted competition based on access to BT's network.

Rationale for our proposals

1.116 Since 2021, Openreach has significantly increased the coverage of its fibre network and by March 2024 had commercially deployed to 3.2m premises based on the Area 3 boundary defined in the WFTMR21. Its fibre network is now expected to significantly exceed the BT Commitment of reaching 3.2m premises by March 2026.[36]

[35] For the reasons explained in Volume 3 Section 4, we also propose to impose a requirement that charges for FTTP 80/20 should be fair and reasonable in addition to the charge control.

[36] In January 2025, Openreach announced that its fibre network had reached more than 4.3m premises in rural and hard to reach areas. A record year for UK broadband build and usage, Openreach, 6 January 2025.

1.117 In addition, other altnets are also delivering (or planning to deliver) coverage to rural areas.

1.118 As set out in Volume 2 Section 4, our market analysis now indicates an increase in the number of areas where there is likely to be the potential for material and sustainable competing networks. As a result, we are proposing to shift the boundary between WLA Area 2 and WLA Area 3. This means that the proposed WLA Area 3 for the 2026-31 review period will cover around 10% of premises, which accounts for around 3.2m premises in total.

1.119 Where there is unlikely to be the potential for material and sustainable competing networks, we continue to have the objective of promoting investment by Openreach in gigabit networks; and promoting competition based on access to Openreach's network to protect customers in this area. Therefore, while the proposed WLA Area 3 is considerably smaller than the WLA Area 3 we defined as part of the WFTMR21, this does not affect our objectives.

1.120 In our WFTMR21, we committed to a RAB approach to encourage Openreach to invest in a fibre network where it did not face the potential of material and sustainable competition and therefore its incentives to invest were weaker.

1.121 We propose to continue to adopt a RAB approach.

1.122 While there are various ways that we could set charge controls which are consistent with a RAB approach, we have started by considering a pricing continuity approach which is currently in place in Area 3 and has supported Openreach's investment to date.

1.123 We consider that a RAB approach based on pricing continuity would continue to support Openreach's investment in WLA Area 3 and note that evidence from Openreach is consistent with this. For example:

- Openreach has plans to extend its FTTP footprint to 30m premises by the end of 2030[37] which would be expected to commercially cover some of the remaining premises in our proposed WLA Area 3.
- Openreach's internal documents on the potential long-term value of FTTP investments refer, among other things, to the importance of maintaining the broad regulatory framework established by Ofcom in the WFTMR21.[38] We understand this to mean pricing continuity in the next market review period across both WLA Area 2 and WLA Area 3.

1.124 By pricing continuity, we mean:

- Continuing to set a price cap on an entry-level superfast product (referred to as the anchor product), at current price levels in real terms; and
- Maintaining a requirement that prices for other bandwidth services not subject to charge controls are fair and reasonable, therefore allowing Openreach pricing flexibility on these products.

1.125 For the reasons set out in relation to WLA Area 2, we are proposing to use the 80/20 product as our choice of anchor and use discounted prices as the prevailing prices to

[37] A record year for UK broadband build and usage, Openreach, 6 January 2025.
[38] Openreach Valuation (OLB(24)55i Openreach Valuation Jun 24), 11 June 2024. Openreach response to the s.135 notice titled Telecoms Access Review 2026, dated 19 June 2024.

calculate the starting prices. This means MPF and FTTC 80/20 will be directly charge controlled (or FTTP 80/20 where FTTC is not available).

1.126 Although under the proposed pricing continuity approach, we would be directly charge controlling an anchor product only, the RAB approach considers cost recovery across copper and fibre in WLA Area 3 combined.

1.127 We now turn to consider our proposed pricing continuity approach against our objectives. We break our assessment down by:

- Impact on Openreach investment;
- Protection of consumers; and
- Protection of competition based on access to Openreach's network.

Impact on Openreach investment

1.128 We have assessed the level of cost recovery that Openreach would need to support its commercial investment in the proposed WLA Area 3 under the RAB approach that we used in the WFTMR21.

1.129 Under the RAB approach, and consistent with our approach in the WFTMR21, we assess whether Openreach is expected to recover the costs of its fibre deployment (and its copper costs) across both its copper customers and fibre customers combined.

1.130 We have modelled the costs of Openreach commercially deploying a fibre network to 2.2m of the 3.2m premises in our proposed WLA Area 3. We have assumed that deploying to the final 1m premises, that have the highest build costs, would not be commercially viable (and so would need to rely on public funding and/or other technologies).[39]

1.131 We have assessed Openreach's cost recovery under a pricing continuity approach.

1.132 Our modelling indicates that the proposed pricing continuity approach, would provide a profile of cost recovery during 2026-2031 that is consistent with giving Openreach an expectation of cost recovery (assessed across both copper services and fibre services) over a payback-period of 20-years.

1.133 We therefore consider that this approach provides Openreach with appropriate incentives to invest in its fibre network in WLA Area 3.

1.134 Further details of our analysis are set out in Annex 16.

Protection of consumers

1.135 In this section, we explain why the proposed pricing continuity approach would protect consumers in the short term.

1.136 We discuss the following:

- Protection of consumers on standard and superfast broadband services
- Protection of consumers on higher speed services

[39] In the WFTMR21, we assumed 2m of the 9m premises in Area 3 were not commercially viable. Since 2021, around 1m of those 2m premises have been deployed to by altnets using public subsidy and have been re-categorised as WLA Area 2. This leaves around 1m premises in our proposed WLA Area 3 that are considered as not commercially viable.

Protection of consumers on standard and superfast broadband services at speeds of 80/20 and below

1.137 Under our proposals, customers on the Openreach copper network taking standard broadband or superfast broadband at 80/20 will be directly protected through our charge controls on MPF and FTTC 80/20. Customers on Openreach's fibre network taking FTTP 80/20 will be directly protected through our charge controls on FTTP 80/20 when it applies.[40] In all cases, prices for these customers will not increase in real terms.

1.138 Although we are not proposing to charge control 40/10 broadband services, we consider that customers taking the 40/10 service will be protected by the charge control on the 80/20 product, since they could switch to the 80/20 product in the event of a price increase.[41]

1.139 Where FTTP is available, but no charge control applies to FTTP 80/20 – because a copper based 80/20 service is available for new provisions – we consider that FTTP customers taking speeds up to 80/20 will have protection from the FTTC 80/20 charge control. This is because:

- Openreach will be aiming to migrate the customer base from its copper network across to its fibre network, and so a charge control on the FTTC 80/20 service will provide a constraint on the price it is able to charge for FTTP 80/20 (given customers could remain with/switch to FTTC 80/20).

1.140 We consider that the evidence we presented relating to the profile of Openreach's broadband customer base as part of the discussion of WLA Area 2 is relevant to WLA Area 3. This is because we would not expect a significantly different profile of customers between WLA Area 3 and WLA Area 2. Indeed, if anything, where Openreach is slower to deploy its fibre network in WLA Area 3, we might expect that a larger proportion of customers would be taking standard and superfast broadband services. Based on that evidence, our view is that this would provide protection to a broad range of consumers over the market review period.

Protection of consumers on higher speed services

1.141 Under the proposed pricing continuity approach, there would be no direct control on bandwidths above 80/20, although Openreach would be required to provide those higher bandwidths services at charges that are fair and reasonable.

1.142 As explained earlier in this section under our proposals in WLA Area 2, over the next market review period, the vast majority of Openreach customers taking services above 80/20 are those that will have migrated to Openreach's fibre network.[42]

1.143 Again, we consider that the evidence we presented relating to the profile of Openreach's broadband customer base as part of the discussion of WLA Area 2 is relevant to WLA Area 3. This is because we would not expect a significantly different profile of customers between WLA Area 3 and WLA Area 2. Indeed, if anything, where Openreach is slower to

[40] We propose to charge control the rental charges of the 80/20 FTTP product in areas where a copper based 80/20 service is not available, and where the first threshold has been met under our proposals to support copper retirement.

[41] At the wholesale level, the current price differential is modest. The price of FTTC 80/20 (after discounts) is around £1.16 per month higher than the price of FTTC 40/10. The price of FTTP 80/20 (after discounts) is below the price of FTTP 40/10.

[42] A small minority of customers using G.Fast will take services above 80/20 using Openreach's legacy network.

deploy its fibre network in WLA Area 3, we might expect that a larger proportion of customers would be taking standard and superfast broadband services.

1.144 We recognise that as customers migrate to FTTP, the proposed charge control will not provide direct protection to a gradually increasing proportion of Openreach customers during the next market review period. In addition, unlike in WLA Area 2, we do not anticipate that potential competition from rival networks will increasingly act as a constraint on Openreach's ability to increase prices on higher bandwidth services that are not directly protected from the proposed charge control.

1.145 Despite this, we consider that over the next market review period, a charge control on 80/20 services will provide sufficient protection to customers taking higher bandwidth services.

1.146 Firstly, as in WLA Area 2, the charge control on 80/20 services will constrain the price of higher bandwidth services since Openreach will be aiming to migrate the customer base from its copper network across to its fibre network. This is because for most customers, the highest bandwidth available on Openreach's copper network is 80/20, and a key factor in influencing a customer's decision on whether and when to switch to the fibre network is the availability of higher bandwidth services and the price of those services (relative to 80/20). Increasing the relative price gap between higher bandwidth services and 80/20 is likely to discourage migration with customers (since customers are less likely to perceive a value for money benefit of switching) and decide to delay or decide against switching to fibre services.

1.147 Secondly, Openreach may also be constrained to some degree from increasing the price of higher bandwidth services as result of the risk of some customers spinning down to the 80/20 service that is charge controlled.

1.148 In addition, we note that Openreach has to date shown a preference for applying national rental prices (as opposed to differentiating prices by WLA Area 2 and WLA Area 3). We consider that the smaller WLA Area 3 we are proposing is likely to weaken Openreach’s incentives to differentiate its rental pricing between WLA Area 2 and WLA Area 3. Therefore, to the extent that Openreach maintains its broad preference to apply national rental prices, customers in WLA Area 3 would also indirectly benefit from the competitive constraint that rival networks place on Openreach’s ability to increase prices on higher bandwidth services.

Promotion of competition based on access to Openreach's network

Copper based services

1.149 Under the proposed pricing continuity approach, MPF and FTTC 80/20 based products are subject to an inflation indexed cap. Consequently, downstream competition would be protected from Openreach setting high wholesale prices relative to BT's retail prices, resulting in a margin squeeze, on each of these copper-based products. Other bandwidths on the copper network are not subject to a charge control. In theory, this could mean that BT could set high wholesale prices on these products that impacts retail competition.

1.150 However, we do not consider this is a significant threat to the sustainability of retail competition over the review period for the following reasons:

- Openreach is required to provide downstream products on an Equivalent of Inputs (EOI) basis which means that all retail competition has equal access to Openreach's FTTC services.

- Openreach is required to set wholesale charges for all other bandwidth services that are fair and reasonable which would address the risk of a margin squeeze, and therefore mean that retailers will be able to compete for those customers that demand higher bandwidths.[43]
- A margin squeeze is unlikely to be a successful strategy since:
  - Bandwidths below 80/20, are expected to account for a decreasing proportion of customers over the review period. In addition, the proposed charge control on FTTC 80/20 effectively puts a limit on these prices increasing. Taken together, these both mitigate the impact on retail competition.
  - FTTC bandwidths above 80/20 account for a small minority of volumes. Furthermore, the proposed charge control on FTTC 80/20 is expected to constrain these prices.

FTTP services

1.151 BT is required to provide network access to FTTP products on a fair and reasonable basis. Where copper-based products are not available, the FTTP 80/20 product is also subject to an inflation indexed cap with all other bandwidths continuing to be subject to a fair and reasonable pricing requirement. In theory, this could mean that BT could set high wholesale prices for other bandwidth products, leaving competing retailers dependent on selling the FTTP 80/20 product only.

1.152 However, we do not consider this is a significant threat to the sustainability of retail competition over the review period for the following reasons:

- Openreach is required to provide downstream products on an Equivalent of Inputs (EOI) basis which means that all retail competition has equal access to Openreach's FTTP services.
- Openreach is required to set wholesale charges for other bandwidth services that are fair and reasonable which would address the risk of a margin squeeze, and therefore mean that retailers will be able to compete for those customers that demand other bandwidths;[44]
- Engaging in an effective margin squeeze for FTTP bandwidths below 80/20 is unlikely since these products account for a small minority of customers which is expected to decline still further over the review period. Furthermore, we note that Openreach currently sets its FTTP 80/20 price below its lower bandwidth FTTP services.
- Engaging in a margin squeeze on higher bandwidths may be commercially costly for BT since FTTP 80/20 is likely to remain a reasonable substitute for higher bandwidths over the review period. Therefore, the main effect for BT of setting high wholesale prices might be to forego the additional revenues it might otherwise have earned if it priced higher bandwidth services more attractively.

Other considerations

We are not proposing that BT should make a commitment to us as part of our pricing continuity approach

1.153 In our WFTMR21, our decision to implement a RAB approach in Area 3 was backed by a BT Commitment to commercially build out its fibre network (i.e. without public subsidy) to at least 3.2m premises cumulatively by the end of 2025/26.

[43] Our proposed guidance on fair and reasonable charges is set out in Volume 3 Section 4.
[44] Our proposed guidance on fair and reasonable charges is set out in Volume 3 Section 4.

1.154 We do not consider it necessary for BT to come forward with a similar commitment as part of our proposed pricing continuity approach for the 2026-2031 review period for following reasons:

- Openreach's deployment of fibre in the current Area 3 (i.e. as defined in the WFTMR21) has significantly exceeded the BT Commitment made in 2021. We consider that under our proposed pricing continuity approach, Openreach will continue its commercial deployment given that build plans are well advanced and funded.

1.155 Our proposed WLA Area 3 is considerably smaller compared to the Area 3 we defined in the WFTMR21. Of these c3.2m premises a large share, around 1m, are not commercial to supply to. Some of these are likely to be deployed to through public subsidy. However, we do not know precisely how many, and which premises will be supported in this way. There may also be other premises which are not commercial to supply (regardless of whether they are currently supported by public subsidy). This means there is a higher risk of regulatory failure if we try to specify the precise level of efficient commercial deployment that is required in the proposed WLA Area 3.

Provisional conclusions

1.156 For the reasons set out above, we are proposing to adopt a pricing continuity approach in WLA Area 3 as it meets our objective.

1.157 We consider that a pricing continuity approach has supported Openreach's investment in a fibre network in WLA Area 3 to date and that our proposals provide continued incentives for investment by giving Openreach the expectation of cost recovery across its fibre and copper network. Our view is that consumers will continue to be protected from excessive prices over the review period and that downstream competition will be protected.

1.158 We therefore propose that:

a) An inflation indexed charge control is set on MPF and FTTC 80/20 rentals (or FTTP 80/20 rentals where a copper-based service is not available).
b) Other bandwidth rentals are subject to a requirement that charges are fair and reasonable.[45]

Proportionality of our proposed approach

1.159 We consider that this approach is effective and is the least onerous option for achieving our objective. We have not identified any other impacts that would be disproportionate to the aim pursued.

Legal tests

1.160 We are proposing SMP conditions on BT in relation to the market for WLA in Area 3 to give effect to the pricing remedies described above. Further details of the proposed charge controls can be found in Section 3. Our draft SMP conditions can be found in Volume 7.

1.161 As explained above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end users.

[45] For the reasons explained in Volume 3 Section 4, we also propose to impose a requirement that charges for FTTP 80/20 should be fair and reasonable in addition to the charge control.

1.162 As required by section 88 of the Act, we consider that the setting of each of these draft SMP conditions would be appropriate for the following purposes:

- promoting efficiency;
- promoting sustainable competition;
- conferring the greatest possible benefits on end user of public electronic communications services having regard, where relevant to the market analysis, to the long-term interests of end-users in the use of next-generation networks; and
- promoting the availability and use of new and enhanced networks.

1.163 We have also considered:

- the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
- the benefits of predictable and stable wholesale prices in ensuring
  - > efficient market entry; and
  - > sufficient incentives for all undertakings to bring into operation new and enhanced networks.

Promoting efficiency

1.164 We consider that the proposed charge control is appropriate for promoting allocative efficiency, since in the absence of potential competition, BT would have limited incentives to seek to reduce its prices of providing WLA services.

1.165 We consider that our proposed charge control encourages BT to increase its productive efficiency. This will be achieved by allowing BT to keep any profits that it earns by reducing its costs over and above the savings envisaged when the charge control is set.

1.166 In addition, the charge control has been set to allow BT to earn a reasonable rate of return (cost of capital) where it is efficient.

Promoting sustainable competition

1.167 We have proposed pricing remedies that aim to support BT's deployment of a fibre network while also promoting retail competition based on wholesale access to BT's network.

1.168 While we consider it unlikely that there will be material and sustainable competition to BT in the commercial deployment of competing networks in WLA Area 3, we consider that the proposed pricing remedies should not undermine such rival investment to the extent that it emerges.

1.169 The draft SMP conditions aim to promote and maintain retail competition based on wholesale access to BT's network.

Conferring the greatest possible benefits on end user of public electronic communications services

1.170 The draft SMP conditions are intended to deliver the best outcome for consumers over the long term by incentivising fibre investment by BT where it would otherwise have weak incentives to deploy a fibre network. The draft SMP conditions also protect end users from BT setting high prices relative to cost.

Promoting the availability and use of new and enhanced networks

1.171 In WLA Area 3 we consider it unlikely that there is potential for material and sustainable competition by rival networks and therefore in the absence of regulation BT's incentives to invest are weak. Our proposed charge control using a RAB approach supports BT's investment in deploying a fibre network by providing BT with greater certainty relating to the cost recovery of its fibre network investment.

The extent of the investment and the benefits of predictable and stable wholesale prices

1.172 We have also taken account of BT's investment in the matters to which the draft SMP conditions relate by modelling BT's forecast costs for copper services to allow for a reasonable rate of return on its investment. The proposed charge control supports BT's investment in fibre networks where it would otherwise have weak incentives by ensuring that BT receives a sufficient return on its fibre investment.

1.173 We are proposing a charge control for five years where services will be capped at inflation adjusted levels. This provides predictability and stability over the control period and is consistent with our objective of supporting investment.

1.174 In Section 7, we explain how these proposed pricing SMP conditions satisfy the tests set out in section 47 of the Act.

Consultation questions:

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

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

2. Price regulation in leased line access markets

2.1 In this section we set out our proposals in relation to price regulation in leased line access (LLA) in LLA Area 2, LLA Area 3 and the HNR Area.

LLA Area 2

The competition problem

2.2 As set out in Volume 2, in LLA Area 2 there is a risk that, absent regulation, BT would have the incentive and ability to fix and maintain wholesale prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users, including through weaker retail competition.

2.3 As set out below, we are proposing to impose charge controls on BT's active LLA services to address this risk. Consistent with the approach to remedies set out in Volume 3, we are proposing to exercise our discretion in setting these charge controls in favour of an approach that achieves our objectives.

Our objectives

2.4 Our market analysis has indicated that in LLA Area 2 there is, or there is likely to be the potential for, material and sustainable competition to Openreach in the provision of leased lines by competing networks.

2.5 As set out in Volume 3, in LLA Area 2 our objective is to promote investment and competition in networks that offer LLA services by Openreach and other communications providers. We also seek to protect consumers and competition based on access to Openreach's networks as network competition develops.

Summary of our proposals in LLA Area 2

2.6 In LLA Area 2 we are proposing pricing continuity. We propose to maintain a CPI-0% charge control for all active LLA services, so prices do not rise in real terms.[46]

Our approach in the WFTMR21

2.7 In the WFTMR21, we decided that a pricing continuity approach that maintained price caps at their current levels in real terms met our objective of promoting competition and investment in gigabit-capable networks by Openreach and other operators. It also protected consumers and existing models of downstream competition in the short term.

2.8 We considered price regulation to be an important factor in the investment decisions of competitors since it has a dominant influence on prices in the market. We considered that the existing charge controls (in place prior to the WFTMR21) were consistent with

[46] This includes both EAD and WDM rental and connection charges.

promoting competitive network investment given the investment underway or planned, and the fact that large customers were actively considering alternatives to Openreach. We considered that price reductions would damage new entrants, reduce their ability to compete profitably and give customers less reason to move away from Openreach.

2.9 Our view was that promoting investment in other operators' gigabit-capable networks would also incentivise Openreach to respond and invest in its own gigabit-capable networks.

2.10 We considered that customers buying leased line services would be protected by the price controls we were imposing, which would remain the same in real terms. Although we recognised that this would likely allow Openreach to price above costs, we expected that consumers would benefit from pricing continuity in the long term. We expected a substantial amount of competing network build to emerge during the review period, which would play an important and long-term role in protecting consumers.

Rationale for our proposals

2.11 We have considered two broad approaches to setting charge controls on LLA services in LLA Area 2 to address the competition concerns identified above. These are:

a) **Pricing continuity:** Keeping the price caps across LLA services the same in real terms.
b) **Bringing prices closer to cost:** Setting price caps on all LLA services to bring them closer in line with costs.

2.12 We have assessed how each option would perform against our objective of promoting network competition and investment in networks that offer LLA services. We consider that there is the potential for regulation to strengthen competition in LLA Area 2, which would bring positive benefits to LLA users in the long term. This will take time and therefore we seek to provide adequate protection to consumers and existing models of competition in the short term.[47] After assessing how each option would perform against our objective, we set out our preferred option and our assessment of whether that approach is proportionate.

Option 1: Pricing continuity

2.13 In this section we set out our views on whether pricing continuity, keeping price caps on all services the same in real terms, would meet our objectives in LLA Area 2.

Impact on competition and investment

2.14 We believe that pricing continuity will support investment and the development of stronger network competition in LLA Area 2.

2.15 The evidence presented in the market analysis section, Volume 2, demonstrates that the WFTMR21 package of remedies for LLA services has enabled increased competition in the LLA market to emerge over recent years, signified by the growth in footprint and customer volumes from LL-only providers such as ITS as well as the expansion of CityFibre's network and increased LLA customer volumes.[48] An illustration of this increased competition is the proposed increase in size of the HNR Area for the 2026-31 review period.[49] The WFTMR21

[47] The primary remedies that protect models of downstream competition based on access to Openreach's LLA network are the various access requirements set out in Volume 3 of this consultation, including the protections against undue discrimination. Accordingly, the discussion below mostly focuses on consumer protection.
[48] Volume 2 presents our evidence on this.
[49] As presented in Volume 2, the HNR Area is proposed to increase from 525 post code sectors to 935 post code sectors for the 2026-2031 review period.

remedies, including PIA and pricing continuity on LLA services, have supported this network build.

2.16 As explained above, our objective in LLA Area 2 is to promote network competition and investment in networks that offer LLA services. Maintaining the WFTMR21 remedies in the 2026-2031 review period will allow rival providers to continue to invest in expanding and infilling their networks in LLA Area 2. Further increases in the geographic availability of rival networks that provide LLA services will allow these providers to compete with Openreach more effectively and at more locations in the future.

2.17 This includes competition from LL-only providers and competition from CityFibre.

2.18 Since the WFTMR21, we have observed increased build from LL-only providers, driven by existing competitors expanding their network as well as new market entry. As outlined in Volume 2, LL-only operators have indicated that they intend to expand further after 2026. Our evidence shows that some LL-only providers have won significant amounts of extra volumes since 2021.[50] Pricing continuity in LLA Area 2 will continue to encourage LL-only providers to further expand their networks and allow them to compete for new business.

2.19 CityFibre has plans to continue to operate in the LLA market and significantly expand its LLA business.[51] We consider that pricing continuity in LLA Area 2 will support CityFibre's leased line expansion plans and provide an opportunity for it to overcome some of the barriers we have identified in this market.[52] This, in turn, will potentially strengthen the competitive constraint it exerts in the future.

2.20 We recognise the potential that regulation in the LLA market could affect incentives to invest in other markets, such as the WLA market. In the WFTMR21, we identified economies of scope between the provision of LLA and WLA services. While many altnets that have entered the WLA market have chosen not to provide leased lines to date, others have built networks that can offer services in both the WLA and LLA markets, notably CityFibre and nexfibre. Take-up of leased lines is a potential source of revenue for these operators. Therefore, pricing continuity could support these operators in becoming stronger competitors in the WLA market as well, by supporting their business cases for fibre network deployment, including further network infill and expansion.

Protection of customers and downstream competition

2.21 As explained above, we believe that pricing continuity will support the development of stronger network competition in LLA Area 2. In our view, network competition is the best way to protect consumers in the long term.

2.22 Under the pricing continuity approach, consumers will continue to be protected in the short-term by price controls on Openreach active LLA services, which will remain the same in real terms. Although Openreach's recent LLA market profitability is above the relevant cost of capital, it is not a great amount higher than the cost of capital (especially in LLA Area 2).[53]

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[50] Our evidence on the expansion of some LL-only networks since 2021 is found in Volume 2.

[51] In particular, it intends to make greater use of XGS-PON to supply services that compete with traditional leased lines and [✂]. CityFibre response dated 8 November 2024 to s135 notice dated 24 October 2024, question A1.

[52] For more detail on the barriers to entry and expansion we have identified in the LLA market, see Volume 2, Section 5.

[53] Further information about Openreach profitability is provided in BT's published Regulatory Financial Commentary (RFC). Further evidence relating to LLA market profitability is set out in Annex 14.

While a CPI-0% control would allow Openreach to continue to make returns above the cost of capital, consumers are protected from price rises in real terms.

2.23 Consumers will also benefit more significantly in the long term if network competition is intensified in LLA Area 2, with multiple providers driving down costs and increasing the quality, availability and variety of services available to business customers requiring a leased line or equivalent service. This increased network competition will also protect downstream competition that relies on access to LLA networks.

2.24 We thus consider that ensuring that real prices do not increase from current levels will provide adequate protection over the review period for customers while competition continues to develop.

2.25 We consider that a pricing continuity approach will sufficiently reduce the risk of a margin squeeze enabled via high Openreach LLA prices, which will protect downstream competition based on access to Openreach's network.

Option 2: Bringing prices closer to costs

2.26 In this section we set out our views on whether setting a tighter charge control to bring LLA prices down closer to costs would meet our objectives.

Impact on competition and investment

2.27 We describe above why we believe that pricing continuity will support investment and the development of stronger network competition in LLA Area 2. In contrast, a significant reduction in the charge control on LLA services in LLA Area 2 would reduce the incentive for competing networks to invest in LLA Area 2, signal we are moving away from our approach of setting prices to support network competition and investment, and risk undermining the potential for stronger network competition in LLA Area 2.

2.28 In particular, the reduction in prices associated with bringing Openreach's active LLA prices much closer to costs would reduce the expected returns from initial network deployment or network extension. Tighter price regulation would make it more attractive for existing and potential purchasers of leased lines to rely on Openreach products rather than considering alternatives, at a time when network competition is developing.

Protection of customers and downstream competition

2.29 Bringing prices closer to costs would protect consumers from excessive prices and support downstream competition based on access to Openreach's network. As it would involve a reduction in prices of LLA services, this would provide a greater level of protection than pricing continuity in the short term as lower prices for Openreach's active LLA products would be guaranteed. It may also provide a greater level of protection against the risk of a margin squeeze enacted via high Openreach LLA prices, which would help protect downstream competition based on access to Openreach's networks.

2.30 However, bringing prices closer to cost risks undermining the potential for stronger network competition to develop, and therefore forgoing the protection of consumers that competition could deliver in the longer term, and the potential for downstream competition that is not dependent on regulation.

Our preferred approach is pricing continuity

2.31 As explained above, we are of the view that the current approach to price regulation has been supportive of investment and competition, while adequately protecting customers from excessive pricing in the short term.

2.32 Bringing prices for LLA services closer to costs would provide more protection to customers and retail competition in the short-run. However, we consider that adopting this approach now would be unlikely to continue to promote network competition, which we expect to deliver benefits to consumers in the longer term, and would risk undermining further network investment from those providers who offer LLA services. We thus consider that bringing Openreach prices closer to cost does not meet our objective of promoting competition and investment.

2.33 We therefore propose pricing continuity (Option 1) as our preferred approach to pricing remedies for LLA in Area 2. This means we propose to maintain a CPI-0% charge control for all active LLA services, so prices do not rise in real terms.

2.34 Our proposed CPI-0% charge control for active LLA services will take the form of:

a) A CPI-0% basket charge control on all Ethernet services (connections, circuit rentals and Main Link rentals) at all bandwidths; and
b) Service-specific CPI-0% charge controls on each WDM (Optical) modular component.

2.35 Our proposals for the design and implementation of these charge controls are explained in Section 6 of this Volume.

Legal tests

2.36 We are proposing to set SMP conditions on BT in the market for LLA in Area 2 to give effect to the pricing remedies described above. We set out further detail of our approach to the design and implementation of the proposed charge controls in Section 6. Our draft SMP conditions can be found in Volume 7.

2.37 Our regulatory judgment, subject to consultation responses, is that our proposed approach of maintaining price caps at their current levels in real terms will adequately protect consumers, by only permitting Openreach to raise its prices in line with inflation, while allowing the opportunity for rival networks to compete on price. We consider that our proposed pricing remedies for LLA in LLA Area 2 are proportionate as they go no further than is necessary to achieve our objectives, and we have not identified any adverse effects that would be disproportionate to the aim pursued.

2.38 As explained above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices at an excessively high level and/or impose a price squeeze in the LLA Area 2 so as to have adverse consequences for end-users, including through weaker retail competition.

2.39 As required by section 88 of the Act, we consider that the setting of the draft SMP conditions would be appropriate for the following purposes:

a) Promoting efficiency;
b) Promoting sustainable competition;
c) Conferring the greatest possible benefits on end users of public electronic communications services, having regard, where relevant to the market analysis, to the long term interests of end-user in the use of next general networks;
d) Promoting the availability and use of new and enhanced networks.

2.40 We have also considered:

a) the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and

b) the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.[54]

Promoting efficiency

2.41 We consider that supporting network competition promotes efficiency. In addition, in the absence of competitive pressures, we believe that Openreach would have limited incentives to reduce its costs of providing LLA services. Our proposal encourages Openreach to achieve greater productive efficiency by allowing it to keep any profits it earns from reducing costs over the review period.

Promoting sustainable competition and conferring the greatest possible benefit on end-users

2.42 Maintaining the WFTMR21 remedies in the 2026-2031 review period will allow rival providers to continue to invest in expanding and infilling their networks in LLA Area 2. Further increases in the geographic availability of rival networks that provide LLA services will allow these providers to compete with Openreach more effectively and at more locations in the future.

2.43 We also consider that incentivising investment in the expansion of rival networks offering both broadband and leased lines, and networks focused on leased lines, will deliver the greatest possible benefits for end users over the long term. We have also taken into account the extent of BT's investment in LLA Area 2 to which the draft conditions relate by ensuring that Openreach can make a reasonable return on its investments.

Promoting the availability and use of new and enhanced networks

2.44 We consider our draft SMP conditions promote the availability and use of new and enhanced networks.

2.45 Allowing LLA wholesale prices to diverge from the cost of providing those services promotes investment in very high capacity networks by competing network providers. This competitive pressure provides Openreach with an incentive to invest as and when new services and offers based on deployments by rival networks become available. Our proposals taken together will lead to increased availability and use of new and enhanced networks.

The extent of the investment and the benefits of predictable and stable wholesale prices

2.46 We have also taken into account the extent of BT's investment in LLA Area 2 to which the draft conditions relate by making proposals which ensure that Openreach can make a reasonable return on its investments.

2.47 As our proposed conditions involve price controls on the provision of network access to existing network elements, in accordance with the test in section 88 of the Act, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.

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[54] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions would ensure effective and non-discriminatory access. We have considered whether these tests may be satisfied in this case. We provisionally conclude in light of our proposed SMP determinations that they would be unlikely to be satisfied.

2.48 Our proposed SMP conditions involve maintaining existing price caps at their current levels in real terms. Therefore, they will allow predictable and stable caps on wholesale prices. We consider that this level of price regulation promotes efficient market entry by competing network providers, and promotes Openreach's investment in gigabit-capable networks. Consequently we consider our draft SMP conditions provide sufficient incentives for all undertakings to bring into operation new and enhanced networks.

2.49 In Section 7 we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

LLA Area 3

The competition problem

2.50 As set out in Volume 2, in the LLA Area 3 market there is a risk that, absent regulation, BT would have the incentive and ability to fix and maintain wholesale prices at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users, including through weaker retail competition.

2.51 As set out below, we are proposing to impose charge controls on BT's active LLA and DFA services to address this risk. Consistent with the approach to remedies set out in Volume 3, we are proposing to exercise our discretion in setting these charge controls in favour of an approach that achieves our objectives.

Our objectives

2.52 Our market analysis has indicated that in LLA Area 3 there is not, and there is unlikely to be the potential for, material and sustainable competition to Openreach in the provision of leased lines by competing networks. Our objective in LLA Area 3 therefore continues to be to promote competition based on access to Openreach's networks and to protect consumers.

Summary of our proposals in LLA Area 3

2.53 In LLA Area 3, we propose to retain a cost-based charge control on DFA services.[55] We also propose charge controls on active leased lines as follows:

a) On leased line access services at bandwidths above 1Gbit/s (including WDM services) maintain stable prices (in real terms) through a CPI inflation-adjusted (CPI-0%) charge control; and
b) On leased line access services at bandwidths up to and including 1Gbit/s set a cost-based charge control.

2.54 Our proposed charge controls, reflecting our proposals relating to the cost modelling of DFA and active leased lines[56], are set out in the table below. We present ranges for all proposed cost-based charge controls.[57] This is consistent with our approach in previous market

[55] These proposals also apply to DFA circuits where transitional arrangements for existing DFA circuits in reclassified postcode sectors are in place. This applies to existing DFA circuits in postcode sectors that were classified as LLA Area 3 in the WFTMR21 and are proposed to be reclassified to other regulated LLA markets (specifically LLA Area 2 or the HNR Area) in the 2026-31 review period.
[56] Further details of our cost modelling are set out in Annex 14 (for active leased lines) and Annex 17 (for DFA).
[57] These ranges are also reflected in our draft SMP Conditions at Volume 7.

reviews. We intend to update our cost models ahead of publishing our Statement to incorporate more recent outturn data or new evidence from which we can derive updated cost estimates for 2025/26 and 2030/31. Should we decide to proceed with setting cost-based charge controls, we would use these updated cost estimates to determine the final figures for the Starting Charge Adjustments (SCAs) and CPI-X glidepaths.[58] The ranges included in this consultation are intended to provide an indicative view of what those final figures may be.

2.55 Further detail on how we have produced the higher cost and lower cost scenarios in our top-down cost modelling, which generate the ranges around our base case estimates, is provided in Annex 14.

Table 2.1: Summary of our proposed charge controls for dark fibre access (DFA) and active leased lines services in LLA Area 3

	High costs scenario		Base costs scenario		Low costs scenario	
Service	**SCA[59]**	**CPI-X glidepath[60]**	**SCA**	**CPI-X glidepath**	**SCA**	**CPI-X glidepath**
DFA connection (per circuit)	-24%	CPI – 6.50%	-27%	CPI – 9.00%	-29%	CPI – 10.25%
DFA circuit rental (per circuit per year)	+21%	CPI – 1.25%	+15%	CPI – 2.75%	+10%	CPI – 3.75%
Ethernet services of bandwidths 1Gbit/s and below (basket charge control)	No SCA	CPI – 4.75%	No SCA	CPI – 6.75%	No SCA	CPI – 8.50%
Ethernet services of bandwidths above 1Gbit/s (basket charge control)	• No SCA • CPI-0% charge control					
WDM (Optical) services (service-specific charge control)	• No SCA • CPI-0% charge control					

Our approach in the WFTMR21

[58] We explain in Section 6 our proposals for using SCAs and glidepaths when setting these cost-based charge controls.
[59] The proposed SCAs would be implemented on 1 April 2026. They are expressed as the required percentage change relative to 2025/26 prices (i.e. a negative figure implies a price reduction and a positive figure implies a price increase).
[60] The proposed CPI-X glidepaths would apply in each year of the charge control, and they are calibrated to ensure that forecast revenues align with forecast costs by 2030/31. For those services where SCAs are proposed, the first year in which the CPI-X glidepath applies would be 2 April 2026 to 31 March 2027.

2.56 In the WFTMR21, our market analysis found BT to have SMP in LLA Area 3, with limited prospects for material and sustainable competition from competing networks. To encourage competition based on access to Openreach's network, we introduced the DFA remedy.

2.57 We considered that dark fibre should be the primary focus of our regulation given its benefits over active leased lines. We set a cost-based charge control on DFA and considered that this would protect consumers, support take-up and encourage telecoms providers that rely on access to Openreach's network to invest as deep into the network as possible, exposing as much of the value chain as possible to competition.

2.58 We considered that DFA take-up could take some time. Therefore, to protect consumers in the meantime we also imposed a CPI inflation-adjusted (CPI-0%) charge control on active LLA services.

Rationale for our proposals: DFA

2.59 We first present our proposal for DFA pricing in LLA Area 3, and then present our proposed approach to the charge controls on active leased line access services in the following section.

2.60 In Volume 3, we set out our proposal to continue to require Openreach to provide a specific network access remedy in the form of DFA in LLA Area 3.

2.61 DFA services are currently subject to a cost-based charge control. We have considered whether to retain a cost-based charge control for 2026-31, or whether to take an alternative approach such as removing the charge control altogether or adopting a pricing continuity (CPI-0%) approach.

2.62 We do not consider that alternative approaches would best meet our objective of promoting competition based on access to Openreach's networks and protecting consumers. This is because in the absence of a cost-based charge control, we consider that Openreach has the incentive and ability to fix and maintain DFA prices at an excessively high level, which would not adequately protect consumers. In reaching this view, we have taken account of our assessment that there is not, and there is unlikely to be the potential for, material and sustainable competition from rival networks in the LLA Area 3 market (and therefore we are not seeking to promote rival network investment). This means that a CPI-0% safeguard cap approach would not be sufficient to protect consumers in the long term, and it also means that the risks to investment and network competition of setting DFA charges at cost are low.

2.63 By contrast, we consider that a cost-based charge control will protect DFA customers from excessive prices. As such, we consider it is aligned with our objective to promote competition based on access to Openreach's networks and protect consumers.

2.64 Given all the factors mentioned above, we consider that a cost-based charge control will continue to be appropriate for DFA services.

2.65 We propose to continue to set the cost-based charge control on DFA with reference to Openreach's costs of the underlying passive infrastructure. This will allow for the recovery of Openreach's costs (including a share of common costs and a return on its capital employed) and will thus allow Openreach to recover an appropriate amount from its investment in its network in LLA Area 3. This approach also directly protects DFA customers from the risk that Openreach sets excessively high prices (we discuss indirect impacts on active LLA customers below). A cost-based charge control on DFA may also reduce the risk of a margin squeeze enabled via high Openreach LLA prices, which would help protect downstream competition based on access to Openreach's networks.

2.66 We set out details of our dark fibre cost modelling in Annex 17. We propose to maintain our WFTMR21 approach of setting DFA charges for connections and circuit rentals based on the costs of relevant components of Openreach's underlying passive infrastructure and allowing charges to recover a share of common costs. We have determined our proposed DFA charge controls based on updated evidence about the unit cost stack associated with providing EAD LA 10 Gbit/s services, which we consider to be an appropriate benchmark for estimating DFA costs.[61] As explained in Annex 17 and also in Section 6, we propose to use a combination of SCAs and glidepaths to bring DFA charges into alignment with forecast costs by 2030/31.

2.67 Table 2.2 below summarises our proposed DFA charge controls. As explained earlier in this section, we present ranges for all proposed cost-based charge controls to provide an indicative view of what the final figures may be from updated cost estimates in our cost models, if we decide to implement our proposals.[62]

Table 2.2: Summary of our proposed dark fibre charge controls

	High costs scenario		Base costs scenario		Low costs scenario	
Dark fibre service	**SCA[63]**	**CPI-X glidepath[64]**	**SCA**	**CPI-X glidepath**	**SCA**	**CPI-X glidepath**
DFA connection (per circuit)	-24%	CPI – 6.50%	-27%	CPI – 9.00%	-29%	CPI – 10.25%
DFA circuit rental (per circuit per year)[65]	+21%	CPI – 1.25%	+15%	CPI – 2.75%	+10%	CPI – 3.75%

2.68 We have compared the latest forecast costs for DFA in 2025/26 against the equivalent 2025/26 cost estimates from our WFTMR21 modelling. We have found that our latest forecast DFA connection costs are lower than we estimated in 2021, which is substantially driven by lower forecast costs associated with the Ethernet Excess Construction Capex component. By contrast, we have found that our latest forecast DFA circuit rental costs are higher than we estimated in 2021, which is substantially driven by higher forecast costs associated with the Legacy Ethernet – Spine fibre and Legacy Ethernet – Distribution fibre component.[66] In addition, the published DFA prices for 2025/26 are also higher than forecast

[61] Further details of our benchmarking approach are provided in Annex 17.
[62] These ranges are also reflected in our draft SMP Conditions at Volume 7.
[63] The proposed SCAs would be implemented on 1 April 2026.
[64] The proposed CPI-X glidepaths would apply in each year of the charge control. As explained in Annex 17, the proposed glidepaths align prices with estimated unit costs by 2030/31. Given that SCAs are proposed, the first year in which the CPI-X glidepath applies would be 2 April 2026 to 31 March 2027.
[65] For DFA circuit rental the proposed SCA allows for an increase in prices on 1 April 2026, which is then followed by below-inflation annual price increases (i.e. real-terms price reductions) under the glidepath charge control between 2 April 2026 and 31 March 2031. This price trend occurs because the SCA is informed by the estimated gap between prices and unit costs in 2025/26, but the unit costs of DFA circuit rental are subsequently forecast to decline between 2025/26 and 2030/31. As noted in Section 6, our proposed partial (75%) SCA approach will provide a smoother overall glidepath for prices during the charge control period than a 100% SCA would.
[66] In 2021, these costs were reported under a single component named Ethernet Access Direct Fibre.

in our WFTMR21 modelling because CPI inflation has been higher than we predicted in 2021.[67] All of these factors have contributed to our proposed SCAs.

Rationale for our proposals: active leased line access services

2.69 Below we present our proposed approach to the charge controls on Openreach's active LLA services. This assessment depends on the extent to which our proposed cost based charge control on DFA will sufficiently protect consumers and address the competition concerns we have identified.

2.70 There are many existing customers purchasing active products in LLA Area 3. These customers can be protected by the charge control on DFA in two ways. First, directly, if customers of active leased lines switch to the lower priced DFA services. Second, indirectly, if Openreach decides to lower active leased line prices in response to the threat of customers migrating to DFA.

2.71 Thus, we first present our evidence on the constraint DFA exerts on active LLA circuits. We then present our proposed charge controls for active services with bandwidths above 1Gbit/s (including WDM services), which we refer to as very high bandwidth (VHB) services. Finally, we present our proposed charge controls for active services with bandwidths of 1Gbit/s and below, which we refer to as lower bandwidth (LBW) services.

The constraint exerted by DFA

Introduction

2.72 In this subsection, we present evidence on the constraint exerted by DFA. As explained above, this is relevant to our subsequent proposals in relation to charge controls on active leased lines. For example, if DFA exerts a strong constraint on active prices, this reduces the stringency of charge controls on active products which are required to provide sufficient protection to consumers.[68]

2.73 When considering this constraint, it is important to consider the following:

a) This is a forward looking assessment, considering the degree of protection offered by cost-based DFA during the 2026-31 review period. As explained below, we consider that the attractiveness of the remedy is likely to strengthen in the future.
b) DFA was introduced as part of the WFTMR21 and fully launched by Openreach in July 2022. It is thus early in the life cycle of this regulated product. This means that there is uncertainty about the future constraint that DFA will exert on active leased lines. It is thus necessary for us to exercise regulatory judgment when deciding which remedies will meet our objective in LLA Area 3.
c) It is not necessary for all active leased line customers to be willing to switch to DFA in order for it to exert an effective constraint. The presence of a smaller number of so-called marginal customers may be sufficient.

[67] The 2025/26 DFA prices are available from the online Openreach price list.
[68] As set out in Volume 2, we provisionally conclude that dark fibre is part of the same product market as leased line services based on supply-side substitutability. However, in LLA Area 3 rivals to Openreach have limited presence. Thus, in practice there is limited scope for a third party dark fibre supplier to quickly and easily begin supplying active LLA products, and thereby constrain Openreach's provision of active LLA, in this area.

d) The effectiveness of the constraint appears to be different for different active leased line bandwidths (as discussed below).

General observations on the constraint exerted by DFA

2.74 DFA is substitutable with active leased lines from a technical perspective. As discussed in Volume 3, DFA has a number of technical advantages e.g. it allows users to choose their own electronic equipment, to make decisions on bandwidth upgrades based on the underlying costs and it can eliminate inefficient equipment duplication.

2.75 In 2023/24, there were 494 DFA rental circuits in use, accounting for a small minority (1%) of all Openreach leased line and DFA circuits in Area 3.[69] With one exception ([✂]), current users of DFA tend to be small and medium-sized business-focused telecoms providers. A number of stakeholders already purchasing DFA forecast increased DFA take-up during the 2026-31 review period, including [✂], [✂], [✂] and [✂].[70] This forecast DFA growth is against a backdrop where active leased line volumes in LLA Area 3 are expected to remain broadly stable.[71]

2.76 Stakeholders have indicated that they consider the relative price of DFA and active leased lines when choosing between them.[72]

2.77 As shown in Table 3.3, Openreach's DFA prices are lower than its leased line prices across all bandwidths (for both connections and rentals). This price difference is greatest for VHB products. However, the cost advantage to users of DFA is smaller than the price differential since DFA users incur various extra costs in order to be able to provide a LLA service (e.g. equipment costs, installation costs, the fibre tax, engineering).[73] [74] This means that the cost advantage of DFA compared to active leased line access services will also depend on these additional costs.[75]

Table 2.3: Openreach LLA list prices (2024/25)

Product	Connection	Rental	Connection	Rental
	Connection charge	*Annual rental*	*% delta v. DFA single fibre*	*% delta v. DFA single fibre*
DF - Single Fibre	£1,570	£1,109	**0%**	**0%**
EAD LA 1,000	£2,058	£1,764	**+31%**	**+59%**
EAD 1,000	£2,058	£2,262	**+31%**	**+104%**

[69] Page 60 of BT's published 2024 RFS.
[70] [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[71] This is based on Ofcom volumes forecasts, which incorporate proposed changes in LLA geographic market boundaries. Further explanation of our approach to LLA volumes forecasting is provided in Annex 14.
[72] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[73] The fibre tax refers to business rates, for more detail see here: Business rates: Overview - GOV.UK.
[74] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[75] These extra costs are likely to be somewhat larger where DFA is used to supply a VHB product since equipment costs are typically higher than for LBW products. However, this difference in equipment costs is likely to be significantly smaller than the difference in Openreach's current prices for LLA and DFA. Moreover, as explained in March 2021 Statement paragraph A9.15, in some instances DFA allows duplication of equipment to be avoided.

Product	Connection	Rental	Connection	Rental
	Connection charge	*Annual rental*	*% delta v. DFA single fibre*	*% delta v. DFA single fibre*
EAD LA 10	£2,076	£1,764	**+32%**	**+59%**
EAD LA 100	£2,076	£1,764	**+32%**	**+59%**
EAD 100	£2,076	£2,262	**+32%**	**+104%**
DF - Fibre Pair	£2,992	£2,217	**+91%**	**+100%**
EAD LA 10,000	£5,441	£4,146	**+246%**	**+274%**
EAD 10,000	£5,441	£4,980	**+246%**	**+349%**
OSA Filter Connect[76]	£8,590	£4,980	**+447%**	**+349%**

Source: Openreach online price lists (https://www.openreach.co.uk/cpportal/products/pricing).
Note: All prices shown above do not require a minimum contract term except OSA Filter Connect - XG210 - Single Fibre, which has a 36 month minimum contract term.

2.78 Stakeholders have indicated that there are several issues that have impacted DFA take-up and which will make DFA relatively less attractive.

2.79 First, telecoms providers including [✂], [✂] and [✂] have identified the initial cost of productising DFA (i.e. creating products that use DFA as an input that can then be sold to customers) as a barrier to use.[77] One telecom provider estimated the cost of productising dark fibre access as being [✂].[78] Further, several telecoms providers, including [✂], have cited the limited availability of DFA as a barrier to productising DFA.[79] As DFA is currently only available in LLA Area 3, and is not available across the entire UK, the upfront costs of productising DFA would be spread across fewer potential connections.[80]

2.80 Second, some dark fibre users have raised issues with the process for migrating an existing active circuit to DFA.

a) In order for an existing Openreach leased line access circuit to be switched to a dark fibre access circuit, customers must pay double rental charges while they wait for the dark fibre to be set up. This can take some time, and results in additional costs.[81]
b) Potential users have also identified obstacles to migrating existing downstream customers from active LLA services to DFA. The switch over process may cause some end customer disruption (e.g. it requires a site visit) as well as additional costs.[82] [83] [84] This is particularly relevant for existing customers who are mid-contract, as telecoms providers

[76] This refers specifically to 'OSA Filter Connect - XG210 - Single Fibre' on the Openreach online price list.
[77] [✂] response dated [✂] to s135 notice dated [✂] question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 dated [✂], question [✂].
[78] [✂] response dated [✂] to s135 dated [✂], question [✂].
[79] [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 dated [✂], question [✂].
[80] [✂] response dated [✂] to s135 notice dated [✂], question [✂]
[81] [✂]. [✂] response dated [✂]to s135 notice dated]✂], question [✂].
[82] [✂] response dated [✂] to s135 notice dated ✂], question [✂C7]
[83] [✂]. [✂] response dated [✂] to s135 dated [✂], question [✂].
[84] [✂] cited customer disruption, such as a site visit, in its response dated [✂] to s135 notice dated [✂], question [✂].

are concerned about contacting customers mid contract in case this causes churn.[85] However, where existing customers are already intending to upgrade to higher bandwidths, this disruption is likely to be less of a concern given changes will need to be made to the circuit and the customer's contract in any event.[86]

c) These obstacles are also likely to be lower where the customer is using Openreach DFA within its own network (e.g. an MNO customer using it for mobile backhaul), rather than using it to provide connectivity to a third party. A customer using DFA in its own network, rather than providing connectivity to a third party, in general does not have to productise the product and faces fewer issues in migrating existing networks (e.g., in general it has less difficulty in gaining site access).[87]

2.81 Third, a number of telecoms providers have identified regulatory uncertainty about the long-term availability of DFA as a barrier to use (for example, if a customer site in an geographic market where DFA is available were reclassified in a subsequent market review to lie in a geographic market where DFA is generally not available).[88] At least in part, this appears to be prompted by our past approach to another dark fibre product (DFX) in the IEC market.[89]

2.82 We accept that uncertainty about the long-term availability of DFA may deter providers from using this product, particularly as downstream leased line contract lengths between telecoms providers and end customers are often long. The length of public sector contracts can be anywhere up to 20 years, and for business contracts 3-5 years.[90] Accordingly, as set out in Volume 3, we are proposing that Openreach must continue to supply existing DFA circuits on regulated terms in locations reclassified from LLA Area 3 to other regulated markets for a period of five years. While we cannot fetter our discretion in relation to future market reviews, this proposal may provide potential DFA users with greater confidence in this product and now that we are aware of this concern, it will be a factor to consider in future decisions.

2.83 In addition to greater regulatory certainty, we expect that other aspects of our proposals will improve the attractiveness for DFA in the 2026-2031 review period. As a result, we expect it to exert a stronger constraint on active leased lines.

a) The proposed LLA Area 3 geographic market definition would expand the area in which DFA is available compared to the WFTMR21. We are proposing that LLA Area 3 is expanded from 3,867 post code sectors to 4,591 post code sectors. We expect this to improve the economics of productising DFA.

b) Our proposed SCA will mean that our charge controls will immediately reduce the price of DFA connections on 1 April 2026 but will allow DFA rental prices to increase on that day. However, our proposed CPI-X glidepaths (effective from 2 April 2026 onwards) will result in annual real-terms price reductions for DFA connections and DFA rentals throughout the market review period. Taking all of the SCAs and CPI-X glidepaths into

[85] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[86] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[87] [✂] response dated [✂] to s135 dated [✂]
[88] [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[89] Our 2021 approach to DFX is set out in the March 2021 Statement, Volume 3, paragraph 6.158. Since the requirement for BT to offer DFA was first introduced in the WFTMR21, we did not need to impose any transitional arrangements for DFA.
[90] [✂] response dated [✂] to s135 notice dated [✂], question [✂].

account, we forecast that the total cost of DFA circuit ownership for DFA customers will be lower in real terms at the end of the market review period than it is currently.[91]

Additional observations on the constraint exerted by DFA on VHB circuits

2.84 In addition to the general observations set out above, our evidence indicates that DFA is likely to be more attractive for users who need – or expect to need – VHB circuits.

a) DFA appears to be attractive for providing connectivity to mobile base stations (i.e. mobile backhaul).[92] Where backhaul capacity at a particular site needs to be increased, [✂] typically expects to migrate 1Gbit/s circuits to DFA rather than to Openreach Ethernet EAD 10Gbit/s, citing the cost differential as a driver.[93]
b) [✂] stated that longer term contracts, especially where VHB products such as EAD 10Gbit/s or OSA are in use, may offer a strong case for approaching customers about switching to DFA.[94]

2.85 As discussed above, the cost advantage of DFA is likely to be largest for customers that require a VHB circuit. As a result, VHB circuits are more likely to be at the point where at least some customers would consider opting for DFA instead, particularly if the attractiveness of DFA increases during the 2026-31 review period.

2.86 Additionally, as explained above, we expect the barriers to migrating circuits to DFA to be less for bandwidth upgrades. Given we expect demand for higher bandwidth to grow across the 2026-31 review, we expect a significant number of 1Gbit/s circuits will need to be upgraded to a faster connection. For some of these customers, DFA may be an attractive substitute.

2.87 Given these differences between VHB circuits and LBW circuits we have assessed what charge controls should apply to these products separately.

Charge control for VHB services

2.88 We have considered the following approaches against our objectives of promoting competition based on access to Openreach's network and protecting consumers:[95]

a) Removing the charge control on VHB services, so we would be relying solely on cost-based DFA to protect VHB consumers in LLA Area 3;
b) Pricing continuity i.e. setting a CPI-0% charge control on VHB services that keeps the price caps the same in real terms; and
c) Setting a VHB charge control that brings prices closer to costs.

2.89 Based on the evidence set out above, we consider that over time DFA will increasingly constrain VHB services (directly and indirectly). Where this constraint provides sufficient

[91] By total cost of DFA circuit ownership, we mean the one-off cost of a DFA circuit connection plus the cost of annual circuit rental charges over the expected lifetime of the circuit.
[92] [✂] uses DFA for c.[✂] of its sites where DFA is available and forecasts this to increase by a further [✂] percentage points by the end of the current market review period. [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[93] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[94] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[95] The primary remedies that protect models of downstream competition based on access to Openreach's LLA network are the various access requirements set out in Volume 3 of this consultation, including the protections against undue discrimination and the obligation to supply DFA. Accordingly, the discussion below mostly focuses on consumer protection, although we do discuss the extent to which these options address the risk of a price squeeze.

protection to consumers from excessive prices, we may not need an additional charge control on VHB services. However, we recognise that DFA is early in its life cycle and there is inherent uncertainty about the strength of this constraint across this review period. We therefore consider that removing the charge control on VHB services, and just relying on a cost-based charge control on DFA services, is unlikely to adequately protect VHB consumers. As a result, we consider that a charge control is necessary for VHB services.

2.90 We note there have been some challenges to the take-up of DFA to date, but we expect the attractiveness of the remedy is likely to increase going forward (particularly for VHB services), which will strengthen the constraint exerted by DFA during the 2026-31 market review (for the reasons set out above). Accordingly, we consider that pricing continuity (retaining a CPI-0% price control) would act as an adequate safeguard to protect VHB consumers from further price increases while the constraint from cost-based DFA develops. It is also consistent with promoting access-based competition as far up the value chain as possible.

2.91 We recognise that the final option, namely bringing VHB prices closer to cost, would provide greater customer protection through lower prices in the short-term. However, we consider that cost-based DFA combined with pricing continuity on VHB actives (CPI-0% caps) as a safeguard will be sufficient to achieve our objectives. Going further and introducing a VHB charge control that brings prices closer to costs would thus be disproportionate.

2.92 Our proposed CPI-0% charge control for VHBs would take the form of:

a) A CPI-0% basket charge control on all Ethernet services (connections, circuit rentals and Main Link rentals) of bandwidths above 1Gbit/s; and
b) Service-specific CPI-0% charge controls on each WDM (Optical) modular component.

2.93 Our proposals for the design and implementation of these charge controls are explained in Section 6.

Charge control for LBW services

2.94 We have considered the following approaches against our objectives:

a) Removing the charge control on LBW services, so we would be relying solely on cost-based DFA to protect LBW consumers in LLA Area 3;
b) Pricing continuity i.e. setting a CPI-0% charge control on LBW services that keeps the price caps the same in real terms; and
c) Setting a LBW charge control that brings prices closer to costs.

2.95 Many customers have been reliant on having access to Openreach's LBW products. As discussed above, the existing challenges to the use of DFA appear greater in the case of LBW circuits than for VHB circuits, and so we are concerned that the constraint from cost-based DFA will continue to be limited for LBW LLA across this review period (and potentially longer term). Openreach's recent profitability on LBW services in LLA Area 3 is above the relevant cost of capital (estimated via the WACC)[96], and we expect that this would continue over the market review period under a pricing continuity approach.

2.96 In the absence of an increasing constraint from cost-based DFA, we are therefore concerned that removing the charge control on LBW services or pricing continuity for LBW services would insufficiently protect consumers of these services from high prices, with very limited

[96] Ofcom analysis of BT 2024 AFI.01 submission (detailed RFS data).

potential for future consumer benefits, increased competition or innovation. These options would thus not achieve our objective of protecting consumers in LLA Area 3.

2.97 We consider that bringing prices closer to cost for LBW access circuits would protect customers. It may also reduce the risk of a margin squeeze enabled via high Openreach LBW prices, which would help protect downstream competition based on access to Openreach's networks.

2.98 In light of the above, we propose to set a cost-based charge control on active leased line circuits of bandwidths 1Gbit/s and below. Our proposed charge control is summarised in the table below. As explained earlier in this section, we present ranges for all proposed cost-based charge controls to provide an indicative view of what the final figures may be from updated cost estimates in our cost models, if we decide to implement our proposals.[97]

Table 2.4: Summary of our proposed charge controls for active leased line circuits of bandwidths 1Gbit/s and below

	High costs scenario		Base costs scenario		Low costs scenario	
Service	**SCA**	**CPI-X glidepath[98]**	**SCA**	**CPI-X glidepath**	**SCA**	**CPI-X glidepath**
Ethernet services of bandwidths 1Gbit/s and below (basket charge control)	No SCA	CPI – 4.75%	No SCA	CPI – 6.75%	No SCA	CPI – 8.50%

2.99 Our proposed basket charge control will apply to all Ethernet services (connections, circuit rentals and Main Link rentals) of bandwidths 1Gbit/s and below. Our proposals for the design and implementation of the cost-based charge control are explained in Section 6.

Legal tests

2.100 We are proposing to set SMP conditions on BT in the market for LLA in LLA Area 3 to give effect to the pricing remedies described above. We set out further detail of our approach to the design and implementation of the proposed charge controls in Section 6. Our draft SMP conditions can be found in Volume 7.

2.101 We consider that our proposed LLA charge controls are proportionate as they go no further than is necessary to achieve our objectives, and we have not identified any adverse effects that would be disproportionate to the aim pursued. We are proposing to set them at a level to enable Openreach to recover its costs and we do not consider that they will undermine investment in rival networks in view of our assessment that there is limited potential for this in LLA Area 3.

2.102 As explained above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices at an excessively high level in the LLA Area 3 market so as to have adverse consequences for end-users through weaker retail competition.

[97] These ranges are also reflected in our draft SMP Conditions at Volume 7.
[98] The proposed CPI-X glidepaths will apply in each year of the charge control, and they are calibrated to ensure that forecast revenues align with forecast costs by 2030/31.

2.103 As required by section 88 of the Act, we consider that the setting of the draft SMP conditions would be appropriate for the following purposes:

a) Promoting efficiency;
b) Promoting sustainable competition;
c) Conferring the greatest possible benefits on end users of public electronic communications services, having regard, where relevant to the market analysis, to the long term interests of end-user in the use of next general networks;
d) Promoting the availability and use of new and enhanced networks.

2.104 We have also considered:

a) the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
b) the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.[99]

Promoting efficiency

2.105 In the absence of competitive pressures, we believe that Openreach would have limited incentives to reduce its costs of providing leased lines services. Our proposals encourage Openreach to achieve greater productive efficiency by allowing it to keep any profits it earns from reducing costs over the review period.

2.106 We also consider that each of our charge controls promote efficiency by, inter alia:

a) ensuring BT cannot set high prices relative to cost;
b) allowing BT to earn a reasonable rate of return if it is efficient;
c) providing BT with flexibility to change prices to meet demand conditions by recovering common costs in the most efficient manner across groups of services.

2.107 In the case of the charge control for active leased lines, we are proposing pricing continuity for VHB services and a cost-based LBW remedy. We are also proposing a cost-based charge control on DFA. We consider that in combination this will provide BT with a strong incentive to reduce costs over the period and thereby improve productive efficiency.

Promoting sustainable competition and conferring the greatest possible benefit on end-users

2.108 We consider that our proposed charge controls are each appropriate to promote sustainable competition and confer the greatest possible benefits on end users of public communications services.

2.109 The proposed charge controls for active leased line services both prevent BT from setting high prices relative to cost in parallel with the introduction of DFA at cost. We consider this will provide adequate customer protection. Overall, we consider our approach will promote and maintain retail competition.

[99] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions would ensure effective and non-discriminatory access. We provisionally conclude in light of our proposed SMP determinations that these tests would be unlikely to be satisfied in this market.

2.110 Our proposed charge control for DFA at cost will support downstream competition based on using dark fibre and result in lower downstream prices (compared to setting DFA prices above cost).

2.111 We consider that efficiency gains should, in the longer term, be passed onto consumers through reductions in prices and improvements in quality.

Promoting the availability and use of new and enhanced networks

2.112 Our proposed charge controls reflect our finding that there is unlikely to be the potential for material and sustainable competition to Openreach in the provision of leased lines by competing networks in LLA Area 3.

2.113 Our proposed cost-based charge control on DFA, rather than a charge control set at a higher level, supports the attractiveness of the remedy for some providers and incentivises them to invest as deep into the network as possible. We consider that this proposal does not undermine the case for competitive network investment because with one exception, the scope of the remedy is limited to LLA Area 3. The exception we are proposing – for the supply of existing DFA circuits in locations that are currently within LLA Area 3 but in different regulated markets in the next review period – should not have any material impact on investment in new networks given the small volume of circuits to which this is likely to apply.

The extent of the investment and the benefits of predictable and stable wholesale prices

2.114 We have also taken into account the extent of BT's investment in LLA Area 3 to which the draft conditions relate by proposing charge controls which allow BT to recover its efficiently incurred costs and make a reasonable return on its investments.

2.115 As our proposed conditions involve price controls on the provision of network access to existing network elements, in accordance with the amended test in section 88 of the Act, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.

2.116 Our proposed SMP conditions involve a cost-based charge control for active LBW leased line access services. However, it will enable Openreach to recover its costs. Further, we propose maintaining the existing price caps on VHB at current levels in real terms. In addition to our proposal for a cost-based charge control on DFA, we are proposing that Openreach continues to supply existing DFA circuits on regulated terms in locations that are reclassified from LLA Area 3 to other regulated markets to increase confidence in the availability and pricing of DFA. Overall, we consider the price regulation we are proposing promotes Openreach's investment in gigabit-capable networks and supports efficient market entry by competing telecoms providers.

2.117 In Section 7 we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

The HNR Area

The competition problem

2.118 As set out in Volume 2, in the HNR Area we consider that there is a risk that, absent regulation, BT would have the incentive and ability to impose a price squeeze so as to have adverse consequences for end-users, through weaker retail competition. We have taken this into account in our proposed pricing remedies.

Our objectives

2.119 As set out in Volume 3, Section 1, our objectives in the HNR Area are to promote investment and competition in networks that offer LLA services by Openreach and other communications providers. As network competition develops, we also seek to protect consumers and competition based on access to Openreach's networks.

Summary of proposals

2.120 We propose that LLA services in the HNR Area should continue to be subject to a requirement for charges to be fair and reasonable, meaning that the terms should not constitute a price squeeze. We do not propose to introduce a charge control for active LLA services in the HNR Area.

Our approach in WFTMR21

2.121 In the WFTMR21, we decided to require Openreach to set charges for LLA in the HNR Area on a fair and reasonable basis. We did not introduce charge controls for LLA products in the HNR Area. We expected this approach to preserve investment incentives by allowing prices to be above cost to some degree. We also considered that the greater degree of competition in the HNR Area should constrain Openreach's ability to raise prices, and the fair and reasonable charging requirement should protect retail competition.

Rationale for our proposals

2.122 Our provisional market analysis has found BT to have SMP in the HNR Area. However, we also find that a greater level of competition is present in the HNR Area compared to LLA Area 2 and LLA Area 3. The HNR Area is made up of postcode sectors where, due to presence of at least two current material and sustainable competitors, there is sufficiently well-established competition to BT in the commercial deployment of competing networks. We take this into consideration when developing our remedies.

2.123 Given the competition concern we have identified in the HNR Area, we have considered whether additional regulation is necessary to address the risk of margin squeeze.

2.124 As outlined in Volume 3, where no charge control applies, a fair and reasonable charging requirement is proposed to protect customers from a margin squeeze. This is because a fair and reasonable charging requirement would ensure that access seekers would be able to purchase the wholesale services they rely on, on terms that do not constitute a price squeeze.[100] It would thus protect downstream competition based on access to Openreach's networks.

[100] While we would assess any dispute as to whether charges are fair and reasonable on the relevant facts, our starting point for evaluating cost and margins on individual services in this context would be to allow a LRIC retail margin on each service, assessed by reference to an equally efficient operator (EEO) standard.

2.125 We would also expect a fair and reasonable charging requirement, but no charge control, to preserve investment incentives for both Openreach and competing network providers by allowing prices to be above cost to some degree.

2.126 We therefore consider a fair and reasonable requirement to be sufficient to address the risk of a margin squeeze in the HNR Area and to achieve our objectives. Given the level of competition present, and our competition concerns in the HNR Area, we consider that additional regulation would be disproportionate.

Our proposal is to maintain a fair and reasonable charging requirement

2.127 For the reasons we set out above, we propose requiring Openreach to set charges for LLA access in the HNR Area that are fair and reasonable. We are not proposing to introduce a charge control on LLA in the HNR Area.

Legal tests

2.128 We are proposing to set SMP conditions on BT in relation to the market for LLA in the HNR Area to give effect to the pricing remedies described above. Our draft SMP conditions can be found in Volume 7.

2.129 For the reasons set out above, we consider that a requirement for Openreach to set fair and reasonable charges is proportionate as it goes no further than is necessary to achieve our objectives and we have not identified any adverse effects that would be disproportionate to the aim pursued.

2.130 As explained above, we consider there to be a risk that, absent regulation, BT might impose a price squeeze so as to have adverse consequences for end users.

2.131 As required by section 88 of the Act, we consider that the setting of the draft SMP conditions would be appropriate for the following purposes:

a) Promoting efficiency;
b) Promoting sustainable competition;
c) Conferring the greatest possible benefits on end users of public electronic communications services, having regard, where relevant to the market analysis, to the long term interests of end-user in the use of next general networks;
d) Promoting the availability and use of new and enhanced networks.

2.132 We have also considered:

a) the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
b) the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.[101]

[101] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions would ensure effective and non-discriminatory access. We have considered whether these tests may be satisfied in this case. We provisionally conclude in light of our proposed SMP determinations that they would be unlikely to be satisfied.

Promoting efficiency

2.133 We consider that supporting network competition promotes efficiency. Our proposals also encourage Openreach to achieve greater productive efficiency by allowing it to keep any profits it earns from reducing costs over the review period.

Promoting sustainable competition and conferring the greatest possible benefit on end-users

2.134 The proposed conditions maintain incentives for investment by competing networks. Our proposal to set a condition requiring fair and reasonable prices is intended to protect downstream competition while allowing the potential for stronger network competition to develop. This will deliver the greatest possible benefits for end users over the long term.

Promoting the availability and use of new and enhanced networks

2.135 We consider that our proposed SMP conditions promote the availability and use of new and enhanced networks.

2.136 We would expect a fair and reasonable charging requirement to preserve investment incentives by allowing prices to be above cost to some degree. This is likely to create incentives for investment by competing network providers. This competitive pressure provides Openreach with a strong incentive to invest. These proposals taken together will lead to increased availability and use of new and enhanced networks.

The extent of the investment and the benefits of predictable and stable wholesale prices

2.137 We have also taken into account the extent of BT's investment in the matters to which the draft conditions relate by making proposals which ensure that Openreach can make a reasonable return on its investments.

2.138 As our proposed conditions involve price controls on the provision of network access to existing network elements, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.

2.139 We consider that this level of price regulation promotes efficient market entry by competing network providers and promotes Openreach's investment. Consequently, we consider that our proposed conditions provide sufficient incentives for all undertakings to bring into operation new and enhanced networks.

2.140 In Section 7 we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

Consultation question(s)

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

3. Inter-exchange connectivity charge controls

Introduction

3.1 In this section we set out our proposals for pricing remedies in the IEC market for BT Only and BT+1 exchanges.

3.2 In Volume 3 Section 8 we proposed to require Openreach to provide active IEC services and dark fibre for inter-exchange (DFX) at all regulated exchanges (BT Only and BT+1).

The competition problem

3.3 We consider that absent regulation, BT would have the incentive and ability to fix and maintain prices for IEC services from BT Only and BT+1 exchanges at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users (including through a weakening of downstream competition).

3.4 We are proposing to impose charge controls on these services to address this risk. Consistent with the approach to remedies set out in Volume 3 Section 1, we are proposing to exercise our discretion in setting these charge controls in favour of an approach that achieves our objectives.

Objectives for the IEC market

3.5 As set out in Volume 3 Section 1, at all regulated BT exchanges (BT Only and BT+1) our objectives are to promote competition based on access to Openreach's network and to protect consumers.

Summary of proposals

3.6 This section sets out our proposals on DFX and active IEC services for BT Only and BT+1 exchanges.[102] Our proposals in relation to price regulation of ancillary services in these markets are covered in Section 5.

3.7 We propose:

- to impose a cost-based charge control for DFX connections, circuit rentals and main link rentals at BT Only and BT+1 exchanges.
- to impose a CPI-0% charge control on all active IEC services at BT Only and BT+1 exchanges.

[102] These proposals would also apply at exchanges where transitional arrangements for reclassified exchanges are in place. For DFX charge controls this would be exchanges that were classified as BT Only DFX in the WFTMR21 and are proposed to be reclassified to BT+2 in the 2026-31 review period. For active IEC charge controls this would be all exchanges that were classified as BT Only or BT+1 in the WFTMR21 and are proposed to be reclassified to BT+2 in the 2026-31 review period.

Background

Our approach in the WFTMR21

BT Only exchanges without a nearby PCO

3.8 We considered that the potential for network competition at BT Only exchanges without a nearby PCO was weak. We therefore required BT to provide cost-based DFX at these exchanges. We considered that DFX would increasingly be used for IEC to these exchanges, and this would address the risk of excessive pricing or a price squeeze on BT's active IEC services at those exchanges.

3.9 During the transition to DFX, we set a charge control for active IEC services of CPI-0% to provide a suitable level of consumer protection without undermining incentives to migrate to DFX services.

BT Only exchanges with a nearby PCO and BT+1 exchanges

3.10 While we found that BT has SMP at BT Only exchanges with a nearby PCO and BT+1 exchanges, we considered there was scope for further investment, particularly using PIA, which would make it viable for rivals to connect to these exchanges. We therefore set a charge control on active IEC services of CPI-0%, which we considered would promote network investment while also addressing the risk of excessive pricing or a price squeeze.

3.11 We did not require BT to provide cost-based DFX to these exchanges to avoid the risk of undermining prospective competition.

Dark fibre for inter-exchange connectivity (DFX)

Summary of proposals

3.12 We propose to impose a cost-based charge control for DFX connections, circuit rentals and main link rentals at BT Only exchanges and BT+1 exchanges. This is a continuation of our WFTMR21 approach towards setting DFX prices, but with the availability of the DFX remedy extended to cover all BT Only and BT+1 exchanges.

Rationale for our charge control proposals on DFX at BT Only and BT+1 exchanges

3.13 In Volume 3, we set out our proposal to continue to require Openreach to provide a specific network access remedy in the form of DFX, and to extend its availability to cover all BT Only and BT+1 exchanges.

3.14 Currently, DFX services are subject to a cost-based charge control. We have considered whether to retain a cost-based charge control for 2026-31, or whether to take an alternative approach such as removing the charge control altogether or adopting a pricing continuity (CPI-0%) approach.

3.15 We do not consider that alternative approaches would best meet our objective of promoting competition based on access to Openreach's network and protecting consumers. This is because in the absence of a cost-based charge control, we consider that Openreach has the incentive and ability to fix and maintain DFX prices at an excessively high level, which would not adequately protect consumers.

3.16 By contrast, we consider that a cost-based charge control will protect DFX customers from excessive prices. As such, we consider it is aligned with our objective to promote competition based on access to Openreach's networks and protect consumers. As explained in Volume 3, further investment at BT Only and BT+1 exchanges is unlikely in the 2026-31 market review period. We thus consider that the risks to investment and network competition of setting DFX charges at cost are low.

3.17 Given all of the factors mentioned above, we consider that a cost-based charge control will continue to be appropriate for DFX services.

3.18 We set out details of our dark fibre cost modelling in Annex 17. In setting DFX charges for connections, circuit rentals and main link rentals, we propose to retain our WFTMR21 approach of setting charges based on the fully allocated costs (FAC) of relevant components of Openreach's underlying passive infrastructure. This approach will allow for the recovery of Openreach's costs (including a share of common costs and a return on its capital employed) and will thus allow Openreach to recover an appropriate amount from its investment in its network.

3.19 We have determined our proposed DFX charge controls based on updated evidence about the unit cost of providing EAD 10 Gbit/s services, which we consider to be an appropriate benchmark for estimating DFX costs.[103] Overall, our latest forecast costs for DFX in 2025/26 are lower than the equivalent 2025/26 cost estimates from our WFTMR21 modelling. In addition, the published DFX prices for 2025/26[104] are higher than forecast in our WFTMR21 modelling because CPI inflation has been higher than we predicted in 2021. Our proposed charge controls for 2026-31 will therefore lead to a material reduction in real (inflation-adjusted) DFX prices.[105]

3.20 As we explain in Annex 14, we recognise that information from BT's published RFS appears to indicate that DFX ROCE is high, but we do not consider that this information provides a precise estimate of current DFX profitability.[106] Nonetheless, our proposed charge controls are likely to reduce DFX profitability because of the material reduction in DFX prices.

3.21 Table 3.2 below summarises our proposed DFX charge controls. As explained in Annex 17 and also in Section 6, we propose to use a combination of starting charge adjustments (SCAs) and glidepaths to bring DFX charges into alignment with forecast costs by 2030/31.

3.22 In Table 3.2 we present ranges for our proposed cost-based charge controls.[107] This is consistent with our approach in previous market reviews. We intend to update our cost models ahead of publishing our Statement to incorporate more recent outturn data or new evidence from which we can derive updated cost estimates for 2025/26 and 2030/31. Should we decide to proceed with setting cost-based charge controls, we would use these updated cost estimates to determine the final figures for the SCAs and CPI-X glidepaths. The

[103] Further details of our benchmarking approach are provided in Annex 17.
[104] The 2025/26 DFX prices are available from the online Openreach price list.
[105] For clarity, we forecast that our proposed charge controls will likely also lead to a reduction in nominal DFX prices, although we note that in practice this will depend on outturn CPI inflation over the market review period.
[106] This is one of the reasons why, as we explain in Annex 17, we have not used outturn RFS data for DFA and DFX directly in estimating DFA and DFX unit costs. Instead we have retained our WFTMR21 approach of using benchmark EAD LA / EAD unit costs, which are forecast in the top-down cost model, to estimate DFA and DFX unit costs.
[107] These ranges are also reflected in our draft SMP Conditions at Volume 7.

ranges included in this consultation are intended to provide an indicative view of what those final figures may be.

3.23 Further detail on how we have produced the higher cost and lower cost scenarios in our top-down cost model, which generate the ranges around our base case estimates, is provided in Annex 14.

Table 3.1: Summary of our proposed DFX charge controls

	High costs scenario		Base costs scenario		Low costs scenario	
Dark fibre service	**SCA**[108]	**CPI-X glidepath**[109]	**SCA**	**CPI-X glidepath**	**SCA**	**CPI-X glidepath**
DFX connection (per circuit)	-8%	CPI – 6.00%	-10%	CPI – 8.00%	-11%	CPI – 9.00%
DFX circuit rental (per circuit per year)	-31%	CPI – 19.00%	-31%	CPI – 24.00%	-29%	CPI – 25.00%
DFX main link rental (per metre per year)	-11%	CPI – 2.25%	-14%	CPI – 3.50%	-17%	CPI – 4.75%

Active leased lines for inter-exchange connectivity

Summary of proposals

3.24 As set out in Volume 3, we propose to maintain the requirement for BT to provide access to active leased line services for inter-exchange connectivity at BT Only and BT+1 exchanges.

3.25 We propose to set a CPI-0% charge control for active IEC services at BT Only exchanges and BT+1 exchanges.

Rationale for our charge control proposals on active IEC services

3.26 Below we present our proposed approach to the charge controls on Openreach's active IEC services. This assessment depends on the extent to which our proposed cost-based charge control on DFX, as detailed above, will protect consumers and address the competition concerns we have identified at BT Only and BT+1 exchanges. We thus first discuss the constraint exerted by DFX.

The constraint exerted by DFX

3.27 The availability of DFX, which we are proposing will be subject to a cost-based charge control, will directly protect customers that choose to use DFX (and the consumers they

[108] The proposed SCAs will be implemented on 1 April 2026.
[109] The proposed CPI-X glidepaths will apply in each year of the charge control. Given that SCAs are proposed, the first year in which the CPI-X glidepath applies will be 2 April 2026 to 31 March 2027.

serve). It also potentially indirectly constrains the prices Openreach chooses to charge for active IEC services due to the threat of customers switching.

3.28 When considering this constraint it is important to take the following into account:

a) This is a forward looking assessment, considering the degree of protection offered by DFX during the 2026-31 review period. As explained below, we consider that the attractiveness of DFX will increase.
b) It is not necessary for all active IEC customers to be willing to switch to DFX in order for it to exert an effective constraint. The presence of a smaller number of so-called marginal customers may be sufficient.

3.29 The evidence suggests that DFX is useful for a wide range of users. Current DFX users include [✂], [✂], [✂], [✂], [✂] and [✂].[110] Some users rely exclusively on DFX at those exchanges where it is available, examples of this are [✂] and [✂].[111] This is consistent with our view that dark fibre has some intrinsic benefits over active products, such as giving users a more flexible input to downstream services, as explained further in Volume 3.

3.30 Current DFX take-up is substantial where it is available, and we forecast that take-up will continue to grow (at existing DFX exchanges as well as new DFX exchanges) across 2026-31. As of 2023/24, there were 3,083 DFX rental circuits in use, accounting for around 12% of all Openreach IEC rentals (i.e. active IEC and DFX rentals) across all BT Only exchanges (including BT Only exchanges at which DFX is not currently available).[112] We forecast that DFX rentals at BT Only exchanges will increase to 5,766 rental circuits by 2030/31. Additionally, we forecast that at BT+1 exchanges (where DFX is not currently available) there will be 607 DFX rental circuits by 2030/31.[113]

3.31 DFX as a share of new Openreach IEC connections (i.e. active IEC and DFX connections) across all BT Only exchanges (including those where DFX is not currently available) has increased year on year since 2022. In 2023/24, DFX accounted for around 29% of all connections, with 557 new DFX connections.[114] At these exchanges, this share is forecast to increase to around 45% by 2030/31.[115] [116]

[110] [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[111] [✂] response dated [✂] to s135 notice dated [✂], question [✂]. Vodafone response dated 5 September 2024 to s135 notice dated 29 July 2024, question D5.
[112] 2023/24 volumes are sourced from BT's published 2024 RFS (schedule 9.1.1).
[113] 2030/31 volumes are sourced from Ofcom volumes forecasts and incorporate proposed changes in the number of BT Only exchanges for 2026-31 as set out in Schedule 4 of this Consultation. Further explanation of our approach to IEC volumes forecasting is provided in Annex 14.
[114] 2023/24 volumes are sourced from BT's published 2024 RFS (schedule 9.1.1).
[115] 2030/31 volumes are sourced from Ofcom volumes forecasts and incorporate proposed changes in the number of BT Only exchanges for 2026-31 as set out in Schedule 4 of this Consultation.
[116] The absolute number of new connections at BT Only exchanges is forecast to decline between 2023/24 and 2030/31. This applies to DFX circuits and active IEC services.

3.32 The evidence we have gathered from stakeholders suggests that there are no major DFX barriers to use. For example, users such as [✂], [✂] and [✂] have not raised any barriers to ordering DFX, or migrating existing IEC circuits to DFX.[117] Similarly, [✂] uses [✂].[118]

3.33 Although, generally, stakeholders have not raised issues with using DFX, some specific users may face issues. For example, [✂] said that resilience is only offered on DFX to DFX circuits (and not on DFX to active products).[119] [120] [✂] cited the reclassification of exchanges in the WFTMR21 (which resulted in the removal of DFX from some exchanges) as a barrier to using DFX since 2022.[121] [✂] cited non-availability of capacity along the fibre routes between requested sites, as well as fibre paths being too far.[122]

3.34 As demonstrated by the profitability evidence set out in Annex 14, we recognise that current profitability is very high for active IEC services. However, we consider that the changes we are making to the DFX remedy will increase its overall effectiveness. As a result, we expect it to exert a stronger constraint on active IEC services in the future.

a) Firstly, as detailed above, our proposed cost-based charge controls will lead to an immediate and material reduction in real DFX prices. Our proposed SCAs are forecast to reduce rental charges by over 10% (possibly more, depending on the relative importance of DFX circuit rental and DFX main link charges for a particular circuit). On top of this, our proposals would lead to substantial further decreases in real DFX prices over the 2026-31 review period.
b) Secondly, as detailed in Volume 3, the removal of DFX from some exchanges in July 2022 resulted in a degree of costs and customer disruption. The proposed extension of DFX to more exchanges should lessen stakeholder concerns about the removal of this remedy at a particular exchange compared to the position in 2021-26.123

3.35 Given the above, we consider that the availability of DFX at cost-based prices reduces the risk associated with excessive prices for active IEC services. It is in this context that we consider our approach to charge controlling active IEC services for this review period.

Assessment of charge control options

3.36 We have considered the following approaches for charge controlling active IEC services:

a) **Removing the charge control:** Instead, we would solely rely on the cost-based charge control on DFX.
b) **Pricing continuity:** Maintaining the approach set out in the WFTMR 2021 of setting a CPI-0% charge control for all active IEC services, preventing prices from rising in real terms.

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[117] [✂] response dated [✂] to s135 notice dated [✂], questions [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂]. [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[118] [✂] pre-consultation (confidential) submission dated [✂], [✂].
[119] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[120] There is no provision capability for cross product resilience that enables users to order a DFX resilient service against a new or existing Openreach active service (such as EAD). Only resilience monitoring between two DFX resilient services is possible. Openreach. 17 September 2024. DFX Product Description, Issue: Final 3.0, page 16. Dark Fibre X. Accessed 4 March 2025.
[121] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[122] [✂] response dated [✂] to s135 notice dated [✂], question [✂].
[123] We recognise that if in a future market review an exchange is deregulated due to an increase in competitive presence at that exchange, then DFX may no longer be available (subject to any transitional arrangements we decide to impose) unless Openreach chooses to supply it. However, this is the same risk as for any other regulated product when the relevant market is deregulated.

c) **Bringing prices closer to cost:** Setting a tighter charge control to reduce active IEC prices in real terms such that they align with costs by 2031.

3.37 As outlined above, to date we have seen significant DFX take-up at exchanges where it is available, and for the 2026-2031 review period we forecast this to increase. We expect DFX to become an increasing constraint on active IEC services over the 2026-31 review period for the reasons outlined above. However, timing is uncertain. We recognise that it will take time for customers to switch to DFX, and active IEC services will continue to account for a significant proportion of volumes in this review period. Given this, we consider that some form of price control protection on active IEC services is needed during the transition period.

3.38 Given our expectations as to the attractiveness and effectiveness of a cost-based DFX remedy for this review period, we consider that continuing our WFTMR21 approach of applying a safeguard cap on active IEC services in the form of a CPI-0% charge control would provide adequate protection to consumers while services migrate to DFX. This would ensure that prices do not increase in real terms.

3.39 We recognise that bringing prices closer to cost on active IEC services could provide even greater protection against the risk of excessive pricing than a CPI-0% charge control. We also recognise that there is some uncertainty over the extent and speed of switching across customers from active IEC services to DFX across the 2026-31 review period.

3.40 However, our evidence set out above shows that there is already established demand for DFX from a range of customers and there are no major barriers to active IEC customers switching to DFX. We therefore consider that imposing a cost-based charge control, or a charge control closer to cost, on active IEC services in addition to a cost-based charge control on DFX would be disproportionate as it would go further than is necessary to achieve our objective of consumer protection.

Our preferred approach is pricing continuity

3.41 We consider that overall pricing continuity for active IEC services at BT Only and BT+1 exchanges is the most effective and proportionate way to achieve our objectives. This approach achieves our objective to promote competition based on access to Openreach's networks and protect consumers.

3.42 We therefore propose to maintain a CPI-0% charge control for all active services, so that prices do not rise in real terms.

3.43 In practice, our proposed CPI-0% charge control on active IEC services would comprise:

a) A CPI-0% charge control applicable to a basket of Ethernet IEC connection, circuit rental and main link rental services sold at BT Only exchanges and BT+1 exchanges;
b) A CPI-0% sub-cap on each Main Link service charge in the Ethernet IEC basket mentioned in point a) above;
c) CPI-0% charge controls applicable to each WDM (Optical) service modular component sold at BT Only exchanges and BT+1 exchanges.

3.44 Further explanation of the design of our proposed charge controls is set out in Section 6.

Legal tests

Legal tests

3.45 We are proposing to set SMP conditions on BT to give effect to pricing remedies described above. We set out further detail of our approach to the design and implementation of the proposed charge controls in Section 6. Our draft SMP conditions can be found in Volume 7.

3.46 We consider that our proposed approach of imposing a cost-based charge control for DFX and a CPI-0% on active IEC services at BT Only and BT+1 exchanges is proportionate. We consider that this will provide adequate protection for consumers against the risk of excessive pricing, whilst going no further than is necessary to achieve that objective. We have not identified any adverse effects that would be disproportionate to the aim pursued.

3.47 As required by section 88 of the Act, we consider that the setting of the draft SMP conditions would be appropriate for the following purposes:

a) promoting efficiency;
b) promoting sustainable competition;
c) conferring the greatest possible benefits on end users of public electronic communications services having regard, where relevant to the market analysis, to the long-term interests of end-users in the use of next-generation networks; and
d) promoting the availability and use of new and enhanced networks.

3.48 We have also taken into account:

a) the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
b) the benefits of predictable and stable wholesale prices in ensuring efficient market entry; and sufficient incentives for all undertakings to bring into operation new and enhanced networks.[124]

Promoting efficiency

3.49 In respect to its DFX services, we consider that setting charge controls based on BT's FAC (for benchmark EAD 10 Gbit/s services) allows BT to retain any profits it earns over forecast efficient costs. This will encourage BT to reduce costs and achieve greater efficiency. We consider that a cost-based charge control will promote efficiency:

a) by ensuring that BT cannot set prices high relative to costs;
b) by allowing BT to earn a reasonable rate of return if it is efficient; and
c) by providing BT with flexibility to change prices to meet demand as we anticipate an increase in the use of DFX services.

3.50 We believe that the extended availability of DFX and our proposed cost-based charge controls for DFX will also increase competitive alternatives to active IEC services, thereby promoting efficiency in BT's provision of active IEC services.

Promoting sustainable competition and conferring the greatest possible benefit on end-users

3.51 We consider that cost-based charge controls for DFX services will:

a) Protect telecoms providers and the consumers they serve from excessive prices;

[124] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions would ensure effective and non-discriminatory access. We have considered whether these tests may be satisfied in this case. We provisionally conclude in light of our proposed SMP determinations that they would be unlikely to be satisfied.

b) Promote sustainable competition by promoting access to BT's network at competitive prices.

3.52 We are proposing to extend DFX to all BT Only and BT+1 exchanges, and we also note that our proposed cost-based charge controls will lead to a marked reduction in real (inflation-adjusted) DFX prices. We believe that this extension of the DFX charge controls and reduction in real DFX prices will lead to greater take-up of DFX and support competition in the downstream markets that rely on this service. We believe this will also result in lower downstream prices. As we do not expect to see significant rival network investment in the BT Only and BT+1 exchanges, our proposed charge controls support our aim of encouraging telecoms providers who rely on access to BT's network to invest in the provision of DFX services on the network and will bring benefits for end users, having regards to the long-term interests of end-users in the use of next-generation networks.

Promoting the availability and use of new and enhanced networks

3.53 We forecast that the take-up of DFX will increase over the next review period as our evidence suggests that DFX is useful for a wide range of telecoms providers and users. We believe that a cost based DFX remedy provides an appropriate incentive for telecoms providers to invest as deep into the network as possible with DFX services.

3.54 When taken together with our proposals in Volume 3 to strengthen regulatory certainty over the future availability of DFX, our view is that these measures will promote the availability and use of new and enhanced networks.

The extent of the investment and the benefits of predictable and stable wholesale prices

3.55 We have taken account of BT's investment in the matters to which the conditions relate by ensuring that our charge controls allow BT to recover its efficiently incurred costs and make a reasonable return on its investment.

3.56 Our charge controls also provide for a predictable path of wholesale prices for the five-year control period. This will encourage telecoms providers to compete as deep into the network as possible using dark fibre, and it will also provide price predictability for telecoms providers choosing to purchase active IEC services from Openreach. Our proposal to retain a cost-based charge control on DFX in exchanges which are reclassified to BT+2 for a transitional period increases confidence in the availability and pricing of these services. Overall, we consider the price regulation we are proposing promotes Openreach's investment in gigabit-capable networks and supports efficient market entry by competing telecoms providers.

3.57 In Section 7 we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

Consultation question

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

4. PIA charges

4.1 Physical Infrastructure Access (PIA) services provide communications providers with access to Openreach's Physical Infrastructure, including ducts, footway boxes, and poles, to enable them to build their own communications networks. In this section we set out our proposals for PIA charges.

Introduction

4.2 We propose to maintain our existing approach of setting cost-based PIA rental charges that telecoms providers other than Openreach will pay. Firstly, the total cost of the physical infrastructure that Openreach needs to recover is allocated to individual units of infrastructure (e.g. cost per metre of spine duct, cost per lead-in, cost per pole). The PIA rental charge for each type of infrastructure is then set as a share of the unit cost of that physical infrastructure, to reflect the fact that both Openreach and a third party (or third parties) are sharing the physical infrastructure.[125]

4.3 The way we set PIA rental charges means they are not intended to be paid by Openreach[126] in relation to its own use of the physical infrastructure. This is because the charges are set assuming they will apply to infrastructure that is being shared, i.e. used by third parties as well as Openreach. A large part of Openreach's own use of its physical infrastructure occurs where there are no third parties using the infrastructure, so there are no revenues from third parties paying rental charges. Therefore, if Openreach were to pay the PIA rental charges we set, it would not recover its costs where infrastructure is not shared.[127]

4.4 However, Openreach does still face the cost of its physical infrastructure under our approach. The PIA charges determine how much of Openreach's physical infrastructure costs are recovered from third party PIA users. The remaining costs are then allocated to Openreach's downstream services and recovered from charges for these downstream services. This means that where infrastructure is shared, Openreach recovers the share of the cost not recovered from third party PIA users from its own downstream services.[128] Where there are no third parties using the physical infrastructure, Openreach recovers 100% of the cost from its own downstream services.

4.5 One of our objectives when setting PIA rental charges is to ensure a level playing field between Openreach and third parties using PIA. We consider that setting the share of the unit cost that a third party pays at a "fair" level ensures a level playing field. Stakeholders have suggested that Openreach should pay PIA rental charges to ensure a level playing field. However, for the reasons above, this would require a change to the way PIA rental

[125] As an illustrative example, if the cost of a metre of single bore spine duct was £1, then the PIA rental charge is set at a 46% share of this, i.e. £0.46 per metre.
[126] Whether that is Openreach charging itself to use PIA, or used to determine the physical infrastructure costs that are attributed to Openreach's downstream services and reflected in Openreach's regulatory financial accounts.
[127] Using the illustrative example in the footnote above, If Openreach only paid £0.46 per metre of single bore spine duct that is not shared, the other £0.54 per metre of cost would be unrecovered or not reflected in the cost of downstream services in its regulatory accounts.
[128] As an illustrative example, if PIA users pay 50% of the cost, Openreach effectively pays the remaining 50%.

charges are set to avoid under-recovery. It would also create instability in PIA rental pricing and could result in more complex and/or higher PIA rental charges. Accordingly, we consider that stakeholders should look primarily at the proposed fair shares that we set to understand how the PIA prices result in a level playing field.[129]

4.6 Our proposed implementation of the approach described above is broadly consistent with that set out in the 2021 WFTMR but with some adjustments to the methodology and using updated cost and volume information. In summary, we propose to:

- Continue to set cost-based charges for key PIA services based on Fully Allocated Costs (FAC) that reflect current cost accounting (CCA). However, we propose to assume duct and pole asset price inflation of 2% per annum for forecast years rather than linking to RPI, and assuming a slightly lower opex efficiency of 3% per annum.
- Maintain a forward-looking approach to the fair share assumptions. While most fair share assumptions are already consistent with this, we propose to reduce the share of lead-in duct and single-end-user pole attachment costs recovered from third parties via PIA rental charges.
- Reduce the fair share assumption for single bore duct to reflect the fact that in some areas more than one third party will be sharing the duct.
- Maintain our approach to the recovery of network adjustment costs, including the financial limit of £4,750 per km of spine duct.

4.7 Our proposed fair shares, forecast costs and maximum charges for duct and footway box services are set out in Table 4.1 below and for pole services in Table 4.2 below. These charges are per annum excluding VAT.

Table 4.1: Current charges, 2030/31 forecast unit costs, current and proposed fair shares and 2030/31 indicative charges for PIA duct and footway box services[130]

	Current charges (2025/26)	2030/31 forecast unit costs (base case)	Current fair shares	Proposed fair shares	2030/31 indicative charges (base case)[131]
Simplified lead-in duct	£11.96	£14.90	90%	46%	£6.79
Single bore spine duct	£0.39	£0.95	50%	46%	£0.43
2 bores spine duct	£0.28	£1.39	25%	25%	£0.35
3+ bores spine duct	£0.19	£2.11	10%	10%	£0.21

[129] We discuss our fair share assumptions in paragraphs 4.42 to 4.62 below. We discuss what stakeholders can infer from BT's Regulatory Financial Statements about the level playing field in Volume 6.
[130] The charges apply to cables or sub-duct of up to 25mm diameter, and we would expect cables or sub-ducts with diameters larger than this to face charges that are multiples of our proposed charges below.
[131] These are estimates based on forecast CPI but future PIA charges will be based on actual CPI.

	Current charges (2025/26)	2030/31 forecast unit costs (base case)	Current fair shares	Proposed fair shares	2030/31 indicative charges (base case)[131]
Facility hosting per manhole entry	£11.73	£496.17	3.3%	3.3%	£16.37
Facility hosting per joint box entry	£2.75	£20.38	15%	15%	£3.06

Source: Ofcom PIA charges model

Table 4.2: Current charges, 2030/31 forecast unit costs, current and proposed fair shares and 2030/31 indicative charges for PIA pole services

	Current charges (2025/26)	2030/31 forecast unit costs (base case)	Current fair shares	Proposed fair shares	2030/31 indicative charges (base case)[132]
Multi-end-user attachment	£6.77	£14.56	63%	47.5%	£6.92
Single-end-user attachment	£2.64	£4.30	90%	46%	£1.96
Pole top equipment (manifolds)	£1.98	n/a	52%	n/a	£0
Cable up a pole (per cable)	£1.32	n/a	56%	n/a	£0

Source: Ofcom PIA charges model

4.8 Our proposed charge controls, reflecting our proposals relating to the cost modelling of PIA services, are set out in Table 4.3 below. We present ranges for all proposed cost-based charge controls to provide an indicative view of what the final figures might be from updated cost forecasts in our PIA charges model. This is consistent with our approach in previous market reviews.

4.9 We intend to update our cost models ahead of publishing our Statement to incorporate more recent outturn data from which we can derive updated cost estimates for 2025/26 and 2030/31. Should we decide to proceed with setting cost-based charge controls, we would use these updated cost estimates to determine the final figures for the CPI-X glidepaths. The ranges included in this Consultation are intended to provide an indicative view of what those final figures may be.

[132] These are estimates based on forecast CPI but future PIA charges will be based on actual CPI.

Table 4.3: Proposed CPI-X ranges for maximum PIA charges

	Low	Base Case	High
Simplified lead-in duct	CPI – 14.4%	CPI – 12.8%	CPI – 11.1%
Single bore spine duct	CPI – 2.1%	CPI – 0.1%	CPI + 2.2%
2 bores spine duct	CPI + 0.6%	CPI + 2.5%	CPI + 4.2%
3+ bores spine duct	CPI – 2.1%	CPI – 0.1%	CPI + 1.8%
Facility hosting per manhole entry	CPI + 2.8%	CPI + 4.8%	CPI + 6.8%
Facility hosting per joint box entry	CPI – 1.6%	CPI + 0.1%	CPI + 1.7%
Single-end-user attachments	CPI – 10.0%	CPI – 7.9%	CPI – 5.7%
Multi-end-user attachments	CPI – 3.9%	CPI – 1.6%	CPI + 0.6%

Source: Ofcom PIA charges model

4.10 In the rest of this section, we set out our:

- Proposal to impose a cost-based control on PIA rental charges and our objectives when setting PIA charges;
- Proposed approach to setting a cost-based control for PIA rental charges, including the use of fair shares, and how they meet our objectives; and
- Proposed approach to ancillaries, in particular network adjustments and the financial limit.

Proposal to impose a cost-based control on PIA rental charges and our objectives when setting PIA charges

The competition problem

4.11 Given our finding that BT has SMP in the Physical Infrastructure market (see Volume 2 Section 3), we consider that BT has the incentive and ability to set PIA prices at an excessively high level and/or impose a price squeeze, as to have adverse consequences for end-users. In particular:

- **Excessively high prices:** There is a risk that BT sets high prices relative to cost to maximise the profit it earns from providing access to its Physical Infrastructure.
- **Price squeeze:** There is a risk that BT sets high prices relative to cost to increase the overall cost of building a network using PIA, with the intention of preventing or limiting the emergence of further network competition by undermining the investment case for

network deployment based on PIA, and/or undermining sustainable network competition from becoming established.

4.12 The adverse price effects could undermine the effectiveness of the obligation to provide PIA, and result in higher retail prices, all of which is ultimately against the interests of consumers. We therefore propose to impose a cost-based charge control on PIA rentals to address these competition risks.

Our objectives for PIA charges

4.13 In developing our proposed charge controls, we have had regard to our overarching legal duties. Consistent with the approach to remedies set out in Volume 3, Section 1, we propose to exercise our discretion in setting these controls in favour of an approach that is aimed at promoting network competition based on access to Openreach's physical infrastructure.

4.14 Our proposals seek to support efficient investment in network competition by ensuring:

- Charges are simple and easy to implement;
- Charges provide good pricing signals for network investment;
- A level playing field exists between Openreach and other telecoms providers that make use of PIA; and
- Openreach can recover its efficiently incurred costs as this provides the regulatory certainty that supports its incentives to invest in its physical infrastructure, i.e. maintain the assets that network providers are seeking access to.[133]

Cost based charge control

4.15 To achieve the objectives above, we propose a cost-based charge control based on Openreach's PIA costs as reported within BT's Regulatory Financial Statement (RFS). This will support efficient investment in network competition by reducing duplication of civil works whilst providing a level playing field. We have considered two overarching issues in developing our cost-based charge control:

- Which costs and how should they be measured?
- How should these costs be recovered?

Which costs and how should they be measured?

4.16 Historically, we have used costs reported in the RFS. Stakeholders have argued that BT has over recovered its costs due to the impact of high holding gains which have resulted in the actual cost of internal inputs into downstream services being considerably lower than the external PIA charges based on forecast costs. Stakeholders have suggested the use of Historical Cost Accounting (HCA) instead of current cost accounting (CCA) and suggested lowering PIA charges to account for both historical and future over recovery of costs. Stakeholders have also suggested alternative measures of costs such as the use of a Modern Equivalent Asset (MEA) approach.

[133] In addition, providing Openreach the opportunity to recover its efficiently incurred costs via PIA charges also provides the appropriate regulatory signals to ensure the correct investment signals for Openreach in general.

4.17 As set out in Volume 6, Section 5, we propose to modify the basis of indexing CCA costs by replacing the method of indexing duct and pole assets by RPI with a fixed annual indexation rate of 2%. Consistent with this approach we propose to follow the same approach in modelling PIA charges which we consider will address stakeholder concerns.

4.18 Although the PIA asset base is significantly depreciated, Openreach continues to significantly invest in its ducts and poles. Rebasing Openreach's duct and pole assets to be consistent with HCA would not give Openreach the opportunity to recover its efficiently incurred costs as the future recovery of assets would no longer be consistent with the allowed historical recovery. This could undermine Openreach's incentives to invest in its physical infrastructure, resulting in less usable duct and pole assets and eventually lead to a less effective PIA remedy.

4.19 Similarly, adjusting the cost recovery of PIA assets to account for any over recovery in downstream services could undermine Openreach's incentives to invest in its physical infrastructure. We also do not consider it appropriate to adjust future charge controls based on historical over recovery. Our charge controls set how much we expect Openreach will recover during the forward-looking period based on what we consider to be unbiased cost and volume estimates. Following this, Openreach can keep any upside (or lose any downside) it achieves. We do this to provide appropriate incentives for improving efficiency. We consider it inappropriate to undermine these incentives by offsetting historical revenue against costs in future charge controls. This view is consistent with our previous decisions on charge controls and the overarching legal framework.

4.20 We continue to consider it inappropriate to adopt an MEA approach to value PIA assets due to several reasons:

- It is not clear that it would fulfil our objective for Openreach to recover its efficiently incurred costs.
- It is likely to result in prices that fluctuate over time, given the need to constantly redesign the duct network to meet latest demand conditions. This is particularly problematic for PIA assets as they have much longer economic lives which makes it difficult to determine the 'optimal' network design over the life of the asset.
- Various assumptions would need to be made about the hypothetical MEA assets, including the speed of deployment, the cost of deployment, and how depreciated the assets should be. Overall, these assumptions could result in higher estimated costs thus increases in charges yet no improvements in transparency of prices or incentives to invest (in fact it could result in BT over-recovering its costs).
- It would be wrong to assess one part of the network – the PIA elements – on an MEA basis and not consider the impact of other network elements. By adopting MEA for PIA services, we would be creating inconsistencies with other charges. This further increases the added complexity of adopting an MEA approach.

4.21 Finally, we consider it appropriate to continue to set charges based on FAC as to do otherwise would undermine Openreach's opportunity to recover its efficiently incurred costs, which includes the reasonable allocation of common costs to PIA assets.

4.22 We therefore propose to continue to base the costs within our PIA charge control on the FAC valuation of PIA as recorded and audited within BT's RFS. We believe that this provides a relatively simple, transparent, and predictable basis on which to set prices whilst providing Openreach an opportunity to recover its efficiently incurred costs.

4.23 As explained in paragraph 4.3 above, the PIA charges would not be an appropriate way to determine Openreach's share of duct and pole cost recovery. In Volume 6, we explain what PIA costs and revenues in the published RFS represent. We consider it useful to compare internal and external unit costs in the RFS as this demonstrates how the fair share assumptions are allocating cost recovery between Openreach and PIA users.

4.24 We expect our objective to ensure a level playing field is met with the use of 'fair shares' as discussed below.

Approach to setting a cost-based control for PIA rental charges

General approach

4.25 As explained above, we set PIA rental charges that telecoms providers other than Openreach will pay. We explain below the steps we follow to calculate PIA rental charges. These are:

- Determine the regulatory cost base in the base year;
- Forecast the regulatory cost base over the charge control period;
- Attribute the regulatory cost base between different PIA services;
- Calculate unit costs for each service in each year; and
- Set rental charges as a share of these unit costs.

Determine the regulatory cost base in the base year

4.26 Our base year costs include operating costs, depreciation (including holding gains) and a return on capital employed.[134] As set out in Annex 14, we have decided to use costs relating to the 2022/23 RFS for this Consultation but expect to update our base year to a more recent RFS for the Statement. We consider the audited RFS provides a robust starting point from which to estimate PIA charges going forward.[135]

4.27 However, we propose to adjust base year data to smooth certain costs that substantially vary each year, e.g. leaver payments and restructuring costs. For 2022/23 we have specifically uplifted PIA costs by £2.9m and £190k for leavers and restructuring costs, respectively.

Forecast the regulatory cost base over the charge control period

[134] The return on capital employed is calculated using our current estimate of the Openreach Copper WACC (see Annex 20) as we consider this most closely reflects the systematic risk associated with the Physical Infrastructure market.

[135] Some of the relevant information for PIA is published but a significant amount of confidential information is also provided to Ofcom through AFIs and s135 information requests. We note that the confidential information provided is often reconciled to the published information which provides an additional benefit to using costs from BT's RFS.

4.28 We consider it appropriate to broadly follow the same forecasting approach as in the 2021 WFTMR, specifically:

- For pay and non-pay operating costs we use our standard cost forecasting equations with assumptions about efficiency and cost volume elasticities (CVEs). However, we propose to use a slightly lower efficiency rate of 3%, compared to the 3.5% in the 2021 WFTMR, to reflect our recent assessment of actual and forecast opex efficiency.
- Our forecasts of capital costs (including depreciation) for duct and footway boxes were driven by assumptions about the overall trend in Openreach capex over the period.

4.29 We propose to use Openreach's forecast of capex for both duct and poles because they:

- are consistent with Openreach's wider medium-term plan (MTP) which we consider to be the most accurate forecast of overall capex by Openreach;[136] and
- appear reasonable based on recent expenditure (i.e. capex over the last two years) and expected trends (e.g. slowdown of FTTP build).[137]

4.30 As expected, duct and pole capex is forecast to decrease as Openreach's 25m fibre build is completed, and then stabilise at a level consistent with historic levels prior to Openreach ramping up its network investment.

4.31 We no longer use our forecasts for network adjustments below the financial limit as we consider it likely that Openreach's estimates are more accurate than our own, which are based on outdated unit costs. Furthermore, we consider Openreach's estimates to be consistent with recent actuals, as reported in the RFS, and note that its estimates are lower than our own.

4.32 We no longer assume that duct and pole capital costs increase by RPI and instead propose to increase capital costs by 2% per annum over the forecast period. This is consistent with our proposal in Volume 6, Section 5 on how to index duct and pole assets.

4.33 We no longer make any adjustments for pole testing costs as we consider that these costs will be sufficiently captured within the 2022/23 base year as well as the forecast capex.

Attribute the regulatory cost base between different PIA services

4.34 As BT's accounting systems do not record costs separately for different PIA services the regulatory cost base needs to be attributed to different PIA services for which we are setting rental charges.

4.35 For duct services, we propose applying the WLA 2018 attribution of duct costs for assets installed up to 31 March 2018 and apply an adjusted attribution for assets installed after 31 March 2018 based on actuals and forecasts.

[136] Given that overall capex forecasts are used by Openreach as part of its business plans, we consider it likely that there is a low risk of regulatory gaming. However, we have assessed Openreach's breakdown of its overall capex into duct and pole capex as this breakdown is only provided for and used by Ofcom, i.e. it is not used by Openreach.

[137] We also consider the capex forecasts to be consistent with unit costs and Openreach forecast duct and pole asset volumes, which we also consider to be reasonable and consistent with actuals.

4.36 For pole services, we think it would be beneficial for PIA users to have fewer charges and note that both pole top equipment and cable up a pole services represent a small proportion of overall cost recovery.

4.37 We propose to simplify charges by setting the pole top equipment and the cable up a pole charges to zero, and instead recovering all costs from the single-end-user and multi-end-user attachment charges. This simplification of charges, and cost modelling, will provide greater transparency and pricing certainty for PIA users whilst still providing Openreach the opportunity to recover its efficiently incurred costs. This change should have no impact on the level playing field. We consider it unlikely that reducing the already low charges for these services to zero will have a significant impact on the efficient use of Openreach poles.[138]

4.38 We consider our approach supports price stability for PIA while also basing cost attributions on the basis on which costs were incurred at the time. This will mean that Openreach will have the opportunity to recover the cost of its sunk assets and its forward-looking costs, ensuring that it is incentivised to continue to invest in its physical infrastructure.

Calculate unit costs for each service in each year and then set rental charges as a share of these unit costs

4.39 The result of the previous stages is to produce a fully allocated regulatory cost in each year for each PIA cost component, e.g. for single bore or multi bore duct, junction boxes, poles, etc. We then divide those costs by the respective volumes in each year to estimate unit costs. For example, we calculate the cost per metre for single bore duct and for multi-bore duct, the cost per footway box, and the cost per pole attachment.

4.40 In the 2021 WFTMR we imposed a charge control on a new simplified lead-in service. Lead-in ducts link customer premises to the main, shared, duct network. Lead-in cables generally run from a distribution point, i.e. a joint chamber and/or footway box, through lead-in duct to reach the end-customer premises. The simplified lead-in service consolidated several services[139] into one fixed price lead-in rental service that would apply from the telecoms provider's optical distribution point all the way to the building entry point of the end-customer premises.

4.41 As Openreach does not routinely keep records of their underground infrastructure beyond the distribution point, the lengths of lead-in ducts, lengths of lead-in link ducts and the number of facility hostings (i.e. number of ingress/egress from any chamber in the route) required to serve every premises are not known. When setting its original simplified ducted lead-in price Openreach estimated the average quantities of lead-in ducts, lead-in links and facility hosting components used to provide a connection on approximately 386,952 new site premises across the UK where lead-in measurements were recorded on Openreach's

[138] We also might expect the activity required by telecoms providers to install pole top equipment or cable up poles is sufficient to discourage inefficient use.

[139] Previously telecoms providers using a lead-in cable to serve a single premises needed to purchase a combination of several infrastructure rental services including lead-in duct (charged per metre), potentially lead-in link duct (charged per metre), and one or more facility hostings (to enter and exit the distribution point and pass through any intermediate footway boxes or chambers). Each of these services had a separate charge with different unit costs.

inventory systems.[140] We continue to consider that overall the assumptions that are based on this analysis are reasonable and propose using them for future PIA charges.

Set rental charges as a share of these unit costs

4.42 As a final step, we set PIA charges based on a share of the forecast unit costs, specifically we multiply the unit costs by an assumed 'fair share'. These fair shares determine what proportion of the unit costs should be recovered by third party PIA users, reflecting the long-term sharing of PIA assets, with the remaining duct and pole costs to be recovered by downstream Openreach/BT services.

4.43 Setting shares which achieve our objectives set out in paragraphs 4.13 and 4.14 above involves the use of regulatory judgement. There is no uniquely correct answer as to what the shares should be. We set out the current and proposed fair shares in Table 4.4 below:

Table 4.4: current and proposed fair shares for PIA services

	Current fair shares	Proposed fair shares
Simplified lead-in duct	90%	46%
Single bore spine duct	50%	46%
2 bores spine duct	25%	25%
3+ bores spine duct	10%	10%
Facility hosting per manhole entry	3.3%	3.3%
Facility hosting per joint box entry	15%	15%
Multi-end-user attachment	63%	47.5%
Single-end-user attachment	90%	46%
Pole top equipment (manifolds)	52%	n/a
Cable up a pole (per cable)	56%	n/a

Source: Ofcom assumptions

4.44 The shares we set are broadly based on the expected future revenue opportunity that a PIA user is likely to obtain from that asset in the long run, i.e. when fibre network build has finished, and market shares have stabilised. They also reflect the long run number of PIA users paying charges for lead-in duct or poles.

4.45 For example, we expect the majority of spine duct that is close to the end-customer, i.e. single bore spine duct, to be shared by Openreach and one PIA user. In long run we would expect Openreach and that one PIA user to have an equal opportunity to generate revenues from that shared segment of duct. Where duct has greater revenue opportunities, e.g.

[140] Openreach's response dated 10 December 2019 to the s.135 notice titled Promoting competition and investment in fibre networks dated 2 December 2019.

because that duct serves more end-customers, we assume a greater number of sub-ducts will be used thus apply a lower fair share.

4.46 We consider that this approach is appropriate given our objectives:

a) It provides good pricing signals for network investment and competition as it reflects the expected long run steady state rather than short term volatility.
b) It results in a level playing field as the allocation of costs are based on an expected equal revenue opportunity in the future.
c) It provides Openreach an opportunity to recover its efficiently incurred duct and pole costs.

4.47 We explain the specific fair shares in greater detail below.

Fair shares unchanged from 2021 WFTMR

4.48 We propose to continue to use the fair shares from the March 2021 Statement for:

a) multi-bore duct;
b) joint boxes; and
c) manholes.

4.49 We consider that the fair shares for multi-bore duct, joint boxes and manholes continue to represent the expected equal revenue opportunity for PIA users in the future, for the same reasons set out in WFTMR 2021.[141] As explained above, there is no uniquely correct answer as to what the shares should be, but we consider that the existing shares are based on assumptions which continue to be reasonable.

4.50 However, as set out below, we consider it appropriate to adjust the fair shares for:

- single bore spine duct;
- lead-in duct and single-end-user pole attachments; and
- multi-end-user pole attachments.

Fair share for single bore spine duct

4.51 We consider it appropriate to adjust the single bore fair share to reflect our expectations for the likelihood of two PIA-using altnets to access single bore duct in parts of the Openreach's network. In these circumstances, a fair share of 33% would be more appropriate, otherwise we consider the 50% assumption to be appropriate.

4.52 Using information about network build obtained for Connected Nations, we have estimated the likely overlap of network build for single bore duct based on altnet presence at a postcode sector level. We use all altnets plans up to January 2030, which is the latest data available to us, but exclude [✂] as we do not expect them to use PIA. Furthermore, we assume an altnet is present in a postcode sector if it covers at least 50% of the premises in that postcode sector.[142]

4.53 This analysis suggests that c. 24% of single bore spine duct will have more than one altnet accessing that duct using PIA. Therefore, it would be appropriate for 24% of single bore spine duct to have a fair share of 33% (or in the very rare circumstances 25%) with the remaining single bore spine duct having a 50% fair share. This results in a weighted average

[141] See Volume 4 of the March 2021 Statement, paragraphs 4.102 to 4.107.
[142] This is consistent with our WLA market analysis.

fair share of c. 46%, which we propose to use to determine PIA charges for all single bore spine duct.

Fair shares for lead-in duct and single-end-user pole attachments

4.54 Rental charges are currently payable if the telecoms provider has a lead-in cable or single-end-user attachment in place. This means that when a customer churns, the competing telecoms provider will continue to pay the rental charge unless it physically removes its equipment. Competing telecoms providers are unlikely to do so just to avoid paying rental charges as it is costly to perform this activity and is wasteful if the customer then subsequently churns back.

4.55 Therefore, we continue to consider it appropriate to apply a discount rate to lead-in duct and single-end-user pole attachments. The charge that telecoms providers pay is therefore 100% minus the discount to account for the possibility that the telecoms provider may continue to pay rental charges even after losing the end customer.

4.56 In 2021, we decided to estimate the discount based on the probability that the competing telecoms provider may lose a customer over the 2021-26 review period.[143] For the next review period we now propose using a long-term forward-looking approach to the lead-in duct discount, rather than just assessing over the review period, as we consider this approach to be simpler, transparent, and result in greater pricing certainty. Furthermore, we consider this approach to be consistent with the other duct fair shares which should ensure an overall fairer treatment of cost recovery between Openreach and PIA users.

4.57 We propose gliding to a discount rate of 54% over the charge control period which results in lead-in[144] fair shares of 46%. We consider it appropriate to glide to this forward-looking discount rate as it provides relatively stable pricing whilst capturing the long-run discount rate within this review period.

4.58 We consider it appropriate to apply this discount rate to all three cost elements (lead-in duct, lead-in link duct, and facility hosting) that determine the simplified lead-in charge. We also propose to apply the new gliding discount rates to the cost of single-end-user pole attachments as the same rationale applies.

Fair share for multi-end-user pole attachments

4.59 Competing telecoms providers and Openreach can simultaneously use poles to attach aerial cables to provide services to consumers (so called multi-end-user attachments). However, in contrast to single-end-user pole attachments, both Openreach and the competing telecoms provider are likely to be receiving revenue from customers which multi-end-user attachments are used to serve.

4.60 We calculate the fair share based on the expected number of attachments that Openreach and the competing telecoms providers will have on a pole. This is effectively the ratio of the number of (Openreach) multi-end-user attachments per pole divided by the number of multi-end-user attachments per pole after the uplift for PIA use.

4.61 In 2021, we assumed one additional PIA user for multi-end-user attachments which effectively resulted in a fair share of 63% over the previous charge control period. We do

[143] See Volume 4 of the March 2021 Statement, paragraphs 4.97 and 4.98.
[144] This includes lead-in duct and single-end-user pole attachments.

not consider this assumption is appropriate for this review period due to expected increased PIA usage compared to the previous review period.

4.62 We consider a fair share that is similar to single bore spine duct would be more appropriate. If we uplift the number of additional multi-end-user pole attachments from PIA users by two rather than the previously assumed one in the PIA charges model, we effectively achieve a fair share of 47.5%. Changing this assumption is also consistent with the expected increase in PIA usage over this review period. Therefore, for multi-end-user pole attachments we propose applying a fair share of 47.5%.

Approach to ancillaries, in particular network adjustments and the financial limit

4.63 In addition to the charges for rental services, PIA has a range of associated ancillary activities. In this section we will discuss the recovery of network adjustment costs, the need for a financial limit on those and then what that level might be, and our proposals for Customer Apparatus Cable Coil Hosting and Customer Apparatus In-line Splice hosting and distribution joints services. Our proposals for other PIA ancillaries are set out in Section 5.

Network adjustments

4.64 Generally, the cost of infrastructure build and network adjustments required to accommodate the deployment and maintenance of BT's networks are recovered by Openreach from all users of its Physical Infrastructure. This reflects the view that the Physical Infrastructure is a shared asset used to provide a range of downstream services.

4.65 As we have said previously, if PIA users faced the full up-front costs of network adjustments and recovered these across their own customer base, this is likely to render the remedy ineffective as a basis for promoting the deployment of competing networks at scale. Therefore, it is important that Openreach recovers the costs of network adjustments related to PIA users in the same way as network adjustments in support of BT's own use, i.e. shared across all users.[145]

4.66 However, we also consider it appropriate to maintain a financial limit to this shared recovery of network adjustments. This addresses any risk that, without a financial limit, our policy might promote investment where the benefits to consumers are not outweighed by the costs of deployment. We have not seen any evidence that the existence of a financial limit has undermined the effectiveness of the PIA remedy.

4.67 We propose to continue with the previous approach to network adjustment costs. Specifically, we propose that the cost of network adjustments below the financial limit should be recovered over all users of Openreach's Physical Infrastructure; whilst costs above the limit should be recovered directly from the telecoms provider requesting the network adjustment.

4.68 When network adjustments are undertaken, existing users of the infrastructure (including Openreach) may be required to temporarily remove their equipment so that the works can be carried out. To clarify, we are proposing that the costs incurred in temporarily removing and replacing a telecoms provider's equipment so that a network adjustment can be

[145] For further details, see Volume 4 of the March 2021 Statement, paragraphs 4.174 to 4.178.

undertaken should be covered by that telecoms provider, and not recovered across all users of the Physical Infrastructure.[146]

Customer Apparatus services

4.69 Consistent with the continued use of Openreach's simplified lead-in service and the approach taken in the March 2021 Statement, we propose to set charges for customer apparatus services at zero as the cost for these ancillary services are recovered by the proposed PIA main rental charges. Specifically, the following services should be charged at £0:

- Customer Apparatus Cable Coil Hosting – small (per manhole);
- Customer Apparatus Cable Coil Hosting – medium (per manhole);
- Customer Apparatus Cable Coil Hosting – large (per manhole);
- Customer Apparatus Cable Coil Hosting – small (per joint box);
- Customer Apparatus Cable Coil Hosting – medium (per joint box);
- Customer Apparatus Cable Coil Hosting – large (per joint box);
- Customer Apparatus In-line Splice hosting and distribution joints (per manhole splice); and
- Customer Apparatus In-line Splice hosting and distribution joints (per joint box splice).

Financial limit

4.70 We propose maintaining the current £4,750 (per km of spine duct) financial limit. We consider this appropriate as both the 2022/23 and 2023/24 RFS suggests that:

- The level of the financial limit has a limited impact on network competition given that PIA users have yet to be charged for any network adjustments above the limit.
- The impact of any excessively expensive build is likely to be limited given that network adjustments in total represent only a small fraction of total capital expenditure, and we would expect most network adjustments to not be excessively expensive.

4.71 However, we remain of the view that the costs of making network adjustments for the purpose of attaching dropwires should be treated differently from other network adjustments and we propose that such costs should instead be recovered from all PIA users without limitation. We view the balance of risk for overhead lead-ins to be materially different from other types of network adjustment.[147]

4.72 Overhead lead-ins are likely to be the lowest cost means of connecting individual premises to a network. This is because using an aerial cable avoids the costly civil works required to deploy underground lead-ins. Therefore, we think the risks associated with not applying a financial limit for these network adjustments are small.

4.73 Moreover, the barriers to installing additional poles (for example, opposition from residents) make BT's existing pole infrastructure a particularly important enabler of

[146] This applies to Openreach and competing telecoms providers.
[147] See Volume 4 of the March 2021 Statement, paragraphs 4.186 to 4.188.

commercially viable network competition. If we subject these network adjustments to a financial limit, there is a risk that we will undermine the effectiveness of the remedy.

4.74 Therefore, we propose not to impose a separate financial limit for poles network adjustments, i.e. to continue with the regime as it currently operates. Specifically, the costs associated with the following network adjustments are not included for the purposes of determining whether the financial limit has been exceeded:

a) Network adjustment costs related to the provision of capacity for dropwires; and
b) Network adjustment for making poles (used for providing dropwires) usable which are currently not usable because they are damaged, decayed or defective.

4.75 Other network adjustments on poles, but not related to enabling poles to be used for dropwires, would still be subject to the financial limit.

Legal tests

4.76 We are proposing to set SMP conditions on BT in the market for Physical Infrastructure Access to give effect to the proposed pricing remedies described above for PIA and PIA related ancillaries. Our draft SMP conditions can be found in Volume 7.

4.77 As explained above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices at an excessively high level and/or impose a price squeeze in that market with adverse consequences for end-users.

4.78 We consider that our proposed pricing remedies for PIA and PIA ancillaries are proportionate as they go no further than is necessary to achieve our objectives, and we have not identified any adverse effects that would be disproportionate to the aim pursued.

4.79 As required by section 88 of the Act, we consider that the setting of each of these SMP conditions would be appropriate for the following purposes:

a) promoting efficiency;
b) promoting sustainable competition;
c) conferring the greatest possible benefits on end user of public electronic communications services having regard, where relevant to the market analysis, to the long-term interests of end users in the use of next-generation networks; and
d) promoting the availability and use of new and enhanced networks.

4.80 We have also considered:

a) the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and
b) the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to bring into operation new and enhanced networks.

Promoting efficiency

4.81 The form of control we are proposing to maintain on PIA rental charges encourages Openreach to increase its productive efficiency, as it allows Openreach to keep any profits it earns within the defined period by reducing its costs compared to those envisaged in

setting the control, while protecting consumers by setting cost-based charges (i.e. allocative efficiency).[148]

4.82 With respect to PIA ancillaries, if telecoms providers were to pay the full cost incurred in undertaking any network adjustments this could deter efficient investment, as it does not reflect the benefits to BT and other telecoms providers, now and in the future.

Promoting sustainable competition and conferring the greatest possible benefits on end user of public electronic communications services

4.83 As set out above, we consider that our approach to PIA rental charges will further promote sustainable competition in that it provides altnets with pricing stability which facilitates investment in competing networks using PIA. With respect to PIA ancillaries, we consider that sharing the cost of network adjustments can unlock competitive network investment that would not otherwise take place.

4.84 We also consider that there are significant benefits to deploying fibre networks at scale and encouraging such entry and expansion provides the greatest possible benefits to end-users in the long-term. Furthermore, we consider our approach to PIA rental charges will reduce the duplication of duct and pole assets, and which would otherwise need to be recouped through higher charges to end users of public electronic communications services.

Promoting the availability and use of new and enhanced networks

4.85 Our proposals for PIA rental charges and PIA ancillaries will continue to support competitive investment in new and enhanced gigabit capable networks.

4.86 In particular, our proposed PIA rental charge control addresses the risk of Openreach setting high rental prices relative to cost which could undermine competitive network investment. Our proposed approach to PIA ancillaries also encourages competitive investment in new and enhanced gigabit capable networks by pooling the costs of network adjustments below the financial limit. Our proposals also ensure that there is a level playing field between Openreach and competing networks.

4.87 Promoting competitive network investment also gives Openreach a strong incentive to invest in new and enhanced networks. We are also allowing appropriate cost recovery which supports Openreach's incentives to invest more generally.

The extent of the investment and the benefits of predictable and stable wholesale prices

4.88 We have taken account of the extent of BT's investment as our proposals provide for an appropriate return on the capital employed to be included in the charges.

[148] The benefits of any cost savings would potentially accrue to the regulated company in the short run and this would give BT incentives to make those efficiency savings. In the longer run, these cost savings could be passed to consumers through reductions in prices, either because of competition or through subsequent charge controls. In our view, this form of price regulation is also preferable to a rate of return type of control.

4.89 As our SMP conditions involve price controls on the provision of network access to existing network elements, in accordance with the test in section 88 of the Act, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring:

a) efficient market entry; and
b) sufficient incentives for all undertakings to bring into operation new and enhanced networks.[149]

4.90 Our proposed changes to the share of unit costs that PIA users should pay seek to create a level playing field with relatively stable pricing. Transparency and predictability over the level of charges for PIA facilitates its use for competitive network deployment.

4.91 With respect to PIA rental charges, although the charges in a given year will be very modest compared to the significant upfront costs of deploying a network using PIA, network investment decisions are typically evaluated over a long time horizon, over which time the total PIA rental charges could represent a material proportion of total costs over the lifetime of the investment. We consider that our proposed PIA rental charge control achieves predictability of the level of charges over the period.

4.92 With respect to PIA ancillaries, setting a basis of charges obligation[150] and our proposed approach to network adjustments below the financial limit provides altnets with greater certainty over the level of these charges. Any network adjustment charges will generally be incurred upfront and so will be a critical input into any investment decision. Having greater certainty on these will therefore help facilitate competitive network investments using PIA.

4.93 In Section 7, we explain why the setting of these draft SMP conditions would satisfy the test set out in section 47 of the Act.

Consultation questions

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

[149] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions imposed as part of a different market review would ensure effective and non-discriminatory access. We have considered whether these tests may be satisfied in this case. We provisionally conclude in light of our proposed SMP determinations that it is unlikely that they would be satisfied.

[150] See Volume 4, paragraphs 5.10 to 5.15.

5. Ancillaries

5.1 As set out in Volume 3 Section 5 (PIA specific remedies), Volume 3 Section 6 (WLA specific remedies), Volume 3 Section 7 (LLA specific remedies) and Volume 3 Section 8 (IEC specific remedies), we are proposing to require the provision of such ancillary services (ancillaries) as are reasonably necessary for the use of network access remedies in the PIA, WLA, HNR, LLA and IEC markets.

Our approach to setting ancillary charge controls

5.2 Absent regulation in each of the PIA, WLA, LLA and IEC markets, there is a risk that BT would have the incentive and ability to fix and maintain prices for ancillaries at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end-users.

Summary of our proposals

5.3 A summary of our proposals for each market is set out in Table 5.1-5.6 below. Our proposals for cross-market ancillaries such as Accommodation, Cablelink, Power, Site and Database Access which relate to PIA, WLA (Area 2 and Area 3), LLA (Area and Area 3) and IEC are summarised in Table 5.6.

Table 5.1: Physical infrastructure market

Ancillaries basket/service	Ancillary services/detail	Control for review period
Network adjustment ancillaries – Pole related[151]		£0
Network adjustment ancillaries – Non Pole related		Basis of charges obligation for each charge for the amount that exceeds the financial limit
Productisation activities and order processing activities		£0[152]
Other or any new ancillaries used for PIA		Basis of charges obligation for each new ancillary

Table 5.2: WLA Areas 2 and 3

Ancillaries basket/service	Ancillary services/detail	Control for review period
Co-mingling New Provides and Rentals basket	(some services are also cross-market services – see 1.9 below)	CPI-0 for the basket

[151] Related to network adjustments undertaken to provide capacity on poles or to make poles useable for dropwires.

[152] Included in the PIA rental charge control and so, to avoid double recovery, Openreach should not charge for these as additional ancillaries.

Ancillaries basket/service	Ancillary services/detail	Control for review period
MPF Single Migration		CPI-0% for each charge
MPF Bulk Migration		CPI-0% for each charge
MPF New Provides basket		CPI-0% for the basket
MPF Soft Cease		£0
Hard Ceases basket		CPI-0% for the basket
Special Fault Investigations[153]		CPI-0% for each charge
WLA Time Related Charges		CPI-0% for each WLA TRC
LLU Tie Cables basket		CPI-0% for the basket
MPF Standard Line Test		CPI-0% for each charge
Cancellation of MPF orders		CPI-0% for each charge
Amend MPF orders		CPI-0% for each charge
PCP Only Install		CPI-0% for each charge
Start of Stopped Line		CPI-0% for each charge
FVA with GEA (FTTP) Connection		CPI-0% for each charge
GEA (FTTP) 80/20 Connection (Area 2)	Our proposals relating to FTTP connections are set out in more detail below	CPI-0% for the basket
GEA (FTTP) 80/20 Connection (Area 3)	Our proposals relating to FTTP connections are set out in more detail below	CPI-0% for the basket
GEA (FTTC and FTTP) CP to CP Migration		CPI-0% for each charge
GEA (FTTC and FTTP) Ceases		£0 for each charge
1 Gbit/s GEA Cablelink		CPI-0% for connection charge Rentals at £0
10 Gbit/s GEA Cablelink		CPI-0% for connection charge Rentals at £0
VLAN moves applied to GEA Cablelink		CPI-0% for each charge
GEA Cancel/Amend/Modify – CRD		CPI-0% for each charge
GEA Cancel/Amend/Modify – Regrading		CPI-0% for each charge
Superfast Visit Assure		CPI-0% for each charge

[153] Under Conditions 12D.7(a) and 12D.7(b) amount of time determined as being required by an engineer in order to complete Special Fault Investigations must be fair and reasonable.

Table 5.3: LLA in Area 2 and Area 3, and IEC

Ancillaries basket/service	Ancillary services/detail	Control for review period
Excess Construction Charges (ECCs)	Direct ECCs e.g. blown fibre, internal cabling, survey fees	CPI-0% for the basket with a sub-cap on each charge: CPI+5%[154]
	Contractor ECCs	Basis of charges obligation for each charge
Ethernet Time Related Charges (TRCs)	Individual Ethernet TRCs	CPI-0% for each Ethernet TRC
Other ancillaries[155]	All other ancillaries excluding the leased lines ancillaries listed above	CPI-0% for each charge

Table 5.4: Dark fibre access in LLA Area 3, LLA Area 2 (Transitional) and LLA HNR (Transitional), and Dark Fibre inter-exchange at IEC BT Only, IEC BT+1 and IEC DF Transition

Ancillaries basket/service	Ancillary services/detail	Control for review period
Right when tested (RWT), dark fibre cessation, initial testing, and patch panels		CPI-0% for each charge
TRCs and ECCs	As per leased lines above	Set to the same charge as required per leased lines above[156]

Table 5.5: LLA in HNR areas

Ancillaries basket/service	Ancillary services/detail	Control for review period
All Leased Lines ancillaries listed in Table 5.3		Fair and reasonable

Table 5.6: Cross-market Physical Infrastructure, WLA (Area 2 and Area 3), LLA (Area 2 and Area 3) and IEC (BT only, BT +1)

Ancillaries basket/service	Ancillary services/detail	Control for review period
Cablelink basket	External Cablelink Internal Cablelink	CPI-0% for the basket
Accommodation services	Co-location for PIA, MPF, VULA, LLA and IEC	CPI-0% for each charge
Overlapping Accommodation Services		Set to no higher than the charge for the equivalent service within the WLA Co-Mingling New Provide and Rental Services basket above (Table 5.2)

[154] Direct ECCs related to Dark fibre are also included in this basket.
[155] Referred to as Miscellaneous Ancillary Service in the draft SMP Conditions but referred to in this section as 'Other ancillaries'.
[156] For direct ECCs, Dark Fibre ECCs are included in the same basket as LLA and IEC ECCs.

Ancillaries basket/service	Ancillary services/detail	Control for review period
Power/electricity		Basis of charges

Physical Infrastructure Access

5.4 PIA has a range of associated ancillary activities. These broadly fall into the following categories:

a) Activities related to network adjustments. This is where Openreach makes adjustments to its network where this is necessary for its physical infrastructure to be available to telecoms providers for the purpose of deploying their own networks, for example, repairing existing faulty infrastructure;

b) Productisation activities, order processing activities;[157]

c) Other miscellaneous activities such as, engineer accreditation activities or survey activities requiring input from Openreach.

5.5 This section covers all services listed within Table 5.1.

PIA Network adjustments

5.6 We propose to cap ancillary charges related to network adjustments undertaken to provide capacity on poles or to make poles useable for dropwires at zero, reflecting our proposal that the costs of these network adjustments should be recovered from all users of the infrastructure without limitation.

5.7 For ancillary charges related to all other network adjustments, we propose to allow Openreach to charge only the amount that exceeds the financial limit.[158] This reflects our proposal that the costs of network adjustments should be recovered from all users of the infrastructure up to the financial limit; whilst costs above the limit should be recovered directly from the telecoms provider requesting the network adjustment.

5.8 We propose that network adjustment costs should continue to be subject to a basis of charges obligation,[159] which we explain in more detail below.

5.9 We consider that this approach addresses the risk that prices for PIA Network adjustments could be excessive relative to cost while allowing BT to recover its efficiently incurred costs.

Productisation activities and order processing activities

5.10 Productisation activities and order processing activity charges are included in the PIA rental charge control and so, to avoid double recovery, Openreach should not charge for these as additional ancillaries.

Other PIA ancillaries

[157] This could include accessing network records or validating telecoms providers' plans.
[158] See Volume 4 Section 4 where we propose to maintain the current £4,750 financial limit.
[159] Which requires that charges for these network adjustments are cost oriented, including when being calculated for the purposes of applying the financial limit.

5.11 We propose to maintain our existing approach to non-network adjustment ancillaries, including any new PIA products introduced in this review period, on the grounds that a basis of charges obligation is more appropriate and proportionate than a charge control given the current and expected future size of these ancillary charges.[160]

5.12 We therefore propose that for any ancillaries within this market, which do not relate to Network Adjustments, productisation activities or order processing activities, are subject to a basis of charges obligation which requires that charges are cost oriented.

Basis of charges obligation

5.13 We propose that the basis of charges obligation that applies to PIA ancillaries means the price for each PIA ancillary should reflect any incremental external charges paid by BT (e.g. the cost of external labour used to provide the ancillary). We also propose that the ancillary price could include an allowance for any incremental costs incurred by BT when providing ancillaries (e.g. BT's internal labour and planning costs relating to PIA ancillaries), including an appropriate mark-up for common costs (e.g. general overheads) and a return on capital employed (where applicable).

5.14 The total costs associated with PIA ancillaries under the basis of charges obligation should be consistent with the operating and capital costs associated with the relevant PIA ancillaries. As a result, we expect prices for PIA ancillaries to be similar to FAC rather than an alternative cost standard such as distributed standalone cost DSAC.

5.15 We note there could be a gap between BT setting prices in advance and contemporaneous cost information becoming available, but we expect BT to be able to explain and justify any significant differences between PIA ancillary prices and associated FAC for the purposes of the basis of charges obligation.

WLA and LLA in Area 2 and Area 3, IEC markets

5.16 This section covers our proposals in respect to ancillaries in WLA Area 2 and Area 3, LLA Area 2 and Area 3, and IEC.[161] These services are shown in Table 5.2 and Table 5.3.

Cost recovery

5.17 We propose to maintain our approach as set out in the WFTMR 2021.

5.18 We consider that by maintaining a CPI-0% control on ancillaries in these markets, Openreach will be able to recover its efficiently incurred costs in aggregate across the relevant WLA, LLA and IEC markets as a whole, i.e. across ancillaries, rentals and connections for each of these markets in isolation Openreach will be able to recover its costs.[162] See Annex 14 for market level estimates of Openreach cost recovery for the period 2026/27 to 2030/31. For these estimates of cost recovery in Annex 14 that are specific to ancillaries, we have made the following modelling assumptions: from 2023/24

[160] Within BT's 2024 RFS, total revenue for PIA ancillary charges excluding network adjustments was £6.1m in 2023/24 and £3.5m in 2022/23 – see page 28 of BTs 2024 RFS.
[161] Except excess construction charges which are covered separately in their own section below.
[162] By efficiently incurred costs, we mean the incremental cost plus an allocation of common costs which would be sufficient for Openreach to recover the fully allocated cost (FAC) of providing the services in question.

onwards, revenues increase by CPI-0%, in accordance with our proposed control. We have forecast costs using the assumptions for efficiency, WACC and inflation set out in Annex 14[163] and have assumed that ancillary volumes change in line with the main rental volumes within each relevant market.[164]

National prices

5.19 In the 2021 WFTMR we decided that where BT has an obligation to provide the same ancillary service in different geographic markets, the same charge control should be applied in each market; essentially setting a national price, rather than setting different prices in different geographic markets. This was because:

- we considered there to be practical difficulties in separating out costs between different geographic areas and where costs are common across markets;
- we expect that the cost components relevant to ancillaries (e.g. labour rates, power, and accommodation) to be at broadly the same levels in each of our proposed geographic areas and markets;
- we do not consider that any reasonable variation in charges between geographic areas would further our overall objectives.

5.20 It is our view that all three of the above reasons for setting a national price are still present. We therefore propose to maintain our approach of where BT has an obligation to provide the same ancillary service in different geographic markets, we are proposing to set the same charge control in each market, with the exception of FTTP connection charges which we discuss below.

Leased Lines Access High network reach areas

5.21 For the reasons explained in Section 5 of Volume 2, we are of the view that whilst HNR areas are not yet effectively competitive there is the potential for full competition to emerge in future review periods. Because of this, our proposed approach to setting charges for ancillaries in the market for LLA in HNR areas is different to that in the Leased Lines Areas 2 and 3, reflecting the different degree of competition in these markets.

5.22 Accordingly, consistent with our approach to setting charges for the main services in this market we propose to impose a fair and reasonable charging obligation that obliges Openreach to supply the relevant ancillaries on terms which do not constitute a price squeeze. Our view is that the greater degree of competition in HNR Areas will constrain Openreach's ability to raise ancillary prices, and the fair and reasonable charging obligation would protect retail competition.

5.23 Therefore, we propose to maintain our approach of imposing a fair and reasonable charging obligation, introduced in the WFTMR21, that obliges Openreach to supply the relevant ancillaries on terms which do not constitute a price squeeze.

[163] Operating costs efficiency: WLA 0.5% to 3.5%, LL 4%-7%. Capital costs efficiency: WLA 1% to 5%, LL 3% to 6%. Operating costs Inflation: pay 3.1%, non-pay inflation 0.8%, RPI (for duct and copper asset inflation up to 2025/26) 3.5%.

[164] This is a simplifying assumption that the volumes of supporting products should move broadly in line with the primary service the ancillary product is supporting.

WLA FTTP connections

Summary of our proposals

5.24 We are proposing an approach to charge controlling FTTP connections that aligns with our proposals for WLA price regulation, including our proposals to transition regulation from copper-based services to FTTP services.

5.25 In summary, we propose:

a) Prior to the First Threshold Notice being published in an exchange area, a price cap on FTTP 80/20 connections would apply only where there is no active FTTC connection at a premises (for example, where FTTP is the first technology being deployed) and no new FTTC connections are offered at that premises.
b) Following publication of the First Threshold Notice in an exchange area, we propose a price cap on FTTP 80/20 standard connections would apply at all premises in that exchange area.
c) Where a price cap applies, to set caps on FTTP 80/20 connections separately for premises in WLA Area 2 and premises in WLA Area 3. These caps would be at different levels, reflecting Openreach's current pricing. For the first year of the control, the level of the caps would be set based on the 2024/25 average standard FTTP 80/20 connection prices that applied in WLA Area 2 and in WLA Area 3 respectively, uplifted to reflect inflation.
d) The proposed price cap in each WLA Area would apply to a basket of all FTTP 80/20 standard connection products and prices.
e) In subsequent years, the level of the caps would inflate with CPI (i.e. a CPI-0% charge control).

Approach in the WFTMR21

5.26 In the WFTMR21, we set caps on connection charges for our anchor product in some circumstances. Specifically, we set SMP conditions which specified:

a) No charge control on FTTP 40/10 connections at premises where new requests for FTTC 40/10 could be made.
b) A £99.17 (indexed by CPI-0%) cap on FTTP 40/10 connections at premises without an active FTTC Openreach connection and where no new requests for FTTC 40/10 could be made.
c) A £0 connection charge cap on FTTP 40/10 connections for customers with an active Openreach FTTC connection but at premises where no new requests for FTTC 40/10 could be made.[165]

5.27 Our charge controls for FTTP connections drew a distinction between customers that have an active Openreach connection and those that do not. This was because we did not consider that our charge controls on FTTP connections should allow Openreach to levy additional charges to existing customers on its network (i.e. customers with an active Openreach connection) since any additional benefits from FTTP had already been captured

[165] Condition 12C.2(f) and (h). Note that condition (g) was removed from the legal instruments following modifications to the SMP conditions published on 31 March 2021.

through our charge controls on rentals. Where a premises does not have an active connection to the Openreach network, this consideration did not apply.

5.28 We did not cap connection charges for other (non-anchor) FTTP variants.

Background

5.29 Currently, Openreach's standard list price for FTTP connections is £120.05, which is also the level of the current (2024/25) FTTP 40/10 connection charge cap, where it applies. However, in practice ISPs pay lower connection charges under the Equinox 2 Offer. FTTP connection charges vary by connection type. Moreover, FTTP connection charges for residential consumers are lower in Area 2 than in Area 3. Table 5.7 shows the connection charges that the majority of ISPs pay under the Equinox 2 Offer.

Table 5.7: Openreach Equinox 2 Offer wholesale discounted connection charges (2024/25)

Connection type (FTTP)		Current price (Equinox 2)
Area 2 homes	New to Openreach (all speeds)	£30.27
	Migrating existing customers with the same provider to FTTP (80/20 or above)	£29.28
	Other scenarios (incl. FTTP 40/10)	£60.54
Area 3 homes	New to Openreach (all speeds)	£120.05
	Migrating existing customers with the same provider to FTTP (80/20 or above)	£81.58
	Other scenarios (incl. FTTP 40/10)	£120.05
All business premises		£120.05
Premium Managed Installation		+ £40
Advanced Connection		+ £175

Source: Openreach FTTP published price list, Equinox 2 Offer price list

Rationale for our proposed approach

5.30 Below we first explain why we propose to use an anchor pricing approach in relation to FTTP connection charges. We then discuss in what circumstances the connection charges for that anchor product should be capped and our approach to setting the levels of our proposed caps.

Use of an anchor

5.31 In Section 1, and in Annex 8, we propose an anchor pricing approach for WLA rental charge controls at speeds of 80/20 and explain why this meets our objectives. For the same reasons, we are proposing an anchor approach for WLA FTTP connections where a price cap is applied to FTTP 80/20 connections only.

5.32 This approach directly protects customers purchasing the FTTP anchor product. The charge-controlled anchor also provides sufficient protection for consumers taking other speeds while allowing Openreach pricing flexibility on those other speed products, including in relation to their connection charges.

5.33 Our objectives in WLA Area 2 and WLA Area 3 are set out in Volume 3. When considering how setting caps on connection charges for the FTTP 80/20 anchor supports those objectives, we have paid particular attention to the following interrelated issues:

a) Protecting consumers from high FTTP 80/20 connection charges, particularly where copper-based broadband products are difficult to get or unavailable and/or where prospects for network competition are limited; and
b) To address the risk that Openreach sets high FTTP 80/20 connection charges to undermine the effectiveness of our proposed anchor approach as a constraint on the pricing of other Openreach products.

5.34 Accordingly, our proposals seek to address the risk of FTTP 80/20 connection charges rising in real terms from current levels. We are not seeking to reduce FTTP 80/20 connection charges in real terms.

5.35 Designing an effective control to achieve this aim results in a more complex proposal than the charge control implemented in the WFTMR21.

5.36 The prevailing prices for WLA FTTP connections are dictated predominantly by the Equinox 2 Offer discounts and as explained above, differ between WLA Area 2 and WLA Area 3 as well as by connection type.

5.37 Below we set out our proposals for when the cap will apply and our intent for setting the level, with more detail provided in Section 6.

When the price cap applies

5.38 In order to protect customers, in general terms we seek to apply a charge control to FTTP 80/20 connections where Openreach does not currently provide an active FTTC connection or where FTTC is no longer easily accessible for customers. Where Openreach can and must meet new requests for a charge-controlled copper-based broadband product, such as FTTC 80/20 then we expect that this will adequately protect FTTP customers from BT's SMP. Thus, for these premises we do not propose to set a charge control on standard connections for FTTP services.

5.39 Specifically, we propose:

a) Prior to the First Threshold Notice being published in an exchange area, a price cap on FTTP 80/20 connections would only apply where there is no active FTTC connection at a premises and no new FTTC connection is offered to that premises. For example, this could be the case where FTTP is the first technology being deployed at that premises.
b) Following publication of the First Threshold Notice in an exchange area, a price cap on FTTP 80/20 connections would apply to all premises in that exchange area. This would apply regardless of whether BT chooses to make copper-based broadband products available at premises in that exchange area.

5.40 The latter point is a change to the position in the current SMP conditions, although is consistent with our intent in the WFTMR21.

5.41 Currently the respective SMP condition applies a price cap of £0 where there is an active FTTC connection but 'no new requests for FTTC 40/10 rental' can be made at a premises.[166] Following the publication of the March 2021 Statement, Openreach published its 'FTTP Priority Exchange Stop Sell Dilution Rules', which specify that customers in an FTTC stop-

[166] Condition 12C.2(h).

sell area with an active FTTC connection, can change CP and remain on an FTTC or SOGEA 40/10 service, migrate their existing FTTC service to SOGEA 40/10 or modify their existing service down to FTTC 40/10.[167] This has meant that the criteria of 'no new requests for FTTC 40/10 rental' has never been met and the £0 cap set in the WFTMR21 has never applied to an actual transaction.[168]

5.42 We are concerned that maintaining the existing SMP condition, instead of the proposed position described in paragraph 5.39(b) above, would not sufficiently protect consumers with an active FTTC connection from high FTTP connection charges. In particular:

a) In the 2026-31 review period, a Second Threshold Notice may be published in some exchange areas. This would allow Openreach to raise the prices of its copper-based broadband services, thereby lessening the price constraint they exert on FTTP services.
b) ISPs are limiting the circumstances in which they offer FTTC to consumers.[169] This means that even if Openreach makes FTTC technically available at the wholesale level it may be difficult for consumers to access, meaning it does not sufficiently protect consumers.[170]

The level of the caps: pricing continuity

5.43 For premises where FTTC services are not available for new supply; or in exchange areas where the First Threshold Notice has been published, we propose a change to the level of the charge control that we set in the WFTMR21.

5.44 In WLA Area 2 we propose capping FTTP 80/20 connection charges with reference to the current level of these charges in this area. This is consistent with our proposed pricing continuity approach for WLA rentals set out in Section 1. As explained in Section 1, we consider that pricing continuity meets our objective of promoting competition and investment while protecting consumers and competition based on access to Openreach's network while network competition develops.

5.45 In the WFTMR21, different price caps applied depending on whether there was an active FTTC connection at the premises. More specifically, where a regulated FTTC product was not available for purchase:

a) If there was an active FTTC connection at a premises, we set a £0 price cap on anchor FTTP connections; and
b) If there was no active FTTC connection, we set an index-inflated charge control on the anchor FTTP product. For 2024/25, this is £120.05.

5.46 In WLA Area 2, we do not consider that setting the caps at either of these levels in the 2026-2031 review period would be appropriate, for the following reasons:

[167] Openreach, FTTP Priority Exchange Stop Sell Dilution Rules. Accessed 15 January 2025.
[168] Openreach response dated 16 December 2024 to s135 notice dated 2 December 2024, Question D1.
[169] The Equinox 2 Offer contains targets that have led to ISPs limiting the circumstances in which they supply copper-based broadband products at premises where Openreach FTTP is available. 2023 Equinox 2 Statement, paragraph 3.61.
[170] We recognise that ISPs may choose commercially to limit the circumstances in which they make these products available. However, these limitations are likely to become more significant after a First Threshold Notice is published.

a) Setting a £0 price cap on FTTP 80/20 connections would require a cut from the current level of connection charges, as set out in Table 5.7 above.[171] It would thus represent a departure from our proposed approach to rental charges in WLA Area 2, namely pricing continuity.
b) Current FTTP 80/20 connection charges in WLA Area 2 are well below the current £120.05 cap that applies where there is no active FTTC connection. Continuing to uplift this £120.05 figure by CPI-0% over the next review period would give Openreach considerable scope to increase FTTP 80/20 connection charges. We are concerned that Openreach might use this to make the FTTP 80/20 product (i.e. our new anchor) relatively less attractive than it currently is, and therefore weaken the constraint it exerts on other Openreach products. This would not maintain continuity with current prices. It also creates a risk that customers without access to a rival network may be faced with higher upfront costs to connect to FTTP.

5.47 Similarly, in WLA Area 3, we propose capping FTTP 80/20 connection charges with reference to the current level of these charges in this area.

5.48 This approach would protect WLA Area 3 consumers from the risk that Openreach increases its connection charges. This approach also continues to provide Openreach with appropriate incentives to invest in its fibre network in WLA Area 3. The level of FTTP connection charges feeds into the RAB calculations supporting cost recovery across copper and fibre services combined. Our modelling indicates that the proposed approach would provide a profile of cost recovery during 2026-31 that is consistent with giving Openreach an expectation of cost recovery (assessed across both copper services and fibre services) over a payback-period of 20-years.

5.49 Using average WLA Area 3 connection charges as the basis for the WLA Area 3 cap would result in a higher cap than the proposed cap in WLA Area 2. However, it would reflect the current prices charged to customers in WLA Area 3. A higher price cap in WLA Area 3 is also consistent with WLA Area 3 FTTP connection costs being higher than in WLA Area 2.[172]

5.50 Similar to the arguments for changing our approach in WLA Area 2 outlined above, we do not consider that setting the WLA Area 3 connection charge caps for a revised FTTP 80/20 anchor at either of the levels set in the WFTMR21 would be appropriate for the subsequent period 2026-2031.

5.51 The proposed charge control in each of WLA Area 2 and WLA Area 3 would apply to a basket of all variants of standard FTTP 80/20 connections. This would include any FTTP 80/20 connections that are made as a result of a CP-led proactive migration program. However, it would not include CP-to-CP migrations, working line takeovers, modifications, ceases, or subsequent provides.

5.52 Further details on calculating the level of the caps, the mechanics of the control including the composition of the baskets, and the structure of the compliance reporting are set out in Section 6.

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[171] As explained earlier, following Openreach publishing its 'FTTP Priority Exchange Stop Sell Dilution Rules' it has yet to make a £0 FTTP 40/10 connection to a customer. Given our proposed changes to when the price cap on connection charges applies, this would no longer be the case – we would expect significant numbers of consumers to be affected if we were to retain a £0 cap.

[172] We estimate that the WLA Area 2 FTTP connection cost is £296-£333 and the WLA Area 3 FTTP connection cost is £457 (in 2024/25 terms).

Openreach Excess Construction Charges

Direct ECCs

5.53 In the WFTMR21 we adopted a separate basket for Direct Excess Construction Charges (ECCs).[173] We decided that this basket should be controlled at CPI-0% with a CPI+5% sub-cap on each individual Direct ECC.

5.54 We consider the use of a CPI-0% control on the same Direct ECC basket continues to strike the appropriate balance of mitigating the risk of high pricing relative to cost with ensuring cost recovery as BT's 2024 and 2023 RFS show that ECC costs are already very closely aligned to revenues.[174]

5.55 We propose to continue the use of a CPI+5% sub-cap on each charge within the basket. A sub-cap limits Openreach's ability to increase the price of any individual service in a given year. The level of this sub-cap is based on our regulatory judgement. In our view CPI+5% offers an appropriate level of flexibility to rebalance the basket while preventing significant price increases for individual services.

Threshold charge

5.56 We propose to continue the approach adopted in prior reviews, to exempt the provision of new Openreach EAD services from the threshold amount of ECCs ("the threshold charge") and for Openreach to make up the resulting loss of revenue with a balancing charge which will be recovered through relevant EAD connection prices. This balancing charge can change based on the volumes and pricing of relevant ECCs and the volume of EAD or EAD LA circuits sold in the prior financial year.

5.57 Our view remains that this approach significantly reduces the lead times for the provision of most of the EAD orders which incur ECCs.

5.58 In the WFTMR21, we required Openreach to increase the ECC threshold ('the threshold charge') from £2,800 by CPI in each year of the control. The outturn of these CPI increases is that the threshold should be £3,493 by 2025/26.

5.59 We understand from Openreach that increasing the threshold charge each year would require significant system changes which would incur a non-material amount of costs and that Openreach have kept the threshold charge constant from 2021/22 at £2,800. While keeping the threshold charge constant at £2,800 does not raise any cost recovery concerns given the design to ensure revenue neutrality, we continue to believe that the threshold charge should increase in line with CPI to reflect the rising underlying input costs of ECCs.

5.60 To account for Openreach's system concerns, we are proposing to update the threshold charge once at the start of the review period to £3,680[175] which is the level it would be

[173] ECCs for cable (fibre or copper) including any jointing required, blown fibre, blown fibre tubing in duct, internal cabling (including internal blown fibre tubing), overblow services, fibre cable and survey fee/planning charges using Openreach direct labour.
[174] 2024 RFS shows a small under recovery and 2023 RFS shows small over recovery.
[175] The proposed ECC threshold reflects the average of the exit position of the threshold, £3,493, from our decisions in the WFTMR 21 and where the ECC threshold would be at the end of the 2030/31 had the threshold increased by CPI each year, £3,870.

expected to be mid-way through this review period were the threshold to increase by CPI-0% per annum.

5.61 Under this proposal the threshold charge will be higher in the first half and lower in the second half of the review period than it would be compared to if the threshold increased by CPI each year. As the balancing charge[176] added to EAD connections for any given year is designed to ensure Openreach is revenue neutral, we do not have any cost recovery concerns from this approach.

5.62 We propose that the balancing charge will be subject to a basis of charges obligation in that it must be based on the volumes and cost of relevant ECCs and the volume of EAD or EAD LA circuits sold in the prior financial year. We continue to prefer flexibility for the balancing charge over a fixed amount because we consider there to be a continued risk of Openreach not maintaining revenue neutrality and not recovering efficiently incurred costs if both the threshold and the balancing charge are fixed. We consider that this approach ensures cost recovery and revenue neutrality.

Contractor Excess Construction Charges

5.63 In the WFTMR21 we considered that forecasting Contractor ECCs would be difficult and there would be a significant risk of over or under-recovery if we were to set the prices for Contractor ECCs. Therefore, we chose to control Contractor ECCs through a basis of charges obligation on BT.[177]

5.64 We consider that this approach has struck an appropriate balance between mitigating the risk of high pricing relative to cost while ensuring cost recovery. The basis of charges obligation requires BT to demonstrate the charge is reasonably derived from the costs of provision plus a small markup fee to reflect its own internal costs. BT's 2024 and 2023 RFS's show that ECC costs are already very closely aligned to revenues. Therefore, we propose to maintain our current approach of controlling Contractor ECCs through a similar basis of charges obligation on BT. [178]

Ethernet Time Related Charges (TRCs)

5.65 BT's 2024 and 2023 RFS's show that costs are currently closely aligned with revenues for Ethernet TRCs in both years.[179] We propose to continue the CPI-0% charge controls for TRCs that were set in the WFTMR21 as the evidence suggests this control is allowing BT to recover its costs whilst also protecting against excessive pricing.

Dark fibre access in Area 3 and Dark fibre inter-exchange in BT only and BT + 1 exchanges

Time related charges (TRCs) and ECCs

[176] Which is directly impacted by the threshold charge.
[177] 2021 WFTMR Statement, Volume 4, paragraph 5.76.
[178] A small under recover was made in 2024 while a small over recovery was made in 2023.
[179] A small under recover was made in 2024 while a small over recovery was made in 2023.

5.66 We consider that it is appropriate for the charges for TRCs and ECCs used for dark fibre to be the same as those used for active circuits. This is because the activities that need to be carried out, and the costs incurred are the same for dark fibre as they are for active circuits.

5.67 Specifically for dark fibre ECCs, the lost revenue from the balancing charge has been factored into the dark fibre connection prices we are proposing. Because of this, we would not expect an additional amount to cover the balancing charge to be added on top of the connection price in the same way as occurs for specific EAD connections.

Other dark fibre ancillaries

5.68 We do not consider that the charges for other dark fibre ancillaries should be the same as those for active circuits because the activities needed, and the costs incurred, are different for dark fibre as they are for active circuits. For example, the dark fibre variants require engineering call-outs whereas active circuits can be ceased and tested remotely.

5.69 For these non TRC Dark Fibre ancillaries, BT's 2022/23 and 2023/24 RFS show that the revenue and the allocated costs relating to these ancillary services range from c£20k-c£100k. Given these low revenues and costs we do not consider over or under-recovery to be a significant concern. We therefore propose to continue to cap these services at CPI-0%.

Cross-market ancillaries

General approach

5.70 In the WFTMR21, we decided that it would be inappropriate for the same ancillaries to have different charges where they are provided in relation to different forms of network access. We felt that allowing telecoms operators the flexibility to use ancillary services across multiple types of access would facilitate more efficient use of the network.

5.71 We consider that the rationale set out in the WFTMR21 continues to apply, so propose to retain the approach that where the same ancillary is provided for different forms of network access, the same charge (or set of charges) must apply. This applies to the following ancillaries:

- power/electricity (described below) subject to a basis of charges requirement.
- a Cablelink basket (described below) subject to a CPI-0% control; and
- all accommodation services individually and the commingling basket subject to CPI-0% controls.

Electricity

5.72 In the WFTMR21 we imposed a basis of charges obligation on BT which required it to set electricity charges that are reasonably derived from its relevant electricity purchase costs plus a small markup fee to reflect its own internal costs. We continue to believe that a price cap would be inappropriate as electricity costs are largely outside BT's control (and therefore a CPI-X control would risk significant under- or over-recovery of costs). Therefore, we propose to retain a similar basis of charges obligation on BT with regards to the setting of electricity charges.

5.73 Since the WFTMR21, a stakeholder raised a concern around BT complying with the basis of charges obligation during the period of price volatility in wholesale energy markets.[180] Whilst BT's prices are set on a forward-looking basis, BT's electricity costs are largely contractual. We consider that, to date, BT's electricity charges are consistent with its basis of charges obligation, but to provide greater transparency to stakeholders, we propose to require BT to publish an explanation of how it sets its electricity charges by reference to its wholesale electricity costs and any mark-ups to reflect its own internal costs. In addition, to provide assurance that BT is setting charges on this basis, we propose to require BT to provide a statement from an independent third party (e.g. the auditor of the Regulatory Financial Statements) confirming that BT has set its electricity prices by following its published explanation. We propose that this assurance is in the form of agreed upon procedures.

Cablelink services

5.74 In the WFTMR21 we concluded that that Cablelink services were a cross-market ancillary because they are likely to be used for connecting FTTC and FTTP services as well as for PIA and dark fibre as an interconnection service to complement accommodation services. Therefore, we did not consider Cablelink to be an exclusively Ethernet leased lines ancillary service.

5.75 We consider that the rationale set out in the WFMTR21 continues to apply and therefore we propose to continue our approach of imposing a charge control calculated on a separate basket for Cablelink services to apply across all markets.

5.76 In the WFTMR21 we capped these services at CPI-0%. These services were profitable in 2022/23 but not in 2023/24, depending on the balance between connection and rental volumes. Moreover, the revenues and costs are very low and so we do not consider over or under-recovery to be a significant concern. We therefore propose to continue to cap this basket of services at CPI-0%.

5.77 We also propose to continue our approach of considering GEA Cablelink separately to cross-market Cablelink services. BT's 2024 and 2023 RFS's show that BT's prices in both years were not materially out of line with costs. This supports our proposal to continue subjecting connection charges for GEA 1Gbt and 10Gbit Cablelink to individual charge controls set at CPI-0%.

Accommodation

5.78 We consider accommodation services as cross market ancillaries on the basis that BT prices Access Locate, an accommodation service provided for leased lines, the same as LLU Accommodation, an accommodation service provided for WLA.

[180] Per Ofgem https://www.ofgem.gov.uk/energy-data-and-research/data-portal/wholesale-market-indicators in 2022/23 forward delivery contract electricity rose from around £192.45 MWh at the start of the period to a peak of £511.2MWhr before falling back to around £145.97 at the end of the period.

5.79 We have looked at Openreach's ability to recover its costs related to accommodation ancillaries[181] for the Ethernet and WLA markets separately and have included any under or over recovery in the market wide recovery numbers in Annex 14.[182]

5.80 We consider that by maintaining a CPI-0% control on Accommodation services, Openreach will be able to recover its efficiently incurred costs in aggregate across the relevant WLA, LLA and IEC markets as a whole. i.e. across ancillaries, rentals and connections for each of these markets in isolation Openreach will be able to recover its costs.[183] See Annex 14 for market level estimates of Openreach cost recovery for the period 2026/27 to 2030/31.

5.81 We therefore propose to maintain a CPI-0% control on the charge for each accommodation service in the IEC and LLA markets.[184] We propose that accommodation services within the co-mingling new provide and rental services basket in the WLA markets are subject to a basket control at CPI-0%, and that the charges for each overlapping accommodation service provided in the IEC and LLA markets[185] should not be more than when the relevant service is provided for the purpose of co-mingling new provide and rental services in the WLA markets.

New ancillaries

5.82 For any new ancillaries, with the exception of those relating to PIA, we propose that charges should be set on a fair and reasonable basis.

Our approach to baskets

5.83 In Volume 4 Section 6 we set out our principles and approach to basket design.

5.84 For most services we propose to maintain the current basket design for ancillaries. We indicate in Tables 5.1-5.6 above the proposed groupings of ancillary services i.e. in baskets or as single services.

Proportionality

5.85 We consider that our proposed pricing remedies for ancillaries are proportionate as they address the competition problems we have identified in Volume 2 and go no further than is necessary to do so. Our view is that a CPI-0% control for the majority of ancillary services is proportionate as it is the least onerous means of addressing the risk of excessive pricing for these services. In instances where a CPI-0% control would not be appropriate, such as when forecasting prices would be difficult or costs are largely beyond the control of BT and Openreach, we consider that a basis of charges obligation which allows BT to recover its

[181] Including accommodation services and accommodation services within the co-mingling basket.
[182] When looking at accommodation services cost recovery in isolation we do note that there will be over recovery. However, this is no different from other ancillary services which are over recovering and have also been included in this market wide assessment.
[183] By efficiently incurred costs, we mean the incremental cost plus an allocation of common costs which would be sufficient for Openreach to recover the fully allocated cost (FAC) of providing the services in question.
[184] Except the HNR Area
[185] Except the HNR Area

costs is the most proportionate way to address these risks. We have not identified any adverse effects of our proposals that would be disproportionate to the aim pursued.

Legal tests

5.86 For the reasons set out above, we consider there to be a risk that, absent regulation, BT might fix and maintain prices for ancillary services in the WLA, LLA and IEC markets[186] at an excessively high level and/or impose a price squeeze so as to have adverse consequences for end- users.

5.87 We are proposing to set SMP conditions on BT to give effect to pricing remedies in relation to:

- the ancillary services in the markets set out in Tables 5.2, 5.3. 5.4 and -5.6[187] above;
- WLA FTTP connection charges.

5.88 Our draft SMP conditions can be found in Volume 7.

5.89 As required by section 88 of the Act, we consider that the setting of each of these draft SMP conditions would be appropriate for the following purposes:

- promoting efficiency;
- promoting sustainable competition;
- conferring the greatest possible benefits on end user of public electronic communications services having regard, where relevant to the market analysis, to the long-term interests of end-users in the use of next-generation networks; and
- promoting the availability and use of new and enhanced networks.

5.90 We have also considered:

- the extent of the investment in the matters to which the condition relates of the person to whom it is to apply; and

5.91 the benefits of predictable and stable wholesale prices in ensuring efficient market entry; and sufficient incentives for all undertakings to bring into operation new and enhanced networks.[188]

Promoting efficiency

[186] We consider the application of the legal tests to our proposed pricing remedies for PIA-related ancillary services in paragraphs 1.76 – 1.93 of Section 4, Volume 4 (PIA Charges).
[187] To the extent that cross-market ancillary services are used in PIA markets, these are considered in paragraphs 1.76 – 1.93 of Section 4, Volume 4 (PIA Charges).
[188] We also note section 88(1A) of the Act which provides that Ofcom may refrain from setting a price control (even if the other section 88 tests are satisfied) if a demonstrable retail price constraint is present and other SMP conditions imposed as part of a different market review would ensure effective and non-discriminatory access. We provisionally conclude in light of our proposed SMP determinations that these tests would unlikely to be satisfied in these markets.

5.92 We consider that each of the charge controls proposed will encourage BT to achieve greater productive efficiency by allowing it to keep any profits it earns by reducing its costs over and above the efficiency gains we have assumed in setting the controls.

5.93 We consider that our charge controls and other pricing requirements, such as the basis of charges obligations, on ancillary services will:

- address the risk of high prices relative to cost;
- allow BT to earn a reasonable rate of return if it is efficient; and
- provide BT with flexibility to change prices to meet demand conditions by recovering common costs in the most efficient manner across groups of services.

Promoting sustainable competition and conferring the greatest possible benefits on end-users of public communications services

5.94 We consider that each of our proposed charge controls and other pricing obligations are appropriate to promote sustainable competition by preventing excessive pricing and providing price stability. This will provide customer protection as the charge controls on ancillaries ensure that the proposed remedies outlined in Section 1, Section 2 and Section 3 in this Volume will be effective and will support sustainable competition that benefits end-users. We have also had regard to the long-term interests of end-users in the use of next-generation networks, in particular of very high-capacity networks.

5.95 In relation to the proposed basis of charges obligation on electricity and contractor excess construction charges, we consider that this requirement promotes efficiency and sustainable competition and provides the greatest possible benefits to end-users by enabling competing providers to buy network access at levels that might be seen in a competitive market.

Promoting the availability and use of new and enhanced networks

5.96 We have taken into account the need to ensure that the cost recovery methodology that we have proposed will serve to promote the deployment of new and enhanced networks.

5.97 We consider that the charge controls that we propose to impose on ancillary services will support the charge controls that we have proposed in Section 1, Section 2 and Section 3 of this Volume which we consider will promote the availability and use of new and enhanced networks, as outlined in those sections. We therefore consider that the charge controls we propose to impose on ancillary services will also serve to promote the availability and use of new and enhanced networks.

The extent of the investment and the benefits of predictable and stable wholesale prices

5.98 We have taken account of BT's investment in the matters to which the proposed SMP conditions relate by ensuring that, on the whole, our proposed charge controls on ancillary services, the majority of which are set at CPI-0%, will allow BT to recover its efficiently incurred costs and make a reasonable return on its investment.

5.99 As our proposed SMP conditions involve price controls on the provision of network access to existing network elements, in accordance with the test in section 88 of the Act, we have also taken account of the benefits of predictable and stable wholesale prices in ensuring:

- efficient market entry; and
- sufficient incentives for all undertakings to bring into operation new and enhanced networks.

5.100 These considerations have been reflected in our proposals for a set of charge controls that we consider will best promote competition through investment in rival networks (where there is potential for rival network competition) and through wholesale access to BT's network where there is limited potential for network investment.

5.101 We have taken account of the long-term nature of network investment by proposing charge controls on ancillary services for the duration of the review period. This gives investors certainty on the level of prices for the next five years, allowing them to develop and deploy business plans on the basis of these predictable and stable prices. It also ensures regulation addresses BT's SMP in a way which maintains a reasonable opportunity for new entrants to compete and increase take-up during this review period.

5.102 In Section Volume 4 Section 7 we explain why the setting of our proposed SMP conditions would satisfy the tests set out in section 47 of the Act.

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

6. Charge control design and implementation

6.1 In the sections above, we set out our proposed approach to setting charge controls for WLA services, leased line access services, inter-exchanges services, PIA and ancillaries.

6.2 In Annexes 13-19 we set out further details relating to the levels of the charge controls.

6.3 In this section we set out our proposals for the following elements of our charge controls:

- Duration of the proposed charge controls.
- Speed of alignment where we are proposing changes to the charge control levels.
- Mechanism of charge control implementation.
- Basket design.
- Weighting price changes within baskets as part of measuring compliance.
- Deficiency and excess provisions.
- Further issues relating to the specifications of the proposed charge controls.

6.4 In developing these proposals, we have considered whether the resulting conditions would be appropriate for the purposes of promoting efficiency, promoting sustainable competition, conferring the greatest possible benefits on end-users of public communication services and promoting the availability and use of new and enhanced networks.

6.5 At the end of this section, we also outline some proposed drafting (non substantive) changes to the charge control SMP conditions.

Duration of all our charge controls

6.6 We consider that regulatory stability is important for promoting competition and investment in new networks. Therefore, we propose to set a 5-year charge control period for all our proposed charge controls which aligns with the market review period.

Speed of aligning charges

Our framework for deciding the speed to adjust prices

6.7 Where we are proposing changes to the level of prices as part of a charge control (for example, closing any gap between prices and forecast unit costs within a cost-based charge control), there are three broad options for implementing the change:[189]

[189] We have previously set out our general approach on how to adjust prices to cost in the BCMR 2016 Statement, April 2016, and the WLA 2018 Statement, March 2018.

- glidepath only: charges gradually glide over time, usually determined by a CPI-X control targeting a particular level of charges (in real terms) in the final year of the control;
- one-off starting charge adjustment (SCA): charges are adjusted to cost at the beginning of the control period. Thereafter, charges glide to reach a target cost level at the end of the control usually determined by a CPI-X control; and
- combination of one-off SCA and a glidepath: charges are adjusted at the start of the control period to bring them closer to cost, but some of the gap between charges and cost is closed in subsequent years to reach a target cost level at the end of the control period usually determined by a CPI-X control.

6.8 We have a general preference for glidepaths because we believe they promote both productive and dynamic efficiency. Using a glidepath allows the regulated firm to keep the benefits of unit cost reductions, beyond those forecast when the charge control was set. Consequently, the use of a glidepath gives the regulated firm better incentives to pursue improvements in productive efficiency and/or grow volumes than an SCA.

6.9 Glidepaths also avoid discontinuities in charges over time and lead to a more stable and predictable background against which investment and other decisions may be taken. This is a particularly important consideration when we are seeking to provide the right conditions to promote competitive infrastructure investment.

6.10 We might use starting charge adjustments for currently controlled services if the risk to economic efficiency or competition from distorted pricing signals is particularly significant or where prices are significantly above or below cost for reasons other than efficiency or volume growth.

6.11 Where services are charge controlled for the first time, we have often preferred a starting charge adjustment to cost. This is because we do not have the same concerns that our charge control will remove the ability of the regulated firm to keep the benefits of unit cost reductions from outperforming an existing change control and thereby reduce incentives to pursue future improvement in productive efficiency.

Our proposals

Wholesale local access services

6.12 In Section 1, we set out our proposals to set charge controls in WLA Area 2 and WLA Area 3. We propose to set a charge control in each of WLA Area 2 and WLA Area 3 for MPF and GEA FTTC 80/20 rental services at CPI-0%. Under our proposals, the question of how quickly to change charges does not arise.

6.13 Under our proposals, the starting charges for MPF rentals from 1 April 2026 will be the regulated charges taken at the end of the previous charge control.

6.14 We are proposing to charge control GEA FTTC 80/20 rental services for the first time (or FTTP 80/20 rental services where copper services are not available[190]). As explained in Section 1, we propose to use the prevailing discounted market prices of FTTC 80/20 and FTTP 80/20 as of 1 April 2026 as the starting prices for these charge controls.

Leased line access services in LLA Area 2

[190] This is the case if either it is not possible for BT to provide copper services or it is not required to provide them in response to new requests for network access.

6.15 In Section 2, we propose a pricing continuity approach in LLA Area 2 that sets:

- a charge control on leased line services (rentals, connections and Main Link) at all bandwidths at CPI-0%.

6.16 Since we are proposing a pricing continuity approach for leased line access services in LLA Area 2 the issue of how quickly to adjust prices is not relevant.

Leased line access services in LLA Area 3 and dark fibre access in LLA Area 3

6.17 In Section 2, we set out our proposals to set charge controls in LLA Area 3. We propose to:

- set a cost-based charge control on leased line access services (rentals, connections and Main Link) at bandwidths up to and including 1Gbit/s;
- adopt a pricing continuity approach that sets a charge control on leased line access services (rentals, connections and Main Link) at bandwidths above 1Gbit/s (including WDM services) at CPI-0%; and
- set a cost-based charge control on dark fibre access services.

Leased line access services

6.18 We are proposing a cost-based control on leased line access services up to and including 1Gbit/s. Given our general preference to set a charge control that incentivises productive efficiency or volume growth, we propose to align prices to costs by 2030/31 using a glidepath approach.

6.19 We are proposing a pricing continuity approach for leased line access services above 1Gbit/s (including WDM services). Therefore, the issue of how to quickly to change prices is not a relevant consideration.

Dark fibre access services

6.20 In relation to dark fibre access services, there is currently a large gap between prices and estimated unit costs, which by the end of the current charge control on 31 March 2026 is likely to have persisted for several years.

6.21 By the end of the current charge control period, DFA connection prices are forecast to be significantly above their unit FAC (£1,380.22 compared to £883.13), whereas DFA circuit rental prices are forecast to be below their unit FAC (£1,088.76 per year compared to £1,301.47 per year).

6.22 A misalignment between current prices and costs does not, in itself, override our general preference for glidepaths given their productive efficiency benefits. However, in this case, we consider that greater emphasis should be placed on improving allocative efficiency by reducing the current misalignment of prices and cost. This is for two reasons:

- We are concerned that the large gap between current prices and costs, particularly for DFA connections, could be distorting purchasing decisions for DFA which may impede the effectiveness of the remedy.[191]

[191] We recognise that for DFA, the gaps between current prices and costs for DFA connections and DFA rentals cancel each other out to an extent. However, we consider that the misalignment between current prices and costs still has the potential to distort purchasing decisions for DFA. For example, a substantial reduction in DFA connection charges will reduce the upfront investment required to purchase new DFA services, irrespective of an increase in annual DFA rental charges. As noted in Volume 4 Section 2, stakeholders have cited various types of upfront costs (and their scale) as an issue impacting take-up of DFA.

- To date DFA has had relatively low take-up (and therefore volumes are low). This reduces our concern that a SCA might undermine Openreach's future incentives to improve efficiency since any benefit it may have gained from unit cost reductions as a result of outperforming the existing control will be small.

6.23 We propose:

- to apply a SCA that will reduce the current misalignment between prices and costs by 75% at the start of the control period. This will apply to both:
  - DFA connections, where the SCA will reduce prices at the start of the period; and
  - DFA rentals, where the SCA will increase prices at the start of the period.
- a glidepath that thereafter aligns prices to costs by 2030/31.

6.24 We consider that our proposed approach will largely address the misalignment between prices and costs at the start of the control period thereby mitigating our concerns around distortions to purchasing decisions. It will also improve customer protection by bringing prices closer to costs at the start of control.

6.25 We have proposed a partial SCA, as opposed to a 100% SCA, as this will reduce the risk of volatility in prices for DFA rentals. Our proposed partial SCA will result in a less sharp increase in DFA rental prices at the start of the control followed by shallower price reductions in subsequent years which provides a smoother glidepath for prices during the charge control period.

IEC services and dark fibre inter-exchange (from BT only and BT+1 exchanges)

6.26 In Section 3, we set out our proposals to set charge controls for inter-exchange services from BT+1 and BT only exchanges. We propose to:

- adopt a pricing continuity approach that sets a charge control on IEC services (rentals, connections and Main Link) at all bandwidths (including WDM services) at CPI-0%; and
- set a cost-based charge control on DFX services from BT only and BT+1 exchanges.

IEC services

6.27 Since we are proposing to set an index inflated charge control on IEC services across all bandwidths the issue of how quickly to adjust prices is not relevant.

Dark-fibre inter-exchange from BT only and BT+1 exchanges

6.28 In relation to DFX services, there is currently a large gap between prices and estimated unit costs, which by the end of the current charge control on 31 March 2026 is likely to have persisted for several years.

6.29 By the end of the current charge control period, DFX connection prices are forecast to be above their unit FAC (£269.34 compared to £217.38). In addition, DFX rental prices are also forecast to be above their unit FAC; this is true for both DFX circuit rentals (£35.98 per year compared to £13.94 per year) and DFX main link rentals (£126.00 per kilometre per year compared to £90.46 per kilometre per year).

6.30 While we have a general preference for adopting glidepaths given their productivity efficiency benefits, we are also concerned that the large gap between prices and costs could distort purchasing decisions and thereby harm customers.

6.31 We propose:

- to apply a SCA that will reduce the current misalignment between prices and costs by 50% at the start of the control period. The SCA will reduce prices at the start of the period for DFX connections, circuit rentals and main link rentals.
- a glidepath that thereafter aligns prices to costs by 2030/31.

6.32 The proposed SCA of 50% differs to the one we have proposed for DFA in Area 3 (which is 75%). In relation to DFX services we are using our regulatory judgement to place greater emphasis on preserving productive efficiency incentives than for DFA services. This acknowledges that DFX is an established service, with more material volumes than DFA, and thereby the higher likelihood that efficiency improvements would have contributed to the current returns we observe.

PIA services

6.33 In Section 4, we set out our proposals to set cost-based charge controls on PIA rentals.

6.34 Given the productive and dynamic efficiency benefits referred to above we propose to use a glidepath approach.[192]

Mechanism of charge control implementation

Target Average Charge (TAC) and Maximum Annual Charge (MAC)

6.35 In our draft SMP conditions, we propose to implement the various charge controls through either:

- A Target Average Charge (TAC) approach, used where the charge control applies to a basket of services or where the charge control applies to a single service; or
- A Maximum Annual Charge (MAC) approach, used where the charge control applies to a single service only.

TAC approach

6.36 Under the TAC approach, Openreach is required comply with the charge control such that its average weighted charges in the relevant control year do not exceed the charge control cap. Under a basket control the weighted average is with reference to both time and across services within the basket; whereas for a single service control the weighted average is with reference to time only.

6.37 Under the TAC approach, the charge control formula takes into account the timing of any changes Openreach makes. Openreach can change charges for services at any time during a particular year. However, the charge control formula explicitly takes into account when changes to charges occur.

MAC approach

6.38 Under the MAC approach, Openreach is required to comply with the charge control such that the maximum price it charges during the relevant year does not exceed the charge

[192] In Section 4, we also explain that we propose to glide to a new discount rate by the end of the control period for lead-in ducts and single-end user pole attachments (which feeds into each price through the fair share). We consider it appropriate to glide to this forward-looking discount rate as it provides relatively stable pricing whilst capturing the long-run discount rate within the period.

control cap. As such, the charge control formula does not need to take into account when changes to charges occur in a year, since compliance is assessed through comparing whether the charge exceeded the maximum cap (at any point in the relevant year).

Our proposals

6.39 A summary of our proposals relating to the mechanism of our charge controls is provided in Table 6.1.

Table 6.1: Proposed mechanisms for the charge controls

Charge control	Year 1	Years 2-5
WLA Area 2: MPF, FTTC 80/20, FTTP 80/20 rentals	TAC	MAC
WLA Area 3: MPF, FTTC 80/20, FTTP 80/20 rentals	TAC	MAC
LLA Area 2: Ethernet leased lines services and Optical leased line services	TAC	TAC
LLA Area 3: Ethernet leased lines services and Optical leased line services	TAC	TAC
IEC: Ethernet leased lines services and Optical leased line services	TAC	TAC
IEC dark fibre	TAC	MAC
LLA Area 3 dark fibre	TAC	MAC
PIA	TAC	MAC
Ancillaries	TAC	Both MAC and TAC

6.40 Under a MAC approach, Openreach would not be able to price above the cap at any point in the relevant year of the control. In contrast, where we are proposing charge controls on the basis of complying with a TAC over the control year, Openreach would have flexibility to adjust prices during the year to ensure that on average across the year its charges do not exceed the cap.

6.41 Where we are setting single service charge caps, and where practical, we have a general preference for setting these on a MAC basis. This gives access seekers more certainty about the maximum price they will face during any point of a control year; and can be a simpler way of implementing a charge control.

6.42 However, we recognise that complying with a MAC control from 1 April 2026 may present practical difficulties for Openreach in the first year of the control. This is because Openreach may not have sufficient time to undertake a set of governance and operational activities as part of implementing the set of price changes by 1 April 2026 (since these can only be completed following the publication of our Statement).

6.43 In light of these practical considerations, where we propose to set a control under a MAC approach, we are proposing this would only apply from the second year of the control (with a TAC control applying in the first year).

Principles for basket design

6.44 A charge control basket is defined as the group of services that are subject to a common charge control restriction. Combining services in a single basket means that the price cap (e.g. CPI-X) would apply to the changes in the charges of all the services in the basket weighted by revenue.

6.45 In designing our proposed charge control baskets, we have been guided by the following principles:

- Where the services being considered share substantial common costs, a single basket is more conducive to efficient pricing and cost recovery.
- Where the services being considered face different competitive conditions or where BT does not use the same wholesale inputs as its rivals, placing them in the same charge control basket may give BT an incentive to set charges in a way that adversely affects competition. In this case, we might consider introducing sub-caps or placing the services in separate baskets.
- Differences in charges for substitutable inputs covered by charge controls should reflect the incremental cost difference. The usual argument for a broad basket, that there are benefits from being able to vary relative prices within the basket to reflect differences in demand elasticities, does not apply to substitutable inputs.

Advantages of broad baskets

6.46 A broad basket would give BT the most pricing flexibility to determine the structure of prices to meet the charge control. Where relative prices can be set to reflect the way demand responds to price changes, this pricing flexibility is more likely to result in charges that recover costs, particularly common costs, in an efficient way.

6.47 A broad basket also allows BT to respond to changes in demand and costs by changing relative prices and re-optimising charges for new patterns of demand. Subject to sufficient constraint on its pricing at the basket level, BT is better placed to assess demand and set the prices for services at a more granular level.

6.48 We consider, however, that such considerations are less directly applicable to migration type services. This is because retail demand for migration services may not be closely linked to the wholesale migration charge; and because migration charges increase switching costs faced by BT's competitors.

Disadvantages of broad baskets

6.49 The main disadvantage of broad baskets is that, in some circumstances, the flexibility to set relative charges can be exploited to harm competition. Two sets of circumstances are particularly relevant:

- BT may have an incentive to price in a manner that favours its downstream operations. Where BT and competing operators use different wholesale services to provide the

same downstream service, BT may have an incentive to reduce the price of the wholesale service it uses most and increase the price of the wholesale service used by its competitors. Placing both wholesale services in a single charge control basket without further restrictions could give BT the ability to behave in a way that harms competition.

- There may be differences in the intensity of competition that BT faces in the provision of different services. If competitive conditions differ between services within a single basket, BT may have an incentive to concentrate price cuts on the most competitive services and offset these with increases where competition is weaker.

6.50 In some cases, it is possible for the competition concerns identified above to be addressed by using more narrowly defined baskets. Each basket could be defined to include only services where there is broadly the same degree of competition, and there could be separate baskets for services that are used predominantly by BT on the one hand, and for services which are mainly used by its competitors, on the other.

6.51 Alternatively, or in addition, sub-caps on particular services within a basket can be used to address these competition concerns. In this way, the potential harm to competition can be mitigated while, at the same time, retaining the pricing flexibility benefits of basket controls.

Our proposals

Wholesale local access services

6.52 In Section 1, we set out our proposals to set charge controls in WLA Area 2 and WLA Area 3. We propose to set a charge control in each of WLA Area 2 and WLA Area 3 for MPF and GEA FTTC 80/20 rental services at CPI-0%.

6.53 A single basket combining both MPF and GEA FTTC 80/20 rental services could provide greater price flexibility to allow BT to recover common costs more efficiently compared to separate controls for each of the services.

6.54 However, we consider that a separate control for MPF rentals will provide better customer protection to standard broadband customers since it will ensure that BT does not raise MPF prices as customers transition to higher speed services and rivals becomes more focused on competing for those higher bandwidth services (and less focused on competing for standard broadband customers).

6.55 Therefore, consistent with our current approach, we propose to set a single product control for each of:

- MPF rentals; and
- GEA FTTC 80/20 rentals

6.56 As part of our proposals in support of BT's copper-retirement, our charge control will apply to FTTP 80/20 rentals where copper services are not available. Therefore, we propose a single product charge control for:

- GEA FTTP 80/20 rentals.

Leased lines access and inter-exchange services

6.57 We have traditionally used broader baskets for leased line services (relative to WLA services) that include both rentals and connections.

6.58 The use of broader baskets reflects the significant level of common costs between services and that business customers (and communications providers) purchasing leased lines are more likely to make their choices based on the cost of a package of services relating to a leased line.

Leased line access services in LLA Area 2

6.59 In Section 2, we propose to set:

- a charge control on leased line services (rentals, connections and Main Link) at all bandwidths at CPI-0%.

6.60 Given the significant level of common costs between services, we propose an Ethernet services basket across all bandwidths including rentals, connections and Main Link.[193]

6.61 In relation to WDM Services, Openreach does not have revenue weightings for each price list item, so it is unable to operate a basket. Therefore, we propose to set a single charge cap on each WDM Service modular component.

6.62 Openreach's Main Link charge is incurred where a leased line circuit spans two BT exchanges. This is relevant to leased lines circuits connecting end-sites (i.e. access segments). The Main Link charge is a distance related charge.

6.63 Given the importance of Main Link to connectivity spanning BT exchanges we consider that it is important to mitigate the risk of sharp price increases in Main Link charges because of its relatively low weighting in the Ethernet basket. To address this competition concern we propose that Main Link charges are subject to a CPI-0% sub-cap in the Ethernet basket.

6.64 In summary, in LLA Area 2, we propose:

- an Ethernet services basket across all bandwidths (including connections, rentals and Main Link) charge controlled at CPI-0%.
- A CPI-0% sub-cap on each Main Link service charge in the Ethernet services basket.
- a set of single CPI-0% charge caps on each WDM Service modular component.

Leased line access services in LLA Area 3

6.65 In Section 2, we set out our proposals to set charge controls in LLA Area 3. We propose to:

- set a cost-based charge control on leased line access services (rentals, connections and Main Link) at bandwidths up to and including 1Gbit/s;
- set an index inflated charge control on leased line services (rentals, connections and Main Link) at bandwidths above 1Gbit/s (including WDM services)

[193] We note Openreach's intention to launch EAD 2.0 products in March 2026. Our draft SMP conditions at Volume 7 (specifically in the Annex to Condition 12E) specify the services currently available that we propose to include in the Ethernet Baskets. In the event that EAD 2.0 products are launched in accordance with Openreach's current plans, we would expect to add the EAD 2.0 products to the list of services within the Ethernet Baskets applicable to LLA services and IEC services in any final set of SMP conditions that we may set. Should the launch be postponed until the 2026-31 market review period (i.e. the period commencing 1 April 2026), we would be likely to issue a direction amending our SMP conditions to include EAD 2.0 products within the scope of the relevant Ethernet Baskets. Before any such direction takes effect, the new product would be subject to the requirement to set prices on fair and reasonable terms; once the direction takes effect, the relevant Ethernet Basket charge controls would apply to its prices.

6.66 Given we are proposing different charge controls for leased line access services at bandwidths up to and including 1Gbit/s and at bandwidths above 1Gbit/s, we propose separate Ethernet baskets for LLA Area 3. More specifically, we propose:

- an Ethernet services basket for bandwidths up to and including 1Gbit/s including connections, rentals and Main Link; and
- An Ethernet services basket for bandwidths above 1Gbit/s including connections, rentals and Main Link.

6.67 Given the low weighting of Main Link in each Ethernet basket, we propose that Main Link is subject to a sub-cap of CPI-0% in each basket.

6.68 As explained earlier, in relation to WDM Services, Openreach does not have revenue weightings for each price list item, so it is unable to operate a basket. Therefore, we propose to set a single charge cap on each WDM Service modular component.

6.69 In summary, in LLA Area 3, we propose:

- an Ethernet services basket at bandwidths up to and including 1Gbit/s (including connections, rentals and Main Link) subject to a cost-based control.
  - a CPI-0% sub-cap on each Main Link service charge n the up to 1Gbit/s Ethernet services basket.
- an Ethernet services basket at bandwidths above 1Gbit/s (including connections, rentals and Main Link) subject to a CPI-0% control.
  - a CPI-0% sub-cap on each Main Link service charge in the above 1Gbit/s Ethernet services basket.
- a set of single charge caps on each WDM Service modular component.

IEC services from BT only and BT+1 exchanges

6.70 In Section 3, we propose a pricing continuity approach, that:

- sets a CPI-0% charge control on IEC services (connections, rentals and Main Link) across all bandwidths (including WDM services) at BT Only and BT+1 exchanges.

6.71 Given the significant level of common costs between services, we propose:

- an Ethernet services basket across all bandwidths (including rentals, connections and Main Link) at BT only and BT+1 exchange combined.

6.72 As explained earlier, in relation to WDM Services, Openreach does not have revenue weightings for each price list item, so it is unable to operate a basket. Therefore, we propose to set a single charge cap on each WDM Service modular component.

6.73 Openreach's Main Link charge is incurred where a leased line circuit spans across two BT exchanges. This is relevant to IEC leased line circuits. The Main Link charge is a distance related charge.

6.74 Given the importance of Main Link to connectivity spanning BT exchanges we consider that it is important to mitigate the risk of sharp price increases in Main Link charges because of its relatively low weighting in the Ethernet basket. To address this competition concern we propose that Main Link charges are subject to CPI-0% sub-cap in the Ethernet basket.

6.75 In summary, at BT only and BT+1 exchanges, we propose:

- An Ethernet services basket across all bandwidths (including connections, rentals and Main Link) across BT only and BT+1 exchanges combined.
    - A CPI-0% sub-cap on each Main Link service charge in the Ethernet services basket.
- A set of single charge caps on each WDM Service modular component for IEC services.

6.76 In Volume 3 Section 8, we propose transitional arrangements for IEC services from any exchanges that we are proposing to reclassify as BT+2 for the 2026-2031 period. Under our proposals Openreach is required to provide existing IEC services in exchanges that have been reclassified to BT+2 for a period of five years. As such, IEC services from those reclassified exchanges will be subject to our proposed charge controls and will be included in the respective Ethernet basket or WDM single service controls for the transitional period.

Local access dark fibre and inter-exchange dark fibre services

6.77 In Section 2 and 3 we propose to set cost-based charge controls on dark fibre access in LLA Area 3 and dark fibre interexchange from BT only and BT+1 exchanges.

6.78 We consider that it is important that customers have certainty about the path of these prices to support the transition from active lease line services to dark fibre services. We consider that single service charge controls will provide greater certainty for access seekers regarding future prices than using a basket approach.

6.79 Therefore, we propose:

- Single service charge controls for each local access dark fibre service in LLA Area 3; and
- Single service charge controls for each inter-exchange dark fibre service at BT only and BT+1 exchanges.

6.80 In Volume 3 Section 7, we propose transitional arrangements for existing DFA services in postcode sectors that we are proposing to reclassify from LLA Area 3 to other regulated LLA markets for the 2026-2031 review. Under our proposals Openreach is required to provide existing DFA services in postcode sectors that have been reclassified from LLA Area 3 for a period of five years. As such, DFA services from those reclassified exchanges will be subject to our proposed charge controls in LLA Area 3 for the transitional period.

6.81 In Volume 3 Section 8, we propose transitional arrangements for DFX services from BT only exchanges that we are proposing to reclassify to BT+2 for the 2026-2031 review period. Under our proposals Openreach is required to provide existing DFX services from BT only that have been reclassified to BT+2 for a period of five years. As such, DFX services from those reclassified exchanges will be subject to our proposed charge controls for the transitional period.

6.82 Further details relating to the charge controls is found in Annex 16.

Physical infrastructure access

6.83 In Section 4 we propose to set cost-based charge controls on physical infrastructure services.

6.84 Physical infrastructure services are fundamental components in facilitating altnets to design, build and operate their networks. As such it is important that access seekers have certainty about the path of the prices of physical infrastructure services. We consider that single service charge controls provide greater certainty for access seekers regarding future

prices that using a basket approach. Therefore, consistent with our approach in the WFTMR21, we propose:

- Single service charge controls for each physical infrastructure access service.

Ancillaries

6.85 We set out our proposals in Section 5.

Weighting price changes within a basket

6.86 A basket control limits the maximum weighted average increase in prices in any given year. The weighting we use is the amount of revenue earned by each service. When Openreach sets prices each year we need to consider how these revenue weights should be determined, e.g. whether they should be based on the previous year's revenues or a forecast of the current year revenue weighting.

6.87 We consider there are three broad approaches to set basket weights:

- Current year weighting: the weights are set equal to the proportion of current year basket revenues accounted for by each service as a proportion of total current year revenues.
- Prior year weighting: basket weights are set equal to the proportions of basket revenues accruing to the relevant services in the year prior to the one in which the price change occurs.
- The "snapshot" approach: similar to the prior year weighting approach, but we change the definition of prior year revenue so that it is calculated as a "snapshot" using actual volumes at a suitably recent point in time multiplied by the average price during the 12 months prior to the start of the charge control year.

Our proposals

6.88 We propose to use prior year weightings where we have proposed basket controls since we consider that this will best enable BT to plan its charges in a year to meet the overall basket control. This is consistent with our current approach.

Deficiency and excess provisions

6.89 Deficiency and excess provisions set out how any under- or over-recovery of revenues against the amount they can recover as part of the charge control should be dealt with. We have included such provisions in previous charge controls and propose to use them where we adopt a TAC mechanism. These have two functions:

- Where Openreach charges below the cap they give the ability to use the deficiency created by setting charges below the charge control requirements within a given year towards the charge control compliance in the following year. Therefore, the deficiency avoids penalising Openreach for bringing forward a charge reduction or increasing charges less than permitted within the cap.
- Where Openreach charges above the cap, it is required to make up the excess the following year by charging less than the cap would otherwise have allowed. We expect

any difference to be small and not adversely affect the pricing stability created by our proposed charge controls.

6.90 We consider that symmetrical provisions remain appropriate i.e. symmetrical with respect to whether Openreach charges below the cap or whether the control is exceeded. We also consider that such a provision requiring Openreach to automatically repay its wholesale customers any over recovery of revenue from the charge controls fits well with our proposed prior year revenue weights approach. This is because at the start of each control period Openreach will know (at least to a significant extent) the prior year volumes/revenues, and thus will not be subject to the risk of being unable to recover the allowed revenue of a basket in that period or subsequent ones.

Our proposals

6.91 We propose to continue using deficiency and excess provisions for our charge controls. Where appropriate, we also propose to continue to require BT to make repayments to other affected telecoms providers (as soon as is reasonably practicable) if it charges in excess of the cap in any given year for any services or basket of services.

Other details relating to the specification of our charge controls

Our proposals

MPF rental service specification

6.92 Openreach offers MPF rental services including two different service maintenance levels (SMLs). These are MPF rental including SML1 (that has a lower price with a 2-day repair time target) and MPF rental including SML2 (a higher priced service with a 1-day repair target). The majority of MPF lines are on the SML1 variant.

6.93 We propose to maintain our current approach and impose a charge control on MPF SML1. We consider that a charge control on SML1 will have greater benefits for downstream competition given the majority of MPF lines use this variant. We also consider that it will act as a price constraint on MPF rentals with other SMLs.

Single Order Generic Ethernet Access

6.94 VULA services are provided by Openreach using its FTTC deployment in two ways:

- By supplying VULA as an overlay to the existing copper services it has developed (i.e. WLR and MPF); or
- Via Single Order Generic Ethernet Access (SOGEA) where the copper bearer is included within the VULA service so that it can be purchased without also purchasing WLR or MPF.

6.95 We consider that our charge controls should provide the same protection to customers using SOGEA as those using VULA as an overlay to the copper service. Therefore, we propose to charge control FTTC services at speeds of 80/20 which are provided using SOGEA on the same basis as services provided using VULA as an overlay to the existing copper service. This will apply in both the WLA Area 2 and the WLA Area 3 markets.

FTTP connection charges

6.96 In Section 5 we outlined our proposals relating to charge controlling FTTP 80/20 connections.

6.97 Below we discuss three topics relating to how the level of the proposed charge control on FTTP 80/20 connection charges will be calculated: (i) accounting for the proposed adjustment in geographic market boundaries; (ii) which prices we propose to use to calculate the 2026/27 caps; and (iii) how we propose to set the caps in subsequent years. We also explain that compliance with the proposed caps will be assessed by reference to a basket of FTTP 80/20 products.

Accounting for our proposal to adjust market boundaries

6.98 As noted in Section 5, our proposals seek to address the risk of FTTP 80/20 connection charges rising in real terms from current levels – we are not seeking to reduce FTTP 80/20 connection charges in real terms.

6.99 However, as set out in Volume 2, we are proposing changes to the WLA geographic market boundaries. Our proposed WLA Area 2 would consist of a mix of locations which were previously in Area 2 and in Area 3. Currently connection charges vary between these locations. We thus need to consider how to reflect this when applying our pricing continuity approach. A similar issue arises in relation to WLA Area 3.

6.100 In order to take into account the proposed changes in geographic market boundaries, we propose to use a weighted average of the (current) Area 2 and Area 3 average connection charges.[194] The weights will reflect the mix of locations currently classified as Area 2 and Area 3 in each of our proposed new WLA Area 2 and WLA Area 3.[195]

6.101 The intention of this adjustment is to ensure the charge control allows Openreach the opportunity to charge its current connection prices in the WLA geographic markets as they are currently defined (subject to the requirements of the geographic prohibition, discussed in Volume 3, Section 9). This ensures a pricing continuity approach and that our caps do not automatically require Openreach to reduce its prices in select geographic areas in the 2026-31 review period.

Prices used to calculate 2026/27 caps

6.102 To calculate the level of the cap in both WLA Area 2 and WLA Area 3 in the first year of the control, we propose to use FTTP 80/20 standard connection prices (inclusive of the Equinox 2 Offer discounts) and volume information from 2024/25 for each WLA geographic area to calculate the average FTTP 80/20 standard connection charge in each of Area 2 and 3. We propose to use the Equinox 2 Offer prices and volumes from 2024/25 as it avoids affecting Openreach's incentives to adjust prices during 2025/26, given that any such changes would subsequently be incorporated into this charge control. In addition, 2024/25 will be the most recent full year of data available prior to the publication of our final TAR26 statement.

[194] This means that the proposed charge controls should not require Openreach to change its connection charges. It thus reflects pricing continuity. If, for example, we were instead to set the WLA Area 2 cap based on Area 2 prices then that cap would require Openreach to reduce its connection charges in former Area 3 premises that now lie in WLA Area 2.

[195] The weighting would be calculated by taking the TAR26 list of postcode sectors for each of our proposed WLA geographic markets, identifying which sectors have moved from WLA Area 3 to WLA Area 2 (and vice versa), and applying the TAR26 premises count to these sectors to arrive at percentage figure for the number of premises in our proposed new WLA Area 2 which were previously in WLA Area 3.

6.103 The Openreach products we propose to use as a basis to calculate the average FTTP 80/20 connection charge in Area 2 are:[196]

a) Standard Connection – List price (Area 2 customers only);
b) Standard Connection – New to network – Residential Area 2;
c) Standard Connection – All other bandwidths – Non New to Network – Residential Area 2;
d) Standard Connection: All other bandwidths - Non New To Network – Residential Area 2 standard connection (not same CP regrades); and
e) Standard Connection: Non New To Network – Residential Area 2 standard connection (same CP regrades) for all other eligible bandwidths.

6.104 The Openreach products we propose to use as a basis to calculate the average FTTP 80/20 connection charge in Area 3 are:

a) Standard Connection – List price (Area 3 customers only); and
b) Standard Connection: Non New To Network – Residential Area 3 standard connection (same CP regrades) for all eligible bandwidths.

6.105 The average connection charge in (current) Area 2 and 3 will depend on the Openreach prices for each of the above connection types, as well as the associated volumes for each type, in 2024/25. Once these figures have been calculated for 2024/25 they will be inflated by CPI to give 2026/27 values (i.e. the first year of the charge control). Those (current) Area 2 and Area 3 prices will then be combined to give a weighted average for each of WLA Area 2 and WLA Area 3 reflecting the proposed new market boundaries (as described above). The resulting averages will become the starting caps for WLA Area 2 and WLA Area 3.

6.106 As the volume data regarding the Openreach connections is not yet available, we cannot estimate a figure based on our proposed methodology. However, based on the information available and to assist consultation responses, we anticipate the 2026/27 level of the price cap to be between £30.61-£63.28 for WLA Area 2, and between £85.27-£125.49 for WLA Area 3.[197]

Adjusting the 2026/27 caps in subsequent years

6.107 In subsequent years, we propose that the level of charges will be kept constant in real terms using a CPI-0% control.

Compliance with the FTTP 80/20 caps

6.108 Under the Equinox 2 Offer, FTTP connection charges vary by connection type (see Table 5.7 in Section 5).

6.109 The proposed charge control will apply to a basket of FTTP 80/20 connections for each geographic area. This means that, following the proposed introduction of the price cap in 2026/27, Openreach can continue to set different connection charges within each geographic area provided that the weighted average connection charge on the basket of services in each of WLA Area 2 and WLA Area 3 is compliant with the cap for that geographic area in that given year.

[196] This is the list of products confirmed by Openreach response dated 21 February 2025 to s135 notice dated 10 February 2025, question 15.
[197] In the draft conditions the Initial Charge is calculated by inflating the current prices by the October 2024 12-month CPI rate (2.3%).

6.110 In line with our approach for other basket controls, our proposed conditions make provision for the addition to the basket of any new connection services that Openreach may introduce.

First year prices in our proposed charge controls

6.111 The proposed first year price levels in our draft SMP conditions have been calculated using a forecast of inflation for 2025/26. If we proceed with our proposals, for our statement in March 2026, we plan to calculate first year price levels with reference to the Consumer Prices Index in the twelve month period ending on 31 October 2025.

Compliance with our charge controls

Our proposals

6.112 We propose to retain our current approach in relation to BT's requirements to demonstrate compliance with our proposed charge controls. Under this approach, we propose:

- BT is required to submit spreadsheets to Ofcom by 31 August each year demonstrating compliance with the charge controls for the prior year. The spreadsheets are required to reflect the breakdown of all the services and variants that are under the charge control.
- BT's compliance spreadsheets relating to basket charge controls are accompanied by a statement from an independent third party (e.g. the auditor of the RFS) confirming that the data in the spreadsheets (e.g. that pricing, volume and revenue inputs have been properly extracted from BT's systems and that the calculations are in accordance with the SMP conditions).
- BT is required to publish non-confidential versions of the compliance spreadsheets on its website.

Legal tests

6.113 In the discussion above, we have considered how to design and implement the charge controls we proposed earlier in this document. We have therefore considered whether our proposals set out above and the resulting SMP conditions would meet the tests in section 88 of the Act in the context of our broader proposals for the charge controls. We explain why our proposed charge controls meet the relevant legal tests in each of Volume 4 Section 1 to Section 5.

Simplification of charge control SMP conditions

6.114 The charge controls within the scope of this review are found in Conditions 12A to 12I of the SMP conditions currently in force. These charge controls were originally derived from a number of different market reviews and legal instruments,[198] which were combined and amended in the WFTMR21. In addition to our proposed substantive modifications to the

[198] E.g. Physical Infrastructure Market Review 2019, Wholesale Local Access Market Review 2018, Business Connectivity Market Review 2019.

charge controls (as described above and in previous sections), we have also taken the opportunity in this review to revisit the charge control SMP conditions as a whole with a view to simplifying the drafting and making them easier to read, understand and navigate.

6.115 In summary, our proposed amendments include:

a) **Bringing frequently used formulae upfront:** the charge control conditions use a number of formulae repeatedly throughout (e.g. formulae for calculating weighted average charges in the current and preceding years, formulae for calculating the percentage change in charges between two years and for specifying the controlling percentage for CPI-X controls, etc.). Currently, each formula is repeated in full each time it is used. We are proposing instead to create a defined term for each of the seven frequently used formulae and to reference the relevant term each time one of these formulae is to be used. This change significantly cuts down the overall length of the charge control conditions, makes each condition easier to read and understand, and reduces the risk of error being inadvertently introduced through repetition of formulae.

b) **Ordering charge controls in a standard way:** we are proposing that each charge control condition uses a logical and (where possible) standard ordering of the obligations – e.g. charges in the first year are covered first, then charges in subsequent years, then calculation of the percentage change and controlling percentage, deficiency and excess provisions, followed by material change and compliance obligations. This is intended to make the conditions easier to read and navigate.

c) **Other changes to assist with reading and navigation:** we have inserted sub-headings to break up the conditions and have sought to conform drafting throughout the charge control conditions (e.g. so that all deficiency and excess provisions are drafted in a similar way).

6.116 The draft SMP conditions in Volume 7 reflect our proposed drafting amendments to the charge control SMP conditions in Conditions 12A to 12I. Overall, they reduce the length of the charge control SMP conditions by around 30 pages. These drafting amendments are not intended to introduce any substantive changes to the charge controls over and above those described above and in previous sections. We welcome comments on these proposed amendments.

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

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

7. Legal Tests

7.1 In Sections 1 to 6 and Volume 3 Section 4[199],we set out our proposed pricing remedies in the physical infrastructure, wholesale local access (WLA Area 2 and WLA Area 3), leased lines access (LL Area 2, LL Area 3 and the HNR areas) and IEC services markets (BT Only exchanges and BT+1 exchanges, and for a transitional period BT+2 exchanges).

7.2 To give regulatory effect to our decisions, we are proposing to set the draft SMP conditions and draft Direction set out in Volume 7.

Section 47 tests

7.3 We consider that each draft SMP condition proposed in this volume satisfies the tests set out in section 47 of the Act, namely that the obligation is:

- objectively justifiable in relation to the networks, services or facilities to which it relates;
- not such as to discriminate unduly against particular persons or against a particular description of persons;
- proportionate to what it is intended to achieve; and
- transparent in relation to what it is intended to achieve.

Objectively justified

7.4 We consider that each of the draft SMP conditions we are proposing to set is objectively justifiable. The remedies that we are proposing are designed to address the competition concerns that we have identified in our market analysis (see Volume 2). As explained in Volume 3 Section 1, our market analysis proposes that Openreach has the ability and incentive to set excessive wholesale charges or, in combination with downstream prices, engage in a price squeeze behaviour (also referred to as "margin squeeze") (or can be treated as such under s.46(8A) of the Act regarding the inter-exchange connectivity BT+2 markets). Consequently, we have provisionally found that there is a relevant risk of adverse effects arising from price distortion.

7.5 Therefore, in the absence of regulatory intervention, BT could refuse or impede access to its network, or it could provide access on less favourable terms and conditions compared to those obtained by its own downstream businesses. We are therefore proposing to set conditions which are intended to promote competition and investment in gigabit-capable networks, by Openreach and other providers, in areas with the potential for material and sustainable competition, while protecting consumers and existing models of downstream competition in the short term. In the remaining areas, we have chosen an approach to

[199] We set out in that section our proposal to impose in each relevant fixed telecoms market an obligation for charges for network access to be fair and reasonable. In relation to FTTP prices, we propose that the fair and reasonable obligation applies at all times. Otherwise, we propose that it applies except to the extent that a charge control or a basis of charges obligation applies (the latter being a type of cost orientation obligation).

remedies to incentivise investment by Openreach, promote access-based competition and protect consumers.

7.6 We explain in Sections 1 to 6 and Volume 3 Section 4 for each obligation, why we consider that obligation is objectively justified in the context of the markets we have identified.

Not such as to discriminate unduly

7.7 We consider that each of the draft SMP conditions does not discriminate unduly against BT. We are proposing to find that BT is the only telecoms provider to hold SMP in the markets that we have identified (or can be treated as such under s.46(8A) of the Act regarding IEC BT+2 exchanges) and the draft SMP conditions seek to address that market position.

Proportionate

7.8 We consider that each of the draft SMP conditions we are proposing is proportionate to what that condition is intended to achieve. In each case, we are imposing an obligation on BT that: is effective to achieve our aim; is no more onerous than is required to achieve that aim; and does not produce adverse effects which are disproportionate to our aim. We explain why we consider each remedy is proportionate in Sections 1 to 6 and Volume 3 Section 4 in the context of the markets we have identified.

Transparent

7.9 We consider that each of the draft SMP conditions is transparent in relation to what is intended to be achieved. The text of the draft SMP conditions is published in Volume 7, and the operation of those conditions is aided by our explanations in this Consultation. Our Consultation sets the basis for our proposals in respect of pricing remedies. Our final statement will set out our analysis of responses to this consultation and the basis for any final decision that we take.

Section 46 tests

7.10 In Volume 4 we are proposing pricing SMP conditions to apply to newly deregulated BT exchanges[200] for a transitional period of 12 months in relation to active IEC services and a transitional period on which we are inviting views in relation to DFX.

7.11 Section 46(8A) of the Act provides that we can continue to treat a person (here BT) previously determined as having SMP in a given market, who we determine no longer has SMP in that market, as continuing to have SMP in that market for so long as we consider necessary to ensure a sustainable transition for those benefitting from the obligations imposed as a result of the previous SMP determination.

7.12 For the reasons we set out in Volume 3, Section 8, we propose that the 12 month period for active IEC services is necessary for these purposes. In relation to DFX and as set out in Section 8 of Volume 3, our provisional view is that a longer transitional arrangement is likely to be necessary, for example 2-3 years, and we are inviting further evidence and views from stakeholders to enable us to reach a final decision on the time period that would be necessary to ensure a sustainable transition for telecoms providers from these services to

[200] i.e. those exchanges we are proposing to define as BT+2 in this consultation.

alternatives and is no longer than needed to achieve this aim. We therefore consider our proposals to be consistent with section 46(8A) of the Act.

Section 88 tests

7.13 We are proposing to impose SMP conditions which require BT to adhere to: (i) certain price controls, rules about the recovery of costs and cost orientation; and (ii) an obligation for charges for network access to be fair and reasonable, in each of the physical infrastructure, wholesale local access, leased lines access and inter-exchange connectivity markets. We set out in Sections 1 to 6 how we consider the draft SMP conditions satisfy the tests in section 88 of the Act.

Section 49 tests

Direction in relation to publication of cost information in relation to electricity charges

7.14 In Section 5 we set our proposal to make a Direction in the markets in which we consider BT has significant market power, requiring it to publish information about the costs on which it bases electricity charges it sets in connection with the provision of network access.

7.15 We propose to make this Direction under draft SMP condition 6 which imposes obligations on BT in relation to the basis of certain charges, including the requirement that its average charge for electricity is reasonably derived from the cost of provision

7.16 We consider that the proposed Direction meets the criteria set out in section 49(2) of the Act because it is:

a) objectively justifiable, in that it provides greater transparency for telecoms providers purchasing network access about how BT sets its electricity charges;

b) not unduly discriminatory, in that the draft Direction applies only to BT, which is the only operator to have a provisional finding of SMP in the markets in which the Direction will apply;

c) proportionate, in that the information that BT is required to provide under the draft Direction is no more than necessary to achieve the intended objective;

d) transparent, in that it is clear in its requirements and intention, as explained in this document and the draft text of the Direction is set out at Volume 7.

Ofcom's duties

7.17 As set out in Volume 1, we consider the package of SMP conditions and the draft direction we are proposing to set both individually and together meet our duties in sections 3 and 4 of the Act.