
Openreach proposed FTTP offer starting 1 April 2023 (Equinox 2)

Annexes

Non-confidential version – [X] indicates redacted information (with additional text unredacted on 29 June 2023)

STATEMENT:

Publication date: 24 May 2023

Contents

Annex

A1. Legal framework	1
A2. The Equinox 2 Offer discounts	5
A3. Altnet overlap of Openreach's FTTP footprint	12
A4. ISPs' performance against the OMTs	25
A5. The Failsafe Mechanism	42
A6. Legacy Cross-Check	63
A7. The 2021 Cost Model	66
A8. Openreach's FTTP 40/10 rental charge	71

A1. Legal framework

90 days' notification process

- A1.1 At the conclusion of our Wholesale Fixed Telecoms Market Review ('WFTMR'), we set SMP conditions on BT which took effect from 1 April 2021. SMP Condition 8 relates to the notification of charges, terms and conditions by BT. In particular, it requires BT to notify us and industry if it proposes to amend the charges, terms and conditions on which it provides regulated network access.
- A1.2 SMP Condition 8.6 applies in relation to certain of the markets we defined in the WFTMR Statement, including WLA Area 2 and WLA Area 3. It requires BT to give not less than 90 days' notice of any amendment involving new or existing network access where the price or other contractual conditions are conditional on the volume and/or range of services purchased.

Directions in relation to network access

- A1.3 SMP Condition 1.3 requires BT (amongst other things) to provide network access on such terms, conditions and charges as we may from time to time direct. SMP Condition 7.16 also requires BT to make such modifications to the Reference Offer as Ofcom may direct from time to time. In addition, SMP Conditions 1.10 and 7.18 require BT to comply with any direction we may make under the corresponding condition.
- A1.4 If an SMP condition has effect by reference to a direction given by us, and we are proposing to give a direction that affects the operation of that condition, then section 49 of the Communications Act 2003 (the 'Act') applies. Section 49(2) states that we must not give the direction unless we are satisfied that to do so is:
- a) objectively justifiable in relation to the networks, services or facilities to which it relates;
 - b) not such as to unduly discriminate against particular persons, or a particular description of persons;
 - c) proportionate to what it is intended to achieve; and
 - d) in relation to what it is intended to achieve, transparent.

Ofcom's general duties

Section 3 of the Act

- A1.5 Under the Act, our principal duty in carrying out our functions is to further the interests of citizens in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition.

- A1.6 In doing so, we are required to secure a number of specific objectives and to have regard to a number of matters set out in section 3 of the Act.
- A1.7 In performing our duties, we are also required to have regard to a range of other considerations, as appear to us to be relevant in the circumstances. For the purpose of this Statement, we consider that a number of such considerations are relevant, in particular:
- a) the desirability of promoting competition in relevant markets;
 - b) the desirability of encouraging investment and innovation in relevant markets; and
 - c) the desirability of encouraging the availability and use of high-speed data transfer services throughout the UK.
- A1.8 We are also required to have regard to the principles under which regulatory activities should be transparent, accountable, proportionate, consistent, and targeted only at cases in which action is needed, as well as to the interests of consumers in respect of choice, price, quality of service and value for money.
- A1.9 However, we have a wide measure of discretion in balancing our statutory duties and objectives. In doing so, we take account of all relevant considerations, including responses received during our consultation process, in reaching our conclusions.

Section 4 of the Act

- A1.10 Section 4 of the Act requires us, when carrying out our functions in relation to telecoms, to act in accordance with six requirements for regulation which are in summary:
- a) to promote competition in the provision of electronic communications networks and services, associated facilities and the supply of directories;
 - b) to promote the interests of all members of the public in the United Kingdom;
 - c) to take account of the desirability of Ofcom's carrying out of its functions in a manner which, so far as practicable, does not favour one form of or means of providing electronic communications networks, services or associated facilities over another (i.e. to be technologically neutral);
 - d) to encourage, to such extent as Ofcom considers appropriate the provision of network access and service interoperability for the purpose of securing: efficient and sustainable competition; efficient investment and innovation; and the maximum benefit for customers of telecoms providers and of persons who make associated facilities available;
 - e) to encourage compliance with certain standards in order to facilitate service interoperability, end-to-end connectivity, and secure freedom of choice for the customers of telecoms providers; and

f) to promote connectivity and access to very high capacity networks by members of the public and businesses in the United Kingdom.¹

A1.11 We consider that the first, second, third, fourth and sixth of those requirements are of particular relevance to the matters under review and that no conflict arises in this regard with those specific objectives in section 3 of the Act that we consider are particularly relevant in this context.

UK Government's Statement of Strategic Priorities

A1.12 Under section 2B(2) of the Act, when exercising our functions relating to telecoms, we are required to have regard to the UK Government's Statement of Strategic Priorities ('SSP').² The SSP for telecommunications, the management of radio spectrum, and postal services was designated on 29 October 2019, having been laid in draft before Parliament on 18 July 2019.

Impact assessment

A1.13 Section 7 of the Act provides that where we are proposing to do anything for the purposes of, or in connection with, the carrying out of our functions, and it appears to us that the proposal is important³, then we are required to carry out and publish an assessment of the likely impact of implementing the proposal, or a statement setting out our reasons for thinking that it is unnecessary to carry out such an assessment. Where we publish such an assessment, stakeholders must have an opportunity to make representations to us about the proposal to which the assessment relates.

A1.14 Whether or not a proposal is 'important' within the meaning of the Act will often be open to debate. However, because impact assessments form part of good policy making, we carry them out in relation to the great majority of our policy decisions.

A1.15 For further information about our approach to impact assessments, see the guidelines 'Better policy making: Ofcom's approach to impact assessments' on our website.⁴

A1.16 The Consultation comprised our impact assessment for the purposes of section 7 of the Act.

¹ A "very high capacity network" is set out in the Act as meaning "an electronic communications network which—
(a) consists wholly of optical fibre elements at least up to the distribution point at the serving location; or
(b) is capable of delivering, under usual peak-time conditions, network performance that, in OFCOM's opinion, is similar, in terms of available downlink and uplink bandwidth, resilience, error-related parameters and latency and its variation, to the network performance of a network falling within paragraph (a)."

² <https://www.gov.uk/government/publications/statement-of-strategic-priorities>

³ A proposal is 'important' if its implementation would be likely to do one or more of the following: (i) involve a major change in Ofcom's activities; (ii) have a significant impact on persons carrying on businesses operating in markets Ofcom regulates; or (iii) have a significant impact on the general public in the UK or a part of the UK.

⁴ An overview and link to the guidelines can be found on our [Policies and Guidelines webpage](#).

Equality impact assessment

- A1.17 Section 149 of the Equality Act 2010 (the '2010 Act') imposes a duty on us, when carrying out our functions, to have due regard to the need to eliminate discrimination, harassment, victimisation and other prohibited conduct related to the following protected characteristics: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex and sexual orientation. The 2010 Act also requires us to have due regard to the need to advance equality of opportunity and foster good relations between persons who share specified protected characteristics and persons who do not.
- A1.18 Section 75 of the Northern Ireland Act 1998 (the '1998 Act') also imposes a duty on us, when carrying out our functions relating to Northern Ireland, to have due regard to the need to promote equality of opportunity and regard to the desirability of promoting good relations across a range of categories outlined in the 1998 Act. Ofcom's Revised Northern Ireland Equality Scheme explains how we comply with our statutory duties under the 1998 Act.
- A1.19 To help us comply with our duties under the 2010 Act and the 1998 Act, we assess the potential impact of our decisions on persons sharing protected characteristics and in particular whether they may discriminate against such persons or impact on equality of opportunity or good relations.
- A1.20 In Annex 23 of the WFTMR Statement we considered how different groups in society engage with communications services. In particular, we referred to market research we had conducted that enabled us to assess the potential impact of future regulation on certain equality groups, particularly older consumers.⁵ While our research identified differences in take-up and use of fixed line services by different groups within society, we explained that we did not consider that our wholesale regulation is likely to have a disproportionate impact on any of the equality groups, as our regulation is aimed at promoting competition and investment across the range of services that rely on WLA. Therefore, we considered that our regulatory interventions would further the aim of advancing equality of opportunity between different groups in society by furthering the interests of all consumers that use retail services reliant on WLA.
- A1.21 We consider that the approach set out in this document is consistent with the position set out in Annex 23 of the WFTMR Statement.

⁵ Ofcom, 2020. [Affordability of Communication Services](#).

A2. The Equinox 2 Offer discounts

Introduction

- A2.1 The Equinox 2 Offer gives additional discounts to ISPs on rental and connection charges, conditional on meeting the OMTs. This annex looks at the scale of the Equinox 2 Offer discounts compared with the standard list prices and compared with the Equinox 1 Offer prices.
- A2.2 Our analysis shows that the Equinox 2 Offer provides discounts of up to 42% for rental charges and up to 75% for connection charges compared with Openreach's standard list prices. However, the average value of the rental and connection discounts varies depending on the blend of products purchased by an ISP.

Rental discounts

Main rental discounts

- A2.3 Table A2.1 shows Openreach's standard list price, the Equinox 1 Offer price and the Equinox 2 Offer price for each FTTP product speed.

Table A2.1: Comparison of monthly rental charges under Equinox 1 and Equinox 2 as of 1 April 2023

FTTP speed	Standard list price	Equinox 1 Offer price	Equinox 2 Offer price	Equinox 2 vs. list price	Equinox 2 vs. Equinox 1
40/10	£16.09	£16.09	£16.09	0%	0%
55/10	£19.62	£16.91	£15.50	-21%	-8%
80/20	£20.19	£16.91	£15.50	-23%	-8%
115/20	£20.19	£17.66	£15.80	-22%	-11%
160/30	£24.71	£18.32	£16.20	-34%	-12%
220/30	£24.86	£20.36	£17.30	-30%	-15%
330/50	£28.37	£21.49	£18.30	-35%	-15%
550/75	£31.87	£22.62	£19.30	-39%	-15%
1000/115	£36.55	£24.88	£21.30	-42%	-14%
1200/120*	£34.90	N/A	£22.30	-36%	N/A
1800/120*	£39.90	N/A	£29.30	-27%	N/A

Source: Openreach FTTP standard price list, Equinox 1 Offer price list and Equinox 2 Offer price list.

*Openreach is currently piloting speeds 1200/120M and 1800/120M. Openreach intends for list pricing to be identical to the current pilot pricing. Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 17.

- A2.4 The Equinox 2 Offer includes two new products, FTTP 1200/120 and FTTP 1800/120. These products are currently being piloted by Openreach and are not included in the Equinox 1

Offer. The pilot period was scheduled to end on 1 April 2023 however the end date was extended to 31 July 2023.^{6 7}

A2.5 Different indexation rules apply for the Equinox 1 Offer and the Equinox 2 Offer. These are summarised in Table A2.2.

Table A2.2: Equinox 1 and Equinox 2 indexation rules

FTTP speed	Equinox 1 Offer indexation	Equinox 2 Offer indexation
40/10	Per List Price	Per List Price
55/10	Price of 40/10M + £0.82/month	CPI or 0% whichever is higher
80/20	Price of 40/10M + £0.82/month	CPI or 0% whichever is higher
115/20	Price of 40/10M + £1.57/month	CPI or 0% whichever is higher
160/30	CPI-1.25% or 0% whichever is higher	CPI or 0% whichever is higher
220/30	CPI-1.25% or 0% whichever is higher	CPI or 0% whichever is higher
330/50	CPI-1.25% or 0% whichever is higher	CPI or 0% whichever is higher
550/75	CPI-1.25% or 0% whichever is higher	CPI-1.25% or 0% whichever is higher
1000/115	CPI-1.25% or 0% whichever is higher	CPI-1.25% or 0% whichever is higher
1200/120	N/A	CPI-1.25% or 0% whichever is higher
1800/120	N/A	CPI-1.25% or 0% whichever is higher

Source: [Equinox 1 Offer price list](#) and [Equinox 2 Offer price list](#).

A2.6 Under the Equinox 1 Offer, Openreach reserves the right to review prices in the period between 1 October 2026 and 30 September 2027. Following this review Openreach has the option to increase rental prices by up to £1.50/month and connection charges by up to £20, after giving 6 months' notice. Indexation continues thereafter.

A2.7 Under the Equinox 2 Offer, Openreach is reducing the amount that it can potentially increase rental prices, from £1.50 to £1, and increasing the notice period, from 6 months to 12 months.

FTTP 550/75 product 12-month offer

A2.8 As in the Equinox 1 Offer, an additional rental discount is applied to orders for the FTTP 550/75 product placed before 30 September 2026, provided the ISP is meeting the 80% OMT. Where new-to-network customers take the FTTP 550/75 product, the price is set at Openreach's FTTP 160/30 price for the first 12 months before reverting to the usual FTTP 550/75 rental price.

ARPU share mechanism

A2.9 The offers also include an ARPU share mechanism if the ISP's average rental amount per Openreach FTTP consumer exceeds a certain threshold.⁸ The ISP will receive 50% of the

⁶ [NGA2002/23 Briefing regarding the extension to the end date of the 1Gbit/s+ Pilot.](#)

⁷ Details on the pilot scheme can be found here: [NGA2012/22 \(openreach.co.uk\)](#)

⁸ 'ARPU' is defined by Openreach as 'the average rental amounts per End User of the Primary Service' in the Equinox 1 Offer, schedule 1, paragraph 16.5.

amount that its ARPU exceeds the threshold. ISPs are only eligible for this if they meet the 80% OMT.

- A2.10 Under the Equinox 1 Offer, the ARPU share threshold is £18.92 as of 1 April 2023 and indexed by CPI-2% or 0%, whichever is higher. Openreach also reserves the right to increase the ARPU share threshold by up to £1.50 on 30 September 2026, which would reduce the value of this discount.
- A2.11 Under the Equinox 2 Offer, the ARPU share threshold is reduced to £16.95 and indexed by CPI or 0%, whichever is higher. Openreach also reserves the right to increase the ARPU share threshold by up to £1 on 30 September 2026.
- A2.12 Only speeds of FTTP 220/30 and above are priced higher than the ARPU share threshold (see Table A2.1). Therefore, to qualify for the ARPU share mechanism an ISP would need to be purchasing a product mix that is weighted towards the higher speed products.

Connection discounts

- A2.13 Under the Equinox 2 Offer, connection discounts are available to ISPs on new FTTP connections to residential premises in Area 2 and Area 3.
- A2.14 The FTTP standard list price of £114.78 for a connection applies across the entire UK.⁹
- A2.15 The Equinox 1 Offer provides a connection discount to existing Openreach customers in Area 2, charging £57.88. An additional discount is offered to customers in Area 2 that are new to the Openreach network, charging £28.94. No discounts are offered in Area 3.¹⁰
- A2.16 The Equinox 2 Offer introduces further connection discounts. In Area 3, a discount is available for FTTP 80/20 and faster (reducing the connection charge to £78.00). In Area 2, Equinox 2 introduces additional connection discounts to an ISP's existing customers that move from an Openreach legacy product to an Openreach FTTP 80/20 or faster product (reducing the connection charge to £28.00).¹¹
- A2.17 A full connection discount is applied where the 90% OMT is met. For each 1 percentage point below the 90% OMT, the connection discount reduces by 10%. If an ISP is at or below the 80% OMT then there are no connection discounts, and the standard list price applies.

Average value of discounts

Rental discounts

- A2.18 We have calculated the average rental discounts under the Equinox 1 Offer and the Equinox 2 Offer that various ISPs are achieving, based on the actual blend of products taken in January 2023 (for all ISPs in total and separately for Sky, TalkTalk and Vodafone)

⁹ Openreach [FTTP standard price list](#)

¹⁰ Openreach, [Equinox 1 Offer price list](#)

¹¹ Openreach, [Equinox 2 Offer price list](#)

and March 2023 (separately for Zen).¹² Table A2.3 below shows the average rental charge under the three pricing schemes for all ISPs collectively and for Sky, TalkTalk, Vodafone and Zen separately.

Table A2.3: Average value of rental charge discounts

	All ISPs	Sky	TalkTalk	Vodafone	Zen	Openreach forecast – all ISPs
	January 2023 actuals				March 2023 actuals	2023/24 forecast
FTTP standard list price	£[X]	£[X]	£[X]	£[X]	£[X]	£[X]
Equinox 1 Pricing	£[X]	£[X]	£[X]	£[X]	£[X]	£[X]
Discount from list prices	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%
Equinox 2 pricing	£[X]	£[X]	£[X]	£[X]	£[X]	£[X]
Discount from list prices	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%
Discount from Equinox 1	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%	-[X]%

Source: Ofcom calculations using Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, questions 12 and 13 and Openreach response dated 9 May 2023 to Ofcom notice dated 2 May 2023, question 5.

A2.19 Using figures derived from Openreach's 2023/24 forecasts as shown in Table A2.3, we calculate that the average rental discount from list prices is £[X] per month under the Equinox 2 Offer, which represents an increase in the discount of £[X] per month compared to the Equinox 1 Offer.

A2.20 The business case for the Equinox 2 Offer assumes that [X].¹³ As illustrated by Table A2.1, this assumption implies that the average rental discount under the Equinox 2 Offer will [X].¹⁴

Connection charges

A2.21 We have also estimated the average connection charge, for all ISPs collectively. The results for this are shown in Table A2.4.¹⁵ Compared with the standard list prices, the Equinox 1

¹² Subscriber figures taken from Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, questions 12 and 13 and Openreach response dated 9 May 2023 to Ofcom notice dated 2 May 2023, question 5. Subscriber figures include sub-brands and sales to ISP Resellers.

¹³ Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 14.

¹⁴ A complication is the different rates of indexation, as shown in Table A2.2. FTTP 160/30, FTTP 220/30 and FTTP 330/50 generally increase by CPI-1.25% under the Equinox 1 Offer, compared to CPI under the Equinox 2 Offer. [X].

¹⁵ Calculated using order figures from Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 16 and Openreach response dated 3 March 2023 to Ofcom notice dated 22 February 2023, question 15. Pricing sources: [FTTP standard price list](#), [Equinox 1 Offer](#), [Equinox 2 Offer](#).

Offer provides an average connection discount of around [X]%, whereas the Equinox 2 Offer provides an average connection discount of around [X]%.¹⁶

Table A2.4: Average value of connection charge discounts

	Openreach		
	Q4 2022	2022	2023/24 forecast
FTTP standard list price	£[X]	£[X]	£[X]
Equinox 1 Pricing	£[X]	£[X]	£[X]
Discount from list prices	-[X]%	-[X]%	-[X]%
Equinox 2 pricing	£[X]	£[X]	£[X]
Discount from list prices	-[X]%	-[X]%	-[X]%
Discount from Equinox 1	-[X]%	-[X]%	-[X]%

Source: Ofcom calculations using Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 16 and Openreach response dated 3 March 2023 to Ofcom notice dated 22 February 2023, question 15.

A2.22 Using figures derived from Openreach's 2023/24 forecasts as shown in Table A2.4, we calculate that the average connection discount from list prices is £[X] under the Equinox 2 Offer. This represents an increase in the discount of £[X] compared to the Equinox 1 Offer. Spread over a customer lifetime, this is equivalent to a discount in the region of £[X] per month from list prices and £[X] per month compared to the Equinox 1 Offer.¹⁷ Thus, on a per customer basis, under the Equinox 2 Offer the average connection discount from list prices is [X] than the rental discounts (which, as explained in paragraph A2.19 above may lie in the region of £[X] per month). The [X] in comparison to the Equinox 1 Offer prices.

A2.23 The business case for the Equinox 2 Offer assumes that the blend of connections will change.¹⁸ These assumed changes [X].

Combined impact of rental and connection discounts

A2.24 Ultimately, it is the total monetary value of the discounts that determines the incentives for an ISP to meet the OMTs.

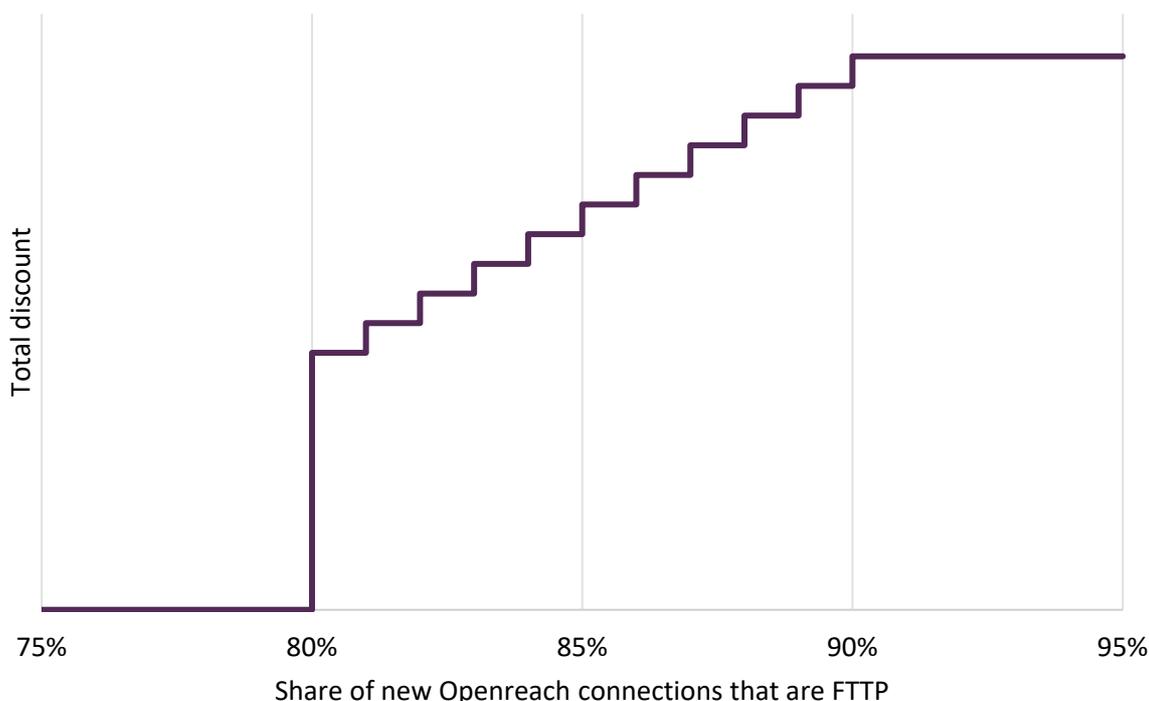
¹⁶ For Q4 2022, the value of the additional Area 2 connection discounts and the value of the Area 3 connection discounts under the Equinox 2 Offer [X].

¹⁷ This assumes a five year average FTTP customer lifetime (the same assumption was used in the Equinox 1 Statement - see footnote 213 of that document). A longer customer lifetime will decrease the importance of the connection discounts compared to the rental discounts, on a per customer basis. This calculation disregards the time value of money (i.e. that ISPs would prefer a sum of money today compared to that same amount in the future). However, this simplification does not change our view on the relative importance of the connection and rental discounts.

¹⁸ Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 16.

A2.25 The full rental discounts are achieved once an ISP meets the 80% OMT. From 80% to 90% the value of the discount increases gradually due to the graded connection discounts. Beyond 90% there are no further discounts. This is illustrated in Figure A2.5.

Figure A2.5: Illustration of the shape of total Equinox 2 Offer discounts depending on an ISP’s Openreach Order Mix



A2.26 For an ISP that consistently meets the OMTs, the actual total discount that an ISP qualifies for will depend on many factors, including its product mix and average customer lifetime. Similarly, for an ISP the importance of the rental and connection discounts in a particular quarter depends on multiple factors, including the number of connections made in that quarter and the number of existing Openreach FTTP subscribers that it has.¹⁹

A2.27 That said, we anticipate that there is a particularly strong incentive for ISPs to meet the 80% OMT to avoid the loss of all rental discounts.

A2.28 This view is supported by Openreach’s assumptions about the total (£m) Equinox 2 Offer discounts, relative to the list price, in its business case. It assumed that the rental discount in 2023/24 would be £[X]m and the connection discount would be £[X]m. The corresponding assumptions for 2024/25 are £[X]m and £[X]m. We have exercised a degree of caution when interpreting the precise figures assumed by Openreach.²⁰

¹⁹ The discounted rental prices apply to all the FTTP lines that the ISP purchases from Openreach (not just the orders placed in that quarter). See Section 2.

²⁰ We have not investigated what is driving these assumptions or formed a view on how likely they are to be borne out in practice. Openreach response dated 11 May 2023 to Ofcom notice dated 22 February 2023, question 18.

Nonetheless, this evidence indicates that, overall, the absolute value of the rental discounts is [~~]~~ than the absolute value of the connection discounts.

A3. Altnet overlap of Openreach's FTTP footprint

Introduction

- A3.1 In this annex, we outline evidence on the proportion of Openreach's FTTP footprint where altnets that could credibly provide wholesale access to the main third party ISPs are likely to be present.
- A3.2 Compliance with the OMTs is measured by reference to Openreach's FTTP footprint (leaving aside the case where the Failsafe Mechanism is engaged). If an ISP were to purchase FTTP from an altnet then the size of any potential impact on its Openreach Order Mix will depend on the extent of the overlap between the altnet FTTP footprint and the Openreach FTTP footprint. For example, if that altnet is only present in a tiny fraction of the Openreach FTTP footprint then any potential impact on the ISP's Openreach Order Mix is likely to be very small.
- A3.3 Below we first discuss the key altnets for the purposes of our analysis. Second, we provide an overview of stakeholders' views. Third, we set out evidence on actual overlap in 2022 and forecast overlap. Finally, we explain the inferences we have drawn from this evidence.²¹

Key altnets for our analysis

- A3.4 Numerous operators are currently building FTTP networks in the UK. However, as explained above, we are interested in overlap by altnets that could credibly provide wholesale access to the main third party ISPs. Our calculations have also focused on altnets with a material footprint, given that small altnets will only account for a tiny fraction of Openreach's FTTP footprint, even in an extreme case where they entirely lie within that footprint.
- A3.5 When considering the first year or so of the Equinox 2 Offer, we have thus focused on overlap by:²²
- a) CityFibre, since it currently supplies FTTP to TalkTalk, Vodafone and Zen;²³ and

²¹ In Annex 4 of the Equinox 1 Statement, we mainly focused on the position in the first 12-24 months of that offer (i.e. the period until the end of September in 2022 or 2023). We now look beyond this period. Also, in the Equinox 1 Statement, we mainly focused on CityFibre (for example, since VMO2 did not supply third party ISPs, as is still the case). However, as explained below, we analyse VMO2 and [3<] in more detail.

²² TalkTalk also has an agreement with Freedom Fibre (TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, question 13). Freedom Fibre is not included in our Connected Nations data set. We understand that Freedom Fibre's network is small and thus this omission is unlikely to materially affect our overlap estimates. In particular, [3<] stated that [3<] Consultation response, page 1.

²³ In November 2022, CityFibre agreed terms to provide its ISP customers with access to toob's FTTP network – see [press release](#). However, toob's network is considerably smaller than CityFibre's network. For example, using the Connected

- b) [redacted]²⁴ and [redacted].²⁵
- A3.6 VMO2 operates the largest fixed network other than Openreach.²⁶ While VMO2 currently does not supply third party ISPs, it is possible that it may begin to do so in the future.²⁷ However, this is by no means certain – VMO2 has operated an extensive cable network for many years without reaching such an agreement. Moreover, even if VMO2 were to reach an agreement with an ISP, we expect that it would take many months to establish the necessary practical arrangements e.g. changes to sales and support systems and networks.²⁸ We have thus not taken VMO2 into account when assessing overlap of Openreach’s FTTP network during the first year or so of the Equinox 2 Offer. However, as discussed later in this annex, we do take VMO2 into account when considering overlap further in the future.
- A3.7 Nexfibre is a joint venture established in December 2022 between Liberty Global and Telefónica (owners of VMO2) and InfraVia Capital Partners. It is seeking to deploy FTTP to 5m premises by 2026, with the potential to subsequently expand further. VMO2 will be an anchor tenant but Nexfibre is also seeking to attract other ISPs.²⁹ [redacted].³⁰ Thus, similar to our treatment of VMO2, we have taken Nexfibre into account when considering overlap further in the future.
- A3.8 Sky acts as the anchor tenant for broadband services in residential developments connected by BUUK Infrastructure (‘BUUK’).³¹ We estimate that BUUK, through Open Fibre Networks (‘OFNL’), passed around [redacted] premises with FTTP at the end of 2022. It is thus significantly smaller than CityFibre and [redacted] (see Table A3.1 below). Thus, we have not included OFNL in the figures calculated below since, given the scale of its network and its focus on new housing developments, its omission is unlikely to materially affect our overlap estimates.³²
- A3.9 We recognise that other altnets may seek to supply the main ISPs. However, as discussed in the WFTMR Statement, it may be challenging for new entrants – particularly smaller altnets – to do so. In particular, ISPs incur additional costs from using multiple networks

Nations data discussed below, at the end of 2022 tooob was around [redacted]% of the size of CityFibre’s network (passing [redacted] premises compared to CityFibre’s [redacted] premises). Thus, we have not included tooob in the figures calculated below since, given the scale of its network, its omission is unlikely to materially affect our overlap estimates.

²⁴ [redacted] response dated 27 February 2023 to s135 notice dated of 22 February 2023, question 1. [redacted].

²⁵ [redacted] response dated 2 May 2023 to s135 notice dated 2 May 2023, question 2.

²⁶ At the end of 2022, VMO2’s network passed [redacted] premises of which [redacted] were passed with FTTP. Ofcom analysis using Connected Nations data.

²⁷ [redacted].

²⁸ For example, [redacted]. Similarly [redacted].

²⁹ [29 July 2022 press release](#). Nexfibre response dated 27 February 2023 to s135 notice dated 22 February 2023, question 3.

³⁰ Nexfibre response dated 27 February 2023 to s135 notice dated of 22 February 2023, questions 1 and 2.

³¹ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 9. Sky press release, 18 September 2019. [Sky and BUUK agree strategic full fibre partnership | Sky Group](#)

³² Cumulatively, [redacted], tooob and OFNL pass approximately [redacted] premises (summing the figures in footnotes 22 and 23 and paragraph A3.8). This is significantly smaller than CityFibre and [redacted] (see Table A3.1 below). The aggregate effect of omitting these networks is thus likely to have only a limited impact on the overlap estimates generated using our Connected Nations data.

(e.g. systems integration).³³ Moreover, taking one or two additional small altnets into account (even if they were relevant) is unlikely to materially affect our figures. We have thus not included other altnets in our calculations, although we do take them into account in our overall conclusions.^{34 35}

Stakeholders' views

A3.10 We requested information from Openreach on current and future overlap:

- a) One piece of Openreach analysis suggests that, around the end of 2022, CityFibre FTTP was available at approximately [X]% of the premises in Openreach's FTTP footprint. VMO2 services (either cable or FTTP) were available at approximately [X]% of premises in Openreach's FTTP footprint.³⁶
- b) A different piece of Openreach analysis estimated that the proportion of its FTTP network where altnets are present would grow over time. The proportion where VMO2 is present was predicted to rise from [X]% in 2022/23 to [X]% in 2024/25 and [X]% in 2025/26. The proportion where CityFibre is present was predicted to rise from [X]% in 2022/23 to [X]% in 2024/25 and [X]% in 2025/26.³⁷

A3.11 We also requested information on overlap from the largest altnets (CityFibre and VMO2) and from Nexfibre (given its relationship with VMO2):

- a) CityFibre estimated that in Q4 2022 it was present at approximately [X]% of the premises in Openreach's FTTP footprint. It forecast that this proportion would [X] to approximately [X]% of Openreach's FTTP footprint in Q4 2025.³⁸ These figures do not [X].³⁹

³³ WFTMR Statement, Volume 2, paragraphs 8.60-8.71.

³⁴ We also considered whether to calculate overlap figures including [X] but decided not to do so. In March 2022, it told us that it planned to pass [X] premises by the end of March 2025, which would make it the second largest FTTP network in the UK after Openreach. However, if we exclude plans where financial approval had not yet been obtained then this figure falls very significantly, to [X] premises. Moreover, in March 2022 it planned to pass just under [X] premises by September 2022. However, the Connected Nations data on actual deployment in September 2022 indicated that [X] passed just over [X] premises, which is considerably less than planned. As a result, we doubt that build on the scale planned in March 2022 will actually occur.

³⁵ [X] told us it [X]. [X] response dated 3 March 2023 to s135 notice dated 22 February 2023, question 7. [X] response dated 7 March 2023 to s135 notice dated 22 February 2023, question 13. [X] response dated 2 May 2023 to s135 notice dated 2 May 2023, question 2.

³⁶ These estimates were constructed using data from September 2022 and January 2023. Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, question 6.

³⁷ Openreach response 2 March 2023 to s135 notice dated 22 February 2023, question 8.

³⁸ CityFibre response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 5 and 6.

³⁹ CityFibre response dated 2 May 2023 to s135 notice dated 21 April 2023, question 1.

- b) VMO2 estimated that in November 2022 around [X] of the premises passed by its network were also passed by Openreach FTTP. It expects this figure to increase to around [X] by the end of 2025.^{40 41}
- c) Nexfibre estimated that Openreach FTTP would be also available at over [X] of the [X] premises that it ultimately expects to reach with its network. It expects [X] proportion of the [X] premises that it plans to reach by the end of 2026 to be passed by Openreach FTTP.⁴² This would equate to around [X] premises.^{43 44}

Overlap of Openreach's FTTP network during 2022

Methodology

- A3.12 Ofcom's Connected Nations reports measure the availability of broadband services in the UK, including the roll out of FTTP networks.⁴⁵ We have used the data set underpinning these reports to estimate overlap in 2022. We consider that this data set represents the best available information. In particular, it uses detailed data from over 50 fixed networks, gathered using Ofcom's statutory powers, which has been processed by Ofcom to ensure it is consistent and comparable between networks. Also, our methodology has been published, allowing us to make improvements over time in response to stakeholder comments.
- A3.13 Ofcom's methodology is set out in full in the Connected Nations 2022 Report. In summary:
- a) Ofcom identifies a comprehensive database of residential and commercial premises in the UK where a broadband service may be delivered.⁴⁶

⁴⁰ Ofcom calculations using figures provided by VMO2: [X]% and [X]% of [X]m premises. We did not ask VMO2 to express this as a percentage of Openreach's FTTP footprint, since it would have required VMO2 to estimate the number of premises that Openreach will pass. VMO2 response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 3 and 4.

⁴¹ The extent of overlap also depends on the extent to which networks overbuild each other. VMO2 said that it generally [X]. VMO2 response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 5 and 6.

⁴² Nexfibre response dated 27 February 2023 to s135 notice dated 22 February 2023, question 3. The Keystone Report (paragraph 35) gives a [X] figure for the proportion of Nexfibre's network that will overlap with Openreach's FTTP footprint. We have not sought to resolve this difference since we instead focus on the results of our Connected Nations work.

⁴³ Ofcom calculation: [X].

⁴⁴ [X]. Nexfibre response dated 27 February 2023 to s135 notice dated 22 February 2023, question 4.

⁴⁵ The most recent full report is [Connected Nations 2022: UK Report](#), 15 December 2022 (the 'Connected Nations 2022 Report'). The methodology is set out in an annex available [here](#). In addition, Ofcom also publishes two smaller updates each year, in the autumn and spring.

⁴⁶ This starts from a more extensive list of addresses, properties and land areas. This leaves a premises base of approximately 31.7m. Connected Nations 2022 Report, Annex 1, Figure 1.

- b) Three times a year, Ofcom gathers data from fixed networks on each address where services are available.⁴⁷ This address-level data is processed and matched to our database of premises, to create a data set that lists the services and operators present at each of those premises.^{48 49}

A3.14 After we published the Consultation, Connected Nations data for the end of 2022 became available.⁵⁰ We have taken this into account.

Overlap by CityFibre and [X]

A3.15 Table A3.1 below sets out Ofcom's estimate of overlap in 2022 using the Connected Nations data set. The first block of figures looks at overlap of Openreach's FTTP network by CityFibre, the second block looks at overlap by [X] and the final block looks at overlap by *either* of these networks.

⁴⁷ A full list is set out in Connected Nations 2022 Report, paragraph A3.3.

⁴⁸ The address matching process is described in Connected Nations 2022 Report, paragraphs A1.17-A1.22.

⁴⁹ As a result, some premises where a network identifies FTTP as being available are not included in the final data set that we have used to estimate network build and overlap. In particular, the original data provided by Openreach for September 2022 lists FTTP as being available at [X] premises but this falls to [X] if we only look at those premises used for our Connected Nations analysis. For example, we have excluded instances where there are multiple individual premises with a single address (e.g. individual rooms or flats in retirement housing or student accommodation) which accounts for approximately [X] premises in Openreach's original data. As another example, the Connected Nations data set also excludes planned or demolished premises, premises that are under construction and premises that are vacant. These account for approximately [X] premises in Openreach's original data.

⁵⁰ The latest data relates to 1 January 2023. However, we refer to it in this document as "end 2022".

Table A3.1: Overlap of Openreach's FTTP network by CityFibre and [X] (2022)

	Start 2022	May 2022	Sept 2022	End 2022
Openreach FTTP: premises passed	[X]	[X]	[X]	[X]
CityFibre: premises passed	[X]	[X]	[X]	[X]
- Premises passed by both Openreach FTTP and CityFibre	[X]	[X]	[X]	[X]
- Overlap with CityFibre as % of Openreach FTTP footprint	[X]%	[X]%	[X]%	[X]%
[X]: premises passed	[X]	[X]	[X]	[X]
- Premises passed by both Openreach FTTP and [X]	[X]	[X]	[X]	[X]
- Overlap with [X] as % of Openreach FTTP footprint	[X]%	[X]%	[X]%	[X]%
- Premises passed by Openreach FTTP and either CityFibre or [X]	[X]	[X]	[X]	[X]
- Overlap with either CityFibre or [X] as % of Openreach FTTP footprint	[X]%	[X]%	[X]%	[X]%

Source: Ofcom analysis using Connected Nations data. Premises passed rounded to nearest 1,000. Includes residential and business premises.

A3.16 There are differences between our estimates of overlap in 2022 and the estimates we received from Openreach and CityFibre (as set out in paragraphs A3.10 and A3.11(a) above). The reasons for this are unclear although the presence of some differences is unsurprising.⁵¹ In any event, as explained above, we consider that the Connected Nations data set represents the best available information on overlap.

Estimate of overlap of Openreach's FTTP network in 2025

Methodology

A3.17 The Connected Nations 2022 Report relates to existing, rather than future, network deployment. However, in 2022 Ofcom published a supplementary report on planned network deployment over the period to the end of March 2025. We have used this dataset

⁵¹ For example, we exclude some premises where a network identifies FTTP as being available (see footnote 49 above). Stakeholders also need to estimate which premises are passed by rivals, whereas we are able to combine data sourced directly from network operators.

to estimate overlap of Openreach's FTTP network several years after the Equinox 2 Offer comes into effect.⁵²

- A3.18 As explained below, there are considerable uncertainties about future overlap. Notwithstanding the limitations, we consider that this data set currently represents the best available information. In particular, it uses detailed data gathered from 39 fixed networks using Ofcom's statutory powers and which has been processed by Ofcom to ensure it is consistent and comparable between networks. Our approach is also consistent with the approach in Connected Nations to existing network build.
- A3.19 Ofcom's methodology is set out in full in the Planned Development 2022 Report. In summary:
- a) Ofcom gathered data from 39 fixed networks on each address where they plan, as of March 2022, to deploy FTTP (and equivalent technologies) in the next three years (i.e. up until the end of March 2025).^{53 54}
 - b) The addresses were matched against the list of premises used for the Connected Nations Autumn 2022 update, which formed the basis of the analysis.
- A3.20 We recognise that the precise details of build plans will change. To check whether the March 2022 plans are still a reasonable tool for assessing future overlap, we asked Openreach, CityFibre, [redacted] and VMO2 whether there had been any significant changes since they submitted this data in March 2022.⁵⁵
- a) Openreach said that its ambition of building FTTP to 25m premises by the end of 2026 [redacted].⁵⁶
 - b) CityFibre said that [redacted].⁵⁷
 - c) [redacted] said that [redacted].⁵⁸
 - d) VMO2 said that its build plans [redacted].⁵⁹

⁵² [Connected Nations: Supplementary report on Planned Network Deployments 2022](#), November 2022, (the 'Planned Deployment 2022 Report'). The methodology is set out in section 4.

⁵³ This assessment omits planned network build by public authorities. Some networks provided plans extending beyond this three year timeframe. We have not used these longer term plans to avoid inconsistencies with networks that did not do so.

⁵⁴ Ofcom also used data on existing cable network deployment.

⁵⁵ Some altnets claimed that the introduction of the Equinox 2 Offer would reduce the number of premises that they pass. The Connected Nations figures presented below predate the Equinox 2 Offer and thus will not take any such effects into account. This assumption is conservative, since the OMTs are more likely to be problematic when overlap is greater.

⁵⁶ Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, question 9.

⁵⁷ CityFibre response dated 2 May 2023 to s135 notice dated 21 April 2023, question 1 including attachment.

⁵⁸ [redacted] response dated 27 February 2023 to s135 notice dated 22 February 2023, question 4.

⁵⁹ VMO2 response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 7 and 8.

- A3.21 In the light of these responses, we have assessed VMO2 and Nexfibre jointly, rather than attempting to distinguish between them.⁶⁰ We have done so using the plans that VMO2 submitted in March 2022.⁶¹ We discuss the impact of [redacted].
- A3.22 To reflect the uncertainties around whether build plans will come to fruition, Ofcom divided them into three categories:
- a) Category 1, where detailed planning and/or deployment were in progress;
 - b) Category 2, where financial approval had been obtained; and
 - c) Category 3, where financial approval had not yet been obtained.⁶²

Overlap of Openreach's FTTP network by CityFibre and [redacted]

- A3.23 Due to limitations in the underlying data, we have assessed overlap of Openreach's FTTP network by CityFibre and [redacted] as of 31 March 2025.⁶³
- A3.24 Ofcom's estimates are set out in Table A3.2 below.
- a) The first column of figures excludes plans where financial approval had not yet been obtained, as of March 2022 when this data was collected. The second column of figures includes all the build plans submitted by these networks.⁶⁴
 - b) The first block of figures looks at overlap with CityFibre, the second block looks at overlap with [redacted] and the final block looks at overlap with either of these networks.

⁶⁰ This is also consistent with [redacted]. Nexfibre response dated 27 February 2023 to s135 notice dated 22 February 2023, questions 1 and 2.

⁶¹ VMO2's response [redacted].

⁶² Of the total number of new connections planned by 31 March 2025, just over a third were in Category 3 (10.6m connections) with the remainder (12.5m and 6.4m) in Categories 1 and 2. Planned Deployment 2022 Report, Table 4.

⁶³ As explained in footnote 67, we assumed that the completion date for some premises was [redacted]. As a result, our Connected Nations figures for planned premises passed by [redacted] before this date are less reliable.

⁶⁴ Using the terminology from the Planned Deployment 2022 Report, the first column includes Category 1 and 2 plans but excludes Category 3 plans. The second column includes all three of these categories.

Table A3.2: Overlap of Openreach's FTTP network by CityFibre and [X] (31 March 2025)

	Excl. plans w/o financial approval	All plans
Openreach FTTP: premises passed	[X]	[X]
CityFibre: premises passed	[X]	[X]
- Premises passed by both Openreach FTTP and CityFibre	[X]	[X]
- Overlap with CityFibre as % of Openreach FTTP footprint	[X]%	[X]%
[X]: premises passed	[X]	[X]
- Premises passed by both Openreach FTTP and [X]	[X]	[X]
- Overlap with [X] as % of Openreach FTTP footprint	[X]%	[X]%
- Premises passed by Openreach FTTP and either CityFibre or [X]	[X]	[X]
- Overlap with either CityFibre or [X] as % of Openreach FTTP footprint	[X]%	[X]%

Source: Ofcom analysis using Connected Nations data. Premises passed rounded to nearest 1,000. Includes residential and business premises.

- A3.25 There are differences between the Connected Nations estimates of future overlap and those provided by stakeholders.
- Our March 2025 figures for overlap with Cityfibre [X] Openreach's estimate of [X]% in 2024/25 and its estimate of [X]% in 2025/26.⁶⁵
 - Our March 2025 figures differ from CityFibre's estimates for Q4 2024.⁶⁶ Compared to the 'All plans' figures above, CityFibre's estimates are [X].
- A3.26 Due to limitations in the original data provided by CityFibre, our Connected Nations analysis had to make assumptions about the dates on which CityFibre would pass certain premises.⁶⁷ [X].⁶⁸ We recognise that our Connected Nations figures may underestimate the number of premises CityFibre planned to pass in March 2025 (based on CityFibre's plans from March 2022). The precise impact that this has on overlap depends on where those missing premises are. However, this is a possible explanation for the differences between the estimates of overlap with CityFibre in Table A3.2 and the estimates provided by stakeholders.
- A3.27 The estimates of overlap with CityFibre set out in Table A3.2 and provided by stakeholders also [X]. This is likely to have a significant impact on future overlap. We think this should be taken into account.

⁶⁵ Openreach's estimates equate to overlap of [X] premises in 2024/25 and [X] premises in 2025/26. Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, question 8.

⁶⁶ CityFibre response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 5 and 6.

⁶⁷ For some premises, [X]. For these premises we assigned the end of that window as the completion date. Also, for around [X]. For these premises, we assumed the completion date was 31 March 2025 i.e. the end of the three year period about which we had requested information.

⁶⁸ CityFibre response dated 28 February 2023 to s135 notice dated 22 February 2023, question 10.

- a) Conceptually [X].
- b) However, it does not appear that [X]⁶⁹
- A3.28 The combined impact of these two issues is unclear. However, there are tentative indications that roughly [X]m premises might be passed by both CityFibre and Openreach in March 2025.
- a) Before reflecting [X], we infer that CityFibre’s estimate of overlap in Q1 2025 is approximately [X] i.e. [X] than the ‘All plans’ estimate in Table A3.2.⁷⁰
- b) [X].⁷¹ Note that [X] then this figure will be an overestimate.
- c) Combining these figures suggests that [X], CityFibre’s estimate of overlap in Q1 2025 might be approximately [X]. This is roughly [X]m premises lower than our ‘All plans’ estimate of [X]m in Table A3.2.
- A3.29 Given Openreach’s build in March 2025 of [X]m premises, the evidence suggests that roughly [X]% of Openreach’s FTTP network will be overlapped by CityFibre. Overlap with [X] in March 2025 will account for [X]% to [X]% of Openreach’s FTTP footprint, depending on the extent to which [X] build plans are realised (see in Table A3.2). This gives a rough combined overlap estimate for March 2025 in the vicinity of [X]%.⁷²

Overlap by VMO2 and Nexfibre

- A3.30 VMO2 provided estimates for the number of premises that it would pass by 31 December 2024, so we have assessed overlap for this date.⁷³
- A3.31 VMO2’s cable network is capable of delivering broadband speeds as high as 1Gbit/s. In principle, an ISP might just use VMO2’s FTTP network to supply high speed broadband; however, it might also use VMO2’s cable network. We thus present figures in relation to overlap: (i) by VMO2 and Nexfibre’s FTTP networks; and (ii) figures that also include VMO2’s cable network.⁷⁴
- A3.32 Ofcom’s estimates are set out in Table A3.3 below. We set out figures including and excluding plans where financial approval had not yet been obtained, as of March 2022.

⁶⁹ *CityFibre Board: February 2023*, 14 February 2023, provided in CityFibre response dated 28 February 2023 to s135 notice dated 22 February 2023, Attachment 3. The same wording is used in *CityFibre Board: April 2023*, 18 April 2023, provided in CityFibre response dated 2 May 2023 to s135 notice dated 12 April 2023.

⁷⁰ CityFibre previously estimated that overlap would be [X] in Q4 2024 and [X] in Q4 2025 (rounding to the nearest 1,000) (CityFibre response dated 28 February 2023 to s135 notice dated 22 February 2023, questions 5 and 6). Assuming constant growth in overlap in 2025 implies quarterly growth is just over [X]. This gives a figure for Q1 2025 of around [X]. This is just under [X] than the ‘All plans’ estimate in Table A3.2.

⁷¹ [X].

⁷² Given the approximate nature of this figure and the subsequent uplift applied to it in paragraph A3.39, even if some of the [X], this would not affect our overall conclusions.

⁷³ This differs from the 31 March 2025 date used for CityFibre and [X].

⁷⁴ The data on VMO2’s cable network relates to the end of April 2022.

Table A3.3: Overlap of Openreach’s FTTP network by VMO2 and Nexfibre (31 December 2024)

	Excl. plans w/o financial approval	All plans
Openreach FTTP: premises passed	[X]	[X]
VMO2 and Nexfibre FTTP: premises passed	[X]	[X]
- Premises passed by both Openreach FTTP and FTTP from either VMO2 or Nexfibre	[X]	[X]
- Overlap with VMO2 or Nexfibre FTTP as % of Openreach FTTP footprint	[X]%	[X]%
VMO2 and Nexfibre: premises passed	[X]	[X]
- Premises passed by both Openreach FTTP and either VMO2 or Nexfibre	[X]	[X]
- Overlap with VMO2 or Nexfibre as % of Openreach FTTP footprint	[X]%	[X]%

Source: Ofcom analysis using Connected Nations data. Premises passed rounded to nearest 1,000. Includes residential and business premises.

A3.33 As explained above, differences between our estimates of future overlap and those provided by networks are to be expected. Our overlap figures including the VMO2 cable network are [X] to Openreach’s estimate of [X]% in 2025/26.⁷⁵ Adding together VMO2’s estimate that [X]m of its premises will be overlapped by Openreach FTTP by the end of 2025 and Nexfibre’s overlap estimate of [X]m of the premises it plans to reach by the end of 2026 gives a total of [X]m.⁷⁶ This is [X] to our overlap estimates of [X] premises (noting that these figures relate to different dates).

Inferences and conclusions on overlap

Stakeholders’ views

A3.34 In response to the Consultation, stakeholders made the following observations on overlap:

- VMO2 stated, without further elaboration, that the overlap assumption in the scenario where VMO2 begin supplying the main ISPs is overly conservative.⁷⁷
- [X] submitted that its analysis indicates that overbuild could be higher than Ofcom’s estimates in the Consultation.⁷⁸
- Fern Trading stated that Ofcom failed to consider the possibility of wholesale platforms emerging.⁷⁹

⁷⁵ Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, question 8.

⁷⁶ VMO2 response dated 28 February 2023 to s135 notice dated 22 February 2023, question 4. Nexfibre response dated 27 February 2023 to s135 notice dated 22 February 2023, question 3.

⁷⁷ VMO2 Consultation response, paragraph 60.

⁷⁸ [X].

⁷⁹ Fern Trading Consultation response, paragraphs 18-19 on page 8.

Ofcom's view

- A3.35 Estimating future build and overlap is subject to considerable uncertainties. Networks' plans may not come to fruition or may be subject to changes and delays. However, we expect the proportion of Openreach's FTTP footprint overlapped by altnets that could credibly provide wholesale access to the main third party ISPs to grow over time.
- A3.36 We have considered the likely overlap of Openreach's FTTP network during the first year or so of the Equinox 2 Offer (i.e. the period of approximately 12 months, starting from April 2023). For this assessment, we have focused on CityFibre and [redacted].
- A3.37 We have extrapolated from the overlap figures for 2022 (which grew from [redacted]% of Openreach's FTTP network at the start of 2022 to [redacted]% at the end of 2022), alongside the March 2025 estimate of roughly [redacted]%. This evidence suggests that it is reasonable to assume that approximately 15% of Openreach's FTTP network could be overlapped by these networks by April 2024.
- A3.38 Therefore, for the purposes of our analysis, we think it is reasonable to assume that approximately 15% of Openreach's FTTP network is likely to be overlapped by altnets that provide wholesale access to the main third party ISPs during the first year or so of the Equinox 2 Offer.
- A3.39 Our Connected Nations data suggests that the proportion of Openreach's FTTP footprint which overlaps with CityFibre and/or [redacted] will continue to grow, and by March 2025 it may be roughly [redacted]% of Openreach's FTTP footprint. In addition, FTTP built by other altnets may be used to supply the main third party ISPs because:
- a) CityFibre and/or [redacted] reach agreements to supply their ISP customers with access to other altnets' FTTP;⁸⁰
 - b) Consolidation occurs, for example with CityFibre and/or [redacted] acquiring the assets of other altnets; and/or
 - c) Other altnets reach their own agreements to supply FTTP to these ISPs, either separately or through a common wholesale platform.
- A3.40 While there is a great deal of uncertainty, we consider it is reasonable to assume that, two to three years after the Equinox 2 Offer comes into effect, approximately 25% of Openreach's FTTP network is overlapped by altnets that provide wholesale access to the main third party ISPs, excluding any overlap with VMO2 and Nexfibre.
- A3.41 If VMO2 and Nexfibre were also to begin supplying the main ISPs then overlap of Openreach's FTTP network would be significantly higher than the figure of 25% assumed in the preceding paragraph, particularly if ISPs use VMO2's cable network.⁸¹ In this scenario, overlap figures could be above 60%.

⁸⁰ As illustrated by the agreement between CityFibre and too described in footnote 23.

⁸¹ [redacted].

- A3.42 We do not agree with VMO2 and [redacted] doubts about this figure.
- a) VMO2 provided no explanation for its position. In any event, for such high levels of overlap it seems unlikely that ISPs would divert all orders in the overlap area from Openreach to VMO2.⁸² As a result, the precise overlap figure becomes less important, since the impact on an ISP's Openreach Order Mix also depends on the proportion of FTTP orders in the overlap area that are diverted away from Openreach.
 - b) The basis for [redacted] claim is unclear. It is possible that it has confused overlap as a percentage of Openreach's FTTP footprint (the figure that is relevant to our analysis) with overlap as a percentage of [redacted] FTTP footprint.⁸³
- A3.43 Looking even further into the future, we would expect overlap to continue to grow.
- a) Networks expect to continue building FTTP. For example, Openreach intends to pass 25m premises with FTTP by December 2026.⁸⁴ Some of this further expansion is likely to overbuild FTTP already built by altnets.⁸⁵ Further altnet build is also likely to occur.
 - b) More of the networks that overlap Openreach's FTTP footprint may be used to supply third party ISPs, for example due to consolidation and/or cooperation agreements between altnets.
- A3.44 Looking beyond the next two to three years, we thus anticipate further growth in the proportion of Openreach's FTTP footprint that is served by altnets that provide wholesale access to the main third party ISPs.

⁸² For example, because the ISP wants to use multiple suppliers in this large area, in order to strengthen its position when negotiating with them in the future.

⁸³ [redacted] refers to the proportion of [redacted] planned network that is expected to be overbuild by Openreach and/or altnets.

⁸⁴ See for example Openreach press release, 12 December 2022, available [here](#).

⁸⁵ To illustrate using the figures in Table A3.2, in March 2025 overlap represents [redacted]% or [redacted]% of CityFibre and [redacted] combined planned build.

A4. ISPs' performance against the OMTs

Introduction

- A4.1 This Annex sets out our views on the likely future performance of Sky, TalkTalk, Vodafone and Zen against the OMTs. This sheds light on whether using an altnet is likely to have the potential to jeopardise their ability to meet the OMTs (assuming that the ISP makes no changes to its commercial strategies and absent the Failsafe Mechanism).⁸⁶
- A4.2 Our assessment uses evidence on ISPs' historical performance under the Equinox 1 Offer which we have been monitoring, ISPs' current sales practices, the challenges they have told us they face in meeting the OMTs and their use of altnets.⁸⁷
- A4.3 While we present monthly data on ISPs' historical performance, compliance against the OMTs is assessed quarterly. This performance data reflects the orders that ISPs have been placing with altnets.⁸⁸ In addition, the Equinox 2 Offer contains provisions allowing an ISP to catch up next quarter if it misses the OMTs. Thus, when interpreting this evidence, we have not placed weight on temporary month-to-month fluctuations in ISPs' Openreach Order Mix.⁸⁹
- A4.4 As explained in Section 3, an ISP's Openreach Order Mix depends on its chosen commercial strategy. It is thus important to consider the context for an ISP's historical performance when making inferences about its future performance against the OMTs. For example, historical performance will depend on factors including:
- The historic levels of the OMTs (previously these were more lenient, meaning ISPs had less of an incentive to achieve a very high Openreach Order Mix);
 - The proportion of Openreach's footprint covered by regulatory stop sell;
 - The ISP's historical readiness (e.g. in terms of sales and IT systems) to sell FTTP;
 - The ISP's agreements with any ISP Resellers it serves; and
 - The relative price of Openreach's legacy and FTTP products.

⁸⁶ In the Equinox 1 Statement at paragraphs 3.78(d) and 3.83, we stated that some ISPs ([redacted]) may surpass the OMTs while others ([redacted]) may struggle to hit the targets in the first 12-24 months (i.e. until the end of September 2022 or 2023) due to temporary challenges. As explained below, [redacted] likely to surpass the OMTs once the Equinox 2 Offer is introduced. Although [redacted].

⁸⁷ Under the Equinox 1 Offer, orders that are cancelled within a month of the end of a Contract Quarter are excluded when assessing compliance with the OMT. In the Consultation, we therefore did not have finalised performance data for Q4 2022. We have subsequently gathered finalised performance data for both Q4 2022 and Q1 2023.

⁸⁸ TalkTalk, Vodafone and Zen use altnet FTTP. These ISPs' historical performance against the OMTs, as presented below, reflects that. Put another way, and analogous to the calculations set out in Tables A4.1 and A4.2 below, if the Openreach Order Mix of one of these ISPs was X% then its order mix also including altnet FTTP orders will be slightly higher than X%.

⁸⁹ An advantage of monthly data is that it can indicate if an ISP is engaging in temporary measures to improve its Openreach Order Mix.

The interrelationship between an ISP's performance and network overlap

- A4.5 If an ISP were to use an altnet, rather than just purchase FTTP from Openreach, then the scale of any potential impact on its Openreach Order Mix depends on the extent of the overlap between the altnet and Openreach's FTTP network.
- A4.6 Tables A4.1 and A4.2 give an indicative sense of the possible scale of this impact. These figures are not intended to be forecasts or predictions. Rather they are intended to provide context when interpreting the evidence on ISPs' performance later in this Annex, to help understand whether using an altnet is likely to jeopardise an ISP's ability to meet the OMTs (absent the Failsafe Mechanism).
- A4.7 These calculations assume the following:
- a) If that ISP only uses Openreach then its Openreach Order Mix is either 92% or 95%.
 - b) In the alternative scenario where the ISP uses an altnet, we assume the extreme case where the ISP continues to use Openreach's legacy products in the overlap areas in exactly the same way that it would have done if the altnet was not present. The ISP is assumed to simply move Openreach FTTP orders to the altnet and not otherwise change its behaviour.⁹⁰
 - c) The calculations below assume that the altnet covers either 15%, 25% or 60% of the Openreach FTTP footprint.^{91 92}
 - d) In the high overlap (60%) scenario, which could relate to a situation where the ISP is using cable from VMO2 as well as altnet FTTP, we assume that only half or three quarters of FTTP orders in the overlap area are switched.⁹³
 - e) We have calculated what the ISP's Openreach Order Mix would be after diverting these orders to the altnet as well as the percentage point (ppt) change compared to the position if it placed all orders with Openreach.

⁹⁰ This example assumes that the ISP is unable to convince any of the customers placing a legacy order to instead take the altnet's FTTP. It also assumes that the ISP does not exclusively use the altnet in the overlap area (and thus place no orders at all with Openreach in that area). Further, as discussed in Section 3, in practice an ISP may make changes to its commercial strategies, particularly if it is close to the OMTs.

⁹¹ These levels of overlap correspond to our conclusions on overlap as set out in paragraphs A3.38, A3.40 and A3.41.

⁹² For simplicity, this calculation also assumes that this order mix is constant across Openreach's FTTP footprint.

⁹³ For example, because the ISP wants to use multiple suppliers in this large area, in order to strengthen its position when negotiating with them in the future.

Table A4.1: Indicative impact of using an altnet on an ISP that would otherwise have a 92% Openreach Order Mix

Overlap of Openreach's FTTP footprint	15%	25%	60%	
Share of Openreach FTTP orders switched to the altnet	All	All	Half	Three quarters
Openreach Order Mix if an altnet is used	90.7%	89.6%	89.0%	86.3%
Change in Openreach Order Mix	-1.3ppt	-2.4ppt	-3.0ppt	-5.7ppt

Source: Ofcom calculations.

Table A4.2: Indicative impact of using an altnet on an ISP that would otherwise have a 95% Openreach Order Mix

Overlap of Openreach's FTTP footprint	15%	25%	60%	
Share of Openreach FTTP orders switched to the altnet	All	All	Half	Three quarters
Openreach Order Mix if an altnet is used	94.2%	93.4%	93.0%	91.3%
Change in Openreach Order Mix	-0.8ppt	-1.6ppt	-2.0ppt	-3.7ppt

Source: Ofcom calculations.

A4.8 These Tables illustrate that if an ISP can achieve an Openreach Order Mix of around 95% then using altnets will not jeopardise its ability to hit the 90% OMT, even if overlap with those altnets is high. For an ISP with an Openreach Order Mix of around 92%, given the levels of overlap we expect during the first year or so of the Equinox 2 Offer, using an altnet is unlikely to jeopardise its ability to hit the OMTs, at least initially. However, if that ISP cannot improve its Openreach Order Mix in the future, then some of the discounts it receives on the connection charges may be at risk as overlap increases, although its discounts on rental charges will be secure.^{94 95}

Future changes to the regulation of legacy services

A4.9 As a result of the Equinox 1 Offer, ISPs have begun limiting the circumstances in which they supply Openreach legacy products in areas where Openreach FTTP is available. In addition to ISPs' sales practices, the transition of regulation away from Openreach's legacy products is also relevant to their future performance against the OMTs.

A4.10 In the WFTMR Statement, we set out a staged approach for how regulation would transition from legacy to FTTP services. This involves a staged removal of regulation on

⁹⁴ The Equinox 2 Offer discounts on rental charges are received if the ISP achieves an Openreach Order Mix of 80%, while the discounts on connection charges taper as the ISP's Openreach Order Mix declines from 90% to 80%.

⁹⁵ This is also the case if overlap is slightly higher than the 25% figure assumed in these Tables.

legacy services on an area-by-area basis.⁹⁶ As a result, we expect that additional measures by Openreach to discourage legacy orders beyond the Equinox 2 Offer will become increasingly widespread in the future, which will support ISPs' efforts to meet the OMTs.

- A4.11 The first stage allows Openreach to stop selling legacy services to new customers ('regulatory stop sell') and can apply when Openreach makes ultrafast services available to 75% of premises in the exchange area and provides at least 12 months' notice prior to implementation.⁹⁷ ⁹⁸ Openreach said that 368 exchange areas, representing just over [redacted]m premises where Openreach FTTP is available, were within an active 'stop sell' area as of 11 January 2023 ([redacted]% of Openreach's FTTP footprint). These figures will rise over the coming years.⁹⁹
- A4.12 Where regulatory stop sell is in place, there are certain categories of customers who cannot easily be served using FTTP because they have equipment that relies on the traditional telephony network and may not be currently compatible with the VoIP service provided with FTTP. This includes, for example, customers who have telecare devices such as health pendants. Within the regulatory stop sell areas, there is scope to continue to support these customers through an exceptions process.¹⁰⁰ Even with the exceptions process very few orders for legacy services are currently placed in areas where regulatory stop sell applies.¹⁰¹ Thus, as the extent of the regulatory stop sell rises over time, this will tend to reduce orders for legacy products.
- A4.13 Moreover, after regulatory stop sell is introduced, there is then a second stage in the regulatory transition. In exchanges where ultrafast coverage is complete, and where a minimum of two years has elapsed since the stop sell, the charge control on the legacy 40/10 FTTC service can be withdrawn and only the FTTP charge control would then apply. This gives Openreach greater scope to raise the price of legacy broadband connections. In the future, this potentially provides an additional impetus for existing legacy customers to switch to FTTP in these areas. This would contribute to larger numbers of FTTP orders and lower numbers of legacy orders, and raise the Openreach Order Mix across all areas.

⁹⁶ WFTMR Statement, Volume 2, paragraphs 2.153-2.158.

⁹⁷ Openreach describes its implementation of regulatory stop sell on its website page on Wholesale Line Rental ('WLR') stop sell: <https://www.openreach.co.uk/cpportal/products/the-all-ip-programme/stopsell-updates>

⁹⁸ 'Ultrafast' refers to broadband services capable of delivering at least 300Mbit/s.

⁹⁹ Regulatory stop sell was expected to become active in an additional 46 exchange areas in February 2023. This would increase the number of premises where Openreach FTTP is available that are covered by regulatory stop sell to [redacted]m. Also, 298 exchange areas were expected to be under notice of stop sell in February 2023, representing a further [redacted]m premises. Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 4 and 5.

¹⁰⁰ ISPs using the Openreach network can apply for exceptions with Openreach, see Frequently Asked Questions (FAQs) on the Openreach website: <https://www.openreach.co.uk/cpportal/products/the-all-ip-programme/wlr-withdrawal>

¹⁰¹ Order data from Openreach indicates that [redacted] achieved an Openreach Order Mix above 98%, and often above 99%, in regulatory stop sell areas. [redacted]'s Openreach Order Mix is sometimes lower, although still above 90%. This is due to bulk migrations [redacted]. Openreach response dated 21 April 2023 to s135 notice dated 12 April 2023, question 7.

Sky

Consultation responses

A4.14 Sky stated that:

- a) It prioritises Openreach FTTP over legacy products where FTTP is available;
- b) The Equinox 2 Offer will enable it to promote FTTP more strongly;
- c) [redacted]; and
- d) It is confident that placing orders with altnets would be unlikely to jeopardise its ability to continue to meet the OMTs regardless of the levels of network overlap.¹⁰²

Sky's historical performance

A4.15 Sky [redacted].

A4.16 Figure A4.3 below shows monthly data provided by Openreach on Sky's Openreach Order Mix for the period October 2021 to March 2023.¹⁰³ This shows that [redacted]. Sky said that, since the introduction of the Equinox 1 Offer, it has [redacted].¹⁰⁴

Figure A4.3: Sky's Openreach Order Mix (October 2021 to March 2023) [Chart is confidential]

Note: The chart takes into account that some orders are excluded when assessing compliance against the OMTs in the Equinox 1 Offer. The same data, aggregated by contract quarter, is used by Openreach to assess Sky's performance against the OMTs in the Equinox 1 Offer. The 90% Fibre Only Target to earn full connection discounts was waived by Openreach from October 2022 until 1 July 2023.

Source: Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response dated 9 May 2023 to s135 notice dated 2 May 2023, question 1.

Sky's sales practices

A4.17 Where FTTP is available, Sky said that it currently [redacted].¹⁰⁵ Sky said that [redacted].¹⁰⁶

A4.18 Sky also operates NOW Broadband, which in 2022 accounted for [redacted]% of Sky's total broadband orders with Openreach (across all areas, not just Openreach's FTTP footprint).¹⁰⁷ Sky is [redacted].¹⁰⁸ Sky also told us that [redacted].¹⁰⁹

¹⁰² Sky Consultation response, pages 1-2.

¹⁰³ Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response of 9 May 2023 to s135 notice dated 2 May 2023, question 1. Sky also provided a chart showing its Openreach Order Mix. [redacted]. Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 1.

¹⁰⁴ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 1.

¹⁰⁵ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, questions 1 and 2.

¹⁰⁶ Sky response dated 21 April 2023 to s135 notice dated 12 April 2023, question 2.

¹⁰⁷ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 3.

¹⁰⁸ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, questions 2 and 4.

¹⁰⁹ Sky response dated 21 April 2023 to s135 notice dated 12 April 2023, question 2.

Sky's order mix in the future

Sky's view

A4.19 Sky said that [redacted].¹¹⁰

A4.20 Sky said that [redacted].¹¹¹

Ofcom's view

A4.21 Our view, based on Sky's historical performance, the impact of regulatory stop sell and the other evidence set out above, is that [redacted].

TalkTalk

Consultation responses

A4.22 TalkTalk stated that [redacted].¹¹²

A4.23 [redacted].¹¹³

TalkTalk's historical performance

A4.24 TalkTalk [redacted].

A4.25 Figure A4.4 below shows monthly data provided by Openreach on TalkTalk's Openreach Order Mix for the period March 2022 to March 2023. Openreach also estimated the split of those orders between TalkTalk's consumer and non-consumer (i.e., wholesale – which supplies ISP Resellers – and enterprise) businesses. Openreach estimated that the former represents on average [redacted] of TalkTalk's orders.^{114 115}

A4.26 To check that Openreach's estimated split of TalkTalk's orders was reasonable, we also obtained order data from TalkTalk, broken down between its consumer, wholesale, and enterprise businesses. According to TalkTalk, these represent respectively [redacted], [redacted], and [redacted] of its orders.^{116 [redacted].¹¹⁷}

¹¹⁰ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 5.

¹¹¹ Sky response dated 3 March 2023 to s135 notice dated 22 February 2023, question 6.

¹¹² TalkTalk Consultation response, paragraphs 2.3-2.4.

¹¹³ [redacted] Consultation response, paragraph 2.7.

¹¹⁴ Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response of 9 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2.

¹¹⁵ This is relevant since the experience and prospects of these different business divisions need not be the same.

¹¹⁶ Split calculated over the period April 2022-December 2022. TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, questions 1 and 2.

¹¹⁷ In the Consultation, we used order data provided by TalkTalk. The analysis has now been updated to use order data provided by Openreach, as this is the data ultimately used to assess TalkTalk's performance against the OMTs.

Figure A4.4: TalkTalk's Openreach Order Mix (March 2022 to March 2023) [Chart is confidential]

Note: The chart takes into account that some orders are excluded when assessing compliance against the OMTs in the Equinox 1 Offer. The same data, aggregated by contract quarter, is used by Openreach to assess TalkTalk's performance against the OMTs in the Equinox 1 Offer. The 90% Fibre Only Target to earn full connection discounts was waived by Openreach from October 2022 until 1 July 2023.

Source: Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response of 9 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2.

- A4.27 Figure A4.4 shows that TalkTalk [redacted].¹¹⁸
- A4.28 TalkTalk told us that [redacted].¹¹⁹ It said that, in April-June 2022, it achieved an Openreach Order Mix of [redacted].¹²⁰ Between April and July 2022, [redacted].¹²¹ The order data from Openreach underlying Figure A4.4 shows that TalkTalk's orders of Openreach FTTP [redacted]. [redacted].¹²²
- A4.29 In October-December 2022, TalkTalk's Openreach Order Mix was [redacted].¹²³ [redacted].^{124 125}
- A4.30 TalkTalk's performance [redacted] in January-March 2023 TalkTalk's Openreach Order Mix was [redacted].¹²⁶ In March 2023, when TalkTalk achieved an Openreach Order Mix of [redacted], legacy orders were [redacted].¹²⁷ Thus [redacted].¹²⁸
- A4.31 In summary, TalkTalk [redacted].

TalkTalk's sales practices

TalkTalk's consumer business

- A4.32 As explained above, [redacted].¹²⁹
- A4.33 TalkTalk told us that [redacted].¹³⁰ We understand that [redacted].¹³¹ TalkTalk also has [redacted].¹³² We understand that TalkTalk [redacted].¹³³ It is not clear whether this is just a temporary measure.

¹¹⁸ [redacted].

¹¹⁹ TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹²⁰ The Equinox 1 Offer [redacted].

¹²¹ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹²² TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹²³ Openreach response dated 21 April 2023 to s135 notice dated 12 April 2023, question 8.

¹²⁴ Openreach response dated 21 April 2023 to s135 notice dated 12 April 2023, question 8.

¹²⁵ TalkTalk stated that [redacted]. TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3 and TalkTalk January 2023 Board Paper extract submitted in its response of 15 February 2023 to s135 notice dated 20 January 2023, question 3.

¹²⁶ Openreach response of 9 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2.

¹²⁷ [redacted]. Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, question 1.

¹²⁸ TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 3.

¹²⁹ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, questions 3 and 4.

¹³⁰ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3 and 7.

¹³¹ TalkTalk response of 7 March to s135 notice dated 22 February 2023, questions 3 and 7.

¹³² TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 7.

¹³³ TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 3.

A4.34 TalkTalk also stated that [redacted].¹³⁴ In February 2023, TalkTalk [redacted].¹³⁵ It is not clear whether this is just a temporary measure.

A4.35 TalkTalk stated that [redacted].¹³⁶

TalkTalk's wholesale business

A4.36 In relation to TalkTalk's wholesale business, TalkTalk said that [redacted].¹³⁷ TalkTalk told us that [redacted].¹³⁸

A4.37 So far, TalkTalk [redacted].¹³⁹ TalkTalk stated that [redacted].¹⁴⁰

A4.38 In April 2023, TalkTalk told us that [redacted].¹⁴¹

TalkTalk's views on the achievability of the OMTs

A4.39 In relation to its consumer business, TalkTalk said that:¹⁴²

- a) TalkTalk customers [redacted].
- b) [redacted].
- c) Its consumer business [redacted].

A4.40 In relation to its wholesale business, TalkTalk said that:¹⁴³

- a) TalkTalk has [redacted].
- b) [redacted].
- c) In order to [redacted].

A4.41 TalkTalk also said that [redacted].¹⁴⁴

A4.42 In October 2022, as feedback on an earlier version of the Equinox 2 Offer, TalkTalk told Openreach that [redacted].¹⁴⁵ This is consistent with [redacted].¹⁴⁶

¹³⁴ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹³⁵ TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 3.

¹³⁶ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, question 3.

¹³⁷ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, questions 3 and 6(a).

¹³⁸ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, question 3.

¹³⁹ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹⁴⁰ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, questions 5, 6, and 7.

¹⁴¹ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, question 4. TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 3.

¹⁴² TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹⁴³ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3; similar points are also made in response to question 7.

¹⁴⁴ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 3.

¹⁴⁵ Extract from 19 October 2022 document provided in TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, question 14. *Equinox 2 Special offer GEA – FTTP*, 28 November 2022, slide 3 provided in Openreach response dated 2 March 2023 to s135 notice dated of 22 February 2023, question 10.

¹⁴⁶ TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, question 3.

TalkTalk's order mix in the future

TalkTalk's plans

- A4.43 In relation to its consumer business, TalkTalk has told us that [redacted].¹⁴⁷
- A4.44 In relation to its wholesale business, TalkTalk outlined the following elements to its strategy to increase performance against the OMTs:
- a) [redacted].¹⁴⁸
 - b) As mentioned in paragraph A4.37 above, [redacted].¹⁴⁹
 - c) [redacted].¹⁵⁰
 - d) [redacted].¹⁵¹
 - e) [redacted].¹⁵²
- A4.45 TalkTalk also stated that [redacted].¹⁵³
- A4.46 TalkTalk said that it [redacted].¹⁵⁴

Ofcom's view

- A4.47 In the Consultation, we concluded that [redacted].¹⁵⁵ Since the Consultation, we have gathered further information from TalkTalk, including using our statutory powers. This has given us a better sense of how TalkTalk's Openreach Order Mix may develop in the future.
- A4.48 As explained above, TalkTalk [redacted].
- A4.49 Our view, based on TalkTalk's historical performance, the impact of regulatory stop sell and the other evidence set out above, is as follows.
- A4.50 TalkTalk has [redacted]. In particular:
- a) [redacted].
 - b) [redacted].¹⁵⁶
 - c) As shown in Figure A4.4, [redacted].
- A4.51 As a result:

¹⁴⁷ TalkTalk response of 7 March 2023 and 13 March 2023 to s135 notice dated 22 February 2023, question 5.

¹⁴⁸ TalkTalk response of 7 March to s135 notice dated 22 February 2023, question 6.

¹⁴⁹ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, questions 6 and 7.

¹⁵⁰ TalkTalk response of 7 March to s135 notice dated 22 February 2023, question 6.

¹⁵¹ TalkTalk response of 7 March to s135 notice dated 22 February 2023, question 6.

¹⁵² TalkTalk response of 7 March to s135 notice dated 22 February 2023, question 6.

¹⁵³ On 7 March 2023 TalkTalk stated that [redacted]. Later, it clarified that [redacted]. On 21 April 2023 it said that [redacted]. For simplicity, here we refer to [redacted]. TalkTalk response of 7 March 2023 and 13 March 2023 to s135 notice dated 22 February 2023, question 6(b). TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, question 7.

¹⁵⁴ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 6.

¹⁵⁵ Consultation, paragraph A8.33.

¹⁵⁶ [redacted].

- a) [REDACTED].
- b) TalkTalk has stated [REDACTED].

TalkTalk's use of altnets

- A4.52 TalkTalk currently purchases FTTP from CityFibre and will use Freedom Fibre in the North West [REDACTED].¹⁵⁷
- A4.53 Given [REDACTED] the OMTs set out in the Equinox 1 Offer, we have considered whether there is evidence that TalkTalk is being deterred from placing orders with CityFibre.
- A4.54 In terms of its consumer business, TalkTalk said that [REDACTED].¹⁵⁸ TalkTalk stated that it has never diverted FTTP orders from an altnet to Openreach or reduced FTTP orders from an altnet with the aim of improving its performance against the OMTs.¹⁵⁹
- A4.55 In terms of its other lines of business, [REDACTED].¹⁶⁰
- A4.56 [REDACTED] is confirmed also by TalkTalk's internal documents.¹⁶¹ For example, in an internal presentation from July 2022, TalkTalk indicated that [REDACTED].¹⁶² A similar presentation in September 2022 confirms that TalkTalk [REDACTED].¹⁶³ Another internal presentation from December 2022 discusses TalkTalk's strategic plan for [REDACTED].¹⁶⁴
- A4.57 Figure A4.5 shows TalkTalk's new FTTP connections with both Openreach and CityFibre.
- a) The green bars in this chart show the Openreach Order Mix achieved by TalkTalk each month based on the order data provided by Openreach. As discussed in paragraphs A4.28-A4.29, [REDACTED].
 - b) The pink line shows Openreach's monthly data on the number of FTTP orders TalkTalk placed with Openreach. [REDACTED].
 - c) The purple line shows the number of new FTTP connections TalkTalk placed on CityFibre's network.¹⁶⁵ This [REDACTED]. We understand from TalkTalk that [REDACTED].¹⁶⁶

¹⁵⁷ [REDACTED]. TalkTalk response dated 7 March 2023 to s135 notice dated 22 February 2023, question 13. [REDACTED].

¹⁵⁸ TalkTalk noted that [REDACTED]. TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 10.

¹⁵⁹ TalkTalk response of 21 April 2023 to s135 notice dated 12 April 2023, question 8.

¹⁶⁰ TalkTalk response of 7 March 2023 to s135 notice dated 22 February 2023, question 10.

¹⁶¹ TalkTalk response of 17 February 2023 to s135 notice dated 20 January 2023, questions 1, 2, and 3.

¹⁶² TalkTalk internal document "Monthly Exco" dated 27 July 2023, slides 8 and 9, submitted on 17 February 2023 in response to s135 notice dated 20 January 2023, questions 1, 2, and 3.

¹⁶³ TalkTalk internal document "S&P and Consumer materials" dated 15 September 2022, slide 8, submitted on 17 February 2023 in response to s135 notice dated 20 January 2023, questions 1, 2, and 3.

¹⁶⁴ TalkTalk internal document "Monthly Exco" dated 13 December 2022, slides 5 and 6, submitted on 17 February 2023 in response to s135 notice dated 20 January 2023, questions 1, 2, and 3.

¹⁶⁵ TalkTalk has provided data on both new orders of CityFibre FTTP and new connections. Our analysis presented is based on the data on new FTTP connections, which we consider is a better indicator of TalkTalk completed sales and more comparable to Openreach's data on TalkTalk orders on its network. We generally refer to FTTP orders in the remainder of the section for clarity. TalkTalk response of 13 March 2023 to s135 notice dated 22 February 2023, question 12.

¹⁶⁶ TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 1.

- d) We have not seen evidence to suggest [redacted] TalkTalk diverting orders from CityFibre to Openreach FTTP. As explained in paragraph A4.30 above, [redacted]. TalkTalk told us that [redacted].¹⁶⁷ More generally, looking at the pattern of orders in Figure 4.5 across the period as a whole shows that [redacted].

Figure A4.5: TalkTalk’s monthly FTTP orders with Openreach and CityFibre (March 2022 to March 2023) [Chart is confidential]

Note: While the chart reports monthly data, we place limited weight on TalkTalk’s performance in individual months, which may be influenced by temporary factors.

Source: Openreach FTTP orders and the Openreach Order Mix based on Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3 and Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2. CityFibre connections based on TalkTalk response dated 13 March 2023 to s135 notice dated 22 February 2023, question 12 and TalkTalk response dated 4 May 2023 to s135 notice dated 2 May 2023, question 1.

A4.58 A limitation of the figures presented in Figure A4.5 is that the number of TalkTalk’s new FTTP orders on the two networks are not directly comparable due to Openreach’s larger FTTP footprint. Moreover, both CityFibre and Openreach’s FTTP footprints are growing, which will increase the opportunity for TalkTalk to order FTTP from both networks over time. We have thus used data from Connected Nations on the size of Openreach’s and CityFibre’s FTTP footprints, to calculate FTTP orders per premise passed by each of these FTTP networks.¹⁶⁸

A4.59 The results of this analysis are shown in Figure A4.6 below.

- a) The number of new FTTP connections on the CityFibre network per premise passed [redacted]. TalkTalk’s FTTP orders from Openreach per premises passed [redacted], following a similar trend to that observed in Figure A4.5 above.
- b) Across the whole period (which is a better indicator of TalkTalk’s relative usage of the two networks [redacted]), TalkTalk [redacted].^{169 170}

Figure A4.6: TalkTalk’s monthly FTTP orders per premises passed, CityFibre and Openreach networks (March 2022 to March 2023) [Chart is confidential]

Source: Ofcom calculations based on data provided by TalkTalk and Openreach (new FTTP connections, see sources for Figure A4.5) and Connected Nations (premises passed by each network).

¹⁶⁷ TalkTalk response of 18 May 2023 to s135 notice dated 16 May 2023, question 1.

¹⁶⁸ Connected Nations data is only available at four points in time (January, May, and September 2022, as well as January 2023), so we used the least squares method to estimate the number of premises passed in the other months based on a straight line (linear) trend between the known data points.

¹⁶⁹ As stated in paragraph A4.55 above, [redacted] we have also carried out this calculation only using Openreach FTTP orders placed by TalkTalk’s consumer business (i.e. excluding its wholesale business). We find that [redacted].

¹⁷⁰ We also carried out another version of the analysis where we assume that [redacted].

A4.60 A CityFibre internal presentation to its board [redacted].¹⁷¹

A4.61 We recognise that other factors might affect the comparison between the orders per premises passed on each network, such as variations in customer demand, different periods of time elapsed since the networks were built, different marketing efforts by area etc. We have thus not treated this evidence as determinative. However, overall we believe that the analysis of TalkTalk's FTTP orders per premises passed [redacted].

Vodafone

Consultation response

A4.62 Vodafone stated that [redacted].¹⁷²

Vodafone's historical performance

A4.63 Vodafone [redacted].

A4.64 Figure A4.7 below shows monthly data provided by Openreach on Vodafone's Openreach Order Mix for the period March 2022 to March 2023. Openreach also estimated the split of those orders between Vodafone's consumer and non-consumer (i.e. wholesale and enterprise) businesses. Openreach estimated that the former represents on average [redacted%] of Vodafone's orders.¹⁷³

A4.65 To check that Openreach's estimated split of Vodafone's orders was reasonable, we also obtained order data from Vodafone, broken down between its consumer, wholesale and enterprise businesses. According to Vodafone these represent respectively [redacted%], [redacted%] and [redacted%] of its orders.¹⁷⁴ [redacted].

A4.66 Figure A4.7 shows that [redacted].

Figure A4.7: Vodafone's Openreach Order Mix (March 2022 to March 2023) [Chart is confidential]

Note: The chart takes into account that some orders are excluded when assessing compliance against the OMTs in the Equinox 1 Offer. The same data, aggregated by contract quarter, is used by Openreach to assess Vodafone's performance against the OMTs in the Equinox 1 Offer. The 90% Fibre Only Target to earn full connection discounts was waived by Openreach from October 2022 until 1 July 2023.

Source: Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2.

¹⁷¹ CityFibre internal document "CityFibre Board February 2023" dated 14 February 2023, slide 19, submitted on 15 February 2023 in response to s135 notice dated 20 January 2023, questions 1, 2, and 3.

¹⁷² Vodafone Consultation response, paragraph 18.

¹⁷³ Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3. Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2.

¹⁷⁴ Split calculated over the period March 2022-January 2023. Vodafone response dated 7 March to s135 notice dated 22 February 2022, questions 1 and 2.

Vodafone's sales practices

- A4.67 Vodafone said that [redacted].¹⁷⁵
- A4.68 Vodafone said that [redacted].¹⁷⁶
- A4.69 Vodafone said that [redacted].¹⁷⁷
- A4.70 Vodafone confirmed that [redacted].¹⁷⁸
- A4.71 Vodafone said that it has had to address a number of issues to meet the OMTs in the Equinox 1 Offer:¹⁷⁹
- a) Vodafone said that [redacted].
 - b) Vodafone said that [redacted].
 - c) [redacted].

Vodafone's order mix in the future

- A4.72 Vodafone's [redacted].
- A4.73 Our view, based on Vodafone's historical performance, the impact of regulatory stop sell and the other evidence set out above, is that Vodafone [redacted].

Vodafone's use of altnets

- A4.74 Vodafone currently purchases FTTP from CityFibre.¹⁸⁰
- A4.75 We have considered whether there is evidence that Vodafone is currently being deterred from placing orders with CityFibre.
- A4.76 Vodafone stated that, [redacted].¹⁸¹ In addition, Vodafone told us that [redacted].¹⁸² Vodafone also stated that it has never diverted or reduced FTTP orders from an altnet with the aim of improving its performance against the OMTs.¹⁸³
- A4.77 Vodafone said that [redacted].¹⁸⁴
- A4.78 Figure A4.8 shows Vodafone's new FTTP connections with both Openreach and CityFibre.

¹⁷⁵ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, questions 5 and 8.

¹⁷⁶ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 6.

¹⁷⁷ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 7.

¹⁷⁸ Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3.

¹⁷⁹ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 4.

¹⁸⁰ [redacted]. Vodafone response dated 2 May 2023 to s135 notice dated 2 May 2023, question 2.

¹⁸¹ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 10 and Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4.

¹⁸² Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4

¹⁸³ Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4

¹⁸⁴ Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 10 and Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3. More generally, as set out in Sections 4 and 5, Vodafone stated that [redacted].

- a) The green bars in this chart show the Openreach Order Mix achieved by Vodafone each month based on the order data provided by Openreach.
- b) The pink line shows Openreach’s monthly data on the number of FTTP orders Vodafone placed with Openreach. Between March 2022 and March 2023, [REDACTED].
- c) The purple line shows the number of new FTTP connections Vodafone placed on CityFibre’s network.¹⁸⁵ [REDACTED].

Figure A4.8: Vodafone’s monthly FTTP orders with Openreach and CityFibre (March 2022 to March 2023) [Chart is confidential]

Note: While the chart reports monthly data, we place limited weight on Vodafone’s performance in individual months, which may be influenced by temporary factors.

Source: Openreach FTTP orders and the Openreach Order Mix based on Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, questions 2 and 3 and Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 1 and 2. CityFibre connections based on Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 12, and Vodafone response dated 2 May 2023 to s135 notice dated 2 May 2023.

A4.79 As in the analysis of TalkTalk’s performance, a limitation of the figures presented in Figure A4.8 is that they do not reflect the size of Openreach’s and CityFibre’s FTTP networks. We thus use Connected Nations data to calculate FTTP orders per premise passed by each of these networks.

A4.80 We place limited weight on Vodafone’s performance in individual months. Looking at this period as a whole, we find that [REDACTED].¹⁸⁶

Figure A4.9: Vodafone’s monthly FTTP orders per premises passed, CityFibre and Openreach networks (March 2022 to March 2023) [Chart is confidential]

Source: Ofcom calculations based on data provided by Vodafone and Openreach (new FTTP connections, see sources for Figure A4.8) and Connected Nations (premises passed by each network)

A4.81 As mentioned in paragraph A4.60 above, an internal document from CityFibre [REDACTED].¹⁸⁷

A4.82 As mentioned in relation to the analysis of TalkTalk’s orders, we recognise that other factors might affect the comparison between the orders per premises passed on each network. We have thus not treated this evidence as determinative. However, overall we believe that the analysis of Vodafone’s FTTP orders per premises passed [REDACTED].

¹⁸⁵ Vodafone provided data on cumulative altnet FTTP connections. [REDACTED]. We generally refer to FTTP orders in the remainder of the section for clarity. Vodafone response dated 7 March 2023 to s135 notice dated 22 February 2023, question 12.

¹⁸⁶ We also carried out another version of the analysis where we assume that [REDACTED].

¹⁸⁷ CityFibre internal document “CityFibre Board February 2023” dated 14 February 2023, slide 19, submitted on 15 February 2023 in response to s135 notice dated 20 January 2023, questions 1, 2, and 3.

Zen

Zen's historical performance

- A4.83 Zen has qualified for the full rental and connection discounts in each quarter since the Equinox 1 Offer came into effect in October 2021.
- A4.84 Figure A4.10 below shows quarterly data provided by Openreach on Zen's Openreach Order Mix for the period October 2021 to March 2023.¹⁸⁸
- A4.85 We also obtained order data from Zen, broken down between its consumer, wholesale and enterprise businesses. According to Zen these represent respectively [REDACTED]%, [REDACTED]% and [REDACTED]% of its orders.¹⁸⁹

Figure A4.10: Zen's Openreach Order Mix (October 2021 to March 2023) [Chart is confidential]

Note: The chart takes into account that some orders are excluded when assessing compliance against the OMTs in the Equinox 1 Offer. The same data is used by Openreach to assess Zen's performance against the OMTs in the Equinox 1 Offer. The 90% Fibre Only Target to earn full connection discounts was waived by Openreach from October 2022 until 1 July 2023.

Source: Openreach response dated 7 March 2023 to s135 notice dated 1 March 2023, question 1 and Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 3 and 4.

- A4.86 Figure A4.10 shows that Zen's Openreach Order Mix [REDACTED].
- A4.87 [REDACTED].¹⁹⁰
- A4.88 Zen places some orders direct with Openreach. However, Zen also essentially acts as an ISP Reseller and serves some customers using wholesale products from other ISPs [REDACTED].¹⁹¹

Zen's sales practices

- A4.89 Zen told us that [REDACTED].¹⁹²
- A4.90 [REDACTED].¹⁹³
- A4.91 Additionally, Zen has [REDACTED].¹⁹⁴
- A4.92 Zen confirmed that [REDACTED].¹⁹⁵

¹⁸⁸ Openreach response dated 7 March 2023 to s135 notice dated 1 March 2023, question 1. Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 3 and 4.

¹⁸⁹ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, questions 1 and 2.

¹⁹⁰ [REDACTED]. Openreach response dated 21 April 2023 to s135 notice dated 12 April 2023, question 8 and Openreach response of 5 May 2023 to s135 notice dated 2 May 2023, questions 3 and 4.

¹⁹¹ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 3; also Zen's further response dated 19 April 2023.

¹⁹² Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 3.

¹⁹³ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, questions 4 and 8.

¹⁹⁴ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 5(a), 6(a), and 7(a).

¹⁹⁵ Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3.

Zen's order mix in the future

Zen's plans

A4.93 In order to increase FTTP orders [REDACTED].¹⁹⁶

A4.94 [REDACTED].¹⁹⁷

Ofcom's view

A4.95 Our view, based on Zen's historical performance, the impact of regulatory stop sell and the other evidence set out above is as follows:

- a) In interpreting its historical performance, we have focused on [REDACTED].
- b) [REDACTED].
- c) In summary, our view is that Zen [REDACTED].

Zen's use of altnets

A4.96 Zen currently purchases FTTP from CityFibre.

A4.97 Zen stated that [REDACTED].¹⁹⁸

A4.98 However, Zen stated that [REDACTED].¹⁹⁹

A4.99 Zen stated that it has never taken action to divert FTTP orders from an altnet to Openreach with the aim of improving its performance against the OMTs.²⁰⁰

A4.100 In an internal summary of the Equinox 2 Offer prepared for Zen's CEO, Zen stated that [REDACTED].²⁰¹

- A4.101 As explained above, for TalkTalk and Vodafone we analysed orders with CityFibre and Openreach per premises passed by those two networks. We have carried out a similar exercise for Zen. However, we do not place reliance on this analysis as we do not believe that the results are reliable given the data we have obtained. In particular:
- a) As explained in paragraph A4.88 above, Zen orders Openreach products both directly from Openreach and indirectly via other ISPs. As the data on Zen's FTTP orders provided by Openreach only accounts for direct orders, it does not provide a complete picture of Zen's total orders on Openreach's FTTP network.
 - b) As explained above, [REDACTED].

¹⁹⁶ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, questions 5(b), 5(c), 6(a), 6(b), 7(b), and 7(c).

¹⁹⁷ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, questions 6(b) and 6(c).

¹⁹⁸ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 9 and Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4.

¹⁹⁹ Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 9 and Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4.

²⁰⁰ Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 4.

²⁰¹ Internal email to Zen's CEO dated 24 March 2023, submitted in Zen response dated 12 April to Ofcom's information request of 23 March 2022, question 13.

A4.102 Overall, [REDACTED].

A5. The Failsafe Mechanism

Introduction

A5.1 The Failsafe Mechanism is relevant to our assessment of whether the OMTs potentially create a barrier to using altnets. This annex sets out stakeholders' detailed views on the Failsafe Mechanism and our assessment of this topic.

Consultation position

A5.2 To assess whether the Failsafe Mechanism would address any risks that ISPs are deterred from using altnets, in the Consultation we considered:²⁰²

- a) its practical workability;
- b) its acceptability to ISPs; and
- c) the likelihood that the Failsafe Mechanism is amended in the future.

A5.3 We provisionally concluded that the Failsafe Mechanism is practically workable and acceptable to ISPs and that the Legacy Cross-Check does not raise any concerns.²⁰³

Stakeholders' views

A5.4 Openreach stated that the Failsafe Mechanism is a practical and effective means of ensuring that ISPs are not disincentivised from using altnets.²⁰⁴ Openreach also stated that Berkeley Research Group ('BRG') has been appointed as the Independent Verifier.²⁰⁵

A5.5 CityFibre, the Joint Respondents, Nexfibre and VMO2 stated that ISPs cannot be confident that the Failsafe Mechanism will be effective.^{206 207}

A5.6 In terms of ISPs' views:

- a) Sky stated that it is comfortable that it could use the Failsafe Mechanism if necessary. Sky also stated that it considers the Failsafe Mechanism practically workable and acceptable and that it is very unlikely that Sky would inadvertently fail the Legacy Cross-Check.²⁰⁸

²⁰² Consultation, paragraph 3.69.

²⁰³ Consultation, paragraph 3.84(d).

²⁰⁴ Openreach Consultation response, paragraph 1.14, 3.3(iv); also 3.20-3.22.

²⁰⁵ Openreach Consultation response, paragraphs 3.31-3.32.

²⁰⁶ CityFibre Consultation response, paragraphs 3.16 and 3.19. RBB Failsafe Report, pages 1-2, 3 and 5-6. Joint Consultation Response, paragraphs 8(b), 91, 99 and 202. Keystone Report, pages 2-3; also paragraphs 88-89. VMO2 Consultation response, paragraphs 168 (second bullet) and 169; also paragraph 145.

²⁰⁷ CityFibre also stated that Ofcom should gather further evidence to assess the Failsafe Mechanism. CityFibre Consultation response, paragraphs 8.1(i) and 3.26-3.28.

²⁰⁸ Sky Consultation response, pages 1 and 2-3.

- b) TalkTalk supported the introduction of the Failsafe Mechanism.²⁰⁹ It stated that applying the Failsafe Mechanism will improve its Openreach Order Mix since in areas where altnets are present it places the majority of its FTTP orders with those altnets meaning that its Openreach Order Mix in these areas is relatively low.²¹⁰ It also stated that the Failsafe Mechanism, if TalkTalk chooses to invoke it, will not be difficult to operationalise and that it is comfortable with the confidentiality provisions.²¹¹ However, TalkTalk considered that Ofcom should monitor the operation of the Failsafe Mechanism to ensure that it is working as intended.²¹²
- c) Vodafone stated that it has confidence in the Failsafe Mechanism given its experience declaring altnet volumes to a third party under the GEA Volume Offer.²¹³

A5.7 Below we present stakeholders' views on specific issues in more detail along with our analysis and conclusions.

Ofcom's approach to assessing the Failsafe Mechanism

- A5.8 The Failsafe Mechanism can be applied to exclude overlap areas where an ISP uses either FTTP or cable from an altnet.²¹⁴ In principle, the Failsafe Mechanism should break the link between the OMTs and use of altnets in overlapping areas, and thus remove any potential competition concerns. This is because for ISPs who activate the Failsafe Mechanism, performance against the OMTs will be assessed in the Openreach FTTP footprint outside of the overlap area.
- A5.9 Whether the Failsafe Mechanism achieves this goal in practice depends on whether it is workable and acceptable to those ISPs that might wish to use it.²¹⁵ We discuss these topics in paragraphs A5.13-A5.61 below. Also, some of the altnets have put forward theoretical scenarios in which they consider ISPs would prefer not to exclude overlap areas from the assessment of their OMTs. We discuss how likely these scenarios are to arise in paragraphs A5.62-A5.98 below. Whether the Failsafe Mechanism removes any competition concerns also depends on whether ISPs that might wish to use it are concerned that the Failsafe Mechanism might be curtailed in the future. We discuss this topic in paragraphs A5.99-A5.109 below.
- A5.10 In assessing the Failsafe Mechanism, we have focused on ISPs' perspectives and what it means for their decision about whether to use an altnet. For example, consider the position of an ISP for which: (i) using an altnet potentially affects the Equinox 2 Offer

²⁰⁹ TalkTalk Consultation response, paragraph 2.6.

²¹⁰ TalkTalk Consultation response, paragraph 2.5.

²¹¹ TalkTalk Consultation response, paragraph 2.8.

²¹² TalkTalk Consultation response, paragraph 2.9.

²¹³ Vodafone Consultation response, paragraph 19.

²¹⁴ Equinox 2 Offer, Appendix 1, paragraph 9.1 states that the Failsafe Mechanism can be applied to Eligible Services. Clause 1.1 defines Eligible Services as including fixed access broadband services provided over technologies capable of delivering similar or greater speeds as Openreach's standard GEA-FTTP service.

²¹⁵ As discussed in Section 3, Openreach has announced that it would waive the OMTs for small ISPs that place no more than 100 legacy orders with Openreach within the Openreach FTTP footprint in any quarter. Small ISPs thus do not need to make use of the Failsafe Mechanism.

discounts that it receives; and (ii) other commercial strategies for mitigating this risk are unappealing.²¹⁶ We have considered whether an ISP in this position would lack sufficient confidence in the Failsafe Mechanism and thus choose to divert orders from altnets to Openreach FTTP.

- A5.11 In addition to the impact of the Failsafe Mechanism on ISPs, we also received submissions on a separate issue. INCA and Zoomm stated that the operation of the Failsafe Mechanism would provide Openreach with commercially sensitive information on altnets' build.²¹⁷ Openreach stated that the terms of the Equinox 2 Offer and its agreement with BRG ensure that commercially sensitive information is not shared with Openreach.²¹⁸
- A5.12 We consider that the Failsafe Mechanism does not expose confidential information on altnet build to Openreach. Information for calculation of the overlap area is only submitted to the Independent Verifier.²¹⁹

Practical workability of the Failsafe Mechanism

- A5.13 In principle, if an ISP believes that applying the Failsafe Mechanism is unworkable in practice (e.g. because overlap areas either cannot be identified at all or only with major errors), then this mechanism will provide little comfort to an ISP that is considering using an altnet and might need to use the Failsafe Mechanism.

Stakeholders' views

- A5.14 We have grouped stakeholders' views on the practical workability of the Failsafe Mechanism into three categories:
- Independence of the Independent Verifier;
 - Complexity and ambiguity; and
 - The relevance of the GEA Volume Offer.

Independence of the Independent Verifier

- A5.15 Openreach stated that the terms of the Equinox 2 Offer and its agreement with the Independent Verifier ensure the independence of the Independent Verifier.²²⁰
- A5.16 The Joint Respondents, Nexfibre, INCA and Zoomm were concerned that the Independent Verifier is appointed and funded by Openreach and thus ISPs cannot be confident that the

²¹⁶ For the avoidance of doubt, the fact we cannot rule out these scenarios does not imply that we consider them to be likely.

²¹⁷ INCA and Zoomm submission, 24 January 2023, Annex 1, paragraphs 8.3, 16.3 and 20.

²¹⁸ Openreach Consultation response, paragraphs 3.31 and 3.39.

²¹⁹ Equinox 2 Offer, Appendix 4, paragraphs 1 and 2. We requested a copy of the agreement between BRG and Openreach (Openreach response dated 16 March 2023 to s135 notice dated 13 March 2023, question 1). The terms of the agreement specify that only the calculation of the Fail-safe Fibre Only Performance and the calculation of Legacy Services are to be disclosed to Openreach.

²²⁰ Openreach Consultation response, paragraphs 3.31-3.32.

Failsafe Mechanism will be applied independently and fairly.²²¹ Nexfibre noted that there is no process to appeal against the Independent Verifier's decision.²²²

Complexity and ambiguity

- A5.17 Openreach stated that the Failsafe Mechanism is straightforward for the Independent Verifier to operate. Openreach and BRG intend to carry out a “dry run” of the Failsafe Mechanism process with at least one ISP prior to July 2023.²²³
- A5.18 VMO2, INCA and Zzoomm stated that the Failsafe Mechanism is complex to administer.²²⁴ CityFibre stated that [redacted].²²⁵
- A5.19 The Joint Respondents and VMO2 referred to the situation where an ISP Reseller also directly purchases FTTP from an altnet. They said that it would be complex for the ISP serving that ISP Reseller to take this into account when making use of the Failsafe Mechanism.²²⁶
- A5.20 CityFibre, the Joint Respondents, Nexfibre, VMO2, INCA and Zzoomm stated that there is ambiguity about how the Failsafe Mechanism will operate in practice (in particular, the identification of the ‘Overbuild Footprint’).²²⁷ CityFibre and Nexfibre stated that this uncertainty will deter ISPs from committing to use altnets.²²⁸
- A5.21 The Joint Respondents, INCA and Zzoomm stated that the Independent Verifier will require significant data input from altnets to establish whether an ISP can purchase FTTP from them.²²⁹
- A5.22 As noted above, Sky stated that it is comfortable that it could use the Failsafe Mechanism if necessary and that it considers the Failsafe Mechanism to be practically workable. TalkTalk stated that the Failsafe Mechanism, if TalkTalk chooses to invoke it, will not be difficult to operationalise and that it is comfortable with the confidentiality provisions. Vodafone stated that it has confidence in the Failsafe Mechanism given its experience declaring altnet volumes to a third party under the GEA Volume Offer.

²²¹ Moreover, the definition of the Overbuild Area and the calculation of the Legacy Cross-Check involve the use of some discretion by the Independent Verifier. Joint Consultation Response, paragraph 91(d). Keystone Report, paragraphs 88 (third bullet) and 96. Nexfibre letter, 16 January 2023, paragraphs 3.1-3.10. INCA and Zzoomm submission, 24 January 2023, Annex 1, paragraphs 8.6, 19-20 and 32-33.

²²² Keystone Report, paragraphs 88 (fourth bullet) and 103.

²²³ Openreach Consultation response, paragraph 3.33.

²²⁴ VMO2 meeting slides, 12 January 2023, slide 5. INCA and Zzoomm submission, 24 January 2023, paragraphs 8.2, 8.4, 17, 22, 24.

²²⁵ CityFibre Consultation response, paragraph 3.23; also paragraph 1.7(iv)(b).

²²⁶ Joint Consultation Response, paragraph 87. VMO2 Consultation response, footnote 34.

²²⁷ Joint Consultation Response, paragraph 91(f). Nexfibre Consultation response, paragraph 69. Keystone Report, paragraphs 88 (first and second bullets), 91-92 and 98-101. RBB Failsafe Report, page 5. VMO2 Consultation response, page 4; also paragraphs 117 and 238 (third bullet). VMO2 meeting slides, 12 January 2023, slide 5. INCA and Zzoomm submission, 24 January 2023, paragraphs 26-30.

²²⁸ Nexfibre Consultation response, paragraph 69. Keystone Report, paragraphs 91 and 93. RBB Failsafe Report, pages 5-6.

²²⁹ Joint Consultation Response, paragraph 91(e) and 98. INCA and Zzoomm submission, 24 January 2023, paragraphs 22-23.

Relevance of the GEA Volume Offer

- A5.23 In the Consultation, we stated that the Failsafe Mechanism contains similar requirements to those in the GEA Volume Offer.²³⁰ CityFibre, the Joint Respondents and VMO2 disagreed and stated that the calculations in the two agreements are not comparable.²³¹
- A5.24 Openreach stated that BRG successfully operates a safe haven mechanism in the GEA Volume Offer.²³²

Ofcom's analysis and conclusions

Independence of the Independent Verifier

- A5.25 It is a contractual requirement of the Equinox 2 Offer that the Independent Verifier be independent and a third party to both the ISP and Openreach.²³³ The Equinox 2 Offer terms also require Openreach to ensure that its instructions to the Independent Verifier require it to carry out the process accurately, fairly and to the best of its abilities.²³⁴ While applying the Failsafe Mechanism relies on the ISP submitting data that is likely to be confidential, the Equinox 2 Offer contains safeguards that prevent Openreach from accessing this information.²³⁵
- A5.26 BRG, the company Openreach has appointed to act as the Independent Verifier, is a global consultancy firm who has been operating the volume relief mechanism under the GEA Volume Offer.²³⁶ [3<] have consistently utilised that mechanism where needed to meet the targets in that offer.^{237 238}
- A5.27 Contrary to the submissions of altnets that ISPs cannot be confident that the Failsafe Mechanism will be applied independently and fairly, no ISP has expressed concerns to us that the Independent Verifier will not act independently and fairly in applying the Failsafe Mechanism.

²³⁰ Special Offer GEA Volume Agreement referred to in Consultation, paragraphs 3.71 and 3.75. A copy of this agreement was provided in Openreach response dated 2 March 2023 to s135 notice dated 22 February 2023, question 19.

²³¹ The GEA Volume Agreement allows altnet orders to be taken into account in the compliance calculation. In contrast, the Failsafe Mechanism removes Openreach orders from some areas from the compliance calculation. CityFibre Consultation response, paragraph 3.26(ii). RBB Failsafe Report, pages 2-3. Joint Consultation Response, Table 5 and paragraphs 9(b), 93-95 and 237. VMO2 Consultation response, pages 4-5 and paragraphs 117-120.

²³² Openreach Consultation response, paragraphs 3.3(iv) and 3.31-3.32.

²³³ Equinox 2 Offer, clause 1.1.

²³⁴ Equinox 2 Offer, Appendix 1, paragraph 9.9 and Appendix 4. The terms of the agreement between Openreach and BRG specify that BRG shall take all due care to ensure that it undertakes the Verification Process accurately, fairly and to the best of its abilities.

²³⁵ Equinox 2 Offer, Appendix 1, paragraph 9.9(b). Openreach shall ensure that its instructions to the Independent Verifier require that the information of the ISP shall be treated in confidence (including, where requested by the ISP, the entering into a non-disclosure agreement on terms mutually agreeable to the ISP and the Independent Verifier).

²³⁶ Openreach Consultation response, paragraphs 3.3(iv) and 3.31-3.32.

²³⁷ [3<]

²³⁸ [3<]. Zen stated that it has been meeting the targets in the GEA Volume Offer without needing to apply for relief. Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 14.

A5.28 We thus do not consider there are any concerns about the Independent Verifier's independence that would prevent ISPs from using the Failsafe Mechanism.

Complexity and ambiguity

A5.29 A number of steps need to be taken by the requesting ISP, Openreach and the Independent Verifier to activate and complete the Failsafe Mechanism process.²³⁹ We recognise that the process may require the exercise of some judgment by the Independent Verifier. However, we would expect it to act in a fair and reasonable manner in doing so.

A5.30 The relevant issue for our assessment is whether the degree of complexity and ambiguity is severe enough that an ISP that is considering using an altnet, and might need to use the Failsafe Mechanism, would lack sufficient confidence in the Failsafe Mechanism and thus choose to divert orders from altnets to Openreach FTTP as a result.

A5.31 The evidence does not indicate that this is the case. If ISPs did have such concerns, then we would expect ISPs to have raised them with Openreach. We requested final versions of internal documents submitted to the Openreach Board regarding approval of the Equinox 2 Offer. We also asked Openreach for copies of feedback from other ISPs on the Equinox 2 Offer. Based on this evidence it does not appear that [REDACTED].²⁴⁰

A5.32 We have also reviewed ISPs' internal governance documents in relation to the Equinox 2 Offer for any references to the Failsafe Mechanism and other documentary evidence submitted by stakeholders about ISPs' views on the Failsafe Mechanism.

A5.33 As regards TalkTalk's views on the Failsafe Mechanism, we have found the following:

- a) It was identified in [REDACTED].²⁴¹
- b) The Failsafe Mechanism is expressly referred to in [REDACTED].²⁴²
- c) An internal document submitted to a senior TalkTalk governance body from [REDACTED].²⁴³
- d) [REDACTED].²⁴⁴

A5.34 As regards Vodafone's views on the Failsafe Mechanism, we have found the following:

- a) In November 2022, Vodafone identified in an executive briefing document four aspects of the Equinox 2 Offer that it would like to improve. The Failsafe Mechanism was not one of them.²⁴⁵

²³⁹ If an ISP wanted to invoke the Failsafe Mechanism, it would need to be able to identify the overlap area where it is using an altnet for services that qualify for the Failsafe Mechanism, and to present this data and evidence to the Independent Verifier. The ISP may also need to supply other information that the Independent Verifier may require. The completion of the Failsafe Mechanism process also relies on the submission of various information and data held by Openreach to the Independent Verifier.

²⁴⁰ [REDACTED]. Provided in Openreach response dated 2 March 2023 to Ofcom notice dated 22 February 2023, question 10. Openreach response dated 10 March 2023 to Ofcom notice dated 1 March 2023, question 2.

²⁴¹ [REDACTED]. Provided in TalkTalk response dated 7 March 2023 to Ofcom notice dated 22 February 2023, question 14.

²⁴² Board paper extracts provided in TalkTalk response dated 15 February 2023 to Ofcom notice dated 20 January 2023.

²⁴³ [REDACTED]. Provided in TalkTalk response dated 15 February 2023 to Ofcom notice dated 20 January 2023.

²⁴⁴ [REDACTED].

²⁴⁵ [REDACTED]. Provided in Vodafone response dated 7 March 2023 to Ofcom notice dated 22 February 2023, question 14.

- b) [REDACTED].²⁴⁶
- A5.35 In interpreting this evidence, we have not placed weight on [REDACTED], we consider ISPs' own internal description of the Failsafe Mechanism in contemporaneous documents better reflects their views.²⁴⁷
- A5.36 As regards Zen's views on the Failsafe Mechanism, we have found the following:
- a) The Joint Respondents said that, to inform their consultation response, they reached out to ISPs and asked for views on the Failsafe Mechanism. Zen stated that it understood [REDACTED].²⁴⁸
 - b) We asked Openreach for a copy of feedback on the Equinox 2 Offer received from ISPs including Zen. [REDACTED].²⁴⁹
 - c) A March 2023 internal email to Zen's CEO summarising the Equinox 2 Offer stated that the Failsafe Mechanism "*ensure[s] that Zen and other ISPs are not disincentivised from using alternative network providers.*"²⁵⁰
- A5.37 In summary, the documentary evidence does not suggest that ISPs consider that the Failsafe Mechanism is too complex and ambiguous to be practically workable.
- A5.38 Finally, we disagree that the Failsafe Mechanism process will require the provision of data by altnets to the Independent Verifier. The contract terms envisage all data being provided by Openreach and the ISP.²⁵¹ Indeed, to decide on the provisioning of any given order, an ISP needs to have information about the availability of networks at the premise in question. This should enable it to directly identify premises where Openreach's FTTP network overlaps with altnets it has contracted with.

Relevance of the GEA Volume Offer

- A5.39 We recognise that the calculations carried out as part of the relief mechanism under the GEA Volume Offer differ from the calculations required under the Failsafe Mechanism. However, the two mechanisms can be compared in that they both provide a process whereby ISPs using altnets can provide information to an independent third party to verify qualification for discounts.²⁵² Indeed, BRG is the Independent Verifier under both agreements.

²⁴⁶ [REDACTED].

²⁴⁷ Indeed [REDACTED].

²⁴⁸ Joint Consultation Response, paragraph 50. GOS response dated 16 March 2023 to Ofcom notice dated 15 March 2023, question 1.

²⁴⁹ Notes of 11 November 2023 and 5 December 2023 meetings between Zen and Openreach. Provided in Openreach response dated 10 March 2023 to Ofcom notice dated 1 March 2023, question 2.

²⁵⁰ 24 March 2023 email provided in Zen response dated 12 April 2023 to s135 notice dated 23 March 2023, question 13.

²⁵¹ The Equinox 2 Offer, at paragraph 4 of Annex 4 states that: "*The Independent Verifier will seek to determine the number of premises in the Overbuild Footprint on the basis of the information it receives from the Communications Provider, Openreach and any publicly available data ...*"

²⁵² The verification process under the Failsafe Mechanism follows the general structure set out under the GEA Volume Offer, with the relevant provisions specifying, among other things, who should appoint the independent verifier, the instructions to be passed on to the independent verifier and how the verification process should be triggered.

A5.40 We therefore consider that a comparison with the GEA Volume Offer is relevant for understanding whether the use of a process which includes an independent third party is a workable mechanism.

Acceptability of the Failsafe Mechanism to ISPs

A5.41 In principle, if the Failsafe Mechanism is too onerous or otherwise unacceptable to ISPs, then this mechanism will provide little comfort to an ISP that is considering using an altnet and might need to use the Failsafe Mechanism.

Stakeholders' views

A5.42 We have grouped stakeholders' views on whether the Failsafe Mechanism is acceptable to ISPs into two categories:

- a) How onerous it is for ISPs to use this mechanism; and
- b) The impact on ISPs' working capital.

How onerous it is for ISPs to use the Failsafe Mechanism

A5.43 Openreach stated that the information ISPs need to provide to use the Failsafe Mechanism is readily available. For example, where an ISP has agreed to use an altnet it will need to have details of the addresses at which that altnet can be used.^{253 254}

A5.44 TalkTalk stated that the Failsafe Mechanism would not be onerous or difficult to operationalise. It anticipated that the data it would need to provide would be available from its systems, although some minor adaptation may be required.²⁵⁵ As noted above, Sky stated that it considers the Failsafe Mechanism to be acceptable.

A5.45 The Joint Respondents, INCA and Zzoomm stated that the Failsafe Mechanism is onerous and therefore costly for ISPs to use (e.g. having to provide detailed information on where they use altnets).²⁵⁶

A5.46 CityFibre stated that ISPs are unlikely to take comfort from the Failsafe Mechanism since it is likely to be onerous for ISPs to put systems in place to track their performance against the OMTs with and without the Failsafe Mechanism in "real time" and to build an effective model which can assess whether the Failsafe Mechanism is likely to deliver results.²⁵⁷

The impact on ISPs' working capital

²⁵³ Openreach Consultation response, paragraphs 3.3(iv), 3.34-3.35 and 3.39.

²⁵⁴ Openreach also stated that there is no charge for ISPs to use the Failsafe Mechanism. Openreach Consultation response, paragraphs 3.3(iv) and 3.37.

²⁵⁵ TalkTalk Consultation response, paragraph 2.8.

²⁵⁶ Joint Consultation Response, paragraphs 8(b) and 91(b). INCA and Zzoomm submission, 24 January 2023, paragraphs 8.2, 8.4 and 17.

²⁵⁷ CityFibre Consultation response, paragraphs 1.7(iv)(b) and 3.21-3.23. We note that this is distinct to the information the Independent Verifier needs.

- A5.47 If an ISP receives larger discounts as a result of the Failsafe Mechanism, it only does so once that process is complete.²⁵⁸ The Joint Respondents, INCA and Zzoomm thus stated that the Failsafe Mechanism will not place an ISP in the same position that it would have been in if it had only ordered from Openreach. This is due to the additional delay in receiving the discounts which has a negative impact on the ISP's working capital.²⁵⁹
- A5.48 Openreach stated that any discounts an ISP qualifies for based on its performance prior to the application of the Failsafe Mechanism will be paid as usual and will not be delayed by the application of that mechanism.²⁶⁰

Ofcom's analysis and conclusions

How onerous it is for ISPs to use the Failsafe Mechanism

- A5.49 We have considered whether the Failsafe Mechanism is likely to be so onerous for ISPs that the costs of using it outweigh the benefits of using an altnet (such as lower FTTP prices, as set out in Section 3).
- A5.50 It is the Independent Verifier, rather than the ISP, that identifies the overlap area and carries out the necessary calculations. The cost of the Independent Verifier is borne by Openreach, rather than ISPs that make use of the Failsafe Mechanism.²⁶¹
- A5.51 The information to be provided by an ISP to trigger the Failsafe Mechanism is specified in the Equinox 2 Offer. The ISP would need to submit to the Independent Verifier, in writing, and in such format and in such detail as the Independent Verifier may reasonably require:²⁶²
- a) Full and accurate details of all the premises where the ISP could at the start of the relevant period sell 'Eligible Services' (including the UPRN for each premise);²⁶³
 - b) Reasonable evidence that the ISP is able to order Eligible Services at each of these premises;
 - c) Reasonable evidence that the ISP has IT systems and sufficient infrastructure (including proof of interconnection and handover points with the altnet) in place to order and consume Eligible Services at these premises and in the relevant period; and
 - d) Such other information as the Independent Verifier may reasonably require to ensure the accuracy and veracity of the data.

²⁵⁸ Equinox 2 Offer, Appendix 1, paragraph 9.5.

²⁵⁹ Joint Consultation Response, paragraph 91(c). INCA and Zzoomm submission, 24 January 2023, paragraphs 8.5 and 18.

²⁶⁰ Openreach Consultation response, paragraph 3.33(ii).

²⁶¹ With the exception of where the ISP unreasonably fails to comply with the verification process or any timescale it has received advance notice of. Equinox 2 Offer, Appendix 1, paragraph 9.8.

²⁶² Equinox 2 Offer, Appendix 4, paragraph 2.1 (a)-(d).

²⁶³ "Eligible Services" is defined as fixed access broadband services provided over technologies capable of delivering similar or greater speeds as Openreach's standard GEA-FTTP service and which the ISP has contracted for with an altnet. (Equinox 2 Offer, clause 1.1).

- A5.52 We consider that essentially this is information that ISPs would need to have in order to contract with and use an altnet. Our view is consistent with Openreach’s and TalkTalk’s responses to the Consultation on this point.
- A5.53 In addition, the Equinox 2 Offer specifies that “*reasonable evidence*” must be provided by the ISP on its ability to order and consume services from altnets at specific premises. This grants some flexibility to the ISP regarding the type of information it can submit to the Independent Verifier.
- A5.54 More generally, if the Failsafe Mechanism were particularly onerous to use then we would expect ISPs’ internal documents that discuss the Equinox 2 Offer to indicate this. As explained in paragraphs A5.31-A5.36 above, this is not the case.²⁶⁴
- A5.55 In summary, we do not consider that the Failsafe Mechanism is likely to be so onerous that ISPs do not regard it as an acceptable option to use.
- A5.56 We do not agree with CityFibre that ISPs’ ability to use the Failsafe Mechanism depends on putting systems in place to track performance against the OMTs with and without the Failsafe Mechanism in “*real time*” or building a model to assess whether the Failsafe Mechanism is likely to “*deliver results*”.
- a) It is not necessary to carry out any of these steps as part of the formal process of applying the Failsafe Mechanism. This mechanism is only relevant for an ISP if it has missed the OMTs in a particular quarter. At that point, the ISP can apply to have its performance recalculated by the Independent Verifier under the Failsafe Mechanism.
 - b) ISPs are likely to monitor their ongoing progress towards meeting the OMTs. However, they are likely to do so regardless of whether or not they use an altnet and regardless of whether or not they might need to use the Failsafe Mechanism. ISPs will decide how much effort and resources to devote to this process. If sophisticated modelling is costly and difficult then ISPs will likely not carry it out.
 - c) Crucially, ISPs cannot be worse off in terms of the discounts they receive as a result of using the Failsafe Mechanism.²⁶⁵ If, following recalculation, the ISP’s performance outside of the overlap area proves to be above that originally calculated by Openreach, then the ISP will obtain additional discounts. However, if, on the contrary, the ISPs’ recalculated performance outside of the overlap area is below that originally calculated by Openreach, any discount originally paid by Openreach will remain unchanged.²⁶⁶

The impact on ISPs’ working capital

- A5.57 If an ISP receives larger discounts as a result of the Failsafe Mechanism, it only does so once that process is complete.²⁶⁷ We have considered whether the delay in receiving these

²⁶⁴ [redacted]. GOS Consulting response dated 16 March 2023 to s135 notice dated 15 March 2023, question 1. [redacted].

²⁶⁵ Equinox 2 Offer, Appendix 3, “Failsafe Mechanism - Worked Example.”

²⁶⁶ For example, if the ISPs’ original performance was between 80% and 90% it would have been entitled to some discounts under the original calculation. These are not put at risk as a result of opting to use the Failsafe Mechanism.

²⁶⁷ Equinox 2 Offer, Appendix 1, paragraphs 9.5- 9.6.

additional discounts is likely to outweigh the benefits of using an altnet, meaning that an ISP would instead prefer to solely use Openreach FTTP.

- A5.58 The general position under the Equinox 2 Offer (regardless of whether or not the Failsafe Mechanism is applied) is that ISPs only receive discounts after a contract quarter has ended.^{268 269}
- A5.59 If an ISP requests to activate the Failsafe Mechanism, Openreach is required to instruct the Independent Verifier within 5 working days of receiving notice that the ISP intends to invoke its right to use the Failsafe Mechanism.²⁷⁰ ISPs and Openreach are also required to cooperate with the Independent Verifier including responding to requests for information in a timely fashion.²⁷¹
- A5.60 We have sought to estimate the rough magnitude of the impact of this potential delay in terms of the additional costs an ISP may incur in funding its working capital. We have done this by applying the estimated cost of capital (WACC) to the per-line amount of discount that could be potentially subject to the independent verification process at the end of a quarter.²⁷² The impact in terms of additional funding costs is minimal. For example, a one-month delay corresponds to approximately 0.25% of the average list price for the full discount on connection charges. This estimate is likely to substantially overstate the additional funding costs in relation to connection charges. This is because, in practice using an altnet only potentially affect some of the connection discounts received by [X] (see Section 3), not the whole connection discount.
- A5.61 In summary, we do not consider the impact on ISPs' working capital is likely to be so significant that ISPs would regard the Failsafe Mechanism as so onerous that the costs of using it outweigh the benefits of using an altnet (such as lower FTTP prices).

Likelihood that the effectiveness of the Failsafe Mechanism will be undermined by geographic differences in ISPs' order mix

Stakeholders' views

- A5.62 In its pre-Consultation submission, VMO2 presented an illustrative example in which an ISP that only uses Openreach would place a higher proportion of FTTP orders in the overlap area than outside this area. In this example, if the ISP instead chose to place its FTTP orders with an altnet (rather than Openreach) in the overlap area then it would fail to meet the OMTs. VMO2 claimed that in such a scenario the ISP would be discouraged from using an altnet despite the presence of the Failsafe Mechanism since its Openreach Order Mix

²⁶⁸ Equinox 1 Offer, Schedule 1, paragraph 3 (not amended by the Equinox 2 Offer).

²⁶⁹ [X]. However, this does not necessarily imply that the extra delay in receiving any additional discounts due under the Failsafe Mechanism is significant compared to the benefits of using an altnet.

²⁷⁰ Equinox 2 Offer, Appendix 1, paragraph 9.9.

²⁷¹ Equinox 2 Offer, Appendix 1, paragraph 9.11.

²⁷² For the purposes of this rough calculation, we assumed a WACC of 7.8%. This is the same as BT's pre-tax nominal WACC, as calculated in the WFTMR Statement (see Table A21.9). The inferences that we draw from our calculation are not sensitive to the precise WACC chosen.

outside of the overlap area would still be insufficient to meet the OMTs.²⁷³ INCA and Zzoomm also made this point.²⁷⁴

- A5.63 In its Consultation response, VMO2 set out a stylised example in which the proportion of orders that are for FTTP (whether from Openreach or an altnet) is higher in the part of the Openreach FTTP footprint that overlaps with an altnet. In this example, if an ISP used that altnet then, looking at the Openreach FTTP footprint as a whole, it would fail to meet the OMTs. However, since the ISP *also* fails to meet the OMTs in the non-overlap area, it does not obtain the Equinox 2 Offer discounts even if it uses the Failsafe Mechanism. The ISP needs to place orders in the overlap area with Openreach to offset its underperformance against the OMTs in the non-overlap area. As a result, the ISP is discouraged from using altnet FTTP.²⁷⁵ CityFibre made a similar point.²⁷⁶
- A5.64 VMO2 stated that Ofcom should analyse how the current mix of orders varies between areas.²⁷⁷
- A5.65 CityFibre and VMO2 stated that overlap areas are likely to have a systematically higher FTTP take-up than non-overlap areas for the following reasons:
- a) CityFibre and VMO2 stated that altnets are likely to have a targeted approach to build that focuses on areas with a higher demand for FTTP and thus a higher order mix.²⁷⁸ VMO2 stated that, in contrast, Openreach's FTTP footprint is large and covers a range of areas.²⁷⁹ In support, CityFibre stated that in 2021/22 the rate of growth in Openreach FTTP volumes with ISPs other than BT in Area 2 (namely, 907%) was higher than in Area 3 (namely, 819%). They stated that this is consistent with the view that overbuild areas would be more important for generating a high order mix.²⁸⁰
 - b) CityFibre and VMO2 stated that altnets that supply third party ISPs, such as CityFibre, engage in marketing which increases demand for FTTP in areas where they are present.²⁸¹
 - c) CityFibre stated that the presence of multiple networks is likely to generate local advertising by ISPs.²⁸²

²⁷³ VMO2 meeting slides, 12 January 2023, slides 9 and 11.

²⁷⁴ INCA and Zzoomm submission, 24 January 2023, paragraph 16.2.

²⁷⁵ VMO2 Consultation response, paragraphs 87-90.

²⁷⁶ RBB presented illustrative examples in which using an altnet and relying on the Failsafe Mechanism worsens an ISP's performance against the OMTs, without necessarily failing to meet those targets, compared to the situation where that ISP just uses Openreach FTTP. CityFibre Consultation response, paragraphs 1.7(iv)(a) and 3.20. RBB Failsafe Report, pages 1-2, 3, and 8-11.

²⁷⁷ VMO2 Consultation response, paragraphs 104; also 98

²⁷⁸ CityFibre Consultation response, paragraphs 1.7(iv)(a) and 3.20(i). RBB Failsafe Report, page 4. VMO2 Consultation response, paragraphs 110, second bullet.

²⁷⁹ VMO2 Consultation response, paragraphs 110, first bullet.

²⁸⁰ RBB stated that, in contrast, the rate of growth in Openreach legacy FTTC volumes with ISPs other than BT was higher in Area 3 (namely, 12%) than in Area 2 (namely, 10%). RBB Failsafe Report, page 4.

²⁸¹ VMO2 Consultation response, paragraphs 110, third bullet. RBB Failsafe Report, page 4.

²⁸² CityFibre Consultation response, paragraph 1.7(iv)(a). RBB Failsafe Report, page 4.

- d) CityFibre argued that in areas where ISPs do not use altnets, ISPs are likely to face competition from vertically integrated altnets that directly retail FTTP to consumers. As some customers are served by these vertically integrated altnets, the number of FTTP orders ISPs place with Openreach in those areas will be lower.²⁸³
- e) VMO2 stated that within its network footprint a large number of consumers are used to fast broadband connections.²⁸⁴
- A5.66 In addition to systematic differences, CityFibre considered that quarterly fluctuations (e.g. due to marketing campaigns) may result in higher volumes of FTTP orders in overlap areas than in non-overlap areas in some quarters.²⁸⁵
- A5.67 Further, VMO2 stated that similar issues may arise even if the average mix of orders is the same in the overlap and non-overlap areas. This is because there is natural variation in FTTP demand within those two areas, e.g. due to differences in income, age and the performance of legacy broadband. As a result, there are likely to be sub-areas within the overlap area where a high proportion of orders are for FTTP. VMO2 stated that an ISP may need to place FTTP orders in these sub-areas with Openreach, rather than an altnet, in order to meet the OMTs.²⁸⁶
- A5.68 CityFibre and VMO2 stated that uncertainty about whether one of these scenarios will arise will deter ISPs from using an altnet.²⁸⁷
- A5.69 VMO2 also argued that the treatment of altnet connections under the GEA Volume Offer – i.e. counting altnet orders towards the OMTs in the same way as Openreach FTTP orders – would be much more effective than the Failsafe Mechanism in addressing its envisaged scenarios.²⁸⁸
- A5.70 Openreach provided its own illustrative example to explore the circumstances under which geographic differences in order mix would result in a problem. We understand Openreach’s position to be that even large differences in order mix performance between the overlap and non-overlap area may have a small impact on the discounts that an ISP receives.²⁸⁹ Openreach said that there is no evidence that differences of this scale would materialise in practice.²⁹⁰

²⁸³ RBB’s illustrative examples featured an area (“Area C”) where such an altnet is present and “Scenario 3” and “Scenario 4” assumed that it competes particularly fiercely. CityFibre Consultation response, paragraph 3.20(iii). RBB Failsafe Report, pages 4, 7 and 10-11.

²⁸⁴ VMO2 Consultation response, paragraphs 110, fourth bullet.

²⁸⁵ CityFibre Consultation response, paragraph 3.20(iii). RBB Failsafe Report, page 4.

²⁸⁶ VMO2 Consultation response, paragraphs 106-107.

²⁸⁷ CityFibre Consultation response, paragraph 1.7(iv)(a). RBB Failsafe Report, page 3, 5-6. VMO2 Consultation response, paragraphs 108-109, 164-165 and 168 (second bullet); also page 2.

²⁸⁸ VMO2 Consultation response, pages 4-5 and paragraphs 119-121.

²⁸⁹ In Openreach’s example, the ISP’s Order Mix falls from 90% if it only uses Openreach to 89% if it relies on the Failsafe Mechanism. As a result, the ISP loses 10% of the discounts to connection charges; it retains all of the rental discounts. Openreach Consultation response, paragraphs 3.25-3.27, 3.29.

²⁹⁰ Openreach Consultation response, paragraph 3.28(i).

A5.71 Openreach also stated that the theoretical problem, identified by CityFibre and VMO2, is dependent on the assumption that ISPs face a sizeable group that they need to serve using Openreach legacy services, which Openreach considered is implausible.²⁹¹

Ofcom's analysis and conclusions

A5.72 The concern presented by CityFibre and VMO2 as the Failsafe Mechanism not being fit for purpose is in fact a more fundamental one; namely, whether an ISP can use an altnet in a subset of the Openreach FTTP footprint (i.e. an overlap area) and be confident that it can still meet the OMTs in the remaining (i.e. non-overlap) area. We address this concern in the following paragraphs.

A5.73 The hypothetical scenarios presented by CityFibre and VMO2 are all based on the idea that an ISP would believe, ahead of making its decision on whether to use an altnet in a subset of the Openreach FTTP footprint, that:

- a) There is a greater risk of failing to achieve the OMTs in the non-overlap area compared to the combined non-overlap area and overlap area (or parts of the overlap area); and
- b) Its best option to make it more likely that it meets the OMTs is to place its FTTP orders with Openreach in the overlap area (or parts of the overlap area).

A5.74 It is unclear to what extent CityFibre and VMO2 consider these hypothetical scenarios are likely to arise in practice. Between them, they identify different versions of their hypothetical scenarios: e.g. demand for FTTP is systematically higher in the whole overlap area; demand for FTTP is systematically higher in parts of the overlap area; and demand differences are not systematic, but volatile. CityFibre and VMO2 do put forward reasons why they believe that ISPs will expect demand for FTTP could be higher in the overlap areas than in the non-overlap areas.²⁹²

A5.75 We recognise that, should these hypothetical scenarios materialise, the Failsafe Mechanism might not address them. We have considered whether these are real enough scenarios, such that the OMTs could potentially create a barrier to using altnets despite the presence of the Failsafe Mechanism.

A5.76 The hypothetical scenarios are all based on a common set of assumptions, namely that:

- a) There are differences in underlying demand for FTTP and legacy services between different areas.
- b) These differences in underlying demand translate into differences in ISPs' order mix such that the OMTs are missed in non-overlap areas and surpassed in (some or all) overlap areas.
- c) The differences in performance against the OMTs are such that, in combination, the OMTs would be met if the ISP does not place orders with an altnet in the overlap areas.

²⁹¹ Openreach Consultation response, paragraph 3.28(ii). Openreach's submissions on the size of the "captive group" are set out in Section 3.

²⁹² VMO2 also pointed to the evidence of natural variation in legacy sales, set out in Annex 9 of the Consultation.

- A5.77 For the above assumptions to hold, a particular combination of parameters is required with respect to:
- a) The relative size (in terms of the number of new orders per quarter) of the overlap vs. non-overlap areas; and
 - b) The ISP's relative performance against the OMTs in the overlap vs. non-overlap areas.
- A5.78 For example, the smaller an overlap area is relative to the non-overlap area, the greater the outperformance in the overlap area must be relative to the underperformance in the non-overlap area in order for the combined performance to meet the OMTs.
- A5.79 For the hypothetical scenarios to arise, an ISP would need to believe these assumptions are credible ahead of making its decision on whether to use an altnet, while anticipating changes in the overlap areas and the non-overlap areas as altnets and Openreach keep expanding their FTTP footprints.²⁹³ We consider this is unlikely for the reasons set out below.
- A5.80 In the following paragraphs of this subsection, we discuss:
- a) The role of underlying demand in driving order mix performance;
 - b) The impact of geographic differences on ISPs' sales practices;
 - c) The distribution of geographic differences between overlap areas and non-overlap areas;
 - d) The ability of ISPs to achieve the OMTs in non-overlap areas in the presence of geographic differences.

The role of underlying demand in driving order mix performance

- A5.81 First, differences in underlying demand play a limited role in determining whether the OMTs are passed or failed. The evidence we have gathered clearly shows that the mix of orders ISPs place with Openreach is driven primarily by their sales practices. We discuss these in detail in Annex 4. [redacted]
- A5.82 This is consistent with what ISPs have told us and their contemporaneous internal documents:
- a) In their consultation responses, ISPs expressed no concerns about the scenarios raised by CityFibre and VMO2.
 - b) ISPs' contemporaneous internal documents that mention the Failsafe Mechanism do not mention any concerns about such scenarios.²⁹⁴

²⁹³ This may be at the point of signing up with an altnet or at the point of placing orders having already signed up.

²⁹⁴ We asked ISPs to provide copies of any internal documents submitted to a governance body within the ISP (such as a trading board or executive committee) that mention the Failsafe Mechanism or any proposals of such a mechanism in the draft Equinox 2 Offer since July 2022 until 12 April 2023. TalkTalk identified [redacted] that mentioned the Failsafe Mechanism, which we set out in paragraphs A5.33(b) above. It also stated that [redacted]. TalkTalk response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 2. Zen identified two documents originating from Openreach that mention the

- c) These hypothetical scenarios are not new to the Equinox 2 Offer; they could already be envisaged when the Equinox 1 Offer was introduced. We have no indication of ISPs identifying this as a concern at any point.

The impact of geographic differences on ISPs' sales practices

A5.83 Second, whilst we recognise that geographic differences in underlying demand could make it easier or more difficult to sell FTTP in some areas than others, and therefore could affect ISPs' Openreach Order Mix (notwithstanding the fact that sales practices are the primary driver of the Openreach Order Mix), the information we have gathered from ISPs suggests any impact on the Openreach Order Mix performance is not significant. If geographic differences in underlying demand were having a significant impact on the Openreach Order Mix performance, we might expect ISPs to have looked at performance within different parts of the Openreach footprint or to vary their sales practices geographically to target areas with lower underlying demand. However:

- a) Sky, TalkTalk, Vodafone and Zen [redacted].²⁹⁵
- b) TalkTalk, Vodafone and Zen [redacted].²⁹⁶
- c) Sky, TalkTalk, Vodafone and Zen [redacted].²⁹⁷ We discuss ISPs' sales practices in detail in Annex 4.

The distribution of geographic differences between overlap areas and non-overlap areas

A5.84 Third, even if geographic differences in underlying demand were having a material impact on ISPs' Openreach Order Mix, the scenarios envisaged by CityFibre and VMO2 materialise if the distribution of geographic differences between areas is systematic, such that:

- a) The underlying demand for new FTTP connections is higher in the overlap areas than in the non-overlap areas; and/or
- b) The underlying demand for new legacy connections is higher in the non-overlap areas than in the overlap areas.

A5.85 We have considered testing whether this is the case using data about actual orders placed by ISPs in overlap and non-overlap areas since they signed up to the Equinox 1 Offer.

Failsafe Mechanism: the draft of the Equinox 2 Offer and the accompanying overview of the Failsafe Mechanism. Zen response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 2. Sky [redacted]. Sky response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 1. Vodafone confirmed that they do not hold any such documents. Vodafone response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 2.

²⁹⁵ Sky response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3. TalkTalk response dated 21 April 2023 to s135 notice dated 12 April 2023, question 9. Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 5. Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 5.

²⁹⁶ TalkTalk response dated 21 April 2023 to s135 notice dated 12 April 2023, question 1. Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 1. Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 1.

²⁹⁷ Sky response dated 21 April 2023 to s135 notice dated 12 April 2023, question 2. TalkTalk response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3. Vodafone response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3. Zen response dated 21 April 2023 to s135 notice dated 12 April 2023, question 3.

However, we have concluded that ISPs' historical order mix would not be informative about underlying demand in different parts of the Openreach FTTP footprint. In particular:

- a) ISPs' historical order mixes reflect not only differences in underlying demand but also ISPs' sales practices at that time (e.g. marketing), reflecting any temporary measures ISPs used to achieve the OMTs in the circumstances prevailing at that time and in that footprint. These circumstances will change over time due to various factors such as changing levels of the OMTs, the activation of regulatory stop sell, competitor activity and whether an ISP uses an altnet and to what extent.
- b) It would be challenging – if at all possible – to separate these factors to produce a data set which reflected underlying demand as well as reflecting the changes in overlap areas over time.
- c) Even if we analysed this and assessed whether differences in underlying demand correlate with overlap areas, the results would not, in our view, be a reliable predictor of whether the conclusion holds true in future, given the changes in build plans and overlap going forward.

A5.86 Given the above, we consider that ISPs' answers to our questions about geographic differences in their order mix and sales practices, as set out at paragraph A5.83 above, are a better and more reliable indicator of whether geographic differences in underlying demand are a significant factor in ISPs' decisions to use an altnet.²⁹⁸

A5.87 CityFibre and VMO2 put forward reasons why underlying demand for FTTP is systematically higher in overlap areas than in non-overlap areas. We think the real situation is more complex than suggested by CityFibre and VMO2. For example, they overlooked a number of other relevant factors that will ultimately determine whether underlying FTTP demand is higher in overlap areas than non-overlap areas. For completeness, we discuss some of these other factors at paragraphs A5.94-A5.98 below. However, we do not believe it is necessary for us to reach a concluded view on these points, given the evidence above, which indicates that geographic differences in underlying demand are unlikely to be a significant factor in determining ISPs' order mix and their decisions to use an altnet.²⁹⁹

A5.88 VMO2 also pointed to the possibility of higher demand for FTTP in some parts of the overlap area compared to the non-overlap area. It suggested that ISPs may prefer, in those parts of the overlap area, not to activate the Failsafe Mechanism and place their FTTP orders with Openreach to improve their Openreach Order Mix.³⁰⁰ However, given the

²⁹⁸ Openreach carried out analysis comparing ISPs' historical Openreach Order Mix for each calendar quarter of 2022 in (i) the parts of its FTTP footprint that it assessed as overlapping with a competing network (done separately for CityFibre and VMO2); (ii) the parts it assessed as non-overlapping with that network; and (iii) the parts in which it assessed the presence of that network as 'unknown'. The analysis shows that ISPs' Openreach Order Mix tends to be lower in CityFibre overlap areas than in CityFibre non-overlap areas, while for VMO2 the comparison shows a mixed picture. In both cases, the Openreach Order Mix is highest – close to 100% – in areas where the competing network's presence is 'unknown'. Openreach response dated 21 April 2023 to s135 notice dated 12 April 2023, questions 1 and 2. For the reasons mentioned above, we do not consider this analysis to be informative of geographic differences in underlying demand.

²⁹⁹ Moreover, as explained above, even if ISPs believe underlying demand could be higher in overlap areas than non-overlap areas, that is not sufficient for the scenario identified by VMO2 and CityFibre to arise.

³⁰⁰ VMO2 Consultation response, paragraphs 97-98 and 102-111.

smaller relative size of a subset of the overlap area as opposed to the whole overlap area, the impact on the overall performance would be more limited, as discussed at paragraphs A4.5-A4.8.

A5.89 CityFibre stated that in addition to systematic differences, the risk of fluctuations in order mix from quarter to quarter may be enough to present a concern for ISPs.³⁰¹ The Equinox 2 Offer contains provisions allowing an ISP to catch up next quarter if it misses the OMTs. These will allow an ISP to somewhat smooth out the effects of quarterly fluctuations in its Openreach Order Mix. Even if quarterly fluctuations can mean that the relative share of FTTP is higher in the overlap area than in the non-overlap area in some quarters, it does not necessarily follow that cutting down on altnet use is an ISP's best response. The uncertainty means there is also the possibility of geographic differences leading to a higher relative share of FTTP in the non-overlap areas, in which case diverting orders from an altnet to Openreach could make the ISP worse-off – missing out on potential savings on rental and connection charges from an altnet – compared to using the altnet and activating the Failsafe Mechanism.

The ability of ISPs to achieve the OMTs in non-overlap areas in the presence of geographic differences in underlying demand

A5.90 Finally, even if ISPs expect that there is (or could be) a systematic difference in underlying demand between overlap and non-overlap area in the future, ISPs will know that their Openreach Order Mix is not a pre-determined value driven purely by these underlying conditions. As described in Section 3 it will depend on their chosen commercial strategy.

A5.91 Consequently, even if an ISP expected geographic differences in the relative volume of FTTP and legacy orders, such as those envisaged in the hypothetical scenarios presented by CityFibre and VMO2, to arise in the future, it might make changes to its commercial strategies to ensure it meets the OMTs. As discussed in Section 3, there are some indications that ISPs would change their commercial strategies rather than diverting altnet orders to Openreach FTTP.

A5.92 We note that an ISP is unlikely to have reason to believe that it could not make changes to its commercial strategies to ensure it meets the OMTs in the non-overlap area. The non-overlap area will be large – millions of premises, comprising all kinds of areas – meaning any extreme differences in demand are averaged out.

Conclusion on the likelihood that the effectiveness of the Failsafe Mechanism will be undermined by geographic differences in ISPs' order mix

³⁰¹ CityFibre Consultation response, paragraph 3.20(iii). RBB Failsafe Report, page 4.

A5.93 Having assessed the evidence available to us in the round, we do not consider this to be a real enough scenario, such that the OMTs could potentially create a barrier to using altnets despite the presence of the Failsafe Mechanism.³⁰²

Drivers of geographic differences in underlying demand

A5.94 As explained above, CityFibre and VMO2 identify various factors that suggest the underlying demand for FTTP is higher in overlap areas than in non-overlap areas. Below, we identify other relevant factors that may cause those differences to be less significant.

A5.95 First, CityFibre and VMO2 argued that altnets build selectively in areas with a high underlying demand for FTTP, whereas Openreach builds in a wider range of areas (see A5.65(a) above). However, network build by Openreach and altnets is driven by a combination of multiple factors, [redacted].³⁰³ Thus even though altnets may need to be more selective than Openreach in where they build, their decisions will be based on the combination of multiple factors rather than the underlying demand alone.

A5.96 Second, VMO2 argued that underlying demand for FTTP is likely to be higher in its footprint than outside of its footprint because consumers in its footprint are used to high broadband speeds (see paragraph A5.65(e) above). However, as many of those customers are already served by an established provider of high-speed services, this does not necessarily translate in a higher demand for new FTTP connections compared to other areas. Insofar as VMO2 presence does result in demand differences, we note that for an ISP considering the use of an altnet other than VMO2, VMO2 will be present in both the overlap area and the non-overlap area.³⁰⁴

A5.97 Third, CityFibre and VMO2 argued that underlying demand for FTTP is likely to be higher in overlap areas than in non-overlap areas because the presence of multiple networks is likely to generate local marketing by altnets and ISPs (see paragraphs A5.65(b)-A5.65(c) above). However, marketing by ISPs is not limited to areas served by multiple FTTP networks. Sky told us that [redacted], while Vodafone told us that [redacted].³⁰⁵ Non-overlap areas are therefore also likely to attract marketing activity from ISPs.

A5.98 Finally, regulatory stop sell is another driver of the Openreach Order Mix (as discussed above). In areas where regulatory stop sell applies, very few orders for legacy services are currently placed (see Annex 4). Regulatory stop sell is triggered across the Openreach FTTP footprint based on the percentage of premises passed within an exchange area,

³⁰² For the avoidance of doubt, our conclusion also applies to an ISP that is considering whether to make an upfront contractual commitment to purchase altnet FTTP (including entering into a volume commitment with that altnet or agreeing to solely use that altnet for FTTP orders in certain areas).

³⁰³ CityFibre response dated 21 April 2023 to s135 notice dated 12 April 2023, question 1. Nexfibre response dated 21 April 2023 to s135 notice dated 12 April 2023, question 1. Openreach response dated 21 April 2023 to s135notice dated 12 April 2023, questions 3 and 4. [redacted]. VMO2 response dated 21 April 2023 to s135notice dated 12 April 2023, question 1.

³⁰⁴ As of 1 January 2023, VMO2 presence was similar in the part of the Openreach FTTP footprint that overlapped with another altnet [redacted] and the part that did not overlap with another altnet [redacted]. Ofcom analysis of the Connected Nations data as of 1 January 2023.

³⁰⁵ Sky response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 2. Vodafone response dated 21 April 2023 to Ofcom notice dated 12 April 2023, question 3.

irrespective of altnet presence. The extent of regulatory stop sell is currently similar in both overlap and non-overlap areas.³⁰⁶ As regulatory stop sell progresses in overlap and non-overlap areas, this could diminish any differences between these areas.

Risk of future amendment of the Failsafe Mechanism

- A5.99 If an ISP's rate of orders for legacy services per premises in the overlap area is more than 50% greater than in the rest of the Openreach FTTP footprint (the 'Legacy Cross-Check') then this may trigger a review and amendment of the Failsafe Mechanism by Openreach. This could potentially result in the Failsafe Mechanism being modified or removed in future assessment periods.³⁰⁷ Any such amendments to the Equinox 2 Offer would be required to be notified to Ofcom under the 90 day notification requirement.
- A5.100 In principle, if an ISP might need to use the Failsafe Mechanism but is concerned that the Failsafe Mechanism could be curtailed in the future as a result of this Legacy Cross Check, then this might deter it from using an altnet.

Stakeholders' views

- A5.101 Openreach stated that the Legacy Cross-Check was introduced to prevent ISPs from using the Failsafe Mechanism to shift sales activity back towards legacy products. However, if the Legacy Cross-Check is failed this does not automatically disapply the operation of the Failsafe Mechanism. Any resulting amendments to the Equinox 2 Offer would need to be notified to Ofcom under the '90 day' process.³⁰⁸
- A5.102 The Joint Respondents stated that the Failsafe Mechanism fails to address the competitive harm created by the OMTs since Openreach can disapply it if ISPs fail the Legacy Cross-Check.³⁰⁹
- A5.103 INCA and Zzoomm stated that ISPs can be expected to buy more legacy products in overlap areas as a result of using an altnet. The effectiveness of the Failsafe Mechanism is undermined by Openreach's ability to disapply it when the Legacy Cross-Check is failed.³¹⁰
- A5.104 Sky stated that natural variation in legacy sales within Openreach's FTTP footprint is very unlikely to result in it failing the Legacy Cross Check.³¹¹ TalkTalk stated that the Legacy Cross Check is unlikely to be failed since [3<], so orders in overlap areas are more likely to be for FTTP and less likely to be for legacy.³¹²

³⁰⁶ The extent of regulatory stop sell is currently similar in both overlap and non-overlap areas. As of 1 January 2023, regulatory stop sell was effective in [3<] of the Openreach FTTP footprint that overlapped with altnets other than VMO2, compared to [3<] outside of that overlap. Ofcom analysis of the Connected Nations data as of 1 January 2023. [Openreach list of regulatory stop-sell exchanges](#).

³⁰⁷ Equinox 2 Offer, Appendix 1, paragraph 9.10(a).

³⁰⁸ Openreach Consultation response, paragraphs 3.36 and 3.39.

³⁰⁹ Joint Consultation Response, paragraph 91(a).

³¹⁰ INCA and Zzoomm submission, 24 January 2023, paragraphs 8.7 and 16.1.

³¹¹ Sky Consultation response, page 3.

³¹² TalkTalk Consultation response, paragraph 2.7.

A5.105 Hyperoptic stated that, given the critical role of the Failsafe Mechanism, Ofcom should re-evaluate the Equinox 2 Offer if this mechanism was withdrawn.³¹³

Ofcom's analysis and conclusions

A5.106 The design of the Legacy Cross-Check is consistent with Openreach's stated rationale. One purpose of the Equinox 2 Offer is to offer cheaper prices for FTTP to compensate ISPs for limiting their orders of legacy products. The Legacy Cross-Check is intended to guard against the risk that an ISP could use the Failsafe Mechanism as a way to continue pushing sales of legacy broadband products in those parts of the Openreach FTTP footprint where an altnet happens to be available (for example, if it perceives that there are gains from continuing to offer legacy Openreach products to new customers).

A5.107 However, we would be concerned if natural variation in legacy sales within the Openreach FTTP footprint meant that an ISP could inadvertently fail the Legacy Cross-Check, even when the ISP adopts the same sales practices for legacy products across the whole of the Openreach FTTP footprint. If this were the case, this could affect ISPs' incentives to use an altnet.

A5.108 We have assessed how likely it is that an ISP's legacy orders per premises in the overlap area is more than 50% greater than in the non-overlap area, due to the natural variation in the sales of legacy services within the Openreach FTTP footprint. To do this, we have looked at the variation in existing legacy orders across the Openreach FTTP footprint.^{314 315}

- a) For [3.2], we examined the frequency with which orders for legacy services in a randomly assigned subset of Openreach exchange areas would produce a legacy order rate per Openreach FTTP premises that is more than 50% greater than in the remaining Openreach exchange areas.³¹⁶ We found no instances of exceeding the 50% tolerance for a plausible range of randomisation parameters.
- b) To estimate the potential impact of activating the Failsafe Mechanism if an ISP used a mixture of cable and FTTP from VMO2 and Nexfibre in the future, we examined orders for legacy services in exchange areas likely to be located in Area 2 (which proxies the overlap area in this scenario) and compared the legacy order rate per Openreach FTTP premises to the rest of the Openreach FTTP footprint for [3.2]. We found no instances of exceeding the 50% tolerance for a plausible range of parameters to identify exchange areas likely to be located in Area 2.

A5.109 Consequently, we consider that natural variation of legacy sales within Openreach's FTTP footprint is very unlikely to result in an ISP inadvertently failing the Legacy Cross-Check.

³¹³ Hyperoptic Consultation response, pages 3 and 5.

³¹⁴ Full details are set out in Annex 6.

³¹⁵ To get an informative view of the variation in ISPs' sales of legacy services, we consider it desirable that the data set reflects the impact of ISPs' sales practices as well as the underlying demand and other factors that may contribute to such variation.

³¹⁶ As discussed in Section 3, we cannot rule out the possibility that using an altnet could potentially affect some of the discounts received by [3.2] in the short term, assuming no changes to existing commercial strategies.

A6. Legacy Cross-Check

Introduction

- A6.1 If an ISP's rate of orders for legacy services per premises in the overlap area is more than 50% greater than in the rest of the Openreach FTTP footprint (the 'Legacy Cross-Check') then this may trigger a review and amendment of the Failsafe Mechanism by Openreach. This cross-check is done each time an ISP activates the Failsafe Mechanism.
- A6.2 There is likely to be some natural variation in legacy sales within the Openreach FTTP footprint. We have therefore assessed the risk that variations in legacy sales within the Openreach FTTP footprint mean that an ISP could inadvertently fail the Legacy Cross-Check, even when the ISP adopts the same sales practices for legacy products across the whole of the Openreach FTTP footprint.
- A6.3 This annex is structured as follows:
- a) First, we describe Openreach's own analysis which it used to validate the 50% tolerance in the legacy order rate per premises.
 - b) Second, we describe how we amended Openreach's analysis to align with our assessment of the proportion of Openreach's FTTP network overlapping with altnets.
- A6.4 Both Openreach's and our analysis use data on the variation in existing legacy orders across the Openreach FTTP footprint to assess how likely it is that an ISP's legacy orders per premises in the overlap area is more than 50% greater than in the non-overlap area.

Openreach's analysis

- A6.5 Openreach's analysis involved splitting its FTTP footprint into an assumed overlap area and an assumed non-overlap area, and comparing the legacy order rate per premises in each area. Openreach carried out its analysis using two different approaches.³¹⁷
- A6.6 Under the first approach, Openreach randomly assigned exchange areas to an overlap area or non-overlap area. Exchange areas where regulatory stop sell had been activated, and exchange areas that it assessed were covered by CityFibre were excluded from this analysis.³¹⁸ The probability that any one of these exchange areas was assigned to the overlap category was set at 5% or 10% (roughly approximating 5% or 10% overlap of the Openreach FTTP footprint by altnets). It then compared the legacy order rate per premises in the overlap and non-overlap areas. For this analysis, Openreach used data on the number of orders for legacy services placed by [X] in April-June 2022 in each exchange area. Openreach repeated this exercise a number of times to understand how often each

³¹⁷ Openreach response dated 17 January 2023 to Ofcom's information request of 9 January 2023, question 1.

³¹⁸ Openreach excluded exchange areas that it assessed were covered by CityFibre to avoid the results being driven by factors specific to CityFibre's presence in those areas.

random assignment would produce a legacy order rate per premises in the overlap area that is more than 50% greater than in the non-overlap area.

- A6.7 Under the second approach, Openreach assigned exchange areas to an overlap area or non-overlap area based on its assessment of where its FTTP footprint overlapped with the CityFibre footprint.³¹⁹ It then compared the legacy order rate per premises in the overlap and non-overlap areas. For this analysis, Openreach used data about orders for legacy services for premises within its FTTP footprint in October until mid-December 2022.
- A6.8 The first piece of analysis showed that the difference between the legacy order rate per premises in a randomly assigned overlap area and non-overlap area tends to be within the 50% tolerance.³²⁰ The second piece of analysis showed that the difference between the legacy order rate per premises in areas assessed as overlapping with CityFibre's footprint; compared to all remaining areas, is within the 50% tolerance.

Ofcom's analysis

- A6.9 We have reviewed the modelling provided by Openreach and amended it to align with our assessment of the proportion of Openreach's FTTP network overlapping with altnets. We also tested the sensitivity of the results with respect to the key parameters of the model to ensure that our results are driven by the underlying sales and footprint data rather than the selection of parameter values. Also, where the model relies on randomisation, we repeated the random assignment and generated the results over a larger number of iterations to provide an informative view of the statistical distribution of the results. This is detailed in the following paragraphs.
- A6.10 We recognise there are some limitations to this analysis. First, there is uncertainty about the extent and location of future overlap of the Openreach FTTP footprint by altnets. We proceeded using the best information available to us and sought to address this uncertainty by testing a range of plausible probabilistic scenarios. Second, the analysis relies on historical data about orders for legacy services over a limited period in the past year. While the overall volume of orders for legacy services is likely to decline, we have not identified anything to suggest a systematic material shift in its geographic distribution (which is the relevant factor in the Legacy Cross-Check).
- A6.11 We have run Openreach's first approach for [§<] with several amendments.³²¹ We repeated the random assignment of exchange areas into the overlap and non-overlap categories 100,000 times. We also tested both a 15% and a 25% probability of an exchange area being assigned to the overlap area (roughly approximating 15% and 25% overlap

³¹⁹ Openreach identified exchange areas as overlapping with CityFibre's footprint if more than 50% of orders in the exchange area were for premises that, according to its assessment, were covered by CityFibre.

³²⁰ Openreach's model captures the results of ten iterations of such random assignment, but can be iterated manually.

³²¹ As discussed in Section 3, we cannot rule out the possibility that using an altnet could potentially affect some of the discounts received by [§<] in the short term, assuming no changes to existing commercial strategies.

respectively).³²² There were no instances in our 100,000 iterations where the 50% threshold was exceeded.

- A6.12 We recognise that the approach above is a simplification as it assumes that every exchange area has the same probability of being assigned as an overlap area. We have therefore done some further sensitivity testing to understand the robustness of our results. We have restricted the assignment to the overlap category only to exchange areas likely to be located within Area 2,³²³ where altnets are most likely to build, and for these exchange areas used a higher probability of being assigned as an overlap area.³²⁴ This again resulted in no instances in our 100,000 iterations where the 50% threshold was exceeded.
- A6.13 If VMO2 and Nexfibre were also to begin supplying the main ISPs then overlap of Openreach's FTTP network would be significantly higher than 25%, and could be above 60%. To assess this scenario, we compared the legacy order rate, for each of [X], in: (i) an area comprising of all exchange areas likely to be located within Area 2; with (ii) the rest of Openreach's FTTP footprint.³²⁵ In all cases, the legacy order rate in the former area was either lower than in the latter or was higher but well within the 50% tolerance.
- A6.14 We have also run Openreach's second approach and tested the sensitivity of results to different assumptions about exchange areas that overlap with CityFibre footprint.³²⁶ In all scenarios, legacy order rate in the assumed overlap areas was either lower than in the assumed non-overlap areas or higher but well within the 50% tolerance for each of [X].
- A6.15 Based on our own analysis, we consider it very unlikely that an ISP would fail the Legacy Cross-Check due to the natural variation of legacy orders.

³²² This is consistent with our position on overlap in Annex 3.

³²³ We sought to identify these based on the proportion of orders in the exchange area that were for premises in Area 2. As Openreach's April to June 2022 dataset did not contain information about the location of premises for which orders were made, we relied on Openreach's interim data for October until mid-December 2022. We have tested scenarios where an exchange area would be categorised as located in Area 2 if more than a) 25%, b) 50% or c) 75% of orders within the exchange area were for premises in Area 2.

³²⁴ We used a probability between 30% and 50%, which is double the probability we used when considering the full Openreach FTTP footprint.

³²⁵ [X]

³²⁶ We have tested scenarios where an exchange area would be categorised as overlapping with CityFibre footprint if more than a) 25%, b) 50% or c) 75% of orders within the exchange area were for premises assessed by Openreach as covered by CityFibre.

A7. The 2021 Cost Model

Introduction

- A7.1 For the WFTMR, we developed a bottom-up cost model for deploying a fibre network (the '2021 Cost Model'). Amongst other objectives, this model allowed us to verify that our charge controls for Area 2 are consistent with our policy objective of promoting investment in gigabit-capable networks by other telecoms providers.
- A7.2 We first discuss the relevance of the 2021 Cost Model to our assessment of the Equinox 2 Offer. We then set out various, more detailed modelling assumptions which stakeholders have commented on. Finally, we present the results of our model.

The relevance of the 2021 Cost Model to our assessment of the Equinox 2 Offer

- A7.3 As discussed in Section 3, although concerns about low pricing are outside the scope of the 90-day process, we have nonetheless considered whether the level of Openreach's prices under the Equinox 2 Offer raises *prima facie* concerns that would lead us to decide to investigate them in further detail.
- A7.4 We consider it appropriate to use the 2021 Cost Model as part of this exercise. We use the readily available estimate of entrants' costs from the model to test whether the Equinox 2 Offer prices are consistent with the existing regulatory framework, as set in the WFTMR Statement.
- A7.5 In the WFTMR Statement, we estimated a range for an entrant's costs, reflecting variations in certain key modelling assumptions, as well as the different business plans.³²⁷ For the purposes of the WFTMR Statement, it was not necessary to settle on a precise estimate of entrant costs. Our range for costs was relatively wide, with the upper end being over 40% higher than the lower end.
- A7.6 For the reasons set out in Section 3, we have not sought to revisit the cost and modelling assumptions that we used in the WFTMR Statement and we have not attempted to gather further evidence in order to recalibrate the model. As a point of principle, we consider that this approach is appropriate in the context and for the purposes of the exercise we are carrying out and the background described in Section 3.
- A7.7 Adjusting the 2021 Cost Model (as stakeholders have attempted to do) is not a straightforward exercise.³²⁸

³²⁷ We estimated that the entrant operator would have to charge between £9.53 and £13.67 per month (in 2020/21 prices) in order to recover its efficiently incurred costs over the modelled period. WFTMR Statement, Annex 15, paragraph A15.85.

³²⁸ We describe below how we have ensured that we are comparing the outputs of the 2021 Cost Model and the Equinox 2 Offer prices on a consistent basis. Specifically, we have (i) amended the 2021 Cost Model to reflect the lowest connection charge under the Equinox 2 Offer (as explained in Section 4, this reflects our approach of testing whether the Equinox 2

- a) The 2021 Cost Model reflects the outcome of a detailed assessment and evidence gathering process, taking into account stakeholder comments, during the WFTMR. We calibrated the model using information from operators in connection with their business plans, cost modelling and forecasts.
- b) Only selecting a sub-group of input assumptions to update (such as those raised in the altnet submissions discussed below or a selection of cost and volume assumptions based on what specific entrants have currently achieved) could result in a biased estimate of costs and/or risks introducing inconsistency into the model.³²⁹
- c) Rather, re-opening the model and assessing all the significant assumptions would require a significant amount of time and work, including a more extensive data request and collection exercise.³³⁰
- d) It would not be appropriate to simply adopt the alternative estimates provided by some stakeholders. The risk is that the adjustments proposed by stakeholders are selective. To illustrate, AlixPartners (in its report for CityFibre) amended [§<]. However, if we were to update the WACC for FTTP services, to use in a fresh modelling exercise, we would have to review all the relevant parameters that feed into it.³³¹ This work would include estimating BT Group's current equity beta, UK utilities equity betas, European telecoms betas and ICT betas. AlixPartners only considered [§<].

Further detail on our modelling assumptions

A7.8 Given our view on the relevance of the 2021 Cost Model, as explained above, we do not consider that it is necessary for us to engage with the more detailed points raised by stakeholders. However, for completeness, below we provide a further explanation of this model and a brief summary of stakeholders' more detailed points.

Our base case and estimation of a range for altnet costs

A7.9 A full description of the 2021 Cost Model is given in Annex 15 of the WFTMR Statement. In summary, the 2021 Cost Model estimates average costs per fibre subscriber for different network scale, configuration, and geographic deployments. It does so over a long horizon (up to 2056/57). It accounts for the time that it takes a network to build out (including

Offer prices would have been acceptable at the time of the WFTMR Statement); and (ii) indexed the outputs of the 2021 Cost Model to be consistent with Openreach 2023/24 prices (as discussed below, the range in the WFTMR Statement was expressed in 2020/21 prices). We do not consider this consistency exercise to be comparable to the model adjustments proposed by stakeholders.

³²⁹ The Joint Respondents stated that Ofcom should be able to correct any inconsistencies (Joint Consultation Response, paragraphs 176-177). However, our view is that the process to checking for inconsistencies and resolving them may not be straightforward.

³³⁰ That exercise might also involve considering whether the cost estimates were consistent with the prices altnets are charging. To illustrate, [§<] estimated that the costs of a scale competitor in 2023/24 exceed [§<]. If one were to accept [§<]'s estimates (which, for the avoidance of doubt, we do not) then it would be useful to consider why those costs are [§<] than [§<] actual prices, as set out in Section 4. [§<].

³³¹ Including disaggregating the BT Group cost of capital between Openreach, other UK telecoms ('OUKT') and the rest of BT. WFTMR Statement, Annexes 20-22 explain how we estimated WACC for that document.

planning) and then gain a subscriber base. Costs and volumes are discounted over time to produce a flat annuity in real (2019/20) terms, which can then be inflated to reflect prices in different years.

- A7.10 We made the following assumptions in relation to the entrant's network under our base case scenario:
- a) **Scale of deployment:** we assumed the entrant rolls out to five million premises by 2025/26.
 - b) **Take-up:** we assumed that for a given tranche of deployment the entrant achieves a take-up of 33% of the premises that tranche covers by year 3 of that deployment, and it does not get any higher.
 - c) **Duct reusage:** we assumed that 43% of the entrant's network (excluding final drop) is built using Openreach's physical infrastructure. We considered this to be conservative since at the time of the WFTMR some business plans and forecasts suggested that this could be as high as 70%.
 - d) **WACC:** we used a pre-tax nominal other UK telecoms ('OUKT') WACC of 7.8%. We also made some conservative adjustments to the asset lives which have a similar impact as increasing WACC to 8.3%.
 - e) **Opex and overheads:** to model general network opex (such as repairs, power, and maintenance) as well as business overheads we assumed that these costs are equivalent to 3% of the Gross Replacement Cost in each year, once the network rollout is complete.^{332 333}
- A7.11 Recognising the uncertainty around some cost and volume assumptions as well as the different business plans of altnets, we derived a range of costs by adjusting some of the key parameters. Specifically, we adjusted the scale of deployment, take-up, and duct reusage and combined these changes into scenarios that we think represents the overall uncertainty around unit costs for different operators.³³⁴

Stakeholders' views

- A7.12 Stakeholders provided extensive submissions on the 2021 Cost Model, including detailed reports from RBB and AlixPartners on behalf of CityFibre.
- A7.13 CityFibre and the Joint Respondents stated that the 2021 Cost Model is an unreliable guide for identifying prices that promote large scale competition.³³⁵

³³² We allowed for a higher percentage in the initial years of rollout as suggested by the information we received from operators.

³³³ For operating costs, a few elements are explicitly modelled (e.g. PIA and cumulo) whilst other elements (e.g. repair and maintenance) are captured within a bundled 'other opex' category. This other opex category is then estimated based on the cumulative capex, i.e. the repair, maintenance, power, and general management costs are proportionate to the size of the network.

³³⁴ WFTMR Statement, Annex 15, paragraphs A15.83-A15.84.

³³⁵ CityFibre Consultation response, paragraphs 1.7(v) and 5.4. [3<]. Joint Consultation Response, paragraphs 9(d)(i)-(iii), 149 and 193.

- a) The Joint Respondents, INCA and Zzoomm criticised how altnet build is modelled.³³⁶
- b) CityFibre, the Joint Respondents, INCA and Zzoomm criticised the WACC assumptions due to changes in market conditions since the WFTMR and/or since Openreach's OUKT WACC understates the WACC for an efficient altnet.^{337 338} CityFibre made detailed submissions on the level of the WACC.³³⁹
- c) CityFibre, the Joint Respondents, INCA and Zzoomm stated that the take-up assumptions are unrealistically high.³⁴⁰
- d) CityFibre stated that the 2021 Cost Model does not reflect the costs (or revenue reduction) needed to overcome barriers to entry and expansion (e.g. ISPs' costs of multisourcing) or [REDACTED].³⁴¹

A7.14 CityFibre stated that [REDACTED].³⁴²

A7.15 In the WFTMR Statement, Ofcom stated that the model outputs were reasonably in line with cost information received from altnets.³⁴³ CityFibre stated that [REDACTED].³⁴⁴

A7.16 CityFibre focused on [REDACTED].³⁴⁵ They gave various estimates of [REDACTED].³⁴⁶

The results of Ofcom's model

A7.17 In order to compare the outputs of our 2021 Cost Model with the Equinix 2 Offer prices, the outputs and prices need to be consistent:

³³⁶ Specifically, the use of exchange areas for the deployment unit and the estimated cost savings from using a 'scorched earth' approach (i.e. an altnet designing its network topology as it sees fit). Joint Consultation Response, paragraphs 154-157. INCA and Zzoomm submission, 10 January 2023, pages 1-2.

³³⁷ CityFibre Consultation response, paragraph 5.5(ii)(a). [REDACTED]. Joint Consultation Response, paragraphs 161-169. INCA and Zzoomm submission, 10 January 2023, pages 6-7. G.Network also stated that the WACC has increased since 2021 (G.Network Consultation response, page 4).

³³⁸ As explained above, we made some conservative adjustments to the asset lives which have a similar impact to increasing the WACC. INCA and Zzoom considered our adjustment to asset lives to be inappropriate for reflecting the greater risk faced by entrants. However, they argued that the asset lives adjustment should be applied even if the WACC is increased. INCA and Zzoomm submission, 10 January 2023, page 7.

³³⁹ AlixPartners stated that [REDACTED].

³⁴⁰ Joint Consultation Response, paragraphs 158-160. INCA and Zzoomm submission, 10 January 2023, pages 3-6. INCA Modelling Submission, paragraphs 6-11. CityFibre Consultation response, paragraph 5.5(ii)(b). [REDACTED].

³⁴¹ CityFibre Consultation response, paragraph 5.5(ii)(c) and 5.5(iii). [REDACTED]. AlixPartners stated that [REDACTED].

³⁴² RBB Pricing Report, page 32.

³⁴³ WFTMR Statement, paragraph A15.75.

³⁴⁴ CityFibre Consultation response, paragraph 5.6(iii). RBB Pricing Report, Table 5 and pages 29-30; also pages 5 and 21.

³⁴⁵ RBB Pricing Report, pages 31-32.

³⁴⁶ RBB Pricing Report, Tables 2-4, Figures 3-4 and pages 24-26, 28-29 and 33-38; also pages 5 and 21-22. These estimates are also referred to in CityFibre Consultation response, paragraph 5.5(ii).

- a) The range in the WFTMR Statement was expressed in 2020/21 prices, whereas the Equinox 2 Offer prices apply from 1 April 2023. We have indexed the outputs of the 2021 Cost Model to be consistent with Openreach 2023/24 prices. We have used the prior year October 12-month CPI figures to inflate costs for each year. We recognise that in an environment where CPI is fluctuating the choice of CPI figure used could impact the calculated range. However, the October 12-month CPI is our preferred metric in this case, as it is consistent with the way in which Openreach indexes its prices and with our regulatory regime.^{347 348}
- b) The range in the WFTMR Statement assumed that operators recover a proportion of their costs upfront in the form of a one-off connection charge.³⁴⁹ We have adjusted the assumed cost recovery from connection charges from £27 to £28.³⁵⁰ This has an insignificant (<1%) impact.

A7.18 The updated cost range is set out in Table A7.1 below.

Table A7.1: FTTP Entrant Cost Range (£ per month)

	WFTMR Statement (2020/21 prices)	Update for Equinox 2 (Openreach 2023/24 prices)
Low	£9.53	£11.10
High	£13.67	£15.93

Source: Ofcom calculations.

A7.19 These ranges reflect both variations in certain key modelling assumptions, as well as the different business plans.

³⁴⁷ Under paragraph 7 of Appendix 1 to the Equinox 2 Offer CPI is defined as for CPI for the previous 12 months, as measured on 31 October in each calendar year.

³⁴⁸ CPI is defined in our legal instruments as “the amount of the change in the Consumer Prices Index in the period of twelve months ending on 31 October immediately before the beginning of the Relevant Year, expressed as a percentage (rounded to one decimal place) of that Consumer Prices Index as at the beginning of that first mentioned period”. WFTMR Statement, Volume 7.

³⁴⁹ WFTMR Statement, Annex 15, A15.79.

³⁵⁰ This is the lowest connection charge in the Equinox 2 Offer. We recognise that it is possible that connection charges could be set even higher (as set out in Annex 2, Openreach’s forecast average connection charge in 2023/4 is £[38] under the Equinox 2 Offer). However, we consider it appropriate as a modelling simplification to simply assume £28 and recognise that this could slightly overstate the costs that need to be recovered from monthly rental charges.

A8. Openreach's FTTP 40/10 rental charge

Introduction

- A8.1 In the Consultation, we considered whether the level of Openreach's prices under the Equinox 2 Offer raises *prima facie* concerns that would lead us to decide to investigate them in further detail. In response, stakeholders made various submissions about the relevance of Openreach's FTTP 40/10 rental charge. We address these submissions in this Annex.
- A8.2 In the WFTMR Statement, we imposed a charge control on Openreach's FTTP 40/10 rental price.³⁵¹ Openreach's FTTP 40/10 price is set at the level of this ceiling. Under the Equinox 2 Offer, Openreach's rental prices for FTTP 55/10, FTTP 80/20 and FTTP 115/20 are lower than both its FTTP 40/10 rental price and the level of FTTP 40/10 price ceiling.

Stakeholders' views

- A8.3 [3], Nexfibre, VMO2, INCA and Zzoomm observed that, under the Equinox 2 Offer, some of Openreach's FTTP rental charges are below its FTTP 40/10 rental charge. They stated that this indicates that Openreach's FTTP prices will discourage altnets from deploying FTTP.³⁵²
- A8.4 Fern Trading and the Joint Respondents stated that Ofcom's approach in the Consultation is inconsistent with the approach adopted in the Equinox 1 Statement.³⁵³
- A8.5 Openreach stated that the FTTP 40/10 price ceiling was primarily introduced to protect consumers from high prices, rather than to promote competition. Treating it as a price floor would be contrary to the position adopted in the WFTMR Statement.³⁵⁴ Similarly, Hyperoptic stated that the FTTP 40/10 anchor is not a price floor.³⁵⁵
- A8.6 Stakeholders also made various submissions about whether Openreach's pricing was consistent with the position in the WFTMR.
- a) G.Network stated that investors have typically assumed that Openreach's FTTP prices will not fall below the FTTP 40/10 price ceiling.³⁵⁶

³⁵¹ This charge control applies where a legacy FTTC 40/10 service is not available. FTTC 40/10 and FTTP 40/10 are sometimes referred to as 'anchor products' since the terms on which these are supplied help anchor (i.e. constrain) the terms on which other Openreach products are supplied. WFTMR Statement, Volume 4, Tables 1.1 and 2.1.

³⁵² [3] submission, [3]. Nexfibre letter, 16 January 2023, paragraphs 4.8-4.9. VMO2 meeting slides, 12 January 2023, slide 2. INCA and Zzoomm, 26 January 2023 price levels submission, paragraphs 7(a) and 23.

³⁵³ Fern Trading Consultation response, paragraph 2 on page 1, paragraphs 8-10 on pages 3-4. Joint Consultation Response, paragraphs 9(c) and 109-117.

³⁵⁴ Although Ofcom did check that this price ceiling was consistent with promoting FTTP investment by altnets. Openreach Consultation response, paragraph 4.1(ii) and 4.10-4.18.

³⁵⁵ Hyperoptic Consultation response, pages 2 and 6. Hyperoptic's position prior to the Consultation (in Hyperoptic letter, 23 December 2022) reflected a concern about Openreach pricing below the FTTP 40/10 anchor.

³⁵⁶ G.Network Consultation response, page 6.

- b) CityFibre stated that Openreach pricing some products below FTTP 40/10 undermines Ofcom's position in the WFTMR that charging a premium for higher speeds was important to promoting investment and network competition.³⁵⁷
- c) Fern Trading stated that the reduced price differential between Openreach's cheapest FTTP products and legacy products departs from Ofcom's position in the WFTMR.³⁵⁸

Ofcom's position

- A8.7 The FTTP 40/10 charge control in the WFTMR is a price ceiling, designed to protect against the harm caused by unduly high prices.³⁵⁹
- A8.8 The fact that the rental charges for some Openreach FTTP products are below its FTTP 40/10 rental price and the level of FTTP 40/10 price ceiling is not a reliable *prima facie* indicator of whether the Equinox 2 Offer prices raise competition concerns. In particular, networks can be used to supply a range of FTTP products. We thus consider that it is more relevant to focus on Openreach's average price across its portfolio of FTTP products, rather than focusing on its charges for a particular speed.
- A8.9 We do not agree with Fern Trading and the Joint Respondents that this position is inconsistent with our stance in the Equinox 1 Statement. In the WFTMR Statement, we concluded that the FTTP 40/10 charge control was consistent with our objective of promoting FTTP investment by rivals to Openreach.³⁶⁰ Under the Equinox 1 Offer, Openreach's FTTP 40/10 price was set at the regulated price ceiling and all other FTTP prices (and therefore Openreach's average FTTP price) were higher. As explained in the Equinox 1 Statement, this is an indicator that Openreach's prices are set at a level that allows an altnet to recover its efficiently incurred costs in Area 2.³⁶¹
- A8.10 We do not agree with stakeholders that Openreach's pricing is inconsistent with the WFTMR Statement.
- a) It may be the case that, as noted by G.Network, some investors assumed that Openreach would not price any of its FTTP products below the FTTP 40/10 charge control. However, no such obligation was placed on Openreach in the WFTMR Statement. Indeed, we explicitly decided not to set a price floor.³⁶²

³⁵⁷ CityFibre Consultation response, footnotes 97 and 113. [3<]. [3<].

³⁵⁸ Fern Trading Consultation response, paragraphs 12-13 on page 4.

³⁵⁹ WFTMR Statement, Volume 4, paragraphs 1.6 and 2.5.

³⁶⁰ WFTMR Statement, Volume 4, paragraphs 1.37-1.38. See also WFTMR Statement, Volume 4, paragraphs 1.101 and 2.75 which set out our decision on the relationship between the FTTP 40/10 charge control and the FTTC 40/10 charge control.

³⁶¹ Equinox 1 Statement, paragraph 3.44.

³⁶² WFTMR Statement, Volume 3, paragraph 7.76 and Annex 12, paragraph A12.103.

- b) CityFibre referred to our 2018 position that allowing Openreach the flexibility to set prices on services faster than 40/10 would support competitive network deployment.³⁶³ The WFTMR Statement gives Openreach freedom to structure the prices of its portfolio of FTTP products in the way that best suits it. We do not agree with CityFibre's inference that, if Openreach uses this freedom to price some faster products below its FTTP 40/10 price, then incentives to promote investment will be undermined.³⁶⁴
- c) Similarly, while we set the FTTP 40/10 price ceiling by applying an uplift to the legacy FTTC 40/10 price ceiling (as noted by Fern Trading), we did not prevent Openreach from pricing below that ceiling, closer to its FTTC 40/10 price.

A8.11 In summary, the fact that the rental charges for some Openreach FTTP products are below its FTTP 40/10 rental price and the level of FTTP 40/10 price ceiling is not a reliable *prima facie* indicator of whether the Equinox 2 Offer prices raise competition concerns. Our assessment in Section 4 instead relies on other evidence.

³⁶³ WFTMR Statement, Volume 4, paragraph 1.8. CityFibre Consultation response, footnotes 97 and 113. See also [36].

³⁶⁴ In any event, under the Equinox 2 Offer, there is an escalating ladder of prices starting from FTTP 80/20 and moving upwards to higher speeds.